

Appendix B: Early years expenditure analysis

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This appendix attempts to provide estimates of expenditure on early years interventions. There is limited information available on the total levels of expenditure in early years services, which makes it very difficult to calculate accurately. This is largely because there is no single department or body that controls early years policy. In addition to early years expenditure, this appendix estimates the level of spend in a number of other areas to allow comparisons to be made.

The areas of analysis are as follows:

1. Estimation of spend on early years interventions in London and the UK
2. International comparisons of expenditure on early years interventions
3. Estimation of education spend on other key age groups
4. Estimation of expenditure that might be considered as remedial

While many of the detailed estimates should be treated with some caution, it is possible to draw the following conclusions:

- It is very difficult to accurately estimate the amount of expenditure on early years services in London and the UK.
- The UK spends significantly less on early years services than some other countries, particularly the Nordic countries.
- Less is currently being spent on early years education services than in the later years.
- Estimated costs of remedial expenditure are substantial.

1. London and UK Estimates of Early Years Spend

It is very difficult to estimate the total level of spending on early years interventions in London and the UK from published sources. It was not possible, in this work, to calculate an accurate estimate of early years spend in London.

The London School of Economics (LSE) on behalf of Save the Children has made an attempt to analyse public expenditure on children in the UK and at a country level, so this has been the main source for this section. A key recommendation of this report was that the transparency and accountability of public expenditure on children should be improved. This could be achieved by establishing children's budgets at national and local levels, and implementing systems and mechanisms for collecting and publishing comprehensive data on expenditure (allocated and actual). This would provide very valuable information because the data available at the moment is sparse and of variable quality.

London School of Economics: A Child's Portion

The LSE estimated total current expenditure on the under-5s by analysing data from Public Expenditure Statistical Analyses (PESA) and other published sources based on three categories of spending. These are: early years education for under-fives, 'Total Sure Start' or equivalent programmes, and the childcare element of the Working Tax Credit.

Table B.1: Total current expenditure on under-5s in the UK, 2007/08

	England	Scotland	Wales	Northern Ireland
Total expenditure (£m)				
Under-5s education (PESA)	3,912	294	223	26
'Total Sure Start' (or equivalent in other countries)	1,762	105	45–58	9
Childcare element of Working Tax Credit	1,188	129	57	38
Total under-5s	6,862	528	325–338	73
Spend per child aged 0–4 (£)				
Under-5s education (PESA)	1,290	1,070	1,360	230
'Total Sure Start' (or equivalent in other countries)	580	380	270–350	80
Childcare element of Working Tax Credit	390	470	350	330
Total under-5s	2,260	1,920	1,990–2,070	630

Figures in the top panel are rounded to the nearest £1m and figures in the bottom panel are rounded to the nearest £10

Source: London School of Economics. 2009. "A Child's Portion: An analysis of public expenditure on children in the UK".

These figures represent a 'best estimate' of expenditure on under-5s. Under-5s education expenditure totals come from HM Treasury's PESA 2008 and excludes Sure Start funding which is included as a separate item. Total Sure Start spends for England comes from a DCSF departmental report, and spending on the equivalent programmes in other countries comes from the devolved administrations. Figures for the childcare element of the Working Tax Credit are from HMRC. However, not all of this was spent on children under the age of five because the childcare element of Working Tax Credit can be claimed for all children under the age of 16. The results should be treated with some caution due to difficulties apportioning spending where data is not available at a sufficiently detailed level.

The table shows that in 2007/08 around £7 billion was spent on the under-fives in England. This has grown significantly from around £2 billion in 1997/98. However, as shown in the first section of this appendix, as a percentage of GDP, expenditure in England is still well below levels in other countries such as Sweden and Denmark. The following table shows a comparison over time of the amount spent on early years and childcare provision, and how this has increased significantly in recent years.

