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## Community safety practice briefing

# Value for money?

## Cost analysis in crime reduction

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July 2001

Nacro is a registered charity.  
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*This guide introduces community safety practitioners to cost analysis work. It covers:*

- *an introduction to commonly used terms and concepts*
- *a discussion of the different ways in which cost analysis can be used in crime reduction*
- *examples from the field*
- *some ideas on using cost analysis in crime audits*
- *some ideas on using cost analysis in the development of crime and disorder reduction strategies*

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## Introduction: Why cost analysis?

Cost analysis has been repeatedly identified as an important area for future development by partnerships. The Audit Commission suggest that:

Cost benefit analysis is a useful way of persuading partners and outside investors to invest in prevention. Analysing issues on a smaller scale – focusing the measurement of costs on housing departments, hospitals or schools – can be more useful than broad statements of cost across large geographical areas.<sup>1</sup>

In summary, the advantages of cost analysis work are that:

- Information on the costs of crime, and the costs and benefits of different crime reduction options, will help ensure that scarce resources are allocated in the most effective way possible.
- Cost analysis will make decisions more transparent and promote a proper discussion of different crime reduction options within partnerships.
- An analysis of the costs of crime and crime reduction will help partnerships focus on the **impact**, rather than the volume, of crime.
- Cost analysis will help partners achieve Best Value and comply with Section 17 of the Crime and Disorder Act 1998.
- Cost analysis will provide an additional means of evaluating the success of different crime reduction initiatives.

Although cost analysis can seem a daunting subject, most partnerships have already considered cost analysis issues in some form or other. For instance:

- A better understanding of the value for money of different crime reduction initiatives is a central aim of

### Terms and definitions

All technical terms are explained in the **Glossary** at the back of this briefing. For the purposes of this briefing, it is particularly important to distinguish between:

- community safety as part of mainstream service provision and community safety projects
- cost-effectiveness analysis and cost-benefit analysis

the Home Office Crime Reduction Programme. All strands of that programme are being evaluated for their cost-effectiveness and the Home Office also plans to carry out a comparative cost-benefit analysis.

- Value for money will be a central element of Best Value reviews of community safety and should be considered in the course of Section 17 reviews.<sup>2</sup>

## Using cost analysis in crime reduction work

Broadly speaking, there are four ways in which cost analysis can be used in crime reduction work:

- identifying the costs of inputs to crime reduction work
- identifying the cost of crime
- cost-effectiveness analysis
- cost-benefit analysis

## Identifying the costs of inputs to crime reduction work

**Table 1** outlines different approaches to identifying inputs in crime reduction work and some of the different ways in which analysis of the costs of inputs could be used.

Table 1 makes two broad distinctions between:

- Identifying the costs of crime reduction projects and identifying the costs of mainstream services (1 & 2 as opposed to 3 & 4). Generally, it will be easier to identify inputs for projects.
- Identifying direct and indirect costs (1 & 3 as opposed to 2 & 4). Generally, it will be easier to identify direct costs.

The methodology for each approach is broadly similar:

- 1 Define the intervention, its objectives and the mechanism through which inputs have led to impacts and outcomes.
- 2 Identify the different types of input.
- 3 Quantify the different types of input.

**Table 1 Identifying the costs of inputs to crime reduction work**

<b>Approach</b>	<b>Description</b>	<b>Policy implications</b>	<b>Could it be done by a local partnership?</b>
Identifying direct costs for a community safety project	Identify personnel time devoted to a project or particular element of a mainstream service; then use figures for the national average cost of different types and grade of personnel to estimate direct costs.	Could be used for very basic policy appraisal, such as identifying areas where the introduction of a crime reduction measure could result in cost savings.  Could be included in mainstreaming / S17 review.	Yes – relatively easy
Identifying direct and indirect costs for a community safety project	Follow process outlined above but then go on to identify indirect costs such as support services, accommodation, etc.	Could be used for very basic policy option appraisal, such as identifying how much specific projects are costing in order to decide what projects and initiatives to include in a strategy.  Could contribute to a Best Value or S17 review.	Yes – relatively easy
Identifying direct costs for a mainstream service	Identify staff time allocated to the objective; from this, work out proportion of costs such as salaries and on-costs and calculate total direct costs.	Could be used as part of a Section 17 or Best Value review to identify, in broad terms, the contributions of different departments or services to crime reduction.	Yes – relatively easy
Identifying direct and indirect costs for a mainstream service	Follow process outlined above (for 'Identifying direct costs for a mainstream service') but then go on to identify indirect costs such as support services, accommodation, etc. In large organisations these costs are likely to be held centrally and will need to be disaggregated.	Identifying the 'true' cost of crime prevention and the different functions that go to make up the sum of crime prevention in an area will allow for crime reduction to be seen as a system and the priorities of the system to be identified.	Yes – but difficult

Cost the different types of input.

