



A Brief Guide to Economic Analysis

Living Well West Midlands

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1 Economists' View of Humanity, the Challenge of Allocating Public Resources & the Purpose of this Guide

Economists have a particular view of humans: they see us as creatures of unlimited want constrained by limited means. We might debate the merits of much of what economics teaches us, but this insight seems undeniable. Each of us might like to: spend more time on holiday, have a bigger and better house, eat finer foods, drive faster cars (or ride better bikes), and buy more books...but we can't. We are forced to decide between alternatives, to make trade-offs between the things that we want within the means that we have.

We all make such decisions every day in our personal lives. Those responsible for public policy also make similar sorts of decisions in their professional lives, allocating public resources to achieve societal goals. At the broadest level, this might involve deciding whether to invest in policy areas such as defence or education, health or transport, crime or foreign aid. Within each of these areas, there will be decisions about whether to invest to treat problems, or to try and prevent them from occurring in the first place; there will also be a range of ways to achieve the desired goal. In essence, decision makers must also try to work out how to get the greatest good with the finite resources available to them.

There are a range of means available to make these decisions, but the use of some form of economic analysis provides important insights. As a minimum, it provides a quantitative foundation for broader debates about where and how public investments are best made. Given the outlook for the public finances, the demand for good evidence that enables more informed spending decisions seems set to increase. Value for money has become an overriding concern and organisations seeking public funding will increasingly have to prove themselves in these terms. When considered in this light, the arguments in favour of assessing the value of public investments are ethical in nature, since greater good will be achieved if better investments are made.

1.1 This Guide is to Support Living Well Projects in Economic Analysis

This short Guide has been produced by GHK Consulting Ltd (GHK) for the management team of the Living Well in the West Midlands Portfolio¹. It follows on from an economic analysis workshop, and its purpose is two-fold, to:

- Introduce the main types of economic analysis used in public policy making (with a specific focus on health and wellbeing); and,
- Support Living Well projects to present their work (to commissioners / other potential funders) in economic terms.

Although it has been produced for Living Well and focuses specifically on issues relating to this programme, the issues covered are generic and others – especially those in the voluntary sector – may find the Guide useful. The Guide can be used for analyses that are either prospective (to appraise options / demonstrate a case for investment) or retrospective (to demonstrate the value of work already done).

Lastly, and by way of providing some practical support, we have produced a Microsoft Excel workbook, which automates much of the analysis required (this has been supplied to Living Well projects alongside this Guide).

The remainder of the Guide is structured in the following way:

Section 2: Value for Money & the Two Main Varieties of Analysis

This section sets out a broad framework for looking at value for money and describes the main specific means available in doing so. It is written so as to be generic, but does have a

¹ Living Well is a BIG Lottery funded programme, it aims to promote improvements in mental wellbeing, diet and physical activity. Nearly 30 projects have been funded across the West Midlands and more detail can be found at: www.livingwellwestmidlands.org

particular focus on health (where the majority of Living Well projects will be engaging with commissioners).

Section 3: Five Steps to Showing a Social Return on Investment

This section takes one of the main types of analysis described in the previous section and presents a step-by-step guide to undertaking it. It has been written so as to complement the Excel workbook.

Section 4: A Brief Summary of Useful Figures

One of the most difficult elements of economic analysis is putting a monetary value on 'intangible' things – such as gains in mental wellbeing for example. Section 4 therefore provides a summary of some of the data in this area.

These sections are supported by two Annexes:

- Annex 1: Bibliography
- Annex 2: Further Reading

Finally, the Guide forms part of a wider set of guidance issued by GHK for the Living Well projects: notably the 'Monitoring & Evaluation Guide' (May 2008) and supporting tools, and the 'Reporting Guidance' issued in January 2010. Living Well projects with specific needs are also welcome to contact GHK for support and assistance.

2 An Introduction to Value for Money & the Two Main Varieties of Analysis

This section sets out the context to the remainder of the Guide. It begins by providing an introduction to the framework for Value for Money (VFM) assessments, before moving into the main specific types of analysis that can be undertaken when trying to work out whether something is VFM. The content of this section draws heavily on previous work that GHK has done for NHS West Midlands².

2.1 What is 'Value for Money'?

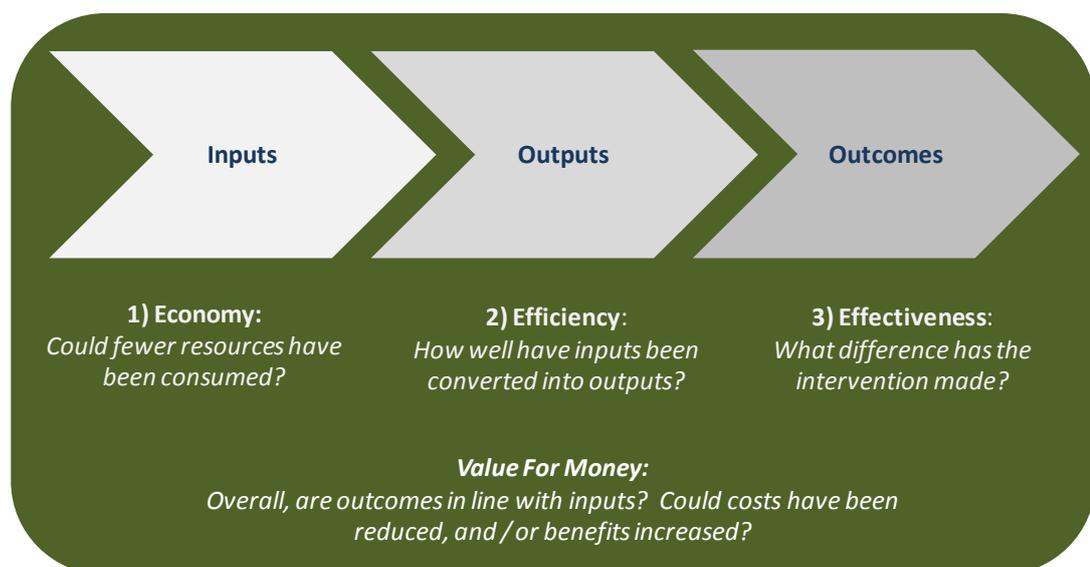
At its simplest, VFM is a straightforward and everyday assessment. As individuals it is an assessment we make every day; we are used to asking ourselves whether that sofa, or T-shirt, or house, or holiday represents good value for our money. If it does, we may buy it; if not, we don't.

But this assessment is made more complicated when we are no longer considering individual consumers acting in a market, but are instead considering whether a 'public good' - such as better educated people, or cleaner streets, or better health services - represents VFM for the public purse.

As noted in the introduction, unlimited competing demands for finite resources mean decision-makers must compare the various options in terms of their costs and benefits. As citizens we might simultaneously demand better healthcare, schools, policing and street cleaning; but decision-makers (typically commissioners) must reconcile competing demands on limited budgets. If they invest more in service 'x', then, because of resource constraints, they necessarily consume less of services 'y' and 'z' etc. VFM is therefore a relative concept, requiring the comparison of a range of possible means of achieving desired goals.

The starting point of all VFM assessments is a weighing of the relative costs and benefits of possible courses of action. Although decisions can almost never be made with full and perfect information, economic analysis can help decision makers to make better informed decisions. As we shall see, there are more or less robust methods of analysis available to us, but at some point it becomes a judgement. Figure 2.1 below shows the framework for VFM assessments.

