

The value for money of children's centre services

Evaluation of children's centres in England (ECCE) Strand 5

Research brief

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Introduction

Following on from the Sure Start initiative of 1998, Children's Centres were launched in 2002 with the aim of giving disadvantaged children the "best possible start in life." The centres provide integrated multi-agency services at a single point of access for families with young children including childcare and early education programmes, health services, parenting classes and specialised family support services.

The Evaluation of Children's Centres in England (ECCE) is a six year study commissioned by the Department for Education and undertaken by NatCen Social Research, the University of Oxford and Frontier Economics. The aim of ECCE is to provide an in-depth understanding of Children's Centre services, including their effectiveness in relation to different management and delivery approaches and their cost. The evaluation studies centres located in the 30 percent most deprived areas and the key elements are organised as five strands:

- strand 1: survey of Children's Centres leaders;
- strand 2: longitudinal survey of families using Children's Centres;
- strand 3: investigation of Children's Centres service delivery and reach;
- strand 4: impact analysis of the effects of Children's Centres on child, mother and family outcomes; and
- strand 5: value for money (cost benefit and cost effectiveness) analysis.

Ten reports have been published as part of the evaluation. This report presents the last output of the evaluation and considers the potential value for money of Children's Centres. It draws on cost data collected from 24 centres and from an analysis of the associations between centre use and improved child and family outcomes. It also uses existing evidence on the links between child and family outcomes when a child is aged three and later life outcomes and on the monetary value of outcomes. As the original intention of this strand to estimate the overall value for money of centres proved infeasible, the value for money has instead been assessed for individual types of services delivered within centres.

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¹ These are available at https://www.gov.uk/government/collections/evaluation-of-childrens-centres-in-england-ecce

Main Findings

Costs of delivery

The average total weekly delivery cost for the 24 centres reviewed was just under £10,000 (all monetary figures are in 2014 prices). This total cost included both the costs paid by the centres and costs implicitly paid by other government and private organisations or individuals through the provision of venue space and staffing without cost to the centre (including the value of volunteer time). On average, just under 60 percent of costs were attributable to the delivery of specific services while the remaining costs could be attributed to the general running of the centre. Staff costs formed the majority of costs (an average of three quarters) while venue costs and other costs roughly accounted for equal shares of the remaining costs.

Table 1: Costs of service delivery for groups of services

	Cost per	user hour	Mean cost per family using the service		
Service type	Mean	[95% confidence intervals]	Any time	Since wave 1	
Baby health	£47	[£40 – £56]	£4,468	£3,041	
Child play	£9	[£8 – £11]	£2,116	£1,669	
Parent support	£14	[£11 – £17]	£958	£831	
Specialist child support	£39	[£26 – £51]	£1,242	£973	
Specialist family/parent	£41	[£32 – £51]	£1,685	£746	
Childcare	£6	[£3 – £9]	£8,454	£6,792	
Finance and work support	£55	[£38 – £72]	£3,202	£1,869	
Training and education	£15	[£10 – £20]	£1,864	£1,530	

Source: ECCE, strand 5

The average cost per user hour for the main types of services offered by the centres is presented in table 1. Cost per user hour is the value of resources used to deliver one hour of a service to each child or family, including the use of resources specifically for the service and a share of the general running costs. Across all services, the average cost per user hour was £30. Services using more specialised staff and operated to a greater extent on a one-to-one basis tended to have a higher hourly cost (such as baby health and specialist child and family support). Services offered using less skilled staff and with a tendency to be offered in groups, had lower average costs (such as child play, parent support, childcare and training and education).

Table 1 also presents the average cost per family using estimates of average hours of service usage from the strand 2 longitudinal survey of families. The sample for this survey contained families with a child aged between nine and 18 months (the "target child") who were registered at the Children's Centres which took part in the initial ECCE survey of centres.² The table shows the average delivery costs for each family who used each service type for the average total hours used between nine months prior to the birth of the target child and when that child was aged three (termed "any time") and for the average total hours used between the first interview when the target child was aged around one and when the child was aged three (termed "since wave 1"). Childcare had the highest average cost per family due to a large average number of hours used and in spite of the low average hourly cost per user. Baby health and finance and work support had the next highest average costs per family, mainly driven by the high average hourly cost per user. The remaining services had lower average costs per family, primarily due to either a low average hourly cost per user (training and education) or a low average number of total hours (parent support and specialist support for children and families/parents).