Table B.2: Total public expenditure on early years and childcare provision in England 1997/98 to 2007/08

	£m in 2006/07 prices					
	1997/98	1999/00	2001/02	2003/04	2005/06	2007/08 (est.)
1 Local authority spend on under-5s education of which:	2,141	2,452	3,180	3,373	3,676	3,912
2 Nursery schools	–	301	485	345	357	329
3 Primary schools	–	2,024	2,323	2,447	2,626	2,664
4 Private/voluntary providers	–	126	369	580	692	919
5 Nursery vouchers	809	0	3	0	0	0
6 Total Sure Start of which:	5	260	550	800	1312	1762
7 Sure Start Local Programmes + Children's Centres	0	9	158	405	790	–
8 Childcare element of Working Tax Credit	35	117	300	568	755	1188
9 Total early years and childcare	2,181	2,829	4,030	4,741	5,743	6,862
as % of gross value added	0.29%	0.35%	0.47%	0.53%	0.61%	–

Source: London School of Economics. 2009. "A Child's Portion: An analysis of public expenditure on children in the UK".

As can be seen from the table, the most significant increases in expenditure have been on private/voluntary providers of education, the introduction of the Sure Start programme, and the childcare element of the Working Tax Credit.

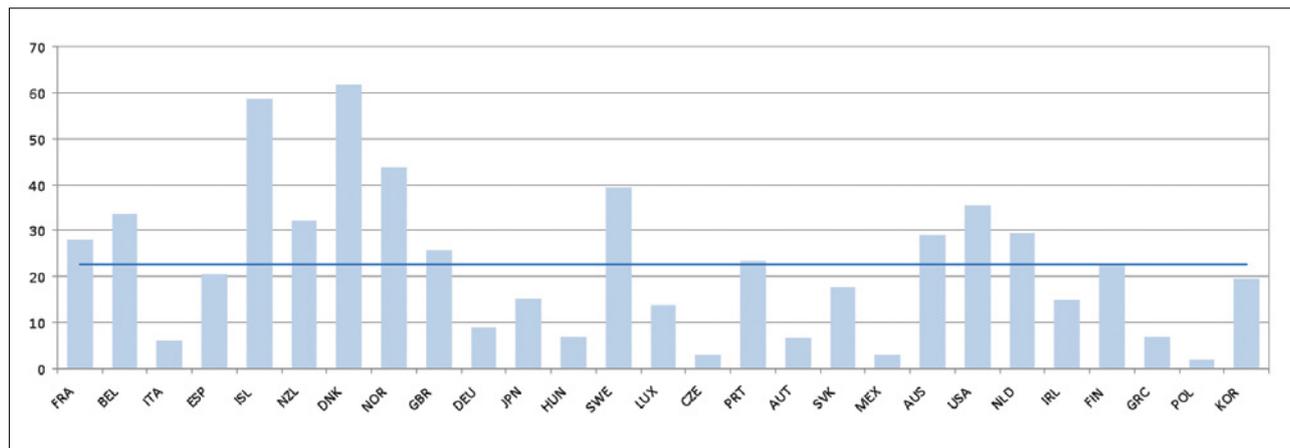
2. International comparisons of spend on early interventions

This section uses three sources: OECD, Eurostat and Unesco to compare the level of expenditure on early years intervention in the UK with other countries. The data shows that the UK spends considerably less on early years services than some other countries.

a) OECD Indicators – Starting Strong Report

The OECD conducted a review of early childhood education and care, resulting in the Starting Strong II report in 2006. In addition, indicators from the Society at a Glance 2009 report have also been included. Statistics considered include enrolment rates in formal childcare; spending on childcare and pre-primary education; and public expenditure on early years.

Figure B.1: Enrolment rates in formal childcare for children under three (2005 or nearest year)



Source: OECD.

The chart shows wide disparities between OECD nations in terms of enrolment rates in formal childcare for children under the age of three. There are very high enrolment rates amongst Nordic countries, but also some very low rates of enrolment elsewhere. The rate for the UK is above the OECD average. When the three to five age group is included there is little difference amongst major European countries and enrolment in the UK is amongst the highest in the OECD.