Figure 2.1 VFM Framework³

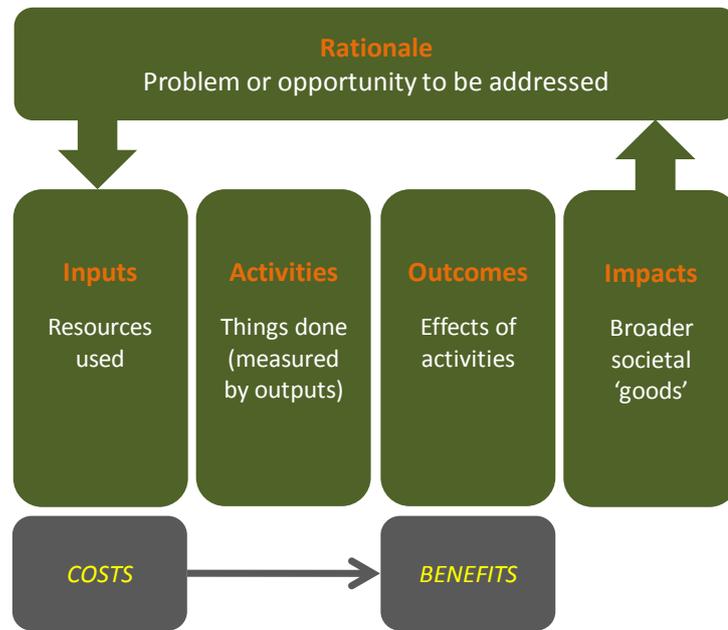


² NHS West Midlands and GHK Consulting Ltd (April 2010) *Introduction to Economic Evaluation*

³ Adapted from 'Choosing the Right Fabric' (2001) http://archive.treasury.gov.uk/performance_info/fabric.pdf

Living Well projects will recognise the three main elements of this framework - inputs, outputs and outcomes - since they are also the basis of the 'logic models' upon which their monitoring and evaluation systems are built. Logic models are a very useful starting point for economic analysis, since they provide a systematic description of an intervention using the concepts set out in the VFM framework. Figure 2.2 shows how – in thinking about VFM – a project's inputs form the 'costs' and its outcomes the 'benefits'.

Figure 2.2 A Generic Logic Model & the VFM Framework



The production of a logic model therefore gives us a starting point for comparing costs and benefits. The exact way in which these costs and benefits are measured and compared then varies depending upon the type of analysis being undertaken (see below); but, whichever type of analysis selected, two central considerations will always be the:

1) Perspective

We need to ask: costs and benefits to whom? For example, should we undertake the analysis from one commissioner's perspective, or should we consider the NHS as a whole? Should we be broader than this and look from the perspective of all public services or the state as a whole? At one extreme we might consider the effects on a single budget line of a single organisation; at the other we might consider the effects at a broad societal level (including the patient perspective).

Radically different answers can be obtained by varying this perspective. The answer that is appropriate will depend on the needs of the user. In the spreadsheet that accompanies this Guide, we have assumed a societal perspective in order to try and account for as many costs and benefits as possible, but there may be circumstances where a different, narrower, scope of analysis would be appropriate (if making a simple 'spend to save' case to an NHS commissioner for example).

2) Period

It is equally important to consider the time period over which costs are incurred and benefits are reaped: how many years should the analysis cover? This may be difficult to determine. In longer-term preventative interventions the costs will be incurred in current budgets but benefits might not be seen for many years. In such circumstances, an analysis with a short horizon would yield a different result from one that looked further out. This is also where the issue of discounting future costs and benefits comes in, since – all things being equal – we prefer to consume goods and services now rather than later (discussed later in section 3.5).

The final issue here is that uncertainty increases as time goes on: we can be more certain about benefits arising in year 1 of a project than in year 21 for example. We have used a five year period in the spreadsheet in order to present a broadly average time-period; however, your project may be better suited to a shorter or longer period and you should (manually) adjust the sheet accordingly.

Having set out a broad framework for economic analysis, we now consider the specific forms it might take.

2.2 The Two Main Varieties of Analysis

The main types of economic analysis likely to be of relevance to Living Well projects are described below. In section 3, we shall then concentrate in on a variant of one of them, which is supported by the accompanying Microsoft Excel workbook.

It is worth noting at the outset that, in their fullest and proper form, each of these approaches requires strong study designs and significant investment in evaluation in order to prove with confidence that the outcomes (benefits) you are considering are attributable to your work: this level of robustness is not a feature of any Living Well projects' evaluation. Nevertheless, the basic frameworks and approaches remain useful.

In essence, and for the purposes of this Guide, there are two main varieties of analysis available. The distinction we make is between:

- 1 those that measure benefits in their **'natural' units** (e.g. gains in mental wellbeing; lives saved; symptom-free days; improvements in diet etc); and,
- 2 those that measure benefits using **monetary values**.

In this Guide, we will concentrate on the second variety, although the approach we will adopt means that the other types are not precluded. We now consider each in turn.

2.2.2 The first variety, where benefits are left in their 'natural' units

The Figure below sets out four types of analysis of this variety:

Figure 2.3 Summary of Types of Analysis

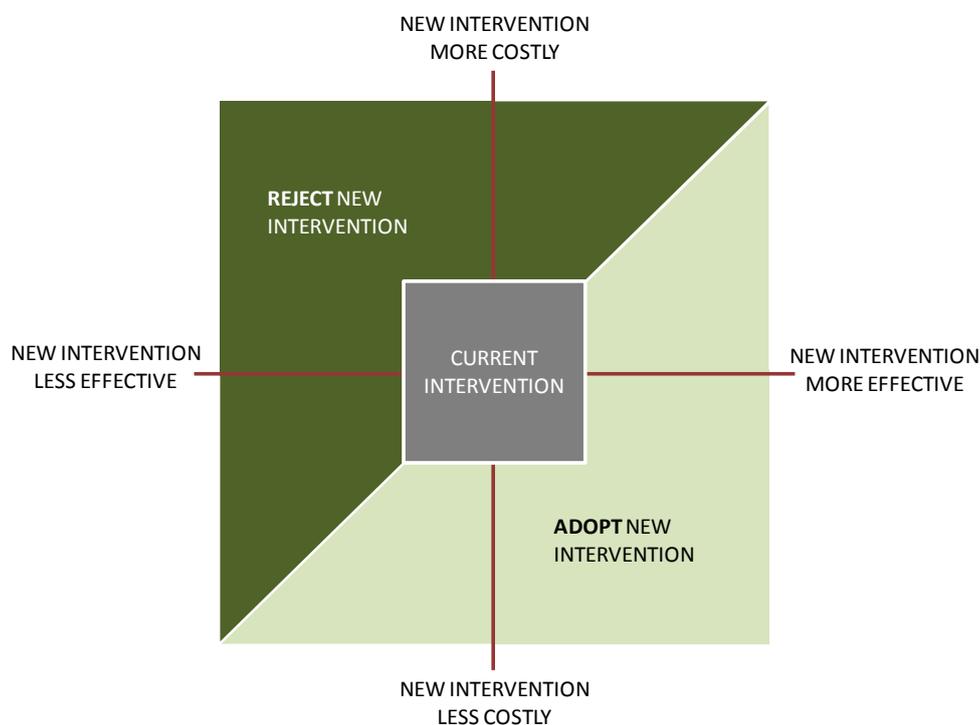
Type	Summary
Cost-Effectiveness	<p>Results are presented as a 'cost per outcome' (e.g. 'cost per improvement in mental wellbeing') and decision makers have to compare alternatives to find the cheapest means of achieving the desired outcome.</p> <p>The challenges here are: firstly, to decide which outcome is most appropriate (interventions may have several); and secondly for decision makers to compare interventions with very different types of outcome – i.e. how to compare better mental wellbeing to gains in life years to symptom-free days to improvements in diet (etc)?</p>
Cost-Utility	<p>To get round the problem of comparability, in Cost-Utility analysis, the measurement of outcomes is standardised (typically to a Quality Adjusted Life Year – QALY) and results are expressed as a 'cost per QALY'. Comparisons can then be made across different types of intervention. This is the favoured approach of NICE in its health technology assessments.</p>
Cost-Minimisation	<p>In Cost-Minimisation, the benefits of the interventions under consideration are assumed (ideally known) to be equivalent, so the analysis focuses on costs only. The aim is to find the cheapest intervention. This is very closely related to Cost-Effectiveness, except there is no explicit measurement of outcomes.</p>
Cost-Consequence	<p>Here costs and benefits are not combined to any significant degree; instead, they are presented to the decision maker 'as they are', so that they see a set of costs and benefits (e.g. <i>'The investment was x and this has bought benefits a, b, c, d and e'</i>). This is especially useful where benefits are very diverse,</p>

but again the problem of comparability is present. **This would be a comparatively straightforward analysis for Living Well projects to undertake, given that they all have input and outcome data.**

Cost-effectiveness / utility / minimisation analysis is framed by the 'cost-effectiveness plane' (shown in Figure 2.4 below), which offers a set of decision rules based around the concepts of cost and effect and the need to compare alternative interventions.

It illustrates the particular difficulty of making decisions on interventions that are more expensive but more effective than current provision, as well as the converse (less expensive and less effective). Most new technologies fall into the top right-hand quadrant. The easiest decisions to make are for interventions that are as or more effective, but cheaper (adopt), or more expensive but not more effective (reject).

