Improving Healthcare White Paper Series – No. 8

Improving Quality Reduces Costs - Quality as the Business Strategy

Authors:
Helen MacArthur, Head of Finance, Legal and Risk Services
Prof Ceri Phillips, Professor of Health Economics, Swansea University
Helen Simpson, Director of Finance, Betsi Cadwaladr University Health Board

Co-authors:
Mark Bowling, Head of Financial Performance & Business Intelligence, Aneurin Bevan Health Board
Alan Brace, Director of Resources, Department for Health, Social Services and Children
Dr David Gozzard, Member of the 1000 Lives Plus Faculty
Michael Hearty, Director General of Strategic Planning, Finance and Performance
Glyn Jones, Assistant Director of Finance (Operations), Aneurin Bevan Health Board
Dr Alan Willson, Director of 1000 Lives Plus

Writer:
Jon Matthias, Staff Writer, 1000 Lives Plus

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Foreword

Helen Birtwhistle, Director of the Welsh NHS Confederation

The financial challenges facing the NHS in Wales are well-rehearsed. The growing demand for health services and the rising cost of providing them means that there is a significant funding gap which the NHS must bridge.

At the same time, the desire to keep making improvements to the quality and safety of care is undiminished.

The scale of the challenge means it is more important than ever to explore new ways of delivering services that reduce costs while improving quality.

If we are going to be successful in meeting this dual challenge, then the Welsh NHS Confederation is clear that the NHS cannot continue to do the same things in the same way.

Staff at all levels of the NHS throughout Wales must be open to doing things differently. That is why we welcome this paper from the 1000 Lives Plus programme on putting quality at the heart of the business strategy for NHS Wales.

It can be a challenge in itself for managers to give staff the support and funding needed to introduce an improvement project when finances are so tight, especially when the desired benefits can seem far off and unclear.

But the times we are in require the leaders of our health service to take a measured but bold approach to encourage and reward innovation.

Our organisations need to be places where ideas to improve quality are positively encouraged and staff have the ways and means to put those ideas forward and demonstrate value for money.

And we must also strive to create enabling relationships between our clinical and financial teams to disentangle complex financial flows and help staff get to the bottom of whether a change is likely to deliver a financial benefit.

There are already so many examples in Wales of the improvements – both quality and financial – that can be made with a relatively small amount of upfront investment, as the 1000 Lives Plus programme has already demonstrated.

Although the financial challenge gets more difficult every year, the NHS in Wales is resolute in its commitment to the aims of the programme to deliver the highest quality and safest healthcare for the people of Wales.

This paper is another important step towards building a culture that allows innovation to flourish and puts quality at the core of all our strategic and business planning.

We hope that it will bring a clearer understanding among staff throughout our organisations of how a focus on quality can be a central component of cost reduction.

This will be critical to the continued success of our National Health Service as it faces up to undoubtedly a difficult period in its history.

Improving Quality Reduces Costs – Quality as the Business Strategy

Contents

Improving care, delivering quality
1000 Lives Plus is the national improvement programme supporting organisations and individuals to deliver the highest quality and safest healthcare for the people of Wales.
www.1000livesplus.wales.nhs.uk

Executive summary

NHS Wales is facing a number of significant challenges; delivering healthcare services comparable with the best in the world, meeting increased demand for ever more complex procedures, addressing technological advances and achieving financial balance.

Placing quality at the heart of the business strategy for NHS Wales will result in improved health outcomes for the people of Wales, and a better return on investment in our health services. The equation of quality care with higher costs is a fallacy and an undue focus on cost cutting will not deliver the changes required.

The people of Wales have been promised "a modern NHS delivering high quality care – able to meet the challenges ahead with ambition and confidence."[1]

The impact of poor quality healthcare can be measured through the broken and damaged lives of those failed by the health services, but it is also seen in spiralling costs, overspends, wasted resources and poor investment.

There is evidence that poor quality increases costs through harm, waste and variation. A collaborative approach between clinical decision makers, managers and finance teams is required to ensure that resources are used most effectively to deliver the highest quality of care.

This is an exciting opportunity for partnership working to support transformation, abandoning the traditional roles and instead working together to generate business insight and ideas.

This white paper includes examples from around Wales of how clinical teams, often enabled by forward-thinking finance teams, have driven down costs at the same time as improving quality. It makes the case for change – in attitudes, in priorities, and in the way we do business in NHS Wales.

[1] Welsh Government (2011) *Together for Health. A Five Year Vision for the NHS in Wales* Cardiff: Welsh Government, 1

Introduction

In 2011 the Welsh Government published *Together for Health - A Five Year Vision for the NHS in Wales.* Its declared primary interest is to focus efforts on delivering healthcare that will "match the best in the world"[2].

Together for Health specifically addresses the issue of quality, noting that "Health care quality has improved but the NHS can do even better". It goes on to outline several areas which NHS Wales needs to focus on, including in its final statement:

> "There must be a relentless quest for value for money and a hunger to improve outcomes and root out any poor practice and avoidable practice variations that cause harm and waste. This must be the everyday business of every manager and clinician. A focus on efficiency and effectiveness is not a distraction from the core purposes of the NHS. High quality and effective use of resources are opposite sides of the same coin."[3]

Quality is therefore being set right at the heart of the ongoing delivery of healthcare that is sustainable and suitable for Wales in the 21st Century.

1000 Lives Plus has previously addressed what quality looks like in a health setting in its white paper *Accelerating Best Practice: Minimising waste, harm and variation*[4]*,* which referred to Noriaki Kano's three rules for improvement:

- Eliminate defects
- Reduce costs
- Add features

The white paper particularly urged for targeted action on harm caused to patients, prioritising wastage issues and reducing variation in practice so that 'best practice' occurred everywhere in Wales. This three-fold attack on harm, waste and variation was a key focus at the beginning of 1000 Lives Plus.

However, the pursuit of quality goes beyond simply eliminating defects. As the white paper noted, value for money is a key component of quality in any industry and is a "legitimate" quality measure in healthcare. A proactive approach to quality will also look to 'add features' – to make the service and patient experience better. This may incur extra costs at the outset, but in the long-term these added features will support the elimination of defects in the 'product' and reduce costs.