The following good practice points apply to all these approaches:

- Use a project plan or action plan as a starting point for identifying expected inputs. Be aware, however, that such a plan may not identify all of the indirect inputs for a project or service.
- If looking at a new project or a new initiative within a

mainstream service, don't forget to take into account 'start-up' inputs. These are all inputs required prior to, or in the initial stages of, implementation and might include the cost of undertaking a feasibility study or writing tenders.

- Maximum use should be made of existing data sources that can yield the information required or be modified to do so. New monitoring systems should be as consistent as possible with existing practices. Where

possible, design new monitoring systems so that they are of use to project or service staff in their own planning and monitoring – this should secure greater levels of co-operation.

- Where local agreement on the cost of personnel is difficult or politically sensitive, use national published figures for average personnel costs.
- Where capturing all actual costs in full is not possible, use sampling exercises to estimate inputs.
- Watch out for double counting.

## Identifying the cost of crime

**Table 2** outlines the different ways in which crime can be costed and the ways in which analysis of the costs of crime could be used.

There are two broad approaches to estimating the costs of crime in a local area:

- 1 Estimate the 'real' rate of crime in a local area and then apply figures for the costs of different types of crime that have been developed nationally (1).
- 2 Estimate the 'real' rate of crime in a local area and then identify the 'real' cost of crime in the local area (2 & 3).

All three approaches start with estimating the 'real' rate of crime in the local area, because it is generally accepted that police recorded crime figures represent an underestimate of crime rates. The best approach to follow is therefore to take local police recorded crime rates and apply a 'multiplier' to estimate the 'real' rate of crime.

Using figures developed through national research,<sup>3</sup> estimates of the costs of different types of crime can be applied to estimates of local levels of crime, to arrive at

**Table 2 Costing crime in a local area**

Approach	Description	Policy implications	Could it be done by a local partnership?
1 Estimating the costs of crime in a local area using existing, national research on the costs of crime	Select one or more types of crime. Estimate 'true' rates of crime by applying appropriate multiplier to recorded crime figures. Apply data on costs of crime drawn from national research such as recent Home Office work to estimate cost of crime.	Could be used during strategy development to identify priorities and to encourage the involvement of non-criminal justice agencies in crime prevention.  Could contribute to benchmarking with 'Partnership Families' for Best Value or crime audit.	Yes – relatively easy for volume crimes, following the Home Office publication <i>Economic and Social Costs of Crime</i>
2 Identifying the costs to mainstream services and projects of crime in a local area	Select one or more types of crime. Estimate true rates of crime by applying appropriate multiplier to recorded crime figures. Audit costs to mainstream services as described in Table 1. Combine the figures to show the costs of crime in local area.	As above, but with a greater degree of certainty and accuracy.  Could contribute to partners' mainstreaming projects, with savings accrued for jointly funded initiatives.	Yes – although quite difficult
3 Identifying the costs of crime in a local area	As above, but expand to cover costs in anticipation of, as a consequence of and in response to crime. Cover mainstream services, victims, the private sector, etc.	As above, but with the ability to make a strong case to individual agencies, communities and the private sector for their increased involvement in crime reduction.	No – would be extremely difficult both conceptually and in terms of resources

**Table 3 Different approaches to cost-effectiveness analysis**

<b>Approach</b>	<b>Description</b>	<b>Policy implications</b>	<b>Could it be done by a local partnership?</b>
Making a link between the predicted inputs of a specific project or mainstream service and its predicted output and outcome targets	Identify predicted inputs. Estimate likely impact (part of the target-setting process). Combine these to calculate predicted cost-effectiveness.	Could be used for basic policy appraisal in a funding bid or in the strategy development process.	Yes – relatively easy
Undertaking cost-effectiveness analysis for a community safety project	Measure and then value direct and indirect inputs. Evaluate project to ascertain crime reduction impact. Calculate cost-effectiveness.	Could be used to set future priorities and allocate future funds.  Would only be undertaken on flagship projects.	Yes – although difficult and resource-intensive because of need for a good evaluation
Undertaking cost-effectiveness analysis on mainstream service contributions to crime reduction	Identify and distinguish each intervention contributing to a particular strategic priority. Identify direct and indirect inputs for each contribution. Evaluate each contribution to ascertain crime reduction impact. Calculate cost-effectiveness.	Could be used to compare the cost-effectiveness of different organisations contributing to a particular strategic priority.  Could be used for a S17 / Best Value review of crime and disorder.	Probably no – the type of evaluation required to identify the impacts accruing from multiple interventions would be extremely complex and resource-intensive

estimates of the cost of crime in a local area (1). This approach is discussed in more detail below.