Figure 2.4 The Cost-Effectiveness Plane



2.2.3 The second variety, where benefits are measured monetarily

As Figure 2.3 shows, one of the main challenges facing economic analysis is the comparison of results across very different types of intervention. Cost-Utility analysis gets around this by using a standard measure of benefits (the QALY), partly explaining its popularity.

There are, however, other types of analysis that address this same problem; moreover, and thinking about Living Well projects, the technical requirements of a Cost-Utility study can be significant. We therefore concentrate the remainder of this Guide on Cost-Benefit Analysis (CBA) or, more precisely, on a variant of it – Social Return on Investment (SROI). These analyses address the problem of comparability by measuring all benefits monetarily. The decision maker typically then sees the results either as a ratio of benefits to costs (as is more typical in CBA) or as 'a £1 investment in this generates around £x of value' (more typical of SROI).

This has the advantage of not always needing a comparison in order to make a judgement between alternative interventions, since if the costs of an intervention exceed its benefits then it should not be pursued. The spreadsheet that accompanies this Guide and the step-by-step guidance in section 3 are therefore based upon the principles of CBA / SROI.

What's in a name?

In this case quite a lot, but also very little! In this Guide we have had to decide between calling our recommended approach 'CBA' or 'SROI' or even something new (no doubt with its own acronym).

For the remainder of the Guide we refer to 'SROI'. This is a pragmatic decision, based upon the fact that CBAs are typically more rigorous and technical (and so have a greater standing / make more substantive claims), and SROI is less rigorous and more indicative. The philosophical underpinnings and possible techniques of CBA and SROI are very similar, but, given the resources available to Living Well projects, we consider that 'SROI' is the most appropriate description.

Although even here caution must be exercised: there are specific 'SROI Guides' (referenced below), 'SROI networks', 'accredited SROI training' and 'SROI practitioners'! But, with pragmatism - and the desire to keep new acronyms to a necessary minimum - in mind, we recommend describing your analysis as 'SROI'.

The main challenge in applying this type of analysis to interventions designed to improve health is that of placing monetary values on benefits such as lives saved, improvements in mental health, reductions in pain or symptom-free days, gains in mental wellbeing. This is something that many people may find ethically difficult, as well as technically challenging. But because decision makers must make trade-offs between alternatives, they are implicitly doing so already with the budgets they hold when they decide how much they are prepared to invest for a given outcome. Our approach is to acknowledge that this is a problematic area but that, for the reasons set out above, this type of analysis remains appropriate for Living Well projects. The next section covers the practicalities of doing so.

3 Five Steps to Showing a Social Return on Investment

As the previous section showed, several analytical methods can be used to evaluate the 'bang for the buck' of different initiatives. Across the different types of analysis, one key question remains: 'is / was the investment worth it'?

This section presents a step-by-step guide to answering this question. It is intended for use with the accompanying Excel workbook and – if needed – the figures presented in section 4. Again, while written primarily for the Living Well projects, this section ought to be generic enough to be applicable across a wide range of similar programmes.

3.1 But First, a Note of Caution...

As noted in the previous section, assessing the VFM is easier when we are considering the case of an individual's decision about whether to consume a good or service. It is also relatively straightforward when the benefits are subject to some form of market valuation.

For example, a private sector firm deciding whether to invest in a video conferencing system would be able to work out the costs - e.g. of buying, installing and maintaining the system - and benefits - e.g. reductions in travel costs and staff time spent travelling - comparatively easily, since they are all subject to 'market valuation' (they are all bought and sold in market transactions and so have a price). From here, the firm can then work out whether the investment is worth making and over what period the benefits might outweigh the costs.

This type of analysis is far more difficult in the case of investments in public programmes where the benefits are typically 'public goods' and accrue to a wide range of people from different sections of society. Yet the fundamental question remains: was this investment worth it? The framework provided by Cost-Benefit Analysis (CBA) is a useful analytical tool here. This is because both costs and benefits are measured monetarily.

This simplicity is a strength and results can be understood 'at a glance'; but this does come – as we shall see – with drawbacks and complications. Moreover, because the approach presented here includes valuing intangible and difficult-to-monetise benefits (such as improvements in mental wellbeing), it relies upon the use of assumptions, proxies and informed estimates. These are serious limitations: they increase the uncertainty around the results, making it more indicative than scientific.

Nevertheless, serious though these limitations are, they do not fatally undermine the case for undertaking it - since we would still be left with (more) imperfect alternatives. Rather, a mature use of this approach is to minimise the use of assumptions (and be explicit and clear as to what they are), rely upon the most defensible (i.e. conservative) values available, and to use results alongside the sort of 'health warning' presented above.

We now turn to the five steps.

3.2 Step1: Determine the Perspective

This question is critical and was introduced above (section 2.1): from whose perspective is the intervention being assessed? Is it a particular government agency, a community, an individual, or society as a whole that is interested in whether something is cost-beneficial?

Thinking about the perspective is an essential part of the analysis and changing the perspective can change the result obtained. Understandably, those who pay for a programme will have a particular interest in costs and benefits that directly accrue to them – but often, the benefits accrue to a wider section of the society; this is shown in the example below:

Example 1: A Primary Care Trust invests in Health Trainers

This investment may generate benefits to:

- 1 People employed as Health Trainers (e.g. gains in skills, qualifications, future opportunities);
- 2 Perhaps the state more broadly (e.g. reductions in welfare payments / gains in receipts from taxation if some of the Health Trainers were previously unemployed);
- 3 The beneficiaries of the service (e.g. increases in physical activity / reductions in smoking); and,
- 4 Perhaps other areas of the NHS (e.g. through beneficiaries' reduced use of services as they become healthier).

All four types of benefit would be considered if a societal perspective was adopted. But, if we just took the NHS perspective, we would most likely be restricted to looking at health gains to beneficiaries and / or reductions in costs to the NHS. The results of the analysis would therefore be very different depending upon the choice of perspective.

The spreadsheet provided assumes that you will adopt a societal perspective, since this is the most consistent with the philosophical underpinnings of the CBA⁴, but we have included fields where you can specify where the costs and benefits fall in relation to different stakeholders. This means that you can vary the perspective of the analysis, e.g. to be from a single commissioner's perspective.

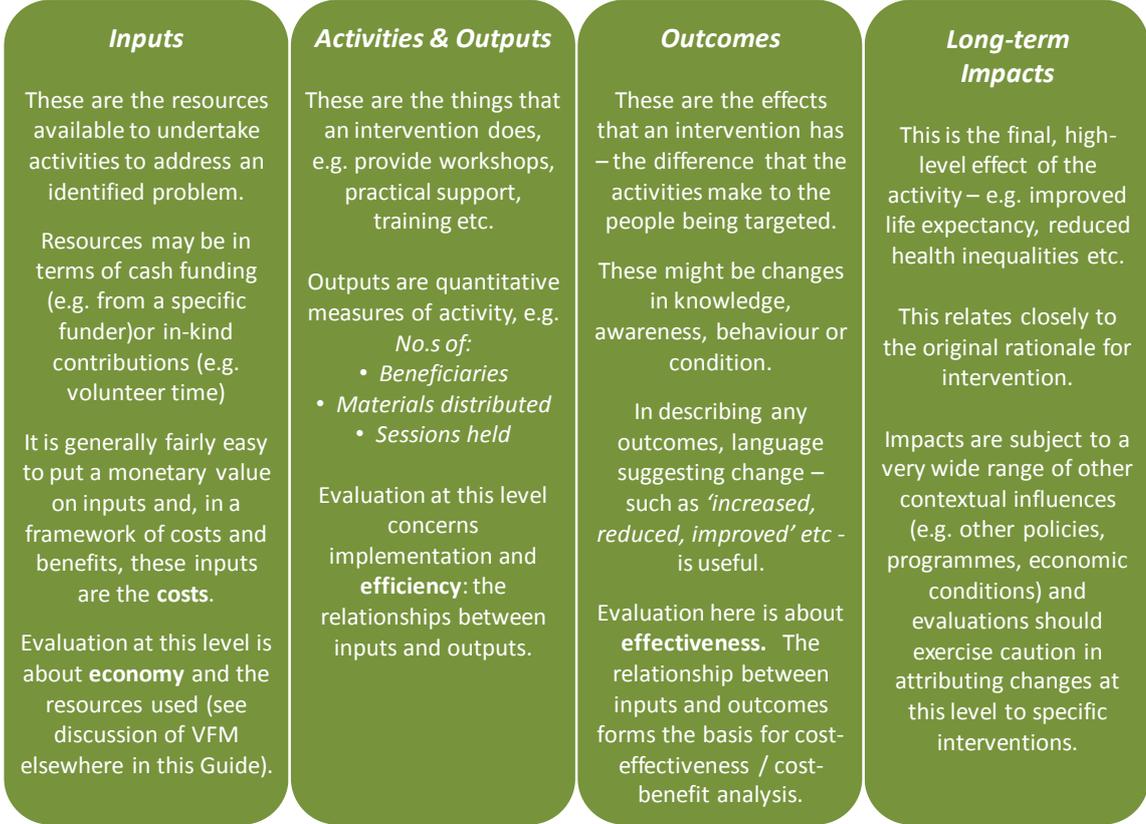
3.3 Step 2: Identify Benefits & Costs

Creating a list of all of the relevant benefits and costs for a particular project is a key step in a SROI analysis. This can be a useful exercise in itself, since it allows stakeholders to discuss the objectives, clarify project details, and identify impacts that would not have otherwise been considered.