Associations between service use and outcomes

The associations between the use of different types of Children's Centre services and improved family outcomes were estimated using data from the strand 2 longitudinal survey of families. Regression models were estimated for a broad range of child and family outcomes comparing outcomes between families who used services at Children's Centres and families who do not use these types of services at any organisation. These models included a wide array of control variables to make allowance for other factors that might be driving any differences in outcomes.

The original intention of this strand of the evaluation was to assess the overall value for money of centres, but this proved infeasible for two reasons. First, no statistically significant associations were identified between the aggregate measure of centre use³ and better outcomes (possibly because the comparison sample was too small). Second, the prevalence of associations between service use and poorer outcomes suggested that any associations (with either better or poorer outcomes) may reflect selection bias in service use towards particular types of families rather than any impact alone. It would also not be meaningful to use the associations with poorer outcomes in a value for money analysis as this would imply a negative contribution to the benefits side. In order to obtain some insight on value for money, the associations with better outcomes for

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² Full details about the longitudinal study of families can be found in Maisey et al (2015), available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/472959/RR434 - Evaluation of children s centres in England follow-up survey of families.pdf

³ Aggregate use of services is defined here as the use of any services in the five mainly used types: baby health, child play, parent support, specialist child and specialist family or parent support.

individual services were taken forward into the value for money estimation and those with poorer outcomes discarded. The value for money analysis is therefore based on hypothetical scenarios of what the value for money would be *if* there were impacts of the magnitudes of the positive association for each service type.

The associations between Children's Centre service use and better child and family outcomes at age three considered in the value for money analysis were:

- Use of baby health services at any time prior to age three is associated with lower conduct problems and a better early home learning environment (HLE).
- Use of child play services between age one and age three is associated with a better early HLE.
- Use of parent support services at any time prior to age three and between age one and age three and is associated with a better early HLE.
- Use of specialist parent/family support services at any time prior to age three and between one year and age three and is associated with a better early HLE.

It should be noted that the ECCE strand 4 report (Sammons et al (2015)) provides an extensive examination of the use of Children's Centres and outcomes for young children and their families, including consideration of different patterns of usage; how outcomes relate to centre characteristics; and how usage and outcomes may vary across different types of families.⁴

Monetary value of benefits

As the ECCE study only followed children until the age of three, the potential longer terms benefits of Children's Centre services were estimated using existing evidence on the links between child and family outcomes at age three and later lifetime outcomes for the child. The available evidence permitted quantifiable links to be drawn between:

- The use of baby health services and *lower* probabilities of truancy, school exclusion, having SEN (special education needs), smoking, youth and adult crime, mental health problems (depression) and poorer physical health.
- The use of baby health services and higher educational attainment, hourly wage and probability of being in work.

⁴ The strand 4 report is available at https://www.gov.uk/government/publications/childrens-centres-their-impact-on-children-and-families and the technical appendices for this report are available at https://www.education.ox.ac.uk/research/fell/research/evaluation-of-children-centres-in-england-ecce/

- The use of child play, parent support and specialist parent/family support services and *lower* probabilities of having SEN or depression.
- The use of child play, parent support and specialist parent/family support services and *higher* educational attainment.

The existing evidence also provided much weaker links between the use of child play, parent support and specialist parent/family support services and the range of later life outcomes listed in the first two bullets.

Monetary valuations of the potential benefits were estimated for the four types of services associated with improved outcomes. Tables 2 and 3 present these valuations for baby health services (via the initial SDQ (Strengths and Difficulties Questionnaire) conduct problems link) and parent support services. The latter is broadly representative of the findings for child play and specialist family/parent support services. The tables highlight that most of the value of the benefits of the services is dependent upon the links to improved labour market outcomes. Indeed, without the associated increase in earnings the services would offer very little financial return. Relatedly, the tables show that most of the benefit accrues to the individual rather than to the Government or society more broadly. In addition, almost all of the benefit to the Government is through increased revenues from Income Tax and National Insurance related to higher earnings rather than reductions in the cost of delivering other services.