Attempting to ascertain the ‘real’ cost of crime (2 and 3) will be more difficult and resource-intensive. When such an exercise is undertaken it will be sensible to focus on the cost of crime to mainstream services (2). Estimating the costs incurred by victims (eg changes to quality of life, fear of crime) is extremely difficult and generally it is not advisable for local areas to attempt this type of research.<sup>4</sup>

Remember that any attempt at any type of cost analysis will require the setting of boundaries. For instance, how will crime and disorder be defined, which agencies will be included when looking at the cost of prevention? An obvious example of these problems is ‘disorder’ which will be defined in different ways by different agencies, making it difficult to measure rates of incidence and hence produce figures to base cost analysis on.

### Cost-effectiveness analysis

**Table 3** outlines the different ways in which cost-effectiveness analysis can be used.

The table makes a broad distinction between using cost-effectiveness analysis as method for policy appraisal (1) and using it as a form of review or evaluation (2 & 3).

The stages in undertaking cost-effectiveness analysis as a means of policy appraisal link closely to the routine processes of developing a project or a strategy:

- 1 Estimate total cost (direct and indirect inputs) of proposed intervention.
- 2 Estimate likely impact of intervention and set targets.
- 3 Use the above information to calculate likely cost-effectiveness of proposed intervention.

The stages in undertaking an evaluative piece of cost-effectiveness analysis are:<sup>5</sup>

- 1 Define intervention, its objectives and the mechanism through which inputs have led to impacts and outcomes.
- 2 Identify inputs.
- 3 Identify outputs and outcomes.
- 4 Set baselines to distinguish between additional inputs, outputs and outcomes, and those that would have occurred anyway.
- 5 Quantify inputs.
- 6 Quantify attributable outcomes.
- 7 Value inputs.
- 8 Compare input costs with outputs and outcomes to assess cost-effectiveness.

Undertaking evaluative cost-effectiveness and cost-benefit analysis will involve an element of evaluation in order to quantify the impact of the initiative in terms of the number of crimes prevented.

The following good practice points apply to all the approaches detailed in Table 3:

- For long-term measures where the impact upon crime or criminality will not be evident in the short term, it will be necessary to identify intermediate outcomes

#### **Example 1: A stylised example of cost-effectiveness analysis<sup>6</sup>**

Assume there are two burglary prevention interventions, B1 and B2 and let:

Cost B1 = £120,000

Cost B2 = £100,000

Outcome B1 = prevents 100 burglaries

Outcome of B2 = prevents 60 burglaries

Therefore:

The average cost per prevented burglary through B1 is £1,200 (£120,000/100) and the average cost of preventing one burglary through B2 is £1,667 (£100,000/60). Per prevented burglary, therefore, B1 is more cost-effective than B2.

that can be assessed. For instance, in a criminality reduction project in a secondary school the impact upon criminality might not be evident for three to five years but intermediate outcomes (such as a reduction in truancy, a reduction in bullying or increased educational attainment) can be measured in the shorter term and national research on the links between these risk factors and criminality used to extrapolate to the possible impact upon criminality.

- Evaluation design will have to take account of the possibility of displacement of crime and the diffusion of benefits. Both displacement and diffusion may occur between the intervention area and neighbouring areas (eg introduction of CCTV in one car park might make other car parks more vulnerable), but also between one type of crime and another (eg a reduction in burglary might be accompanied by a rise in street robbery), or between one time and another (eg the introduction of neighbourhood wardens might change the time at which crime occurs).
- There may be additionality of outcomes. In other words, any change in crime that is observed may be the product of a number of different factors, only one of which is the intervention in question. Also, the intervention in question may only have had an impact because of other unrelated interventions or background factors. One of the most difficult aspects of an impact evaluation is assessing to what degree outcomes can be attributed to the intervention under scrutiny as opposed to external influences. It will be necessary to demonstrate clear causal links between inputs, outputs and outcomes; this may involve complex qualitative and quantitative analysis involving extensive multi-variate analysis. Where appropriate a sensitivity analysis should be carried out which involves varying key parameters in the analysis to test how robust the results are. One such parameter is the assumption of how much of the observed outcomes can be attributed to the intervention. Varying assumptions about this level of attribution will give a range of estimates of outcomes and benefits. The level of flexibility of results provides a guide to how robust the findings are.