Figure 3.1 shows the framework used in helping Living Well projects to identify their main costs and benefits. It is a logic model (a less detailed version is also shown at Figure 2.2 above) and the various elements provide a clear framework for listing the relevant costs and benefits. You now know what you are trying to put a value on.

⁴ Its routes are utilitarian and we should therefore be concerned with the maximisation of utility across society, i.e. the greatest good for the greatest number of people.

Figure 3.1 The Logic Model as a Framework for Identifying Costs & Benefits



3.4 Step 3: Assign Values to Costs & Benefits

Step 2 is likely to have started you thinking about how to place monetary values on the costs and benefits you have identified and, as Figure 3.1 suggests, the challenges lie in valuing benefits (outcomes).

Valuing costs

Valuing costs is generally fairly simple and is a matter of including cash funding used, alongside any ‘in-kind’ support received (see below). You should be as accurate as you can be within reason: there is no need to list every cost with absolute precision – especially since in-kind costs will necessarily be estimates.

The key thing to remember here is that economists view costs differently from the way accountants do: you should be concerned with all resources used (even if they are ‘free’ to you), not just cash funding from Living Well or other sources. This would include things such as volunteer time, any premises given to your project ‘free’ of charge, or materials that you did not have to pay for. These are resources given ‘in-kind’. In valuing this in-kind support, you will have been collecting this information for your quarterly monitoring returns, using the following guidance:

Guidance to Living Well Projects on Valuing In-Kind Support

When estimating the value of people's time use the following figures:

- **Unskilled tasks** – e.g. maintenance work, basic preparation of food / equipment – should be costed at £50 per day;
- **Skilled tasks** – e.g. running training sessions, contributing to project planning – £150 per day; and,
- **Professional tasks** – e.g. providing legal advice or writing business plans – £350 per day.

When estimating the value of other goods and services (e.g. venues or office equipment), please estimate what you would have had to pay had they not been provided as an in-kind contribution.

Finally, if you are writing a bid / responding to a tender and can show significant levels of in-kind contributions you should draw attention to this. This type of 'leverage' is attractive to commissioners / funders, since it is effectively a 'free' resource from their perspective.

Valuing benefits

This is more difficult. Moreover, it is controversial in many policy areas, health among them. There are differences in philosophy as to whether certain types of benefits can / should be assigned monetary values. The debate generally surrounds valuing 'intangible' benefits – such as reductions in pain and suffering - which are not directly bought and sold in a market and so do not have a market price. Nonetheless, these benefits are of value to society.

One side of this debate argues that a comprehensive analysis must assign monetary values to all relevant costs and benefits. From this view, society implicitly assigns a price to everything and so, therefore, should the analysis. The other side of the debate holds that certain items should not be assigned values for at least one of the following reasons:

- 1 Lack of data, which makes it essentially impossible to estimate monetary values, and / or
- 2 A view that some items (such as human life and suffering⁵) should not, on principle, be assigned monetary values.

We note this debate in order to show that this type of analysis is not problem-free. However, it is possible to arrive at a pragmatic position - noting problems and the need for caution, but also recognising the lack of better alternatives; it is from this position that we proceed.

There are a range of approaches and methods available in attempting to put a 'proxy' monetary value on benefits; they include:

- Using data on the **value of outcomes avoided** and / or **analogous benefits**:
 - If your project has resulted in a reduction in the use of services, there are a range of available prices for an expanding range of different health and social care interventions. One of the best sources here is the 'Unit Costs of Health and Social Care'⁶, which provides very detailed cost data. It is less relevant for Living Well, but there are also the NHS 'Payment by Results' tariffs⁷, which give the national prices for a wide range of clinical procedures. There is some need for caution here, since the cost of a treatment is not necessarily equivalent to its value - for example a tablet of paracetamol costs very little and the true value of removing a headache would be far greater (see example below). Nevertheless, these values can provide a useful

⁵ For an interesting example where life was valued in this way, see the economic analysis papers behind the 2010 Marmot Review into health inequalities: <http://www.ucl.ac.uk/gheg/marmotreview/Documents/costs>. This Review used a value of £1.25 million (2002 prices) to value a 'statistical life' and £58,000 for a 'statistical life year'.

⁶ <http://www.pssru.ac.uk/uc/uc2009contents.htm>

⁷ http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_094091

source for proxy measures and could also be useful if making 'spend to save' arguments to an NHS commissioner;

- Similarly, and for more social benefits, the Office for National Statistics publishes an annual 'Family Spending Survey'⁸, which provides detailed figures on the things households spend their money on (and so presumably value to that extent);
 - On a slightly more creative note, courts are also asked to value intangible outcomes, such as emotional distress, when they make compensatory awards (we have included some examples later in this report); and,
 - Finally, the SROI Project is developing a database of financial values for intangible benefits⁹. This will be searchable by outcome area.
- Using **specific techniques, such as people's Willingness to Pay** (WTP) for a hypothetical benefit. We do not recommend developing your own values this way, since these studies can be expensive, problematic and highly technical – there are also problems in transferring the results from one study to another context. We have nevertheless included some values from this type of study in section 4, which could – with caution – be included in your analysis; and,
 - Using the '**human capital**' method, which can be used to put a value on people's time using wage rates (see our method for costing 'in-kind' support). This approach is likely to be especially useful for Living Well projects working with employers. Nomis is a great source of useful data for things such as average earnings¹⁰.

Valuing being Headache-Free

Imagine you have a headache (hopefully you do have to imagine); how would someone put a monetary value on you being free of it?

Perhaps they could ask you how much you would be prepared to pay to not have it (willingness to pay). Or they might look at whether it is preventing you from working and use the value of your time in the labour market to work it out (human capital method). Or they might look at what you / other people would typically have to buy to treat the headache (cost of illness / treatment).

Each of these would most likely give a different answer, illustrating the challenges of what is a relatively simple undertaking.

In general, it is best to derive these figures from existing sources / literature and we present a selection in section 4. However, if you exhaust existing sources, it is legitimate to put together your own 'best estimate' (perhaps drawing on related examples); if you do so, you ought to be both:

- **Transparent** in terms of the figure you use and the rationale for its selection; and,
- **Conservative**, so as to present a defensible result that rests upon modest and plausible assumptions.

You should now be in a position to complete all of the 'Costs' and 'Benefits' sheets of the spreadsheet.

3.5 Step 4: Decide upon a Time Period

As noted in section 2.1, decisions over the period to cover in the analysis can play a very important role in determining the final results. The main question when framing an analysis is: what's the appropriate period of analysis if the full range of benefits and costs are to be captured?

⁸ <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=361>

⁹ <http://www.sroiproject.org.uk/sroi-database.aspx>

¹⁰ <https://www.nomisweb.co.uk/>

In many cases, benefits and costs accrue over several years, requiring a multiyear time frame to obtain accurate results. For example, if a job-training programme provides participants with a marketable skill, this training will probably help participants for years to come - not just for the year in which they participated in the programme. Similarly, what if benefits are 'delayed'? There are instances where benefits are not realised until years after costs are incurred; for example, an in-prison substance abuse programme may not reduce recidivism until years after a prisoner is released.

In such cases, there will be years in which costs will be incurred and benefits will not accrue. As noted in 2.1 above, the further into the future benefits are, the greater the uncertainty surrounding them. If you are in doubt / you think your results might not be defensible, then be conservative and choose a shorter (and therefore more certain) period for your analysis.

