Service reviews: what are they, their aims and how should they happen

A position paper from BMA Welsh Council based on the paper from the Welsh Committee of Public Health Medicine (WCPHM)

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Introduction

Service reviews are often viewed by clinicians with suspicion and alarm, as there are concerns that they are a covert way of hospital managers reducing clinical services to save money.

This paper, from BMA Welsh Council, builds on the work of BMA Cymru Wales’ WCPHM and explains the rationale for conducting service reviews. It explains what they are, what they aim to achieve and how they should be done.

This paper does not cover as such the process by which service reviews are organised, as this will vary according to the situation and the particular issue that has provoked the specific review. It is also not a guide to undertaking one, because advice on this should be sought from a Public Health physician who is experienced and trained in undertaking such reviews. They will require the assistance of a team of public health and information professionals to undertake a thorough assessment of the evidence and data obtained to perform the task quickly and well. Instead, this paper defines the purposes of service reviews, outlines the principles underlying them and indicates who should carry them out.
What is a service review?

A service review is an evidence-based comparison between the services a defined population requires to meet its health care needs, and the services that are currently available. If the comparison shows they are not identical then recommendations should be made as to how the service could be reconfigured to match the ideal as closely as possible, within the resources available to do this.

This is not always straight-forward. The 1970 Peel Report on intra-partum services is a classic example of a service review which found that many women in labour had no qualified birth attendant present, so central delivery suites were recommended to ensure that limited resources could be made available to the largest number of women. Women might say that they have spent the next forty years trying to undo what they see as its erroneously-recommended solution, highlighting that the interpretation and value given to evidence can vary between stakeholders and healthcare professionals and in different circumstances. Service reviews should be recursive – as time passes all services need review, in a similar manner to an audit cycle, to confirm the service is still meeting the needs of the population as best it can. Indeed the review conducted in 2007 by the Commission for Healthcare Audit and Inspection, “Towards better birth”, was overdue.
Why undertake a service review?

Service reviews are required whenever a change arises in resources or population needs. However, there is also a need for routine reviews if a service has not been fully reviewed for a decade, as numerous changes will have occurred in the interim in the population being served.

Changes in resources
Changes in resources may be caused by a failure to recruit and retain medical staff, or reductions in the finances provided to deliver the services in question. In short, the service is perceived as being unsustainable in some manner.

Changes in needs
Since needs are defined as the “ability to benefit from health care” (Acheson 1978; Mathew 1971) these may change because of changes in the characteristics of the population being served, including age and sex structure, or because of changes in health care. In health care planning for Wales, it is important to be mindful of interdependencies across geographical locations and to look to the future, instead of applying short-term approaches that will be both detrimental to the health of the Welsh nation as a whole and more costly to correct later.

Population changes may be due to migration (inward or outward) or by population risks altering, perhaps by natural processes such as increasing numbers of elderly patients or social changes resulting in a reduced birth rate.

When a new management option for a disease becomes available, it is essential that the service is amended to adapt to the improved treatment option. For example, the development of Cimetidine allowed the transfer of resources in a very short time from surgery for peptic ulceration into other forms of surgery and medical services, and indeed allowed the costs to be transferred onto the primary care sector drugs bill, which at the time was unlimited.
Perceived failures of the service
The final reason for conducting a service review is when it is perceived that there may have been a failure of the service to deliver its objective of meeting health needs. The aim is to check if the working arrangements prevent those providing the service delivering the best care they can.

At one extreme is where catastrophic failure has occurred, such as the death of child from neglect when a ‘serious case review’ is mandatory. Unfortunately these may be subverted into a blame assignment exercise, which ignores the underlying problem. When conducted fairly, service reviews may demonstrate how management processes hinder frontline staff from performing to their best ability.

At the other extreme, a service review may be undertaken to confirm that a service which appears to have been working well for a number of years cannot be delivered in a better way with the resources available. The results may, however, demonstrate that there is excess capacity, so that the resources could be utilised for greater health gain in another manner.

Service reviews are essential and normal
Properly conducted service reviews are an essential element of maintaining a patient-focused health service where clinicians maximise the benefits they can provide. They should be viewed as an opportunity to reflect on how a service is being delivered, and consider the evidence for how the service can be delivered more effectively.

