

Knowledge ...

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Is it worth it? Assessing value for money in a crime reduction intervention¹

- This briefing is for practitioners involved in planning and implementing crime reduction initiatives at a local level who want to assess whether such initiatives provide value for money.
- Public funds are scarce. Overall, public spending must be justified as providing value for money to tax payers. Nationally and locally, informed choices must be made between spending on one set of initiatives rather than another.
- Cost-benefit analysis is a tried and tested method for assessing whether the benefits realised from a project outweigh the cost of the inputs invested. Despite this, few such studies have been undertaken in the crime reduction arena compared with other parts of the public sector.
- This paper presents an example of the practical application of cost-benefit analysis to a pilot burglary reduction project in Liverpool. A process for identifying and valuing inputs and outputs is provided, together with results from the pilot.
- Although valuable, cost-benefit analysis can be a demanding task, requiring burdensome data collection and difficult methods to estimate the inputs and outcomes of the intervention. Time and resources must be planned for this process and decisions made about the added value of such analysis.
- The lessons learned are of value to those involved in similar studies elsewhere and are applicable to other social policy interventions, not just those directed at reducing crime.

Introduction

Why assess value for money?

Good evaluation of an initiative should answer four principal questions¹:

- **Should it work?** Is there a theory behind the intervention which supports the case for piloting?
- **Can it work?** How is the intervention implemented in terms of the operational processes employed and the management and partnership structures and does this enhance or reduce its potential effectiveness?
- **Does it work?** What evidence is there that outcomes have been affected as a result of the intervention and can this be quantified in a rigorous and unbiased way?
- **Is it worth it?** What do we know about the direct, indirect and levered-in costs of the intervention and how does this compare with funding levels, alternative strategies and, where possible, the value to the public purse and to wider society of the benefits delivered?

This paper addresses the question – Is it worth it?

About this paper

For complex interventions and where benefits are difficult to evaluate, specialist skills are generally required to undertake cost-benefit analysis. However, it is possible for practitioners to follow a model, such as the one developed for the Liverpool burglary reduction initiative, to gain insight into the value for money question and hence inform local choices.

This paper presents an example of the practical application of a cost-benefit analysis to a crime reduction project in Liverpool, which comprises a number of interventions. It was one of 63 Strategic Development Projects (SDPs) across the country, which were set up in the initial phase of the Reducing Burglary Initiative (RBI). The initiative was part of the Crime Reduction Programme (CRP) launched in 1998. £60,000 was allocated to each of the SDPs to contribute towards the funding of interventions, once Local Crime and Disorder Partnerships had pinpointed areas with crime levels at least double the national average. Some CRP funding was earmarked to pay for the evaluation of these schemes, including working out their costs and benefits.

Each SDP encompasses a range of interventions. Actions taken in the Liverpool SDP included improving physical security measures (such as door chains and window locks) for residents of households which met the vulnerability criteria identified by the SDP; installing lockable, hard-wearing gates in alleyways at the rear of properties to increase security; using a chemical solution to mark property of residents in the target area, to assist in recovery of stolen property by the police and to prevent burglary; and, offender-based interventions.

Six key stages of economic analysis were followed by the team who evaluated the Liverpool RBI, based on guidance published by the Home Office².

Key stages in a cost-benefit analysis of a crime reduction intervention

- assess the tasks required to deliver the intervention
- identify the types of inputs or resources involved in these tasks
- quantify the inputs (e.g. staff time, number of locks)
- assess the value of the inputs (e.g. salary costs, equipment costs)
- assess the value of the project outcomes in terms of the impact on crime (e.g. using Home Office estimates of the costs of crime)
- analyse the potential costs and benefits of the intervention

The work undertaken in Liverpool illustrates some of the ways in which these stages can be followed.

Assessing tasks, identifying and quantifying inputs

First, the tasks involved in delivering the project were identified, such as the fitting of locks, additional policing and meetings. The resources used to deliver the project were recorded under seven headings: personnel, training, equipment, premises, transport, advertising and publicity and other overheads. The process was guided by the principle of replication — in other words, would a certain input be required to replicate the intervention in another setting? This meant that inputs from other agencies (e.g. police, local authority) were also identified, as well as those paid for by the RBI.

The information was gathered through interviews and self-reporting by staff involved in the project.

Staff time is normally the most important element of costs and is the most difficult to estimate and to monitor. It is worth taking time during project planning to estimate staff time requirements so as not to under-estimate the costs. It is also important to set up monitoring systems, proportionate to the scale of the resources required, to ensure input data capture is as complete as practicably possible. For the Liverpool pilot, some staff kept diaries of what they did and how long it took. Where possible, information was cross-checked between individuals for validation purposes.

Ideally, resources should be identified throughout the project, but this was not always possible in this case. Therefore some data was collected retrospectively by researchers. This relied on the ability of staff to recall specific details and so was less accurate than if this information had been recorded as tasks were conducted.

A key lesson learnt from this case study is that there are practical constraints to the data collection process. Although it was felt that input cost data was generally reliable, staff often had to estimate the quantities used of other overheads, such as

printer cartridges. Similarly, it was difficult to ascertain what training undertaken was specifically required for the project.

Assessing the value of inputs

Local costs were used to work out how much the resources cost and, when this information was not available, standard national average values were applied. Resources that were not directly funded by the RBI were also valued, such as the economic or opportunity cost of using resources that would have been used otherwise had the intervention not been in place (e.g. the wages of a police constable who worked on the SDP who would otherwise have been undertaking general police duties). The time spent by volunteers was valued at the cost of a paid worker and when this was not possible the minimum wage was applied. On-costs of personnel (e.g. pension, indirect overheads) were also included.