Subsequently, *Quality, Development and Leadership - Lessons to learn from Jönköping*[5], another white paper published by 1000 Lives Plus, analysed the successful delivery of healthcare in the Jönköping region of Sweden. It was noted throughout that white paper that 'quality' was at the heart of the health services provided by Jönköping County Council. The involvement of the Jönköping Finance Directorate in the delivery of quality is explored more fully later in this paper.

[2] *Together for Health. A Five Year Vision for the NHS in Wales,* 3
[3] *Together for Health. A Five Year Vision for the NHS in Wales*, 12
[4] Gray, J. (2010), *Accelerating best practice: Minimising waste, harm and variation.* Cardiff: 1000 Lives Plus.
[5] Gozzard, D and Willson, A, (2011) *Quality, Development and Leadership - Lessons to learn from Jönköping*, Cardiff: 1000 Lives Plus

Making quality the business strategy for NHS Wales means actively seeking ways to improve, even when there are no external pressures on expenditure or other resources. Of course, the economic situation in 2012 that NHS Wales has to operate in, and that *Together for Health* has been designed to address, means there are external financial pressures and a pressing need to change service models.

It is in response to the need to change that *Together for Health* promised:

> "A new financial regime will be put in place within the next year that will improve planning and utilisation of financial resources in line with clinical priorities.
>
> "Over the next year every health board will develop a budgeting system which includes greater clinical involvement in financial decision-making."[6]

This white paper explores some of the ways these aims can become reality. It will look at several aspects of how 'quality' can be leveraged in delivering more benefits with fewer resources, and it will explore the potential in integrating finance functions in genuinely enabling partnerships with operational managers and, especially, clinicians and frontline staff.

What happens if quality is not the business strategy?

The study of poor quality healthcare reveals several 'headline' statistics that show the direct impact on patient outcomes and also significant budgetary implications.

For example:

- Over one in ten patients admitted to hospital experience an adverse event, a third of which lead to moderate disability, severe disability and death. Half of these adverse events are avoidable with ordinary standards of care[7].
- Up to 25 per cent of all health services currently provided may be unnecessary[8].
- One health board in Wales has calculated the cost of cancelled operations at £13.54 *per minute*.
- The same health board has calculated the cost of each excess medical bed day at £355 per patient per day.
- Approximately 12,000 emergency hospital admissions are attributable to non-steroidal anti-inflammatory drugs (NSAIDs) a year in UK. Of these, there are 2,230 deaths a year (in hospitals)[9]. The NHS spent between £166 million and £367 million per year for NSAID gastro-intestinal side effects. On average, every patient prescribed an NSAID incurs an additional hidden cost of between £32 and £70 a year for the adverse events[10].

[6] *Together for Health. A Five Year Vision for the NHS in Wales*, 12

[7] Vincent C et al. (2000) *Adverse events in British hospitals: preliminary retrospective record review*. London: British Medical Journal 2001 322:517–519. See also Vincent, C. (2008) *Is health care getting safer?* London: British Medical Journal, 2008;337:a2426

[8] Borowitz M, Sheldon T. (1993) *Controlling health care: from economic interventions to micro-clinical regulation.* Health Economics 1993:2: 201–204.

[9] Blower,A. et al. (1997) *Emergency admissions for upper gastrointestinal disease and their relation to NSAID use*. Aliment Pharmacology & Therapeutics 1997 11: 283-91.

[10] Moore, R. and Phillips, C. *Cost of NSAID adverse effects to the NHS*. Journal of Medical Economics 1999; 2: 45-55)

Avoidable adverse events can result in patient harm, but can also result in wastage in the form of repeat work, unnecessary scans and tests, delays in starting treatment, and so on[11]. Adverse events can also become very expensive if they result in clinical negligence claims.

In Wales, all clinical negligence claims are legally managed by the Legal and Risk Services. At the end of 2011, the department was managing 1,846 claims and if those were all successful it is estimated that they would cost NHS Wales over £700 million.

Whilst each health board and trust makes the initial payment, all amounts over £25,000 are reimbursed by the Welsh Risk Pool Services. The annual reimbursements made by the Welsh Risk Pool are provided in the table below.

Approximately 10 per cent of all claims made against NHS Wales are over £1 million and include severe lasting disability for which large amounts of ongoing care are required. It is not uncommon for such claims to be in excess of £5 million. Increasingly, claims are settled using a much smaller lump sum and ongoing payments over the lifetime of the claimant. The estimated cost of the claims settled in this manner is £100 million and these payments will be made over the next 70 years.

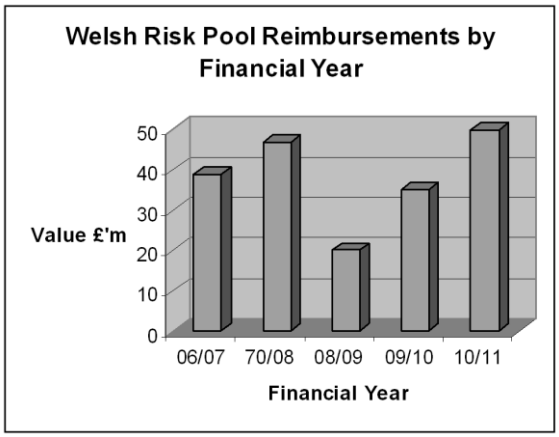

Figure 1.Welsh Risk Pool reimbursements by financial year

Although costly, the settlement of a legal claim provides NHS Wales with an opportunity to learn and improve practice. There is little commonality between claims although contributory themes are evident.

These include weaknesses in relation to:

- Record keeping
- Communication
- Supervision and assessment of competency

The Welsh Risk Pool Services undertake themed work and are currently concluding a piece of work in relation to the use of Electronic Foetal Monitoring (EFM) in obstetrics. This work has identified a number of issues including the consistent use of the terminology specified in the NICE guidelines and interpretation of cardiotocography results. Recommendations are being taken forward via the appropriate groups.

[11] For the various classifications of healthcare wastage and the impact of each type in a healthcare system of comparable complexity to NHS Wales see Berwick, D. & Hackbarth, A. (2012), *Eliminating Waste in US Health Care*, Journal of the American Medical Association, Published online March 14, 2012.