Lastly, if an analysis includes costs and benefits that run over a number of years, then we must account for the changing value of money over time: a pound today is worth more than a pound in a year or five years' time. Future benefits and costs should therefore be adjusted (discounted) to reflect this decreasing value. The end result of such discounting is to estimate the net present value (NPV) of total benefits and total costs, which allows for comparisons of the combination of both current and future benefits and costs. This therefore depends on the rate at which future benefits and costs are discounted, otherwise known as a 'discount rate'. In the 'Green Book', which governs central government appraisals, HM Treasury (2003) set the official UK discount rate at 3.5% for a 30 year period¹¹.

In the spreadsheet provided, we have therefore:

- Assumed a five-year period for both costs and benefits (you do not have to use all five and you should feel free to insert additional years should this better suit your project), since this presents a period over which we can be reasonably certain;
- Allowed you to manually specify when costs have been / will be incurred and have provided an automated function for you to specify when benefits may be accrued; and,
- Used the recommended Treasury discount rate of 3.5%.

3.6 Step 5: Be Clear about Uncertainty & Limitations

As noted throughout, SROI analysis is typically based on assumptions or predictions about what will happen in the future (or on partial data about what happened in the past), which can greatly affect the results. In general, the better the evidence that underpins them, the more certain we can be (e.g. are there good studies that connect the benefits you have included to the type of intervention you are providing?); but, inevitably, such an analysis will encounter items that should be included, yet come with some uncertainty.

One way to acknowledge this is to carry out a 'sensitivity analysis'. This is a process of testing a range of values for a particular variable to see the extent to which the results will change. Such tests allow us to take into account the uncertainty associated with the estimation of certain items. For example, how far does the final benefit-to-cost ratio change if you use one value for a particular benefit, rather than another – e.g. what if you use a different figure to value a gain in mental wellbeing? What if you vary the time period over which benefits are assumed to arise? Which variables seem to have the greatest effect on the final result? To what degree do you think these variables are appropriate?

Lastly, because the results of any analysis rests on the quality of the data used and on all underlying assumptions, you should be clear about what they are. (In the spreadsheet, we have provided a section for your notes and 'workings' out, so that you can show how you arrived at your final result). To improve understanding about how an analysis was performed

¹¹ This is also the rate we have used in the accompanying spreadsheet. It is interesting to note that there is some debate, considered in Annex 6 of the Green Book, around the appropriate rate of discounting for longer-term benefits (i.e. how we value benefits to future generations). See the 2006 Stern Review on the Economics of Climate Change for a fuller discussion of this issue in relation to another policy area where the long-term consequences of action are important.

and increase confidence in the results, you should clearly set out the methods, assumptions, and values that went into the analysis. Transparency will allow others to understand better the strengths and limitations of the analysis and the results.

4 A Brief Summary of Useful Figures

This final section contains a table summarising some of the figures from the literature in areas of relevance to Living Well. Because of the focus of the programme – and indeed the literature – there is some concentration on mental health.

There are five main types of figure given here. These are figures showing the:

- 1 'Cost of illness' for a range of conditions – such as obesity for example. These can be used in funding applications and / or to frame the value of your work in broad terms;
- 2 Costs / values of specific outcomes – such as days missed through poor mental health;
- 3 Costs of treatments that aim to achieve benefits analogous to those under Living Well – such as talking therapies, or weight loss interventions;
- 4 Willingness To Pay (WTP) of people for certain outcomes, such as an effective weight loss treatment; and,
- 5 Compensation awards in cases where courts have tried to value outcomes of interest to Living Well, and other more creative methods – where economists have looked at the effect of lottery wins on mental health for example.

The previous section noted some of the problems and issues in the use of each of these sources and appropriate care should therefore be taken in their use.

In general, we have presented figures as contained in the reports cited and readers may wish to convert them to current prices where differences in time are significant. However, in the few cases where we have converted figures across currencies, we have also converted them across time. In doing so, we have used an online currency converter - <http://www.xe.com/ucc/> - and an inflation calculator - <http://www.thisismoney.co.uk/historic-inflation-calculator>.

Lastly, some of the figures given are from authors cited in the studies we have used in the production of this paper; in these cases we have not gone back to the original paper, but have instead included the reference to the paper we used. The full references are contained at Annex 1.