Table B.3: Spending on childcare and pre-primary education – % Net National Income (2005)

Rank	Country	Childcare	Pre-Primary	Combined Spend
1	Iceland	0.78	0.60	1.38
2	Denmark	0.78	0.60	1.37
3	France	0.40	0.73	1.13
4	Sweden	0.67	0.45	1.12
5	Finland	0.86	0.24	1.10
	OECD Average	0.30	0.40	0.66
12	United Kingdom	0.41	0.23	0.64

This indicator looks at how much is spent on childcare and pre-primary education as a percentage of net national income. Total UK expenditure is below the OECD average according to this indicator. However, spend on childcare is above the OECD average. This can be explained by the higher than average enrolment rates in formal childcare up to five years of age.

Public Expenditure on Early Years, PPP US\$ estimates (per child)

These indicators provide further context on expenditure levels between OECD nations

Table B.4: Pre-primary education

Rank	Country	Spend (US\$)
1	New Zealand	6,001
2	Netherlands	5,881
3	Australia	5,709
4	Belgium	4,698
5	France	4,679
	OECD-21 Average	3,667
8 of 24	United Kingdom	4,255

Table B.5: Childcare support

Rank	Country	Spend (US\$)
1	Finland	7,118
2	Norway	6,425
3	Denmark	6,376
4	Sweden	5,928
5	Iceland	5,733
	OECD-21 Average	2,549
6 of 21	United Kingdom	3,563

Table B.6: Total estimated public expenditure

Rank	Country	Spend (US\$)
1	Norway	10,553
2	Iceland	10,323
3	Denmark	10,119
4	Sweden	9,555
5	Finland	9,538
	OECD-21 Average	6,216
8 of 24	United Kingdom	7,818

The data shows that the UK spends more on average than the OECD as a whole for each category of expenditure. However, it is still considerably below that of the largest spenders. On a per GDP measure, the above results are largely replicated. This analysis does not provide any consideration of private expenditure on childcare and early years education.

Figure B.2: Public Expenditure of pre-primary and children as a percentage of GDP, 2005

