

Ardwick Pilot – Cost Benefit Analysis

3 October 2011

The Cost Benefit Analysis examined evidence on three interventions delivered as part of the Ardwick Pilot from September 2010 to August 2011

- The Family Intervention Project (FIP)
- Minor Illness Clinic (MIC)
- Children and Parents Service (CAPS) – Outreach and Courses

The analysis takes the form of an *ex post* evaluation, by examining the costs and benefits of what has actually been delivered during the evaluation period. As such, it should be noted that for programmes that were newly started at the beginning of the evaluation period, the results of the analyses will reflect any delay in the realisation of benefits due to “start-up time”. For the most part, this is an “as is” evaluation and no allowance has been made for any time-lag in the full realisation of relevant benefits.

Benefits are identified in the form of the cost savings that are made by improving outcomes for participants.

The analyses are based on costs and outcomes data provided by the relevant programmes. Modelling of the data has been conducted in accordance with the guidelines and principles set out in the *Greater Manchester Cost Benefit Analysis: Technical Specification* (January 2011, Commission for the New Economy).

The analyses are subject to revision as some sources are investigated further. As such, the findings should be regarded as provisional. However, it is not anticipated that future amendments will affect the broad conclusions set out below.

Family Intervention Project (FIP)

For the purposes of this analysis, outcomes were measured from the 13 families that were anticipated to have completed the FIP during the evaluation period. However, two families left the programme early and two left Manchester following completion. In the latter case, it should be noted that while the benefits of the programme are included in this analysis, they will accrue to other local authority areas. Costs were scaled down proportionately to ensure that only the costs of delivering the programme to these 13 families were included in the analysis.

Outcomes measured were those that resulted in cost savings due to:

- Improved mental health
- Reduced unnecessary A&E visits
- Improved parental work readiness
- Reduced incidence of domestic violence
- Reduced housing evictions

- Reduced incidence of children taken into LA care
- Reduced drug dependency
- Reduced alcohol dependency
- Reduced ASB (data not currently available)

The total costs of delivering the programme to the 13 families amounted to £161,387 and the five year benefits (when adjusted to net present value) totalled £455,581, giving a benefit:cost ratio of 2.8. This indicates that (at the present scale of delivery) for every £1 invested, it is estimated that £2.80 will be saved in the form of averted costs over a five year period and that the FIP will recover its initial investment costs over a two year period.

Table 1

Overall Fiscal CBA – Family Intervention Project		Financial Year					Net Present Value (NPV)
		2011	2012	2013	2014	2015	
Actual costs	Costs	161,387	0	0	0	0	161,387
	Benefits	80,293	110,524	104,998	99,472	93,945	489,232
Discounted costs	Costs	161,387	0	0	0	0	161,387
	Benefits	80,293	106,656	97,777	89,388	81,468	455,581

Overall Fiscal benefit - cost ratio	2.8
Payback period	2 years

Minor Illness clinic

A total of 688 visits were made to the Minor Illness clinic (MIC). A feedback questionnaire carried out at the time of the appointment indicates that 13% would otherwise have attended A&E and 64% would have gone to their GP.

The costs of delivering the MIC totalled £22,880 for the eight months it has been running for three days each week. The costs averted during this period, in terms of reduced A&E attendances and reduced GP visits amounted to £16,242. As indicated in Table 2, this produces a benefit-cost ratio of 0.7, suggesting a negative return on investment.

Table 2

Overall Fiscal CBA – Minor Illness Clinic		Financial Year					Net Present Value (NPV)
		2011	2012	2013	2014	2015	
Actual costs	Costs	22,160	0	0	0	0	22,880
	Benefits	16,242	0	0	0	0	16,242
Discounted costs	Costs	22,160	0	0	0	0	22,880
	Benefits	16,242	0	0	0	0	16,242

Overall Fiscal benefit - cost ratio	0.7
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Payback period	-
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However, the MIC has experienced a gradual increase in the number of appointments since start-up at the beginning of the year. The analysis in Table 2 includes the costs of unused capacity. Over recent months, practitioners report the clinic often working close to full capacity (now the clinic is better known). Full capacity is reported to be 15 appointments per day. The analysis in Table 3 calculates the cost benefit ratio for a 12 month period, assuming 10 appointments per day.

Table 3

Overall Fiscal CBA – Minor Illness Clinic assuming 10 appointments per session, 3 days per week for 12 months		Financial Year					Net Present Value (NPV)
		2011	2012	2013	2014	2015	
Actual costs	Costs	34,320	0	0	0	0	34,320
	Benefits	35,790	0	0	0	0	35,790
Discounted costs	Costs	34,320	0	0	0	0	34,320
	Benefits	35,790	0	0	0	0	35,790

Overall Fiscal benefit - cost ratio	1.04
Payback period	-

Table 3 indicates the costs of running the clinic three days per week for a 12 month period to be £34,320. Assuming an average of 10 appointments per day and the same percentage of avoided A&E and GP attendances as in Table 2, then the benefits amount to £35,790 and the benefit-cost ratio is 1.04.