Figure 4.2 Summary of Existing Data

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
1	(a) Distress caused by unemployment (p.a) (b) Av. total cost of GP care + Cognitive Behaviour Therapy (CBT) (c) Av. total cost of reducing depression using CBT + non-directive counselling (d) Cost of achieving benefits of (b) and (c) using monetary compensation alone (p.a)	(a) £34-59k (b) £1,500 (c) £800 (d) £179-£292k	The paper presents data that value various life events using changes in income. This is compared to compensation used by courts. A comparison is also made between therapies and financial compensation; the paper concludes: <i>"...alleviating psychological distress through psychological therapy could be at least 32 times more cost effective than financial compensation."</i>	Boyce et al (2010)
2	(a) Total annual cost to UK employers of mental health problems among staff (b) Cost of these problems per employee in workforce (c) Av. daily cost of sickness absence (d) Cost of sickness absence attributable to mental health problems per year for every employee in the UK workforce (e) Cost of sickness absence resulting from mental health problems that are directly work-related per employee, per year (f) Cost of presenteeism per working day lost (g) Cost to employers of a job change, including the cost of recruiting, selecting and training a replacement worker	(a) £26 billion (b) £1,035 (c) £120 (d) £335 (e) £50 (f) £145 (g) £11,625	The paper presents information from a range of different studies and papers. It aims to pull together costs for a range of problems associated with mental health in the workplace.	The Sainsbury Centre for Mental Health, (December 2007)
3	(a) Annual organisational cost of employee absence per member of staff – private sector (b) Same as above for public sector	(a) £600 (b) £680 (c) £3.8 billion	The paper is more of a 'How to...' guide, but does use some existing cost data from other sources	Chartered Institute of Personnel and Development (2007)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
	(c) Annual cost of stress to business			
4	(a) Annual cost of physical inactivity in England (b) Direct annual healthcare costs of physical inactivity in England (c) Av. cost of re-designing a school playground (d) Direct health saving for a 10% increase in physical activity	(a) £8.2 billion (b) £1.4 billion (c) £16,600 (d) £85 million	The report is a costing report for NICE Guidance; there are few robust figures available for more 'micro' interventions, the figures presented here are therefore at societal level.	National Institute for Health and Clinical Excellence (January 2008)
5	(a) Mean willingness to pay (WTP) of New Yorkers for a 50% reduction in childhood obesity	(a) approx. £35	This figure represents what the average individual New Yorker would be hypothetically willing to pay (WTP) to see a halving of childhood obesity in the city.	Cawley J. (2006)
6	(a) Value of leisure time sacrificed by volunteers per hour in Ireland (b) Av. weekly cost of running a telephone service for older people (c) Av. cost per call of a telephone service for older people	(a) approx. £5 - £15 (b) approx. £1780 - £2225 (c) approx. £30 - £40	This report is an economic evaluation of the Senior Help Line in Ireland. The service aimed to reduce the social isolation of older people and thus reduce psychological distress and depression leading to improvements in wellbeing. A telephone service provided a confidential telephone listening service for older people.	O'Shea, E. (2006)
7	(a) WTP (per month) of Taiwanese Women for a reduction in weight due to weight loss medicine (b) WTP (per month) of Taiwanese Women for a reduction in weight due to a low-calorie diet	(a) approx. £8 (b) approx. £7	These figures estimate what the average Taiwanese woman would be willing to pay to see a reduction in their weight.	Liu et al. (2009)
8	(a) Value per year of seeing friends or relatives on most days rather than seeing friends or relatives less than once a month (b) Value per year of talking to neighbours on most days rather than talking to them less than once a month	(a) £85,000 (b) £35,00 - £40,000 (c) Minus £200,000 (d) Minus £143,000	The paper makes an attempt to place financial values on social network status using data from the British Household Panel Survey (BHPS) the method of "shadow pricing" provides these figures.	Powdthavee, N. (April 2007)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
	(c) Year of widowhood (d) Year of unemployment (e) Year of disability (f) Value per year of moving from 'very poor' health to 'excellent' health	(e) Minus £165,500 (f) £480,000		
9	(a) Cost per person recruited of advertising a community based physical activity programme i. via newspaper ads/articles ii. via radio iii. via flyers/brochures iv. via television v. via billboards	i. approx. £35 ii. approx. £45 iii. approx. £30 iv. approx. £55 v. approx. £360	This study looks at the cost and effectiveness of a social marketing campaign to recruit to a community based physical activity programme in South Carolina, USA that targeted women aged 35-54..	Peck et al. (2008)
10	(a) Cost of health and social care provision to patients i. suffering a stroke per person with the disease per year ii. with dementia per person with the disease per year iii. with Coronary Heart Disease (CHD) per person with the disease per year	i. £2,559 ii. £12,521 iii. £1,019	This study estimates the cost of dementia to society as being larger than the costs of other major poor health outcomes including cancer, stroke and CHD.	Luengo-Fernandez et al. (2010)
11	Benefits per annum: (a) Being employed (b) Year of being unemployed (c) Not exercising for 20 minutes or more (d) Smoking cigarettes (e) Feeling one's own health is not good	(a) £4,900 (b) Minus £16,800 (c) Minus £15,800 (d) Minus £5,900 (e) Minus £30,600 (f) £33,500	These figures are from the 2010 national evaluation of the New Deal for Communities Programme and were found using a variety of methods including 'shadow pricing' and reviews of other studies	Communities and Local Government (2010)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
	(f) A high score on the SF36 mental health index (g) Being very/fairly satisfied with the family doctor/GP (h) Feeling trapped in current accommodation (i) Feeling part of the community (j) Neighbours look out for each other (k) Work limiting illness	(g) £5,400 (h) Minus £12,500 (i) £14,900 (j) £11,600 (k) Minus £12,700		
12	(a) Moving from near the bottom of a UK wellbeing distribution to near the top	(a) £1,000,000	This study uses data from the BHPS to determine the monetary value of gains in mental wellbeing. Mental wellbeing is measure using General Health Questionnaire (GHQ) score. The value is found by measuring how windfalls (e.g. lottery wins or inheritance monies) effect GHQ scores.	Gardner and Oswald (March 2001)
13	(a) Compensation awarded for emotional distress	(a) £5,000	This figure uses a legal ruling of the amount of compensation awarded due to emotional distress.	Edwards (February 2009)
14	(a) Compensation for mental stress	(a) £1,000	This figure uses a legal ruling of the amount of compensation awarded due to mental stress	Millward (May, 2009)
15	(a) Compensation awarded due to psychiatric damage (depression) (b) The range for such personal injury damages, as outlined in Judicial Studies Board Guidelines	(a) £11,250 (b) £9,500 - £27,500	These figures for compensation were made for a legal ruling at Employment Tribunal. The ruling regarded a woman who had lost her job as a result of sexual discrimination.	Underhill (February, 2001)
16	(a) Unit cost per week of i. community based social care services for those with physical disabilities ii. care home services for those with physical	i. £106 ii. £711 iii. £248	This study investigates age discrimination in council funded social care service for adults by examining the expenditure per head on people using social care services.	Forder (2008)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
	<ul style="list-style-type: none"> disabilities iii. community based social care services for those aged 18-64 with learning disabilities iv. care home services for those aged 18-64 with learning disabilities v. care home services for those with mental health problems vi. care home services for those aged 65 and above vii. community based social care services for those aged 65 and above viii. community based social care services for those with mental health problems 	<ul style="list-style-type: none"> iv. £971 v. £599 vi. £446 vii. £85 viii. £40 		
17	(a) Cost per hour of psychiatrist care	(a) £207	This paper is a response to NICE Guidelines on Depression.	Learmonth (2006)
18	<p>(a) Unit cost per household per annum of people with learning disabilities</p> <ul style="list-style-type: none"> i. being admitted to hospital for a general health issue ii. visiting an A&E department iii. visiting a GP due to general health issues iv. visiting a community health service (not mental health) v. being visited by a community mental health nurse vi. being a victim of burglary vii. being a victim of street crime (violent crime or mugging) 	<ul style="list-style-type: none"> i. £1,537 ii. £351 iii. £237 iv. £82 v. £8 vi. £31 vii. £59 	This piece of research estimates the financial benefits of the supporting people programme which provides strategically planned housing related services. The services are provided to vulnerable people with the goal of improving their quality of life by enabling independent living.	Ashton and Hempenstall (2009)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
19	(a) Cost to society of problem drug use (b) Mean benefit per drug user in drug treatment (c) Mean cost per drug user in drug treatment (d) Cost of health and social care received by a drug user who is engaged in drug treatment (e) Cost of health and social care received by a drug user who is not engaged in drug treatment (f) Cost of drug related offending committed by a drug user who is engaged in drug treatment (g) Cost of drug related offending committed by a drug user who is not engaged in drug treatment (h) Cost of a drug user placed in work by the DWP 'Progress2work' scheme (i) Cost of a person placed in work by the New Deal (25 years and older) (j) Cost of a person placed in work by the New Deal for Disabled People (k) Cost of helping a drug user into a job that is kept for 13 weeks or more	(a) 15.3 billion (b) £12,000 (c) £4,900 (d) £3,100 (e) £4,500 (f) £40,000 (g) £50,600 (h) £6,600 (i) £5,330 (j) £2,350 (k) £11,600	This study examines the progress that has been made in achieving the three aims of the government's drug strategy - "Protecting families and communities." These aims are: target and manage problem drug using offenders; improve the quality and effectiveness of treatment and help problem drug users re-establish their lives. (b) and (c) are from the Home Office Drug Treatment Outcomes Research Study. (k) 8% of drug users who receive help obtain and keep a job for 13 weeks or more.	National Audit Office (March 2010)
20	(a) Compensation for mental breakdown brought about by pressures and stresses of workload	(a) £72,547	This figure was the resulting compensation figure for a teacher who suffered pressures and stresses at work that led to mental breakdown. It was ruled that the employer did not provide assistance for the depression being suffered by the teacher.	House of Lords (2004)
21	(a) Compensation for episodes of major depressive disorder	(a) £35,000	This figure was the resulting compensation awarded due to a successful claim that bullying	Owen (August 2006)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
			in the workplace had led to a major depressive disorder. The figure here is exclusively for the damages awarded as a result of major depressive disorder, other further damages were also awarded.	
22	(a) Av. cost per month of a gym membership (b) Av. cost per year of gym membership	(a) approx. £40 (b) approx. £440	These figures are the result of findings from market and product research company Mintel.	Jarvis, A-A (January 2010)
23	(a) Mean cost per patient of a group walking programme to encourage physical activity among obese, overweight or moderately depressed elderly female patients	(a) £40 approx.	This article assesses the cost effectiveness of a public health programme in Spain that referred patients to a walking group.	Gusi et al. (2008)
24	(a) Mean cost per person of primary services psychodynamic therapy provision (b) Mean cost per person of all health care services psychodynamic therapy provision	(a) £101 (b) £349	This study examined the effectiveness and cost-effectiveness of short-term counselling in general practice for patients with chronic depression either alone or combined with anxiety.	Simpson et al. (2003)
25	(a) Service costs per week of treating an adolescent with an antidepressant over a 28 week trial period (b) Service costs per week of treating an adolescent with CBT over a 28 week trial period (c) Mean annual service costs of children identified as being 'of greatest concern with complex mental health problems' (d) Annual health care costs per case of social phobia (e) Annual costs per case of absenteeism of those with social phobia who are in employment (f) Av. cost of social security benefit received by those with social phobia	(a) £161 (b) £244 (c) £53,000 (d) £609 (e) £442 (f) £1,479	This paper reviews the costs of mental health problems experienced by children, young people, adults and older people, and examines the mediating factors which influence these costs.	Knapp (2008)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
26	(a) Cost of a course of CBT in the treatment of depression (b) Cost of one month on incapacity benefit (includes benefit payment and fall in tax receipts)	(a) £750 (b) £750	This paper provides an argument in favour of a National Therapy Service. According to the paper NICE guidance on depression cannot be implemented without the creation of such a service, which would require 10,000 Therapists.	London School of Economics (June 2006)
27	(a) 3.5% improvement in mental health (as measured by the General Health Questionnaire) due to a lottery wins i. mean ii. median	i. £4,300 ii. £2,000	This paper seeks to identify if there is a relationship between windfalls from the lottery and improvements in mental health. The levels of improvement valued are – very roughly – equivalent to a 2-point improvement on the long WEMWBS and a 1-point improvement on the SWEMWBS (as used by most Living Well projects).	Gardner and Oswald (June 2006)
28	(a) Cost of health and social care for people with mental health problems in Northern Ireland (b) Cost of output losses in the economy due to mental health problems in Northern Ireland (c) Impact of mental ill health on quality of life (d) Prevention: Discounted saving in lifetime costs of children with conduct disorder achieving the same adult outcomes as children with conduct problems (not as severe as disorder) (e) Promotion: Discounted saving in lifetime costs of action to help children with conduct problems (not as severe as disorder) achieve the same adult outcomes as those without conduct problems	(a) £372 million (b) £789 million (c) £1. 7 billion (d) £150,000 (e) £75,000	This report uses economic analysis to develop the case for greater investment in mental health promotion, defined as both the prevention of mental illness and the promotion of positive mental health. (a), (b) and (c) are at societal level.	Friedli and Parsonage (November 2007)
29	(a) Value per hour of informal care	(a) approx. £8.50 - £10	This figure is the value per hour of providing care.	Van Den Berg and Ferrer-I-Carbonell (2007)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
30	(a) Direct treatment costs for depression (84% of which is medication) (b) Costs of morbidity attributable to depression (c) Costs of mortality attributable to depression (d) Cost per person of staff time associated with delivering an guided self help programme i. to an individual ii. to a group (e) Cost per person of delivering a physical activity programme to treat depression for i. an individual ii. a group of 5 – 6 people.	(a) £370 million (b) £8 billion (c) £562 million (d) i. £42 - £259 ii. £28 - £71 (e) i. £765 - £2,142 ii. £128 - £428	These figures come from NICE Guidance on the treatment and management of depression in adults. (a), (b) and (c) are at societal level.	National Institute for Health and Clinical Excellence (October 2009)
31	(a) Cost of orlistat (drug treatment for obesity) for one year per patient	(a) £537	This figure is from NICE guidance on the use of orlistat in the treatment of obesity.	National Institute for Health and Clinical Excellence (March 2001)
32	(a) Cost of a visit to accident and emergency (b) Cost of an inpatient day (c) Cost of an outpatient day (d) Cost of day care for outpatients (e) Cost per visit to NHS direct (f) Cost of a street agency visit by a drug and alcohol service (g) Cost per week of a methadone maintenance programme (h) Cost of 30 minutes contact with an occupation therapist	(a) £274 (b) £443 (c) £116 (d) £549 (e) £17 (f) £72 (g) £48 (h) £18	This guidance note which accompanies the DCSF Think Family Toolkit provides research evidence and a cost analysis which is aimed at assisting service providers and commissioners to develop evidence based provision.	Department of Children Schools and Families (February 2010)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
	(i) Cost of 30 minutes contact with a social worker (j) Cost of 30 minutes contact with a benefit advisor	(i) £58 (j) £16		
33	(a) Value of a statistical life (b) Serious injury (c) Slight injury (d) Permanently incapacitating illness (e) Ill health resulting in absence over one week (per day of absence) (f) Minor ill health (less than one week absence)	(a) £1,336,800 (b) £20,500 (c) £300 (d) £193,100 (e) £2,300 + £180 (f) £530	These figures are provided by the Health and Safety Executive's (HSE) Cost Benefit Analysis checklist and represent some of the benefits that, in the view of the HSE, should be included in health and safety 'ALARP' determinations.	Health and Safety Executive (2010)
34	(a) UK Value of a Statistical Life Year (VoSLY) (b) Value of benefit from equalising all mortality rates to those of the highest socio-economic class	(a) £58,000 (b) £222 billion - £273 billion	This study provides estimates of the value of reducing or eliminating health inequalities. (b) and (c) are at societal level.	Mazzuco et al. (January 2010) – used in Marmot Review
35	(a) Cost of gastric banding (b) Cost of a gastric bypass (c) Cost of adjustable silicone gastric banding	(a) £3,223 (b) £3,992 (c) £4,450	These figures are taken from NICE guidance on obesity. This document contains a large number of costs per QALY that are not included here.	National Institute for Health and Clinical Excellence (December 2006)
36	(a) Initial membership fee for a slimming club (b) Weekly cost of a slimming club (c) Cost of a slimming club in the first year of membership (d) Cost of a slimming club in the first six months of membership (e) Cost of a slimming club in the first month of membership	(a) £10 (b) £5.60 (c) approx. £300 (d) approx. £155 (e) approx. £35	According to the National Obesity Forum the three most popular companies offering slimming classes are Weight Watchers, Slimming World and Rosemary Connelly.	Rosemaryconley.com (2010)
37	(a) Total annual cost of obesity in England and Wales	(a) £7 billion	This report is part of the Foresight project and identifies trends in future obesity as well as the	Butland et al. (2007)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
	(b) Direct healthcare costs for the treatment of obesity alone (c) Direct healthcare costs for the treatment of obesity and its consequences (d) Lost earnings per year attributable to obesity (e) Total impact of obesity on employment	(b) £991 million (c) £1.124 billion (d) £2.3 billion - £3.6 billion (e) £10 billion	factors that affect this complex problem. The figures presented here are therefore at societal level	
38	(a) Annual cost of mental ill health to an organisation with 1000 employees (b) Annual saving due to improved management of mental health in the workplace for an organisation with 1000 employees (c) Cost of a day of an employee absence (d) Cost of presenteeism per day	(a) £835,355 (b) £250,607 (c) approx. £80 (d) £100	This paper from NICE presents a business case for implementing public health guidance 22 on promoting mental wellbeing in the workplace.	National Institute for Health and Clinical Excellence (November 2009)
39	(a) Cost of a 15 minute follow up consultation with a GP practice nurse or health improvement practitioner after a physical activity intervention (b) Cost of developing printed materials for a brief intervention per PCT per annum (c) Av. investment per exercise referral scheme	(a) £4.26 (b) £500 (c) £100,000	These figures are from a NICE costing report, looking into the impact of implementing public health intervention guidance on commonly used physical activity interventions in England.	National Institute for Health and Clinical Excellence (May 2006)
40	(a) Lost tax revenue to the exchequer of economic inactivity per person per year (b) Low level of literacy over a lifetime (c) Low level of numeracy over a lifetime	(a) £5,000 (b) £81,000 (c) £114,000	The Foresight Mental Capital and Wellbeing Project identifies challenges facing the UK over the next 20 years with regard to mental capital and wellbeing, signpost to how these challenges should be met.	Foresight Mental Capital and Wellbeing Project (2008)
41	(a) Additional WTP of Sri Lankans for nutritional information on: <ul style="list-style-type: none"> i. processed meat based products ii. oil based products 	(a) <ul style="list-style-type: none"> i. 20p ii. 22p 	These figures come from a WTP study in Sri Lanka which investigated the WTP of putting nutritional information on products.	Prathiraja and Ariyawardana (2003)