**Table 4 Approaches to cost-benefit analysis**

<b>Approach</b>	<b>Description</b>	<b>Policy implications</b>	<b>Could it be done by a local partnership?</b>
Undertaking cost-benefit analysis for a specific project using national research	Identify direct and indirect inputs. Evaluate project to ascertain crime reduction impact. Calculate cost of crimes reduced using standard costs of crime from recent Home Office research. Estimate cost-benefit ratios.	Could be used as an evaluative policy tool to ascertain whether resource allocations made in the past delivered net savings.  Could be used to evaluate flagship projects.	Yes
Undertaking cost-benefit analysis for a specific project using locally-estimated costs of crime	As (1) but using data gathered from services and victims to estimate the cost of crime and calculate cost-benefit ratio.	As above but with more accuracy and certainty.	Probably no – identifying local costs of crime would be extremely difficult
Undertaking cost-benefit analysis of different mainstream service contributions to a particular strategic priority using national research	As (1) but with the addition of identifying and costing the input of a mainstream service provider.	An evaluative policy tool to be used when developing new strategies and deciding new priorities.	Probably no
Undertaking cost-benefit analysis of different mainstream service contributions to a particular strategic priority using locally-estimated costs of crime	As (2), but with the addition of identifying and costing the input of a mainstream service provider.	As above but with more accuracy and certainty.	No

### Cost-benefit analysis

Table 4 outlines the different ways in which cost-benefit analysis can be used. These approaches build on the approaches outlined above.

Table 4 builds on distinctions made in the tables above and makes distinctions between:

- using national research to calculate the costs of crime (1 & 3) and calculating the cost of crime locally (2 & 4)
- undertaking cost-benefit analysis on a crime reduction project (1 & 2) and on elements of a mainstream service (3 & 4)

Broadly speaking the approach to cost-benefit analysis is as follows:<sup>7</sup>

- 1 Define intervention, its objectives and the mechanism through which inputs have led to impacts and outcomes.
- 2 Identify inputs.
- 3 Identify outputs and outcomes.
- 4 Quantify inputs.
- 5 Set baselines.
- 6 Quantify attributable outcomes.
- 7 Value inputs.
- 8 Compare input costs with outputs and outcomes.
- 9 Value outcomes.
- 10 Compare costs with benefits.

### Example 2: A stylised example of cost-benefit analysis<sup>8</sup>

Using **Example 1** and assuming that the average cost to society of a single burglary equals £1,500, then for intervention B1:

Input cost = £120,000

Outcome quantity = 100 burglaries prevented

Outcome value (benefit) = 100 x £1,500 = £150,000

Therefore:

Benefit/cost ratio: £150,000/£120,000 = 1.25:1

Net economic benefit: £150,000 - £120,000 = £30,000

For B1 benefits outweigh costs by £30,000.

## Using cost analysis in crime and disorder auditing

The Home Office (2000) has published details of research in which the costs of different types of crime are estimated and an indication of the distribution of these costs across different agencies is given. Now that this information is available all partnerships should be able to make some simple estimates of the cost of crime in their partnership area (see **Table 2**). The key stages will be as follows:

- 1 Gather up-to-date police recorded crime data.
- 2 Estimate the 'real' rate of crime by using range of national and local sources of crime data to apply 'multipliers' to police recorded crime.
- 3 Use the Home Office unit costs for different types of crime to estimate the costs of particular types of crime in the partnership area.
- 4 Use the Home Office apportionment of the costs of crime across different agencies to estimate how much different types of crime cost different partners.

It is important to recognise the limitations of this exercise. Some of the main limitations are:<sup>9</sup>

- Different crimes within the offence categories used by the Home Office will have vastly different costs.
- Average cost estimates provided by the Home Office are imprecise because the information available to Home Office researchers was incomplete.
- The costs of an identical crime may be different for different social, economic and geographic groups.
- Some crimes have been costed by the Home Office more accurately than others and some types of crime are not costed at all.

Nevertheless, the exercise is useful because:

- It provides a starting-point for more detailed work on the costs of crime as it highlights gaps in local information.
- The process is a useful tool for engaging partners who are unclear about their role.
- The figures produced, if used responsibly, will stimulate public debate on crime.
- The figures produced will provide a useful

'counterpoint' to the development of strategic priorities based on the volume of crime rather than its impact.