The rest of this paper describes the steps of a service review/design and the principles that should be followed.
The steps of a service review

A well-conducted, professional service review will comprise the following steps:

1. Clarify why the service needs review.
   1.1 Define the aim & objectives of the review.

2. Establish the review teams.

3. Establish epidemiologically the needs of the population at risk.

4. Develop a model of the ideal service.
   4.1 Establish the resources needed for that ideal service.

5. Define the current service model.
   5.1 Establish the resources currently utilised by it.

6. Compare the current service against the ideal in terms of delivery and resources.

7. Discuss with stakeholders how to move from the current towards the ideal.

8. Develop options on the changes required if any.

9. Conduct a Health Impact Assessment (HIA) to inform an option appraisal (A HIA is a short [3 month] professionally-led stakeholder option appraisal and selection process. See below for a description of what an HIA entails).

10. Develop and report back results to the commissioning body with an implementation and evaluation plan.

11. Implement the change (includes a formal consultation if required).

12. Evaluate the new service against the objectives set.
Some stages can occur concurrently and stage 2 (establishing the review team) may need repeating as the review develops, but the order of the stages is important as following it reduces the risk of losing the evidence-based foundation on which a good review depends. It is also important that, throughout the process, the team ensures they are aware of any changes in the health environment that have occurred, or are about to occur, that may impact on their conclusions. The flow chart to this – outlined in Appendix 1 – shows the cyclical nature of service reviews. The Ishikawa chart in Appendix 2 shows the complexity of issues that need to be considered when designing a service.

1. **Clarify why the service needs review.**

   It is vital that the reason for the service review is established at the start of the process. This is because it is an expensive and intensive piece of work that can demoralise service providers and create public anxiety, and so can have a negative public health impact. Harming the public health without good cause is unethical, and possibly actionable.

   To establish the reason for the review requires those asking for it to be explicit as to what has changed – such as the needs of the population, the resources available, or a perception of failure of the service – or simply the identification of the need to perform a routine check.

   Since health care services are complex and interact with each other, it is generally unwise to undertake numerous reviews at once as the full implications of each change in the complex web of services on all the other services cannot be ascertained with any certainty in advance. However, if it is essential that multiple services are reviewed concurrently due to their natural interdependency e.g. trauma & orthopaedics and accident & emergency services, they must then feed their emerging findings and deliberations to each other so that each is fully aware of the impacts other reviews may have on their review.
1.1 Define the aim & objectives of the review.

Having established why a review is required, the aim of this process should flow seamlessly from this explanation. It must, however, be unambiguously defined. Is the aim to maintain availability of high quality services near the population in need whilst reducing the running costs? Is the aim to improve the service delivery outcomes in terms of throughput whilst maintaining quality on a settled budget?

The objectives that follow from these aims will establish what happens to any resources that are liberated following the review, or if any further resources can be transferred from other areas of work.

The objectives should also detail the timescale envisaged for the process.

To do the process properly takes a considerable period of time, often at least a year, as a number of stages will take time even if resources are plentiful. If multiple reviews are being undertaken concurrently, all the reviews will need to consider after each appraisal stage if, in the light of the favoured options of the other reviews, their own review needs revising. In addition, the more complex and wide-ranging the reviews, the longer they will take due to their inevitable interaction.

Rushing a review is possible but foolish, as the service specification may be defective with increased costs resulting due to unexpected financial consequences and harms to population health. By the same token a ponderous review is at best a waste of resources, but it may also harm population health by causing anxiety and uncertainty. It is a matter of judgement and experience how long a review is likely to take. The commissioners of the review should be guided by experienced public health physicians as to how long it will probably take. This timescale must be flexible as, once embarked on the review, good reasons for delay will likely emerge that extend the anticipated period to prevent decisions being made that are wasteful and harmful. To ensure that the review progresses, sufficient administrative and clerical support must be provided.
In the next section, the human resources required to undertake a review are outlined and, as judgement and experience are required at every stage, the people who can assist a review are limited. In particular it cannot be mechanised, or left to untrained staff.

2. Establish the review teams.

Every review team requires a leader, and within complex reviews a number of teams may be required. The selection of the leader is particularly important. This person should be “erudite, eloquent and elegant” – in short excellent.

The requirement for erudition suggests that perhaps a specialist in the service being reviewed should not lead the review, as erudition implies a general expertise and a whole-world view.

The eloquence of the leader will be required to ensure that the review is understood by all those participating, and that the final report is understood by all the stakeholders.

The elegant thinker is required as there is always a danger that the review will get bogged down in detail when what is required is a clear overview of the principles. It is not part of the review to decide the details of how the service is delivered, as that should be negotiated between those planning it and those being asked to deliver it.