Table 2: Value of benefits for baby health services via SDQ conduct problems

Quantifiable outcomes	Total value of benefits	Private	Public	Society
Reduction in truancy	£2	£0	£2	£0
Reduction in exclusion	£7	£0	£7	£0
Reduction in youth crime	£5	£0	£5	£0
Reduction in smoking	£26	£26	-£9	£9
Reduction in mental health problems	£24	£0	£24	£0
Reduction in adult crime	£4	£0	£1	£3
Increase in lifetime earnings	£2,028	£1,573	£455	£0
Reduction in welfare benefits	£141	£0	£141	£0
Total	£2,236	£1,599	£625	£12

Notes: All figures are discounted present values in 2014 prices. There is a negative benefit to the Government from the reduction in smoking due to a loss of tax revenues.

Table 3: Value of benefits for parent support services (since wave 1)

Quantifiable outcomes	Total value of benefits	Private	Public	Society
Reduction in truancy, exclusions, youth and adult crime	£1.16	£0	£0.98	£0.18
Reduction in smoking	£1.67	£1.67	- £0.62	£0.62
Reduction in SEN	£32	£0	£32	£0
Reduction in depression	£18	£0	£18	£0
Increase in earnings	£5,342	£4,144	£1,197	£0
Total (rounded to nearest £)	£5,395	£4,146	£1,247	£1

Notes: See table 2.

Value for money estimates

Cost effectiveness compares the costs of achieving a change in a particular outcome through different interventions (in contrast to the comparison of financial returns to different interventions in cost benefit measures). Table 4 presents the cost effectiveness of the different types of services in raising the early HLE score: specialist family/parent support services and parent support services after the child is aged one offer the greatest potential increase for each pound spent, while baby health and child play services have far lower cost effectiveness. Given that the latter two services have other objectives, this finding may not be surprising.

Table 4: Cost effectiveness of services to increase early HLE at age three

Service group	Average cost of delivery per user	Associated rise in early HLE	Average rise in early HLE per £1,000 spent
Baby health (any time)	£4,468	1.99	0.45
Child play (since wave 1)	£1,669	1.25	0.75
Parent support (any time)	£958	0.92	0.96
Parent support (since wave 1)	£831	1.55	1.86
Special. parent/family support (any time)	£1,685	1.67	0.99
Special. parent/family support (since wave 1)	£746	2.18	2.92

Notes: All figures are discounted present values in 2014 prices. "Any time" covers the use of services between nine months prior to the birth of the survey target child and when that child is aged three at the

final interview. "Since wave 1" covers the use of services between the time of the first interview when the target child was around age one and when the child is aged three at the final interview.

Table 5: Summary of value for money estimates

Service group	Average cost of delivery per user	Average benefit per user	Net benefit	Benefit to cost ratio
Baby health (any time) (via SDQ conduct problems)	£4,468	£2,236	- £2,232	0.50
Baby health (any time) (via early HLE)	£4,468	£6,162	£1,694	1.38
Child play (since wave 1)	£1,669	£3,029	£1,360	1.81
Parent support (any time)	£958	£2,985	£2,027	3.12
Parent support (since wave 1)	£831	£5,395	£4,564	6.49
Specialist parent/family support (any time)	£1,685	£6,099	£4,414	3.62
Specialist parent/family support (since wave 1)	£746	£4,827	£4,081	6.47

Notes: See notes to table 4.

The average cost of delivery for each service type was combined with the estimated value of the benefit of the service for each user to derive the measures of cost benefit summarised in table 5. For baby health services, the benefits via a reduction in SDQ conduct problems score and via an improved early HLE have been presented separately, highlighting how the value for money estimates could differ dependent upon which outcomes are considered in an evaluation of the impact.