### Using multipliers to estimate the 'real' rate of crime

It is necessary to apply multipliers to police recorded crime figures because it is generally accepted that police recorded crime figures represent an underestimate of crime rates. The British Crime Survey (BCS) suggests that approximately three-quarters of crime is either unreported or unrecorded. The best approach to follow is therefore to take local police recorded crime rates and apply a 'multiplier' to estimate the 'real' rate of crime. The BCS will often be the best source of multipliers. However:

- The levels of reporting to the BCS vary according to offence type. It probably underestimates levels of some types of crime such as sexual offences and domestic violence.
- The BCS does not cover all types of crime and disorder. For instance, it does not cover crime against businesses and handling stolen goods.

It will therefore be necessary to use a range of multipliers, some taken from the BCS, some taken from other national and local pieces of research, and some based on expert opinion. As a starting-point, partnerships are advised to use the set of multipliers developed by the Home Office for their work on *The Social and Economic Costs of Crime*.<sup>10</sup>

### Applying Home Office cost figures

The Home Office provide both unit costs for different types of crime and indicate how costs are distributed across different agencies. It is therefore possible to both

estimate the cost of burglary in a partnership area and estimate how this total cost is apportioned between agencies. All estimates are subject to the limitations outlined above and this should be clearly stated in all published documents.

### Using cost analysis when developing crime reduction strategies

Cost analysis can be used in different ways during the strategy development process, including:

- comparing different initiatives during an options appraisal exercise
- laying down parameters for target setting
- using sensitivity analysis to examine the uncertainties associated with using cost analysis in the strategy development process

### Comparing different initiatives

Cost analysis provides a mechanism for comparing different initiatives with broadly similar objectives.

#### Example 3: Comparing different initiatives

- B1 will cost £200,000 to implement and will prevent 75 burglaries at a cost of £2,666 per burglary.
- B2 will cost £75,000 and will prevent 30 burglaries at a cost of £2,500 per burglary.

B2 is therefore more cost-effective.

## Laying down parameters for target-setting

If a partnership has estimated the cost of a type of crime and is able accurately to assess the inputs required to run a project or initiative, this information can be used to lay down some parameters for the target-setting process.

### Example 4: Setting targets

- B1 will cost £200,000 to implement.
- A burglary costs the partnership £2,300.

The project therefore needs to prevent a minimum of 87 burglaries to give a net economic benefit; a reduction of 87 burglaries should be the minimum target for the project. An examination of the 'what works' evidence and evidence of local past performance will suggest whether this is a realistic target. Any such exercise should also be subject to sensitivity analysis to explore how robust the figures are likely to be.

## Sensitivity analysis

Using cost analysis as a tool to develop crime reduction strategies involves uncertainty because many of the figures used will be based on estimates of varying degrees of reliability. If cost analysis is to be used, therefore, sensitivity analysis should be used to test how robust the results are. This involves varying key parameters used in the analysis to see how robust the estimates are. In other words: what is the 'margin for error'?

### Example 5: Sensitivity analysis<sup>11</sup>

Consider an intervention that costs £10,000 and suppose outcomes are valued at £50,000.

Total Benefit (£)	50,000	50,000	50,000
Percentage of impact attributable to intervention	100	60	10
Benefit of intervention (£)	50,000	30,000	5,000
Benefit/cost ratio	5:1	3:1	0.5:1

The net economic benefit varies between £40,000 (with all observed benefit attributed to intervention) and -£5,000 (with only 10 per cent of observed benefit attributed to intervention). We need to be able to say with confidence that at least 20 per cent of the observed impact is attributable to the intervention to be confident that the project will at least 'break even' in benefit/cost ratio terms. In reality, of course, the calculation would be more complex as the relative impact associated with fixed and variable inputs over different lengths of time would have to be taken into account.

## Cost analysis in action

### Research

There is a range of research available on cost analysis in crime reduction work. The main point of interest for practitioners will be the methodologies used, the obstacles identified and the solutions suggested, rather than the actual figures generated. Some of the more easily accessible literature is:

- Possibly the most useful study for practitioners will be Shapland's (2000) account of auditing criminal justice in Milton Keynes. The audit was designed to identify the cost of local agency's contributions to the criminal justice system and recognised that many agencies would make some contribution, even if the support of the criminal justice system was not their primary role. It was therefore necessary to identify the personnel involved in the criminal justice system and ascertain the actual costs of those personnel. It was found that each functional unit of an organisation was likely to be a cost centre and that this facilitated matching up 'direct' spend such as salaries with personnel and their functions. However, while the identification of direct costs was relatively straightforward, the increasing centralisation of purchasing, fleet management and buildings management meant that 'indirect' costs such as support services and premises were costed separately at an organisational level and were difficult to link to those individuals identified as contributing to the criminal justice system.
- Welsh and Farrington (1999) review thirteen situational crime prevention projects and initiatives. Most of the initiatives focus on either burglary or vandalism and the study is inconclusive about what works most cost-effectively to reduce crime.
- Graham (1998) examines initiatives designed to prevent criminality by targeting young people. As part of his overview of the literature, he examines the cost-effectiveness of criminality prevention and compares the cost-benefit ratios of a number of projects, the most well-known being the High/Scope Perry Preschool intervention.
- Eklom *et al.* (1996) report on a major evaluation of domestic burglary reduction schemes during the first phase of Safer Cities programme projects. The study includes an economic analysis that will be particularly interesting to practitioners because of its attempts to take account of the relationship between risk of victimisation and accrual of benefits from reduction initiatives.