The quantification of the amounts reimbursed only provides an overview of one element of the cost to NHS Wales. In reality the true cost is much higher both for the patient but also for the NHS. The impact on staff cannot be underestimated and the true cost of additional resources required to correct errors has not, to date, been quantified. However, using an example of a patient who has a hospital acquired infection in a hip replacement and needs periods of critical care, revision surgery and subsequent care in community settings it can be seen that these will not be insignificant.

It is evident from a number of claims that human factors contribute to poor outcomes. However, the evidence suggests that the introduction of standardised models of care and safe systems can safeguard against this risk and reduce the number of adverse incidents, despite the complex and changing environment within which healthcare professionals work.

The correlation between increased quality and reduced cost

Intuitively, the removal of inefficiencies and the reorganisation of care pathways should give rise to benefits, measured through improved outcomes, cash releasing savings or increased productivity.

Whilst conventional cost cutting measures may provide financial balance in the short term, it is unlikely that they will be sufficiently sensitive and sustainable to ensure the future delivery of healthcare that is of the right quality and safety.

The achievement of improved quality at reduced cost is an aspiration of both the Department of Health and the Welsh Government and provides a compelling opportunity for NHS Wales in the current financial environment. True quality improvement will extend beyond improved procurement practices and the reduction of inefficiencies caused through waste in current processes. If this is achievable in practice then NHS Wales has a unique opportunity to demonstrate real improvements in healthcare at a time of fiscal challenge.

The evidence base and examples from within NHS Wales

However, questions have been raised about whether there is an empirical evidence base that supports the hypothesis that financial savings can be made at the same time as improving quality.

A literature review of articles focussed on quality or quality improvement identified that the issue of cost or the impact on the business case was usually an incidental consideration to an assessment of the effectiveness of clinical interventions.

Articles which do consider the concept of cost and/or a business case as integral to the issue of quality primarily originate from work in the American healthcare system. As American healthcare organisations are private organisations, largely funded by insurance companies, they are profit maximising and their focus is on the bottom line.

A number of studies focussed on the costs of inefficiency, failings and the potential savings that could be achieved but were often not delivered. Often initiatives did not result in improvements to the bottom line as organisations did not fully understand their cost structure. This was attributed to the fact that costs were often fixed in nature and could not be avoided and thus benefits would only be realised by corresponding increases in activity which were often not forthcoming.

In his work for The Health Foundation, Dr John Øvretveit has written a number of seminal articles on the subject of quality and cost[12]. His work concluded that research evidence around the cost of inefficiencies and errors in healthcare is limited and mainly arising from studies undertaken in the USA.

He further identified that the studies that had been undertaken did not usually fully consider the intervention costs required to improve quality. Øvretveit also raised caution about extrapolating savings from specific projects to an NHS-wide context as the evidence base to support that this was not yet tested.

A similar systematic review led by Edward Etchells studied quality improvement initiatives and concluded that improving quality did have an impact on reducing costs for particular clinical interventions – these were:

- Pharmacist-led medication reconciliation.
- The Keystone ICU intervention to target central line-associated bloodstream infections.
- Use of chlorhexidine for vascular catheter site care.
- Standardised surgical sponge counts.[13]

Three other quality improvement interventions were not cost-effective, in terms of delivering significant improvements that could be delivered more cheaply through other means. The study was limited to interventions in the acute care setting and also highlighted the limited amount of information available about the cost impact of quality improvement. Etchells concluded that "More comparative economic analyses of patient safety improvement programmes are needed."

Whilst the evidence base in terms of academic empirical studies is limited, this does not mean focussing of quality improvement will not save money. It is likely that, as healthcare professionals and managers adapt to the current environment, local solutions are found that meet the quality and cost criteria but as yet have not been published.

Interventions that focus on the reduction of harm, waste and variation will provide the easiest opportunities for improvement in the short term. However, given the long term financial challenges being faced by the NHS and public sector generally, it is imperative that more fundamental interventions are also considered.

During the autumn of 2011 work has been ongoing to capture examples of cost reduction through quality improvement from around Wales. These examples provide a platform for further work, and a useful insight into the conditions that are in place to enable such initiatives to work in practice.

The local initiatives have been broadly categorised using the following classifications:

- Potential savings through the elimination of inefficiencies (e.g. improved theatre capacity).
- Managed service changes through a shift in resources although care pathways remain broadly similar (e.g. enhanced recovery).

[12] See, e.g. Øvretveit, J. (2009), *Does improving quality save money?* London: The Health Foundation, 2009

[13] Etchells E, Koo M, Daneman N, et al. (2012). *Comparative economic analyses of patient safety improvement strategies in acute care: a systematic review.* London: BMJ Quality & Safety Online First, published on 22 April 2012

- A reallocation of resources resulting in more significant changes to care pathways (e.g. a shift in resources to support a reduction in falls).

Examples of evidenced cost savings were identified, although many 'savings' tended to be an estimate of potential savings rather than quantified and validated actual savings. This highlights the complexities of identifying and accounting for savings arising from improvement. For example, reductions in length of stay will only be realised as cash savings if a bed or ward is physically closed.

However, in practice, the nature of the NHS results in the bed being utilised for other purposes due to demand for services. In these circumstances it is unlikely that physical cash savings will be achieved, although patients will benefit from improved productivity, but it is difficult to measure and track this across the NHS.

The development and implementation of service line reporting should support improved transparency of financial costs across a patient journey. This will support clinical decision making and support known efficiency issues such as duplicate testing.

Transparency of costs across a patient pathway is especially important to ensure that savings in one part of a pathway do not result in increased costs in another department or setting. This is often seen as problematic in the health service as the costs of poor quality may be borne by another budget, meaning the net 'improvement' across the whole system is markedly less, zero, or possibly more costly than before.

Some finance structures are being developed to facilitate increased levels of joint working. In some examples finance professionals provide dedicated support to specific clinical groups with their staff working closely with senior clinicians to ensure that operational and financial decisions are aligned. However, this requires breaking down cultural and professional silos.

Example A: Continuing Health Care expenditure
One instance of where collaborative working between professionals has achieved results is in relation to Continuing Health Care. On a national basis the cost of Continuing Health Care is £310m (2010/2011 estimates). This represents approximately five per cent of NHS Wales' budget and is an area of significant growth.

Two examples have been identified which demonstrate improved quality and reduced cost.