Most services have a positive net benefit with the average benefit per user exceeding the cost. Only when baby health services are assessed using only the SDQ conduct problems impact is there a negative net benefit. Interestingly, the parent services have a higher benefit to cost ratio than the more child based ones, with a ratio of over six for parent services used between the target child being aged one and three years. These highest returns are driven more by a lower cost per user than a higher benefit per user.

Table 6 presents the value for money for the Government which compares the costs paid by the Government to deliver the services with the value of the benefits accrued to the state. Unsurprisingly given the state's minority share in the value of the benefits, most service groups have negative net benefits and the benefit to cost ratio is below one (and very low in some cases). Only two cases give a moderate positive return.

Table 6: Summary of value for money for the Government

Service group	Average cost to Govt. of delivery per user	Average benefit to Govt. per user	Net benefit	Benefit to cost ratio
Baby health (any time) (via SDQ conduct problems)	£4,468	£625	-£3,843	0.14
Baby health (any time) (via early HLE)	£4,468	£1,417	-£3,051	0.32
Child play (since wave 1)	£1,669	£696	-£973	0.42
Parent support (any time)	£958	£690	-£268	0.72
Parent support (since wave 1)	£831	£1,248	£417	1.50
Specialist parent/family support (any time)	£1,685	£1,403	-£282	0.83
Specialist parent/family support (since wave 1)	£746	£1,108	£362	1.48

Notes: All figures are discounted present values in 2014 prices

Caveats and conclusions

Some important caveats about the value for money estimates should be noted:

- The value for money analysis is for hypothetical scenarios of possible impact sizes on child and family outcomes when a child is aged three. These scenarios are drawn from the observed associations between the use of services and improved outcomes.
- The findings are based on point estimates of mean values for all costs, benefits and other parameters without consideration of the sampling variation.
 Incorporation of the variation for all elements of the value for money models is neither useful (the resulting confidence intervals would be too broad to be meaningful) nor feasible (the literature sources do not provide the required information).
- Assessment of potential sources of the under-counting of the value of benefits suggests that the main omission is the value of any enhanced well-being associated with service usage, the value of which would accrue to individuals rather than the Government.
- There is a considerable degree of approximation in drawing on related but not necessarily completely appropriate evidence to derive the links between immediate outcomes and later lifetime outcomes. In addition, one key link is based on a single source of evidence using data from a relatively small sample.

Given these caveats, the main contribution of this analysis is not to produce precise estimates on the value for money, but to identify some key findings about how Children's Centres may offer a monetary return on their costs:

- 1. Under plausible hypothetical scenarios of impact, the best estimate is that some Children's Centre services provide positive value for money with the monetary valuation of improved outcomes exceeding the costs of delivery.
- 2. Most of the value of the benefits is derived from improved later labour market outcomes for the children in the families using services. Indeed, without the associated increase in earnings, the services would offer very little financial return.
- 3. The majority of the benefits accrue to individuals through higher net earnings rather than to the Government. Consequently, the best estimates suggest that only few services provide positive value for money for the Government and the returns are considerably smaller than those for total benefits.
- 4. Parent support and specialist family/parent support services offer better value for money than the more child based services. This is driven more by a lower cost per user than a higher benefit per user.

5. There is some weak evidence that impacts on the early home learning environment (HLE) at age three have a higher value of benefits than comparable impacts (driven by the same service) on child social development at age three.

The strength of finding (1) should not be under-estimated: if improved outcomes at age three were of little financial value, even maximum feasible impacts (such as raising HLE to its highest score) would not lead to estimates of positive value for money. As it is, this report has shown that policies which have impacts within reasonable bounds of magnitudes on early child and family outcomes can potentially generate substantial monetary returns over and above the costs of delivering the services.

NOTE: Further information about the ECCE evaluation and measures used can be found in published reports.⁵

⁵ Reports are available from the Department for Education: https://www.gov.uk/government/collections/evaluation-of-childrens-centres-in-england-ecce and the Oxford University ECCE website: http://www.education.ox.ac.uk/research/fell/research/evaluation-of-children-centres-in-england-ecce/.



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