### Practice from the field: Ealing

Ealing has had community safety strategies since 1991. Resourcing of initiatives has evolved since then, commencing with an initial allocation of £4,500 in 1992, and currently stands at a revenue budget of £50,000. This incremental approach was adopted as part of a wider strategy to engender partner support both from services provided within the local authority and externally. A constant and regular review of progress against measurable outputs was adopted in 1992. This process was also linked to the councils Corporate Plan and departmental business planning processes.

A key factor identified through this process was the range of disparate initiatives with areas of overlap and duplication. The added value of any additional centrally-funded and centrally-led community safety initiatives to those already being provided by partners or departmental services needed to be justified.

Following the completion of the 1993-98 strategy and in preparation for the requirements presented through the Crime and Disorder Act, therefore, Ealing undertook in 1998 to cost out all its community safety work. This process was designed as a precursor to further work planned to measure the cost efficiency of community safety-related actions, as opposed to more detailed cost benefit analysis. One of the focuses of Ealing's work was to cost youth crime prevention.

The Principal Community Safety Manager at Ealing was aware that a range of initiatives on tackling youth crime was being implemented in the borough. This included: estate-based work through the Housing Department; youth workers; a Police Junior Citizens scheme; a Summer Action scheme; a multi-agency diversion project; and mentoring and parenting projects.

In 1999 a new strategy to tackle youth crime was developed and formed part of the wider 'Operational Plan' for the first-year of the new three year strategy, which contained 76 initiatives. A critical path analysis was undertaken for each of these initiatives and partner agencies and lead responsibility identified. Partner agencies agreed a staffing input formula: the mean level of staffing input for each action was agreed, all hidden costs were identified and a standard hourly rate to apply to all work was agreed. The formula was applied and added to budgetary allocations that had been secured to deliver all 76 initiatives. This resulted in a total cost of more than £4 million to deliver the first year 'Operational

Plan'.

The benefits of this approach were that:

- It encouraged better ownership of the strategy and action plan by partners.
- It generated momentum and provided information to start assessing cost effectiveness/cost benefit analysis.
- It provided the long-term potential to pool savings.

Its disadvantages were that:

- The initial set-up work was time-consuming.
- The adoption of an hourly rate for staff from all agencies and at all levels within agencies reduced the accuracy of resulting cost figures.

Contact: Usha Choli (t 020 7271 8390) for the historical context and establishment of model.

or Susan Parsonage (t 020 8280 1384) on implementation and sustainability issues.

### Practice from the field: Kensington and Chelsea

Kensington and Chelsea undertook a costing exercise when preparing the action plans to accompany their 1999 Programme of Action to reduce crime and disorder. The team used the MPS 'ready reckoner' to ascertain cost per hour of different grades of staff. These costs included salaries and 'on-costs' such as National Insurance and pensions. Indirect costs such as accommodation were not included. Each crime reduction initiative was broken down into specific tasks. Estimates of the number of hours taken to perform each task and the type of staff who would complete the task were made. The figures contained in the 'ready reckoners' were then applied to these estimates to arrive at estimated costs for different elements of the Action Plans.

This work is ongoing and Kensington and Chelsea are currently costing out different crime themes.

Contact: Caroline O'Donoghue (t 020 7795 6660; e Caroline.O'Donoghue@rbkc.gov.uk).

### Conclusion: The implications of cost analysis work

Cost-effectiveness and cost-benefit analysis have complex policy implications. Cost-effectiveness and cost-benefit analysis make it possible to calculate the relative cost of different interventions and the overall benefits accrued or savings made by a particular intervention. However, this raises difficult questions about what should be done with this information.

Although cost analysis allows partnerships to put a cost on the prevention of each crime, it does not follow that the organisation or project that has brought about that reduction and made the saving will actually accrue a **realisable** benefit. There are two problems:

- 1 The benefit may accrue to a different organisation. For instance, if the local Youth Service runs a successful Summer Youth Club, the Fire Service might make savings because of a reduction in incidents of arson. This will raise issues that will test the true extent of partnership working.
- 2 Most of an organisation's costs will be tied to fixed costs such as personnel and accommodation, so that any reduction in crime would have to be large and sustained before it was possible to reduce staff numbers and realise savings. Therefore any cost analysis must pay careful attention to the allocation of fixed and variable costs and the calculation of marginal costs.