Example 1 - One health board identified that for a cohort of patients, care in the community setting was provided by qualified agency nurses. Recognising the cost of using agency staff, a review was undertaken and further clinical governance issues were subsequently highlighted. Through the provision of training to healthcare assistants, the organisation now provides the service in-house and once fully implemented will save £800k per annum.

Example 2 – The same health board identified clinical issues in relation to a number of patients who were resident in a private nursing home. Initial attempts to work with the home in question were unsuccessful and the decision was made to move the patients. This was achieved and the outcome was improved quality and safety and an annual saving of £240k.

The above examples are important in demonstrating that although they were instigated for different reasons, the outcome was positive – from both a clinical and financial perspective.

These examples are based on a health board which has a dedicated finance team working within the Complex Health Care offices. The clinical lead has acknowledged the contribution that the finance team makes in making these successful changes. In addition, the clinical lead has noted a general improvement in controls through participative working.

Example B: Use of the global trigger tool to reduce adverse events
The global trigger tool is now routinely used by all health boards. An early implementer site reduced the rate of adverse events per 1000 bed days from 56.6 to 17.2 in its acute setting. It is estimated that an adverse event gives rise to an increase in length of stay of 8.5 days.

While the actual savings achieved are never fully quantified, it can be seen that the application of a systematic approach to identifying and correcting problems will have, at very least, improved productivity and reduced costs per patient episode.

Example C: Systems changes resulting in reduction of waste and harm
The introduction of care bundles within a critical care unit for the management of ventilator associated infections has led to the unit being free of infections for more than 500 days.

The development of a structured approach for the management of patients at risk from a pressure sore has resulted in several wards not experiencing a single pressure sore within hundreds of days. The approach includes the risk assessment of patients, staff training, monthly audits and close working with the tissue viability service within the health board.

In both of the above examples the need for change has been identified and led at a local level and both benefit from an approach that applies a robust and evidence-based system to healthcare.

Example D: Enhanced Recovery After Surgery (ERAS) programmes
Enhanced recovery programmes are now available for a range of procedures including knee replacements. The programme has been introduced at a number of sites across Wales.

To facilitate an enhanced recovery programme it is necessary to effectively engage patients so they have greater understanding of the procedure and what they can do to aid their recovery. Resources have to move from post-operative care to the pre-operative education in a multi-disciplinary setting.

The post-operative care is focussed on wellness which includes early mobilisation, effective analgesia whilst avoiding opiates and rapid introduction of normal hydration and feeding. Clear discharge criteria include explicit patient guidelines on how to maintain ongoing rehabilitation.

The evidence to date suggests that the programme has been successful in reducing length of stay, improved pain scores and patient-reported outcome measures. Currently the financial effect has not been calculated although this work will commence in the near future.

Example E: Early supported discharge following a stroke
The academic literature puts forward a compelling case for the management of patients who have suffered a stroke through the reduction of length of hospital stay coupled with community based rehabilitation. The evidence suggests that for a selected group of stroke patients (mild to moderate) this results in a reduction in long term dependency and allows

the patient to remain at home for a much longer period than would otherwise be expected.

The model requires the use of a multi-disciplinary approach involving therapists, nurses and doctors to ensure that discharge from an acute setting is facilitated with appropriate support in the community. Consequently there will be a movement of resources from acute to community settings as patients will be supported in their own homes.

The business case for this model was demonstrated through an academic study in 2009 which identified that this approach gave rise to cost savings of £10,661 for patients treated on a general medical ward and £17,721 for those treated in a stroke unit. Therefore, the opportunity for cash releasing savings as this model is applied in NHS Wales is evident.

Example F: The management of the incidence of heart failure
Due to our ageing population, the incidence of heart failure is a growing problem for the NHS and it is estimated that up to 2 per cent of the NHS budget is spent on managing patients with this condition. In addition, a significant number of patients first present in an emergency setting. It is considered that presenting in this way is not only expensive but also not optimal for the patient.

To reduce the incidence of emergency admissions, one health board has developed an integrated model of care which operates across primary, community and acute settings. GPs now routinely undertake natriuretic peptide tests allowing for the identification and management of conditions much sooner. Once identified this enables more support to be provided including the education of patients to enable them to participate more fully in their own care. The evidence suggests that unplanned admissions are greatly reduced.

Example G: Implementation of a virtual cardiology clinic
One health board is supporting the demand for cardiology services through the introduction of virtual clinics. The normal pathway is referral by a GP to an outpatient clinic but in the context of a virtual clinic other options are available including nurse-led triage, office-based decisions and e-mail and telephone support.

The service aims to provide a more flexible approach than the traditional face-to-face consultation by enabling GPs to seek advice and guidance via e-mail and telephone. This supports the appropriate signposting of patients and ensures that those with more complex needs are seen in a timely manner.

GPs have better access to secondary care clinicians in respect of diagnostic and medication queries, advice and reassurance. The resulting fall in avoidable demand means less delays in reaching hospital services for those who need them.

Overall the department has demonstrated improved efficiency of 0.96 per cent (based on office based discharges) although overall costs increased due to additional demand. However, the health board does note that it is difficult to know whether this additional demand would have been experienced in any event.

Financial modelling in practice – improving falls services

There are evidence-based ways to prevent elderly people having falls and to reduce the damage they suffer as a result. The prevention methods are relatively cheap while putting right the harm from falls is expensive, so this is a very promising area for increasing quality and reducing cost. Unfortunately, with current methods of measuring and managing money, the task of predicting and planning the movement of resources is not simple.

The Department of Health has undertaken an economic evaluation of expenditure to prevent falls. It estimated that in a cohort of 320,000 residents from a Primary Care Trust approximately 45,000 were aged over 65. It is this age category that is at highest risk of falling and an estimated three per cent of them will fall and sustain a hip fracture.

Up to 40 per cent of the people who suffer a hip fracture will have experienced a previous fragility fracture. This is an important opportunity to identify patients at risk of falling and sustaining serious injury.

Hip fractures have a high post-operative mortality rate (30 per cent within 12 months). In addition to increased mortality, hip fractures frequently result in ongoing support needs. 83 per cent of people fail to regain their previous level of independence, with many going from active life into a state of partial or full dependence as a result of the injury.