No.	Outcome(s) / Item(s)	Value(s)	Points of Note	Reference / Source
	iii. fruit syrups	iii. 10p		
42	(a) Cost per graduate of the Expanded Food and Nutrition Education Program (EFNEP) in New York State (b) Decrease in annual family food expenditure of EFNEP graduates in Tennessee	(a) approx. £790 (b) approx. £115 - £220	These figures are taken from the evaluation of EFNEP in New York State undertaken by Cornell University. EFNEP programmes are conducted in every US state, to assist low income adults to change behaviour and acquire nutritionally sound diets.	Dollahite et al. (2008)
43	(a) Mean net value of a month of post-natal depression avoided	(a) £384	Figures taken from an economic evaluation of a counselling treatment of post-natal depression.	Petrou, S et al (2006)
44	(a) Mean WTP in Ireland for a mental health programme	(a) £80	Is taken from a willingness to pay study in Ireland that looked at preferences for allocating healthcare budgets.	O'Shea, E et al (2008)
45	(a) WTP of Swedish obese people for effective treatment of obesity i. mean ii. median	(a) i. approx. £3,595 ii. approx. £1,460	These figures are from a Swedish study investigating the WTP of obese people for effective treatment. The study suggests that obese people are WTP approximately twice their monthly salary for effective obesity treatment.	Narbro and Sjöström (2000)
46	(a) WTP per month of Swedish people with type-2 diabetes to lose 1kg	(a) £13	The figure is taken from a Swedish WTP study and is from people with type-2 diabetes	J. Jendle et al (April 2010)
47	(a) Mean WTP per month for depression care	(a) £225	This is from a 2003 study in the US	Unützer, J et al (2003)
48	(a) Av. lifetime medical care costs averted per case of overweight prevented	(a) £5,250	Figure is taken from a 2003 US Study (converted from 2003 US dollars)	Buchanan et al (January 2008)