Many partnerships have focused primarily on volume crimes when setting strategic priorities. Analysis of the costs of crime will encourage partnerships to give greater consideration to the impact of crime. Cost analysis will often show that crimes of the greatest volume (often property crimes) have less combined impact than some lower volume crimes such as violent and sexual offences. This may force partnerships to revisit and revise the overarching aims and values which shape their crime reduction response.

Including information on the cost of crime in audits and strategies, even if only in the form of estimates based on national research, will pose new communications challenges for partners as they seek to inform local debate on crime reduction without increasing fear of crime.

## Footnotes

1 Audit Commission (1998)

2 Section 17 of the Crime and Disorder Act 1998 requires that local authorities and police authorities address the crime and disorder implications of all their functions.

3 eg Home Office (2000b)

4 See Home Office (2000b) pp 19-30 for a discussion of the difficulties associated with estimating costs incurred by individual victims of crime.

5 Based on Home Office (1999)

6 Taken from Home Office (1999)

7 Based on Home Office (1999)

8 Based on Home Office (1999)

9 Taken mainly from Home Office (2000b)

10 Home Office (2000b)

11 Based on Home Office (1999)

12 'Direct costs' are often referred to as just those costs relating specifically to a product or service, which often equates to little more than materials. Costs such as personnel are taken to be indirect costs. However, such a definition would not be helpful in the field of crime reduction as personnel costs will normally account for the bulk of costs incurred, meaning that virtually all costs would be classed as indirect costs.

## Glossary

### Mainstream provision and community safety projects

It is important to distinguish between community safety as part of mainstream provision and community safety delivered in a project setting. This distinction will be important when costing crime reduction work as it will generally be easier to cost project work than mainstream work.

#### Community safety as part of mainstream service provision

Community safety can be delivered as part of a mainstream service provided by an organisation such as a local authority. In this case, crime or disorder reduction will be only one aspect (and often a subsidiary one) of a service whose primary goal is not crime or disorder reduction. Community safety delivered as part of a mainstream service provision can be usefully distinguished from community safety projects for the purposes of cost analysis – although the principles of doing cost analysis in both cases are the same, the practical implications of gathering the relevant information will be markedly different. Costing inputs into community safety where the crime reduction outcome is being delivered as part of a mainstream service will be difficult because of the need to:

- understand which objectives of the service have a crime reduction facet
- understand the mechanisms via which a service has an impact upon community safety
- identify the elements of the service that have a crime reduction impact
- identify the direct costs such as personnel where only a proportion of different personnel's role is relevant to crime reduction
- identify and disaggregate the indirect costs such as capital costs and office accommodation which may be incurred by centralised purchasing or estates departments rather than the specific department providing the service

#### Community safety project

Community safety can also be delivered via a 'stand-alone' community safety project. For the purposes of this briefing, a project is defined as an undertaking where:

- The main objectives are the delivery of crime or disorder reduction.
- Goals are relatively short-term (ie one to three years).
- There is an identifiable 'ring-fenced' budget.
- Staff resources are clearly identifiable as belonging to the project.

Projects will often be developed in response to specific, time-limited funding opportunities.

#### Inputs

Inputs are any additional human, physical and financial resources that are used to undertake a project or initiative. Personnel, training, equipment, premises, transport, voluntary input, levered-in-costs and indirect resources (eg the benefit of being in a Health Action Zone (HAZ) or Excellence in Cities area) could all be inputs. It is important to distinguish between direct and indirect inputs. When costing crime reduction work, it will generally be easier to identify direct costs than to identify indirect costs.

There is no precise definition of **direct inputs**/costs, but for the purposes of this guidance they refer to the costs of personnel (plus on-costs) and materials used.<sup>12</sup> The direct costs of a 'locks and bolts' burglary prevention project, for instance, might be the salaries and on-costs of the project co-ordinator, the project administrator, and the joiner and electrician upgrading household security, together with the cost of office supplies and the hardware installed to upgrade householder's security.

There is no precise definition of **indirect inputs**/costs, but for the purpose of this briefing they refer to support costs, accommodation costs, voluntary input, levered-in resources and indirect resources that accrue from sharing in the benefits or building upon the work of other initiatives such as a HAZ or Excellence in Cities. For a 'locks and bolts' burglary prevention project, indirect resources could include the use of office accommodation in a local police station or the use of local volunteers to assist with the installation of security hardware.