The economic impact of falls and resulting hip fractures on health and other services is immense. Hip fractures account for approximately 20 per cent of orthopaedic expenditure. A day audit in one health board revealed 20 per cent of ambulance arrivals at hospital were people who had fallen.

The detrimental impact upon independence after a hip operation results in delayed transfer issues and higher bed occupancy levels, and greater demand on social services - in 2003, the estimated cost of hip fractures borne across the public sector in Wales was £84m per annum.

Cardiff & Vale University Health Board has developed a community-based approach which offers a multidisciplinary service for the identification and management of patients who have either fallen or are at risk of falling.

This project is based on a previous Department of Health project to introduce a Fracture Liaison Service, which identified the potential for significant savings over a five-year period[14]. However, the proposed approach appeared financially imbalanced in identifying only the direct costs for the development of a preventative service, but requiring full cost release, including support departments and physical facilities, for the fractures that would then be avoided. The Welsh project is therefore seeking to establish a like-for-like cost comparison, and also consider the savings impact on a wider scale.

The approach builds on arrangements already in place for the management of chronic and long term conditions and includes consultants, GPs, physiotherapists, dieticians, the third sector and occupational therapists.

Following referral, patients are seen by the team within 24 hours and appropriate care implemented. There is a high degree of collaborative working with other teams including the district nurses and out-of-hours service. Over 1,000 patients have been seen in the service during the first year.

[14] Department of Health (DH/SC,LG & CP directorate/Older People and Dementia), (2009), *Fracture Prevention Services: an economic evaluation*, Leeds: Department of Health, 2009.

In an audit of referrals, no subsequent falls were recorded in the sample, supporting the conclusion that the intervention is successful in avoiding falls and thus reducing the burden on orthopaedic units.

This piece of work is being further developed to consider the detailed costs associated with the service. One of the challenges for clinicians in developing robust business cases is the availability and appropriateness of the costs involved and this is an excellent example of the need for dedicated financial support.

The first step has been to accurately determine the costs in secondary and primary care relating to a hip fracture (Figure 2), where available, to develop a view across the whole pathway. This should assist the identification of both the opportunities as well as the implications of any changes.

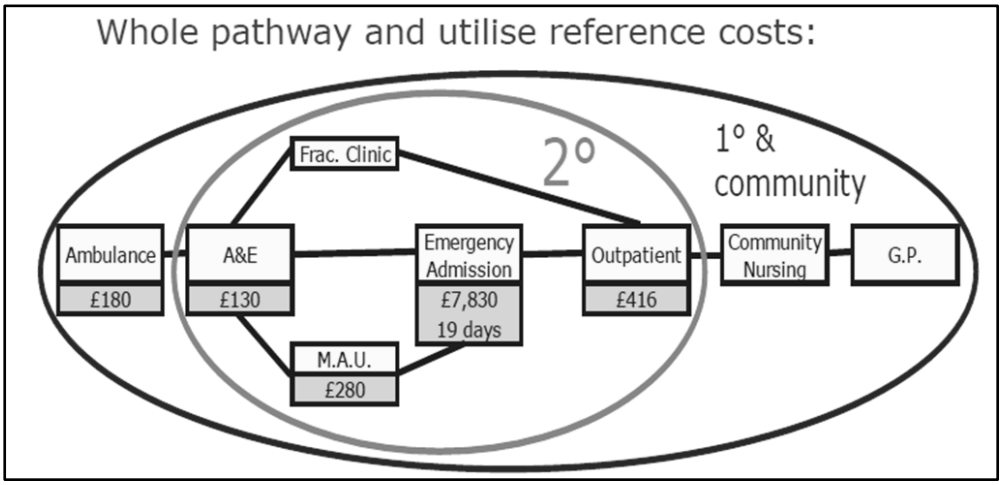

Figure 2: Identifying costs along a falls pathway, (sourced from published and predominantly Welsh financial data)

The direct costs sustained by the organisation treating a hip fracture are significant and are likely to compare favourably with the costs of providing preventative services. In human terms, as well, the prevention of hip fractures caused by falls is the prevention of needless pain, anxiety, increased risk of mortality, and loss of independence. This all represents a genuine 'quality gain' for the people using the service.

Hurdles that prevent genuine release of resources

The experience of quality improvement in Wales since the launch of the 1000 Lives Campaign in 2008 shows that there are many good ideas, and many keen clinicians who want to bring about service change. However, while the will to pilot new ideas is commendable, the 'spread' of best practice has been problematic.

Currently, improvement happens reliably at pilot level – on one ward or in one clinic – but moving beyond that location to initiate sustainable change across a large organisation, or across the whole of Wales has been harder to achieve. In a few relatively simple areas, for example, the focus on reducing pressure ulcers, or the implementation of a national early warning score to identify hospital patients at risk of serious illness, a national push has been successful.

However, pilot projects generally run independently of the business system and this prevents good developments making the crossover from pilot to 'the way things are done'.

Many improvement projects need investment or frontload funding, but that is rarely how the money flows in healthcare business systems. Budgets are often held separately by different departments – and they do not follow the process through the system. Resources are therefore locked up and jealously guarded by gatekeepers.

Sometimes budgets become habits – a certain department has always received a budget for certain procedures and they continue to receive that budget even though the procedure is unnecessary or has been supplanted by evidence-based better practice. 'Tradition', in the sense of unquestioningly doing what has always been done previously, can be a major barrier to change.

A shift in the way finance functions operate

The sheer scale of the financial challenge requires that cost improvement plans go wider than simply reducing inefficiency and improving the procurement of supplies and services. Aligned to this, the need to consider and continually improve quality provides a real challenge to find new and innovative ways of delivering healthcare that not only deliver cost savings, but provide demonstrable evidence of improvement in quality and safety.

Clinical decisions regarding treatment, referrals, tests, prescribed medication account for most of NHS Wales' expenditure. Significant wastage can occur if clinical decisions are made without the financial implications being fully studied, for example, staff costs included in costing of procedures.

The possibility of clinicians creating business plans in partnership with the finance function has been addressed by Michael Hearty, Director General for Strategic Planning, Finance and Performance with the Welsh Government. Mr Hearty has provided some key insights into how finance functions can provide crucial support to clinical decision-makers and enable NHS Wales organisations to maximise resources.