ANNEXES

Annex 1: References

- Ashton, T. And Hempenstall, C. (2009) *Research into the financial benefits of the Supporting People programme 2009* Department for Communities and Local Government
- BHF National Centre (2007) *Economic costs of physical inactivity*
- Boyce, C. J. & Wood, A. M., (2010) *Money or Mental Health: The Cost of Alleviating Psychological Distress with Monetary Compensation versus Psychological Therapy*, Health Economics, Policy and Law
- Butland, D., Jebb, S., Kopelman, P., McPherson, K., Thomas, S., Mardell, J. and Parry, V. (2007) *Foresight Tackling Obesities: Future Choices Project Report 2nd Edition*
- Buchanan et al (January 2008) *A Rapid Review of Economic Literature Related to The Promotion of Physical Activity, Play and Sport for Pre-school and School Age Children in Family, Pre-school, School and Community Settings* National Institute For Health And Clinical Excellence
- Cawley J. (2006) *Contingent valuation analysis of willingness to pay to reduce childhood obesity*, NBER Working Paper 2006:12510.
- Chartered Institute of Personnel and Development (2007) *What's happening with well-being at work?*
- Communities and Local Government (2010) *The New Deal for Communities Programme: Assessing impact and value for money*
- Department for Children Schools and Families (February 2010) *Evidence for Think Family Toolkit Guidance Note 03*
- Dollahite, J., Kenkel, D. And Thompson, S. (2008) *An Economic Evaluation of the Expanded Food and Nutrition Education Program* Journal of Nutritional Education and Behavior 40 pp. 134 – 143
- Edwards, R. (February 2009) *Fined motorist wins £20,000 compensation for emotional distress* Telegraph <http://www.telegraph.co.uk/motoring/news/4563216/Fined-motorist-wins-20000-compensation-for-emotional-distress.html>
- Forder, J. (2008) *The Costs of Addressing Age Discrimination in Social Care*
- Foresight Mental Capital and Wellbeing Project (2008) *Final Project report*
- Friedli, L. And Parsonage, M. (November 2007) *Mental Health Promotion: Building an Economic Case*
- Gardner, J. and Oswald, A. (March 2001) *Does Money Buy Happiness? A Longitudinal Study Using Data on Windfalls*
- Gardner, J. and Oswald, A. J. (June 2006) *Money and Mental Wellbeing: A Longitudinal Study of Medium Sized Lottery Wins*
- Gusi, N., Reyes, M. C., Gonzalez-Guerro, J.L., Herrera, E. And Garcia, J. M. (2008) *Cost-Utility of a walking programme for moderately depressed, obese or overweight elderly women in primary care: a randomised control trial* BMC Public Health Vol. 8 pp. 231 - 241
- Health and Safety Executive (2010) *Cost Benefit Analysis Checklist* <http://www.hse.gov.uk/risk/theory/alarpcheck.htm>
- HM Treasury (2003) *The Green Book Appraisal and Economic Evaluation in Central Government*
- Jendle, Jet al (April 2010) *Willingness to pay for health improvements associated with anti-diabetes treatments for people with type 2 diabetes*
- Jarvis, A-A. (January 2010) *Fitness begins at home: How to get fit without joining a gym* <http://www.independent.co.uk/life-style/health-and-families/healthy-living/fitness-begins-at-home-how-to-get-fit-without-joining-a-gym-1856609.html>
- Knapp, M. (2008) *Mental Capital and Wellbeing: Making the most of ourselves in the 21st Century*
- Knapp, M., Romeo, R. And Beecham, J. (2009) *Economic Cost of Autism in the UK* Autism 13 pp. 317 - 336
- Learmonth, M. (2006) *NICE Guidelines in Depression. Making a Case for the Arts Therapies*
- Liu, J. T., Tsou, M. W. & Hammitt, J. K. (2009) *Willingness to Pay for Weight-Control Treatment*, Health Policy 91 pp. 211-218
- London School of Economics (June 2006) *The Depression Report A New Deal for Depression and Anxiety Disorders*

- Luengo-Fernandez, R., Leal, S. And Gray, A. (2010) *Dementia 2010 The economic burden of dementia and associated research funding in the United Kingdom*
- Mazzucco, S., Meggiolaro, S. And Suhrcke, M. (January 2010) *The economic benefits of reducing health inequalities in England and Wales*
- Millward, D. (May 2009) Motorist wins £1,000 compensation for mental stress caused by bailiffs Telegraph <http://www.telegraph.co.uk/news/uknews/road-and-rail-transport/5355173/Motorist-wins-1000-compensation-for-mental-stress-caused-by-bailiffs.html>
- Narbro, K. and Sjöström, L. (2000) *Willingness to Pay for Obesity Treatment* International Journal of Technology Assessment in Health Care 16(1) pp. 50-59
- National Audit Office (March 2010) *Tackling Problem Drug Use*
- National Institute for Health and Clinical Excellence (March 2001) *NICE issues guidance on orlistat for obesity*
- http://www.nice.org.uk/newsroom/pressreleases/pressreleasesearchive/pressreleases2001/2001_01_0_nice_issues_guidance_on_orlistat_for_obesity.jsp
- National Institute for Health and Clinical Excellence (May 2006) *Costing report Four commonly used methods to increase physical activity*
- National Institute for Health and Clinical Excellence (December 2006) *Obesity: full guidance*
- National Institute for Health and Clinical Excellence (January 2008) *Physical activity and the environment: Costing report*
- National Institute for Health and Clinical Excellence (October 2009) *Depressions in Adults* National Clinical Practice Guideline 90
- National Institute for Health and Clinical Excellence (November 2009) *Promoting mental wellbeing at work Business Case*
- O'Shea, E. (2006) *An Economic and Social Evaluation of the Senior Help Line in Ireland*, Ageing and Society 26 pp. 267-284
- O'Shea, E et al (2008) *Eliciting preferences for resource allocation in mental health care in Ireland*. Health Policy 88 (2008) 359–370
- Owen, Hon. Mr. Justice (August 2006) *Green vs DB Group Services (UK) Limited* Case No. TLQ/05/0753
- Peck, L. E., Sharpe, P. A., Burroghs, E. L. And Granner, M. L. (2008) *Recruitment Strategies and Costs for a Community-Based Physical Activity Program* Health Promotion Practice 9 pp. 191-198
- Petrou, S et al (2006) *Cost-effectiveness of a preventive counselling and support package for postnatal depression* International Journal of Technology Assessment in Health Care, 22:4 (2006), 443–453
- Powdthavee, N. (April 2007) *Putting a Price Tag on Firends, Relatives and Neighbours: Using Surveys of Life Satisfaction to Value Social Relationships*
- Prathiraja, P.H.K. and Ariyawardana, A. (2003) *Impact of Nutritional Labeling on Consumer Buying Behavior* Sri Lankan Journal of Agricultural Economics 5(1)
- RosemaryConley.com (2010) *Frequently Asked Questions* <http://www.rosemaryconley.com/content/slim-at-classes/common-questions.htm>
- Simpson, S. Corney, R., Fitzgerald, P. And Beecham, J. (2003) *A randomized control trial to evaluate the effectiveness and cost effectiveness of psychodynamic counselling for general practice patients with chronic depression* Psychological Medicine 33(2) 229 - 239
- The Sainsbury Centre for Mental Health, (December 2007) *Policy Paper 8 | Mental Health at Work: Developing the business case*
- Underhill, R. (February, 2001) *HM Prison Service v Mrs D M Salmon* Appeal No. EAT/21/00
- Unützer, J et al (2003) *Willingness to Pay for Depression Treatment in Primary Care*. Psychiatric Services March 2003 Vol. 54 No. 3
- Van Den Berg, B. And Ferrer-I-Carbonell, S. (2007) *Monetary Valuation of Informal Care: The Well-Being Valuation Method* Health Economics 16 pp. 1227-1244

Annex 2: Further Reading

As this is an introductory guide, we have provided a set of more detailed documents that you may find useful; in a broad order of ascending technicality, they are:

- Cabinet Office (2009) *A guide to Social Return on Investment*
- Sarah Byford, S et al (2003) *Because it's worth it: A practical guide to conducting economic evaluations in the social welfare field*. Joseph Rowntree Foundation
- Phillips, C (2005) *Health Economics: An Introduction for Health Professionals*
- Drummond et al (2005) *Methods for the Economic Evaluation of Health Care Programmes*