



Measuring Preventative Spend

Cost Benefit Worked Example 3 – Mountain Rescue

The following worked example uses fictional data and information to assess the cost-benefit of a mountain rescue preventative initiative

This was developed to assist the 'Funding and Application' training delivered in 2013 by SCSN, and is based on fictional data about mountain rescue to illustrate how the cost-benefit of a preventative spend initiative could be calculated.

Background

A recent increase in the number of emergency mountain rescue call outs prompted the local Community Safety Partnership (CSP) to develop a preventative initiative focused on improving safety on the mountains by increasing users' knowledge of safe practices with the aim of reducing casualties on the mountains and reducing emergency call outs.

The cost-benefit for the initiative is calculated below.

Step 1 - Cost Calculations

Using the costs from the online SCSN toolkit, a sample of mountain call outs for one year were assessed to determine an average cost-per-callout. Some of these costs may not be present in each case; however one should seek to calculate the average cost of a case based on a range of cases. The calculation shown here is a shortened example.

Case No.	Mountain Rescue Team call out (£)	Police response (£)	Air Ambulance call out (£)	Ambulance call out (£)	A&E attendance (£)	Surgical inpatient stay (£)	Physiotherapy session (£)	Total (£)
<i>UNIT COST</i>	2857	580	2000	244	104	3138	41	-
1	2857	580	2000	n/a	104	3138	1066 (26 sessions @£41 each)	9745
2	2857	580	n/a	244	104	n/a	41	3826
3	2857	580	n/a	n/a	104	n/a	n/a	3541
4	2857	580	n/a	n/a	104	n/a	41	3582
5	2857	580	2000	n/a	104	3138	2132 (52 sessions @£41 each)	10811
AVERAGE COST								6301



The average cost of a mountain rescue call out is **£6301**.

Based on the average cost of a case, mountain rescue call outs in 2011 cost:

$$\text{Average cost (£6301) X No. of cases (28) = Total cost in 2011 (£176,428)}$$

This doesn't include additional impact such as non-attendance at work or the cost of any longer-term health consequences, but goes some way to indicate costs involved in community safety issues and short-term health issues.

During 2013, following the initiative there have been 14 mountain rescue call outs i.e. a cost of **£88,214**.

Step 2 – The costs of the initiative

The initiative cost £2,500.

Step 3 – The benefits

To calculate the savings use the following calculation (based on the assumption of the same number of mountain rescue call outs in 2013 if the initiative hadn't gone ahead).

$$\text{Pre-initiative cost (£176,248) – Post-initiative cost (£88,214) = Gross savings of £88,034}$$

$$\text{- Initiative cost (£2,500) = Net savings of £85,534}$$

The Cost benefit ratio can be calculated by dividing the savings by the initiative cost:

For every £1 spent on the initiative there were savings of £34 (£85,534 net savings / £2,500 initiative cost)

$$\text{Cost benefit ratio = £1: £34}$$

Cost Benefit Information

Worked Example	Mountain Rescue
Category / Topic	Emergency Call Outs
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