According to Mr Hearty, finance functions need to focus on:

- The capability of people to manage finances.
- Making sure processes are streamlined and standard.
- Making sure finance policies are fit for purpose.
- Encouraging collaboration and working beyond boundaries.
- Ensuring data is clean and accurate to inform decisions, so there is a "single version of the truth".

"If we have a good information base, we can make good decisions and work with business leaders to drive down waste. Ideally, there will be a financial management framework in place to help people make good, value-for-money decisions.

"Across the public sector, finance functions are just starting to scratch the surface of fundamental financial management issues. In Wales we have a greater focus on value-for-money decision-making and collaboration – this shows finance can add value and work with leaders to make decisions.

"In the 1980s finance focused on transactional processes, compliance, and making sure the health of an organisation was right rather than adding value. The modern finance function has to fulfil a different role – it needs to move away from the traditional score-keeping and policing role towards becoming a 'business partner'.

"Finance departments can add business insight to the organisation. But to do this, finance staff have to free up time and create thinking space to help the business make better decisions.

"Business insights can identify and set out standard processes and provide the 'single version of the truth' that will aid organisations to make value-added decisions.

"The biggest challenge for finance is the broader engagement of finance professionals across public sector beyond core finance functions to make sure organisations have finance considerations as key part of their operations.

"To do this, the corporate finance function has to be a business enabler rather than policing the system. Finance teams need to increase their visibility and value so they are seen by leaders as helping them to make better decisions.

"NHS Wales organisations need to look at data quality and timeliness. What support are operational leads getting from the finance function? What is the quality of dialogue? What is the data telling the board and what decisions do they need to make as a result?

"The finance function can provide information about:

- Inputs – unit costs of doing activity.
- Outputs – traditional health performance measures e.g. waiting lists.
- Outcomes – are changes making a big difference to people?

"NHS Wales organisations need a strategic planning framework, which would include a strategic plan for the next three-five years, based on business plans for the next 12-18 months. The business plan needs to be built from resource allocation, that is the things that drive cost: money, people, IT, location and so on.

"Performance measures would tie the strategic plan, business plan and resource allocation together. This is how leaders will know how well the organisation is doing. A framework for governance assurance will help ensure the right people are in the right place to make decisions and at the heart of those decisions will be the outcomes: what is it this organisation is trying to achieve?"

What could this look like?

Refocusing the finance function would hopefully result in greater partnership between finance managers and clinicians. Currently these two disciplines can come into conflict:

> "Quality has been used as a weapon in the fight against limits to healthcare funding. In one corner of the ring stands the clinician, outraged that a paper pushing manager concerned with throughputs and efficiency does not understand or care that quality of care is adversely affected by cost cutting. In the other corner stands the manager, convinced that quality is the last refuge of the medical scoundrel – a convenient, vague and all-embracing term used to block any attempts to question or change clinical behaviour."[15]

While this conflict paradigm no doubt persists in many healthcare settings, the increased awareness that quality actually costs *less* in a whole system approach means that sometimes the positions are reversed. It is fair to say that some forward-thinking clinicians

[15] Buchan 1998, cited in Davies H. et al. (2007) *Healthcare professionals' views on clinician engagement in quality improvement. A literature review*. London: The Health Foundation

have felt thwarted by financial bureaucracy when they suggest investments to improve services but the funding is not made available.

An analysis of the Jönköping model shows how linking quality with a business approach brings both sides of the finance-clinical divide together. The Finance Directorate is tasked to lead, enable and support the organisation to achieve service and financial excellence.

Resources are allocated in Jönköping according to pathways rather than to different departments. Clinical managers have financial responsibility, and if budgets are overspent, they have a responsibility to attain financial recovery within two years.

When money is saved, 50 per cent of the savings are returned to the system, and are used to fund new ways of working that will possibly save more. The commitment of resource therefore coincides with patient flow and finance staff support clinical staff to deliver the business plan. This 'cross-charging' encourages cost effective resource decisions.

In addition a range of financial incentives are used to promote quality services, including performance payments linked to care prevention. This is within a mixed-model context with some private providers and patients paying some fees for medication and hospital stays – however, patient payments only account for three per cent of the income the health services receive. The majority is state-funded, as in the Welsh model.

There is a particular focus on technological systems to support quality through accurate and accessible data. IT investment accounts for over three per cent of revenue, with common IT platforms enabling managers to accurately resource usage. Departmental systems provide reliable information to support effective clinical and resource management.

The Finance Directorate provide expertise in 'lean' quality improvement tools and techniques, through the 'Qulturum', the centre for the development of improvement knowledge in Jönköping. The Directorate provides business support in establishing priorities, investment decisions, benchmarking, measuring improvement, and reporting on progress.

The success of the system is seen by resource decision makers becoming accountable, empowered and incentivised, while retaining a strong focus on patient needs,

The view of 'Team Wales'

In March 2012, the senior executive teams of all NHS Wales organisations were asked to identify how NHS Wales can move towards a business strategy that revolves around quality. The following points were considered critical:

- Quality is important, and must be a priority for the executive team. Quality improvement has to become part of systematic planning. Leaders need to be clear about what outcomes the organisation values and present these openly.
- It's important to use the right language around quality improvement – non-judgemental, not paternalistic, collaborative, encouraging, positive, outcomes-focussed etc.
- Incentivise quality, not just sticking with budget.
- Accountability frameworks should support behavioural change and 'earned autonomy'. Finance is still perceived as a constraint, not as an enabler. There is

often a low level of trust between finance and clinical departments. A cultural change is needed regarding the links between quality improvement and 'finance'.