This suggests that for the MIC to show a positive return on investment, it should be seeing an average of at least 10 patients per day (assuming the same percentage of avoided A&E and GP attendances).

Children and Parents Service (CAPS)

It is important to note that the CBA only takes account of those benefits that are: (a) accrued to the public purse and (b) result in cashable efficiencies. In the case of CAPS, a large number of the outcomes are of a longer term nature and affect other beneficiaries. While this is the case to some extent in all programmes, it appears to be particularly relevant to the CAPS. This is illustrated in Table 1 where only those outcomes in the yellow area can be considered as cashable efficiencies and are accounted for in the CBA. Clearly, it is important to view the findings of the CBA in the context of a wider evaluation that accounts for the full range of outcomes and beneficiaries

Table 1: CAPS outcomes and benefits

CAPS Outcomes and Benefits				
	Monetise		Quantify	Describe
	Benefits realised in 1 to 5 years	Benefits realised over lifetime		
Fiscal	Reduced incidence of domestic violence Improved mental health outcomes Improved parental work-readiness	Reduced ASB, offending, drug and alcohol abuse	Reduced incidence of children entering "continuum of need" (data on cost savings to Children's Services not currently available) Improved staff training and awareness of psychological well-being issues	More efficient delivery of services through improved co-operation and knowledge sharing among practitioners Better co-ordination of whole family needs assessment and interventions
Economic	Reduced incidence of domestic violence Improved mental health outcomes Improved parental work-readiness	Lifelong economic participation		
Social/Individual	Reduced incidence of domestic violence Improved mental health outcomes Improved parental work-readiness	Lifelong economic participation	Improved parental sensitivity and child-parent relationships	More stable, confident and resilient families Lifelong well-being of child Better social cohesion, stable and safe communities

Children and Parents Service (CAPS) - Courses

Outcomes were measured only from the 115 families that completed a course. Costs were scaled down proportionately to ensure that only the costs of delivering courses to these 115 were included in the calculation.

Outcomes measured were: *improved mental health, reduced incidence of domestic violence and improved parental work readiness*. However, in the case of *parental work readiness*, beneficial outcomes were too small to be able to confidently attribute the resulting cost savings to the programme.

One other outcome that may also be relevant to the CAPS CBA is a reduced need for interventions from Children's Services as children's outcomes and parent-child relationships improve. However, apart from looked after children, the costs of these interventions are not currently available. Work at the Commission for the New Economy (CNE) is scheduled to begin shortly to identify these costs.

It should also be noted that the benefits of increased school readiness have been removed from the model by CNE as investigations indicate that the benefits from this outcome produce few cashable efficiencies.

The costs of delivering the courses totalled £151,877 and the 5 year benefits, when adjusted to net present value, totalled £98,064. This results in a benefit:cost ratio of 0.65.

While this indicates a negative return on investment, this should be viewed in the context of a wider evaluation as noted previously

Table 2:

Overall Fiscal CBA – CAPS Courses		Financial Year					Net Present Value (NPV)
		2011	2012	2013	2014	2015	
Actual costs	Costs	151,877	0	0	0	0	
	Benefits	27,058	24,338	21,618	16,178	14,818	
Discounted costs	Costs	151,877	0	0	0	0	151,877
	Benefits	27,058	23,486	20,131	14,538	12,850	98,064

Overall Fiscal benefit - cost ratio	0.65
Payback period	- years

CAPS Outreach

Outcomes were measured from the 103 families that completed three or more outreach visits. Costs were scaled down proportionately to ensure that only the costs of delivering outreach to these 103 families were included in the calculation.

Outcomes measured were: *improved mental health, reduced A&E attendances and improved parental work readiness*. However, as above, in the case of *parental work readiness*, beneficial outcomes were too small to be able to confidently attribute the resulting cost savings to the programme.

The total costs of delivering three or more outreach visits to 103 families amounted to £132,074 and the five year benefits, when adjusted to net present value, totalled £50,067. This results in a benefit-cost ratio of 0.38. Again, while this indicates a negative return on investment, full account should be taken of all beneficial outcomes identified in a full evaluation.

Table 3

Overall Fiscal CBA – CAPS Outreach		Financial Year					Net Present Value (NPV)
		2011	2012	2013	2014	2015	
Actual costs	Costs	132,074	0	0	0	0	
	Benefits	12,886	11,507	9,669	9,669	9,669	
Discounted costs	Costs	132,074	0	0	0	0	132,074
	Benefits	12,886	11,105	9,004	8,688	8,384	50,067

Overall Fiscal benefit - cost ratio	0.38
Payback period	- years

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