Obtaining this information was a burden in some instances and so data was not always gathered if its value was relatively small in comparison to the time or difficulty involved in its collection. In such cases, the value was calculated by using national costs or estimates/judgements.

Assessing the impact on crime

Evaluating the outcomes of the Liverpool RBI involved a consideration of the three ways in which crime could have been impacted by the intervention:

- burglary rates in the area targeted by the intervention (it was hoped that these would be reduced);
- the geographical displacement of burglary into neighbouring areas; and
- other crimes in the area (possible crime switch)

Calculating initiative outcomes

The outcomes of the scheme were calculated by researchers at the University of Liverpool. They analysed burglary data for the specific properties involved in the intervention, to compare the burglaries in the properties before and after the intervention took place. They also carried out a before and after analysis of the change in crime in the SDP area in comparison with a reference area. As it is not possible to distinguish between the impact of the intervention on crime and other random or non-random changes, estimates of the numbers of burglaries saved were calculated within a range: a high, medium and low estimate. This was compared to the individual property figures and it was found that the results were similar. Details of the specific methods used can be found in Bowers, Johnson and Hirschfield (2003). *Pushing back the boundaries: new techniques for assessing the impact of burglary schemes*, Home Office Online Report 24/04.³

The researchers tried to distinguish the impact of different aspects of the intervention. However, since these were in the main applied to the same households over the same period of time, it proved too difficult to isolate the relative contribution of each aspect.

Assessing the value of the outcomes

The value to society of preventing these burglaries was calculated using Home Office guidance on the economic and social costs of crime⁴ summarised in the box below.

Economic and social costs of crime

Data has been published by the Home Office on the costs of dealing with crime, in recognition that:

*Cost of crime estimates can play an important role in helping the government to achieve the greatest impact on crime for the money spent... They can help us to prioritise, focusing scarce resources on policies that have the biggest impact on harm caused by crime, rather than simply the number of crimes.*⁴

These costs comprise a number of important components:

- Costs incurred in anticipation of crime, these include:
 - security
 - insurance (administration)
- Costs incurred as a consequence of crime, these include:
 - value of property stolen and damaged
 - emotional and physical impact on victims
 - lost output
 - victim services
 - health services
- Costs incurred in response to crime, namely
 - criminal justice system

Analysing the potential costs and benefits of the intervention

The values of costs and benefits were modelled over time to assess the overall costs and benefits. This took into account changes in prices due to inflation. It also adjusted costs and benefits to a common point in time, to allow for the effect of

References

- 1 Based on the three concepts for testing healthcare interventions defined by Archie Cochrane (Cochrane A. L. (1972). *Effectiveness and efficiency: random reflection on health services*. London: Nuffield Provincial Hospitals Trust) in Haynes B. (1999). *Can it work? Does it work? Is it worth it? The testing of healthcare interventions is evolving*. BMJ; 319: 652-653.
- 2 Home Office (1999). *Analysis of costs and benefits: guidance for evaluators*. London: Home Office.
- 3 Bowers, Johnson and Hirschfield (2003). *Pushing back the boundaries: new techniques for assessing the impact of burglary schemes*. Home Office Online Report 24/04.
- 4 Home Office (2000). *The economic and social costs of crime*. London: Home Office

differences in timing (i.e. £1 today is worth more to society than the promise of £1 in the future), using an HM Treasury public sector test discount rate.

Two calculations were employed at this final stage in the cost-benefit analysis process which go towards answering the ultimate question – Is it worth it?

- the minimum break-even rate: e.g. how many burglaries would need to be saved for the intervention to have been beneficial?
- the overall economic benefit of the project

Although evaluators were not able to measure the effects of displacement of crimes to nearby areas and the switch of offending to other crime types, they were able to work out how much displacement and crime switch would have to occur in order for the intervention to be cost-neutral.

Difficulties encountered at this stage, which might also occur in evaluations elsewhere, include:

- **project timescales:** many RBI interventions were not completed to schedule and, as the evaluation had a set timescale, it was necessary to evaluate a project that was not yet fully implemented;

- **short-term versus long-term effects:** as there was a set timescale for the evaluation, it was not possible to look at the long-term costs and benefits of the intervention. Nor was it possible to consider the sustainability and the rate at which benefits may start to reduce;
- **different types of interventions:** this evaluation was of situation-based initiatives, but initiatives based on the offender would require a much broader evaluation over a longer period;
- **unrecorded crime:** the analysis of the outcomes is based on recorded crime and so the effect of the intervention on unrecorded crime has not been measured.

Other difficulties included assessing the impact of displaced resources (for activities that would have happened anyway or redeployed from other work); estimating the cost of replication in areas where lessons will have been learnt from the issues raised in the pilot; and the fact that the evaluation was small-scale and so the evaluators cannot be conclusive about impacts if the intervention was rolled out on a larger scale.

Was the Liverpool SDP value for money?

The three interventions (excluding the offender-based scheme) are estimated to have delivered benefits of between £1.29 and £1.47 for every £1 spent, when considered against the estimated saving in burglaries for households directly affected. The offender-based scheme cost nearly ten times the amount of the other interventions and so, of all the interventions, would require the most burglaries to be prevented to be value for money. It was not possible to identify the benefits of this scheme within the evaluation timeframes.

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