- Clinical directors need to be equipped as decision-makers around finance. They need more understanding of issues, financial framework and solutions. However, some clinicians are not yet engaged in finance even where they hold budgets. The financial context needs translating so staff understand and 'buy into it'. In the past when finance has been involved in clinical programme groups, there has been a temptation to revert to 'traditional' finance behaviour when faced with problems, so there needs to be change on both sides.
- We should link costs with clinical decisions (this costs so much, we have saved so much). However, Clinical Services Strategy should lead resources not vice versa. Much could be gained from focussing on priority pathways (high volume / high cost or highly inefficient pathways initially) and considering how to put cost / value against healthcare interactions in the pathways whilst considering the cost / value of change and any unintended consequences of change. Similarly, 'threshold management' allows for significant improvements in care quality – identifying clear thresholds for movement of patients through the system. For example, for atrial fibrillation, what care can be delivered in primary care / community and what the threshold is for referral to a cardiologist / specialist nurse. Changing pathways requires good evidence to support it.
- The right balance needs to be found on measurement – enough to clearly observe critical processes without it becoming a time-costly process that adds little extra value. Greater transparency will make improvement visible.
- 'Entrepreneurs' – people with good ideas – need to be encouraged.
- Accurate, timely data is necessary to inform planning / decision-making. It could be possible to link CHKS performance data to finance data.
- Often working conditions are too time-critical and consequently this limits the ability of staff to create thinking environments and also reduces time to test out changes. There is a possibility that the 'urgent' trumps the 'important' mid and long term strategy.
- Involve staff. Capture interest through patient safety and quality to service improvement. Involve staff in designing and decision-making (bottom up planning), and ensure there is time for staff to express views. The ideal scenario is a combination of consistent leadership and direction from the executives and giving staff tools and techniques to own and change the workplace on the frontline.
- Use relatively simple models to show potential for savings.
- There is huge potential in studying significant variation in the use of very high cost treatments, especially in end of life situations, but currently little incentive to undertake mapping and redesign of processes (whatever methodology is used to undertake this).
- Retraining workforce in different environment to use existing resources. Cross-divisional working gives opportunities to reallocate resources
- Put money behind the rhetoric. Channel funding to quality improvement champions to show trust and support.
- Financial mechanisms should incentivise moving budgets across the primary-secondary care interface. Cross-charging could promote effective resource utilisation. Similarly, collaboration across the public sector, including IT, back office services, maintenance, could result in greater efficiency and best practice in non-clinical areas.
- We should avoid 'talking ourselves out' of improving quality when evidence didn't exist or is hard to gather. Ask the right questions early in the planning stages.

- It is a challenge to spread the good practice that exists now. Build on what we have and join up experiences to share. Local leaders – e.g. the local Faculty – need to drive spread. Successful quality improvement should be reported and shared.
- Reward achievement and celebrate success.
- There must be a will to stop doing things that don't work!

And on a national scale, there are several changes that will help embed quality as a business strategy. These would be seen particularly around funding.

- Currently there is no strategic level drive towards innovation – financial mechanisms need to be introduced to drive it. A 'Best Practice and Innovation Board' could provide this leadership. The responsibility of monitoring overall performance needs to be assigned; currently it is unclear who is responsible for this.
- Policy development is the key role of the Welsh Government in setting the strategic direction and priorities. Policies should be designed to change the system by enabling those working in NHS Wales to bring about change. Policies need to focus on 'value' and apply a bigger picture view that joins up the loose ends in health and social care.
- More flexibility around the end of the financial year, rather than 31 March as 'drop dead' date. Longer financial planning cycles – moving from a year end to longer frame approach would be helpful. It would be useful if organisations could carry forward underspends as reserves for the next financial year, or as seed money for 'invest to save' schemes.
- All national targets should be aligned to quality.
- Recognise that benefits are often long-term and may be beyond NHS Wales (particularly with regard to public health interventions). There is a need to see the 'wider scope' of savings.
- More balanced central approach to look at finance alongside quality and performance measures. Development of national quality measures with reward incentives to deliver quality.
- More flexibility of budgets with a reduction in ring-fenced budgets, to allow money to be moved around the whole system (although perhaps there needs to be a debate on how we acknowledge savings that are made in health, but the benefits are in social care etc.).
- Clear, consistent messages through professional bodies regarding the will to connect the finance with the quality. This means that clinicians are primed for this approach
- Appreciation of the time it will take to build meaningful improvement capacity. Similarly the Welsh Government's role should be to support and only intervene when absolutely necessary. Although, government can help by targeting conflicting policy drivers, i.e. different policies from different departments (e.g. sometimes within health, although often health and another department such as housing).
- A commitment to transparency as a new way of working, with a firm rejection of a 'blame' culture and encouraging error reporting as opportunities to improve.

Challenges

'In a system with limited resources, (health) professionals have a duty to establish not only that they are doing good, but that they are doing more good than anything else that could be done with the same resources'[16].

[16] Williams, A. cited in MacLachlan R, Glasman D. (1993) *A case of myth management*. London: Health Service Journal 1993; 103(5370): 12–13.

The need for change and development has been a constant within the NHS since its inception. The environment that we operate in today is no exception although the sheer scale of the challenge has not been experienced previously.

It is evident that there is an enormous appetite for improvement and examples of innovative work on both a national and local level are plentiful. The key challenge for NHS Wales is how to harness these efforts to ensure that good practice and implementation lessons are shared for the benefit of all.

The Institute of Medicine has identified six 'quality domains', and the potential benefits they can bring.

Domains	Potential Benefits
• Patient Centeredness	• ↓ Complaints, Litigation
• Patient Safety	• ↓ Adverse Events
• Efficiency	• ↓ Non-value Processes
• Effectiveness	• Evidence-based activity
• Timeliness	• ↓ Queues
• Equity	• Same outcomes for all

Figure 3 – The Six Quality Domains identified by the Institute of Medicine and benefits they could bring to NHS Wales

The case for making quality the heart of NHS Wales' business strategy is compelling, but achieving may not be easy. Some common challenges experienced by those involved in improvement schemes are:

Communication – effective engagement with key stakeholders is vital to ensure clarity of purpose and respective roles, responsibilities and expectations. Effective communication promotes buy in and lessens the risk of resistance to change or poor results.

Technology – as we move to electronic based systems and communication methods, it is easy to assume that all stakeholders are comfortable with this technology. However, technology can be a significant barrier for some staff and patients and this will need to be considered and addressed. In Jönköping, IT investment equates to over three per cent of revenue; a significant amount.

Data management – the analysis of data is critical to demonstrating the clinical and financial effectiveness of initiatives. However, there are costs in collecting and analysing data as well as the risk of misinterpretation. Metrics that need to be used should be fully considered at the inception of the project to ensure the proposal is feasible and achievable at appropriate cost.

Improvement methodologies – the use of recognised improvement methodologies should provide a sound base for testing and rolling out schemes. This should improve the overall quality of implementation and improve assurance that the findings at one local site can be replicated elsewhere.