It is the view of Welsh Council that the two groups of doctors most likely to be suitable leaders are General Practitioners and Public Health Physicians.

The leader will require people with expertise to help them undertake the work. This core team will include those with experience in the service being reviewed (both as providers and users), those experienced in evidence appraisal and those with the writing and project management skills to keep the administrative aspects of the review flowing.
Additional skills will be needed from time to time to help the core team continue their evidence-based work but, as delay may be costly, those with these skills should be identified at an early stage so they can be made available to the core team when required and without undue delay.

These additional skills may include: employment law and policy advisers; financial assessors; quantity surveyors (to cost any infrastructure developments); and Information Management and Technology (IM&T) advisors.

Once the team has been established, and has accepted the aims and objectives of the review, they can move to the joint initial tasks – establishing the needs of the population served and describing the service currently available to address that need.

### 3. Establish epidemiologically the needs of the population at risk.

Since need is defined as the ability to benefit from a service, assessment quantifies the requirement for a service. Need must be quantified as objectively as possible, and independently of the service provided. It is not a measure of service activity as this will not capture unmet need.

The epidemiological needs assessment will have to identify the size of the population/client group, and trends and projections in this population. Unless a local population prevalence and incidence survey has been undertaken recently, a literature review may help to establish the prevalence and incidence of the disease concerned, currently and in future – identifying known risk factors to perform an estimation of need.

As well as the pure need (in terms of people with the ability to benefit), the “burden” of the health problem should be quantified in terms of morbidity/disability duration and life expectancy. This health burden is often expressed as quality-adjusted life years gained if the need were to be met.

As part of this needs assessment the geographical and social distribution of the need, and burden within the population, should be identified.
Sources of information may include: service policies; census populations and related projections; practice age-sex registers; disease registers; local and national surveys and published literature; as well as routine data sources. Public health physicians are useful sources of help and advice.

It is often helpful to put the population’s need and capacity to benefit into context by comparing it with other areas, regions or nations as appropriate. Any data gaps must be identified and the implications of these lacunae described. If extrapolation from national level data has been undertaken to cover for absence of local data, then this extrapolated data must be clearly identified as such and, in view of local variation, an estimate of its reliability given.

Having established the need, and the burden this need creates, it is necessary to work out how it could be optimally met and the burden most effectively removed.

4. **Develop a model of the ideal service.**
   The ideal service is one that meets the needs of the population in the most effective manner, whilst using the minimum resources (both human and financial). This ideal system should explain for both staff and users how it ought to work. It is recognised that such a system is probably not achievable, but by setting out how the ideal would operate allows all parties to consider where improvements could be made.

4.1 **Establish the resources needed for that ideal service.**
   Having developed this model service, the resources required to provide it should be calculated. This resource assessment will be part of the framework that enables the comparison between the current service and the ideal.
5. **Define the current service model.**
   As with the assessment of the ideal service, the current service should be described from both the provider and user perspective, and the resources consumed by both to provide the service should be clarified.

5.1 **Establish the resources currently being utilised.**
   An estimate of the current resources available should also be undertaken, as the resources currently being "deployed" may not actually be available and the service may be running outside its budget.

   It is essential that, in calculating the costs as well as NHS budgetary sources, ascertainment should be made of the costs carried by patients, voluntary agencies and primary care – as often these costs to the health economy outweigh the cost to the secondary provider. It may be that a reconfiguration of service delivery will reduce these costs, and hence free resources in the total health economy to enhance health.

6. **Compare the current service against the ideal in terms of delivery and resources.**
   The comparison of the ideal service against the current may reveal obvious small changes that can improve the effectiveness of the service. More often there will be no such simple obvious changes to be made.

   In that case, the stakeholder representatives in the team will have to decide how the deficiencies of the current system can be modified so that the overall burden of needs is distributed more equitably. This may be by delivering a more basic service to those who currently receive it to enable those who are currently excluded to receive even that level of service; or it may be that better health gain can be achieved by extending the delay in initiating treatment so that a smaller number of patients receive full treatment and those with less burden receive none.
7. **Discuss with stakeholders how to move from the current towards the ideal.**

Having identified the areas of the current service delivery which are insufficient to meet need, inequitable or too expensive, the areas where change is required can be identified. At this stage, active engagement with the service providers and users is mandatory. This ensures options are developed that more closely align the service with the ideal, whilst remaining within available resources. These options should include, within their detail, how the service would be amended if more resources became available or if resources shrank. Engagement is a dynamic, two-way process. Ascertaining what is, and what is not, acceptable to stakeholders at this stage will save much-wasted resources and conflict later in the process.