## Outputs and outcomes

It is important to distinguish between outputs and outcomes:

**Outputs** are defined narrowly as direct products of the process of implementation. They arise only during the implementation period. The outputs of a burglary reduction project might be the number of locks fitted or the number of alarms installed. The outputs of a youth diversion project might be the number of young people using the project or the number of activities run.

**Outcomes** are the consequences of an intervention. They can arise during and after an intervention. The outcome of a burglary reduction project might be the number of burglaries prevented. The outcome of a youth diversion project might be a reduction in the number of 16 to 18 year olds convicted of an offence.

## Costs

Costs can be defined in a number of specific ways.

**Costs** are the monetary value of inputs.

The **average cost** per output/outcome provides a measure of the overall return to an intervention. This can be used for comparing the cost-effectiveness of different interventions.

**Fixed costs** do not vary with the service or project's output in the short term. Thus, the cost will remain constant regardless of the volume of output. For example, if in a youth diversion project, one youth worker can work with up to 10 young people, the cost of salaries will not change if the project's output increases from working with 17 young people to working with 19 young people. In this situation, salaries are a fixed cost for the project.

Unlike fixed costs, **variable costs** vary in relation to the service or project's output. An example of a variable cost might be the cost of temporary staff who are used to respond to sudden or temporary changes in output.

**Marginal costs** are the extra spending required to achieve one extra unit of output or outcome. Only those inputs that are required to achieve that extra outcome are included. Fixed costs (eg premises) are excluded unless they are required to achieve this extra unit of outcome.

**Benefits** are the value of outcomes expressed in monetary terms.

## Cost-effectiveness and cost-benefit analysis

Sometimes practitioners do not make a clear distinction between cost-effectiveness analysis and cost-benefit analysis. It is important to do so because they involve different types of analysis and hence require different types of data.

**Cost-effectiveness analysis** compares alternative cost streams that produce broadly similar outputs or outcomes. They are expressed as the input cost per unit of output or outcome achieved. A measure of cost-effectiveness in a youth diversion project might be the cost per offender attending a literacy programme (cost per output). A measure of cost effectiveness in a burglary reduction project might be the cost per burglary prevented (cost per outcome).

**Cost-benefit analysis** goes a step further than cost-effectiveness analysis by attaching monetary values to the outcomes of an intervention. The value of the outcomes (benefits) is divided by input costs.

Cost-effectiveness and cost-benefit analysis can be used at the strategy development stage for policy appraisal. They can also be used later on to evaluate the effectiveness of a strategy.

**Policy appraisal** is forward-looking. Cost analysis can be used to undertake policy appraisal in the form of an options appraisal by looking at the value of likely benefits from implementing alternative policy proposals. These are weighed up against likely costs of implementation in order to be able to distinguish between different proposed initiatives.

**Policy evaluation** is backward-looking. Cost analysis can be used to identify the size and value of the benefits that have accrued from a particular policy.

## Bibliography and further reading

Audit Commission (1999) **Safety in Numbers**, Audit Commission

Bean, J and Hussey, L (1996) **Costing and Pricing Public Sector Services**, HB Publications

Ekblom *et al.* (1996) **Domestic Burglary Schemes in the Safer Cities Programme**, Home Office Research and Statistics Directorate  
[www.homeoffice.gov.uk/rds/pdfs/r42.pdf](http://www.homeoffice.gov.uk/rds/pdfs/r42.pdf)

Fielding, NG, Clarke, A and Witt, R (2000) **The Economic Dimensions of Crime**, Macmillan

Graham, J (1998) **What Works in Preventing Criminality** (Home Office Research Study 187), Home Office

Home Office (1999) **Analysis of Costs and Benefits:**

**Guidance for Evaluators** (Crime Reduction Guidance Note 1), Home Office

[www.homeoffice.gov.uk/rds/pdfs/cdp1costeff.pdf](http://www.homeoffice.gov.uk/rds/pdfs/cdp1costeff.pdf)

Home Office (2000a) **Measuring Inputs: Guidance for Evaluators** (Crime Reduction Guidance Note 3), Home Office

Home Office (2000b) **The Economic and Social Costs of Crime** (Home Office Research Study 217), Home Office

Shapland, J (2000) 'Auditing Criminal Justice' in Fielding *et al.* (eds) **The Economic Dimensions of Crime**

Welsh, BC and Farrington, DP (1999) 'Value for Money: A Review of the Costs and Benefits of Situational Crime Prevention', in **The British Journal of Criminology** VI. 39, No. 3, p. 345