Post-implementation evaluation – it is imperative that there are systems and processes in place to measure and evaluate the long term effectiveness of schemes to ensure that over time there isn't a drift in performance.

This work has identified that there are significant opportunities to improve quality and reduce costs. It is evident that the multifaceted nature of healthcare systems and clinical pathways will add to the complexity of rolling out local achievements more widely. Further work is also required to strengthen the collaborative working between clinical and financial teams to ensure that there is clarity on whether potential savings release cash or improve efficiency and whether these are achieved in practice.

In addition, there needs to be a mechanism to capture knowledge in order that local initiatives are shared on a national basis.

Conclusions

The equation of quality care with higher costs is a financial fallacy. Evidence from other healthcare systems shows that improving quality reduces costs of treatment and improves value-for-money across the whole healthcare system. Evidence to support this is being gathered in Wales. Evidence-gathering is being built into future improvement projects to further explore the link between increased quality and reduced costs.

The damage caused by poor quality healthcare is primarily seen in the effects of poor care – in terms of healthcare-associated infections, increased morbidity, surgical mortality, errors and mistakes. But it is also seen in spiralling costs, overspends, wasted resources and a lack of investment.

Improving quality and reducing cost are complimentary but the driver has to be quality. However, driving down costs will not automatically drive up quality; but driving up quality will drive down costs. Improved financial performance will not occur through solely examining costs and seeking to trim expenditure. The gains will not be as significant as those achieved through an emphasis on quality.

Clinicians need support as they make decisions – because clinical decisions account for the vast majority of costs incurred in NHS Wales. Resource management and quality management should be closely aligned. A new spirit of partnership is needed, that brings together finance teams, managers and clinical decision-makers, who together can ensure that resources are only used to provide the highest quality of care.

This may mean incentivising clinicians to be involved – for example, through reinvesting savings in new ways of working, new technology, new procedures and other tools and resources needed to further improve quality. Savings released through this investment can then be reinvested again, to spread excellent practice throughout the system.

Investing in better information systems and analysis to track and manage costs across care pathways will show areas where improvements can be made to benefit patients, and also where redundant, unnecessary work and wastage can be removed from the system to free up resources and increase value for money. Good practice and the experience of improvement, both good and bad, should be shared with total transparency across Wales.

This is an exciting opportunity for finance functions to transform themselves, abandoning the traditional ‘policing’ role and instead become a source of business insight and ideas. And as finance functions embrace their new roles, their transformation will help to transform the organisations they work in, so that quality becomes the business strategy.

The people of Wales have been promised “a modern NHS delivering high quality care – able to meet the challenges ahead with ambition and confidence.”

Examples from around Wales show how clinical teams, often enabled by forward-thinking finance teams, have driven down costs at the same time as improving quality. There is a case for change – in attitudes, in priorities, and in the way we do business in NHS Wales to deliver on this promise.

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Websites
The Health Foundation - www.health.org.uk
The Cumberland Initiative - www.cumberland-initiative.org

Resources and tools
Return-on-investment calculator, developed by the NHS Institute of Innovation and Improvement:
http://www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/Return_on_Investment_(ROI)_calculator.html

More information is available at www.1000livesplus.wales.nhs.uk/quality-and-cost

Further white papers available from 1000 Lives Plus include:

1. Accelerating best practice: Minimising waste, harm and variation
Addresses the questions: "If quality and patient safety are the priorities in an organisation, what would this look like?" and "How do we embed improvement in healthcare services?" Includes input from Professor Don Berwick, Sir Ian Carruthers and Gerry Marr.

2. 1000 Lives Plus and the NHS Agenda - Lessons from Systems Thinking
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3. Are Bevan's principles still applicable in the NHS?
A study of the NHS in Scotland, England and Wales looking at how well each service reflects the ideals of the founder of the NHS, Aneurin Bevan

4. Quality, Development and Leadership - Lessons to learn from Jonkoping
An introduction to the approach of delivering health services by Jönköping County Council in Sweden, and what can be learnt and applied to Welsh healthcare.

5. Is healthcare getting safer?
What has been the result of over a decade of national and international work to improve safety in healthcare? Professor Charles Vincent attempts to answer this crucial question.

6. Attaining Peak Performance
Canadian and NASA astronaut Dr Dave Williams addresses issues of working safely and effectively in high-risk operational environments, including a look at achieving excellent team and personal performance.

7. Person Driven Care
A study of the Esther Network in Jönköping, Sweden, and its world-leading focus on the needs of patients and involving the public in planning healthcare services.

To access any of these papers, please visit www.1000livesplus.wales.nhs.uk/publications

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About the authors

Helen MacArthur is the Head of Finance and Risk Management for Welsh Risk Pool Services, a multidisciplinary department that reimburses NHS bodies in Wales for claims, and facilitates themed work across Wales to support quality improvement and patient safety.

As Head of Finance and Risk Management, Helen is committed to working with colleagues across NHS Wales to develop a culture of learning and development. She has also worked for the Welsh Audit Office and for Betsi Cadwaladr University Health Board. This role enabled her to work with financial and clinical colleagues to better understand the challenges being faced by the NHS in Wales.

Ceri Phillips is Professor of Health Economics and Head of Research at the College of Human and Health Sciences, Swansea University, Wales. He is a non-executive member of Abertawe Bro Morgannwg University Health Board and a member of the Bevan Commission and the 1000 Lives Plus Programme Board.

Ceri has undertaken commissioned work on the evaluation of programmes and interventions for a range of organisations, including the World Health Organization, Welsh Government, Department of Health and the Department of Work and Pensions. He has published extensively in the field of health economics, health and social policy.

Helen Simpson is the Director of Finance for Betsi Cadwaladr University Health Board. Prior to her current post, Helen gained extensive experience of Director-level finance management in the West Midlands, in Acute and Primary Care Trusts and the Shropshire and Staffordshire Health Authority.

Helen is passionate about improving the quality of health services and has pro-actively encouraged financial management as a means to enable service development throughout her career.

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For print requests, please contact: 1000 Lives Plus, 14 Cathedral Road, Cardiff CF11 9LJ
Tel: (029) 2082 7653 Email: 1000livesplus@wales.nhs.uk

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