8. **Develop options on the changes required if any.**

As part of the option development, the resources required to deliver each option (both in terms of the transitional and running cost) should be ascertained. This assessment should include the costs of staff recruitment and retention, or any redundancy or redeployment costs. It must also consider the costs borne by others, for example patients, in terms of lost income or travel costs. This requirement is to prevent the accidental transfer of costs from the local service provider onto the recipients – who are often the poorest in society, often have greatest health need and are least able to bear an increased health or economic burden.

9. **Conduct a Health Impact Assessment (HIA) to inform an option appraisal.**

Once the options, (including the no-change option) have been developed, some option appraisal process is required. This will be designed to ensure that the greatest benefit is achieved with the resources available both within the service and outside, including within the community served. If any resources can be released these should be identified and channelled into alternative areas of endeavour to maximise public health.
If this results in major changes to the service, then a Health Impact Assessment (HIA) is also legally required. It is wise to combine the two into one, as the HIA will give a population view in a short period whilst checking that the working team has not overlooked areas that the population is concerned about.

An HIA is a short (three month) professionally-led stakeholder option review, appraisal and selection process. Full details are given by Lester (Lester et al. 2001; Lester and Temple 2004; Lester and Temple 2006).

It has three phases. In the first phase, the process is explained and stakeholders who will do the assessment are recruited. Having recruited these team members, the outcomes of the work undertaken are presented as if to the board of a major organisation. The stakeholders are then asked to comment on what they have heard and to suggest areas where they feel more work is required. This must include any new ideas that have not been explored.

They are then asked for their views on the important benefits and harms they can perceive from each of the options suggested. The support team then searches for, and assembles, evidence concerning the size of these impacts.

After one month, the support team presents to the stakeholder group the information they have on the impacts. The stakeholders then perform a critical appraisal using one of the standard methods.

The stakeholders then discuss the implications of these assessments, and over the next month the support team drafts an initial assessment statement.

This is brought back to the group for review and editing, and over the next four weeks the assessment report is finalised.
A well performed HIA helps inform the formal consultation process, if that is required, as most areas of controversy will have been covered and addressed and reasonable solutions developed to problems identified. It also helps to meet the requirements of the Environmental Information European Directive (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:041:0026:0032:EN:PDF).

The selection of the stakeholders to participate in the HIA is a skill with which Public Health teams may be able to assist.

10. **Develop and report back results to the commissioning body, with an implementation and evaluation plan.**

Having conducted the HIA, some options will appear to be favoured. The working party must now plan how these changes should be implemented. This is largely a task for management professionals, but the working party will enable these professionals to be informed of users’ and providers’ reactions to emerging plans.

Part of the implementation plan should be identifying and arranging for the collection of data that can drive the evaluation of the change (see below for details).

Once the plans have been finalised, they should be presented to the commissioning body together with, if appropriate, a recommended option on how to proceed.
11. **Implement the change (includes the formal consultation if required).**

Once the changes have been decided upon, if consultation with the public and formal consultees is required, the documentation of the service review will help ensure this process runs smoothly and that public opposition is minimised. This is the key to the transparency and openness of such service reviews.

The responses to the consultation should then be considered by the working party to ensure that adequate responses to the points raised are given and that no major review of either the options discussed, or their appraisal, is required.

If reconsideration of the review is not required following the public consultation, the working party should assist the commissioner to manage the changes, by ensuring the parts of the implementation plan are followed and any problems that occur are addressed swiftly and in a rational, evidence-based manner.

12. **Evaluate the new service against the objectives set.**

Since the objectives of the service review were defined at the outset, the evaluation should seek to confirm that these objectives have indeed been met and, if they are not, why this is the case.

It may be that the complex interactions involved in health care mean that the change in one service configuration has unforeseen effects elsewhere in the system. Thus the evaluation must look both at the narrowly-defined objectives of the review and also at more general health indices – such as the distribution of burden of health needs. This is easily overlooked, but it can be costly if not considered.

At the very least, all service alterations must ensure that the burden of need has not become more inequitable after their introduction, as if this happens, it would fly in the face of both policy and medical ethics.
Flow chart of a service review

Flowchart summary of the service review process is shown check in the document for details of each process.
Appendix 2

A diagrammatic summary of the complexity of the issues that a review of a health care service must consider is shown in this Ishikawa diagram.
References