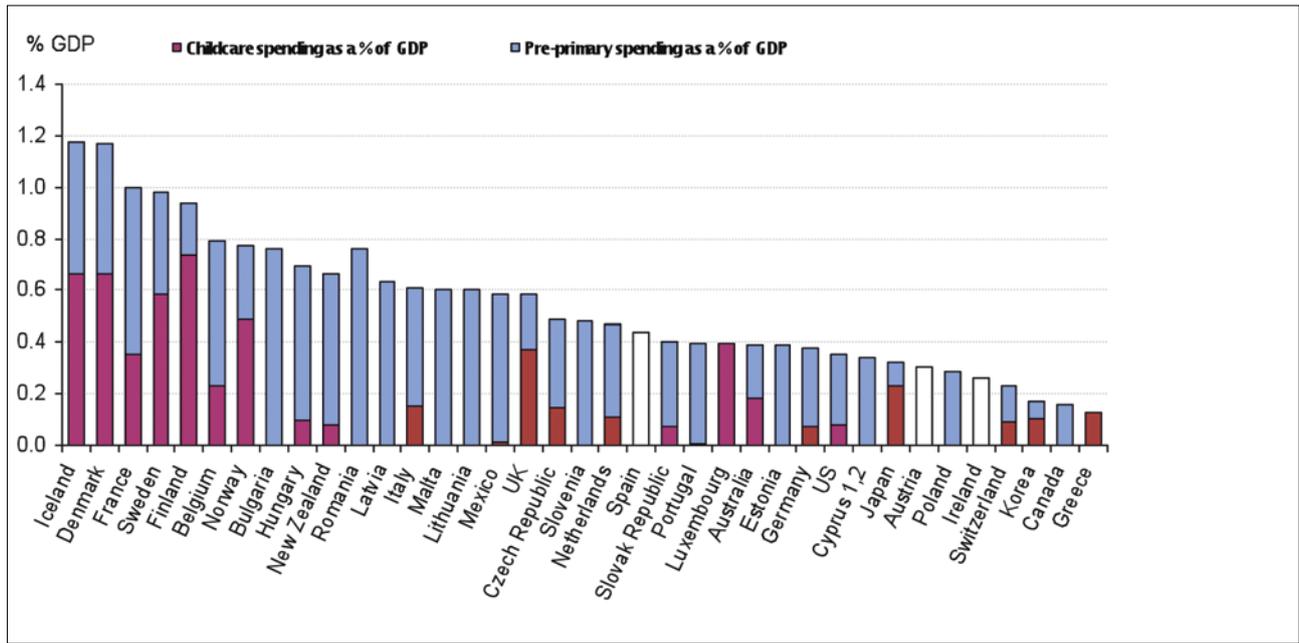
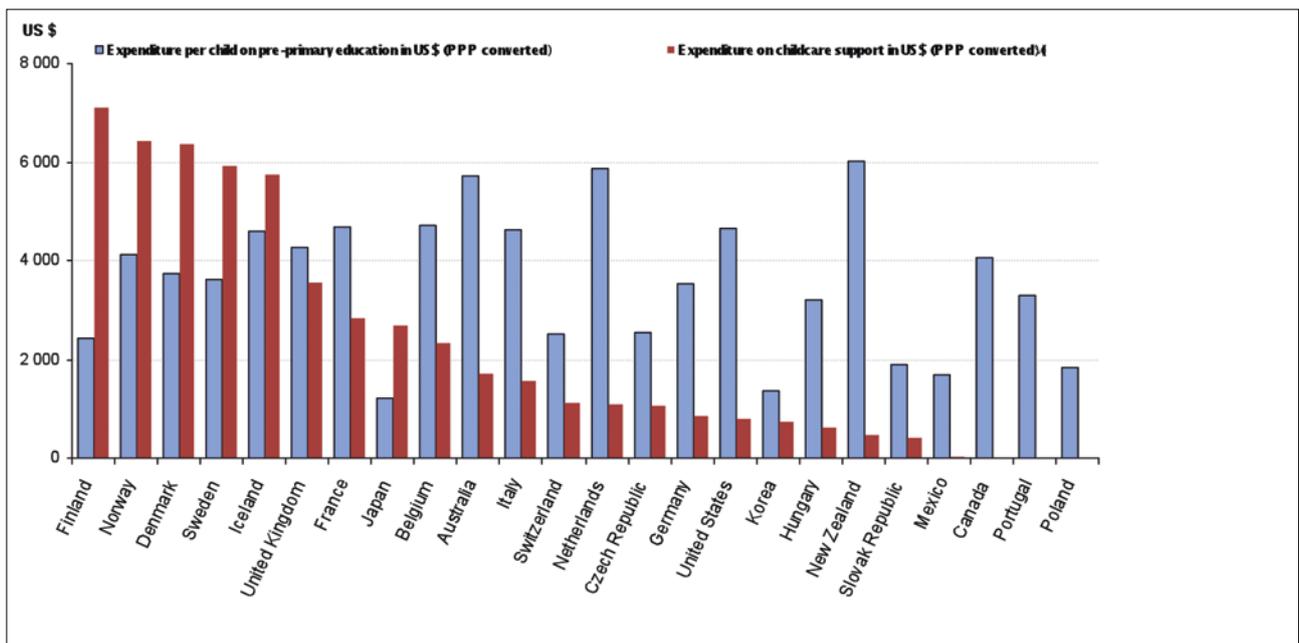


Figure B.3: Public Expenditure of childcare and pre-primary education per child, US\$ PPP, 2005



b) Eurostat indicators

The Eurostat indicators provide estimates of spending on early years and the quantity of service provision.

Table B.7: Total Expenditure – Family/Children, Percentage of GDP, 2007

Rank	Country	Expenditure as a percentage of GDP
1	Denmark	3.7
2	Luxembourg	3.2
3	Sweden	3.0
	European Union (EU-27) Average	2.0
19	United Kingdom	1.5

The percentage of GDP estimates clearly shows a much lower level than the highest spenders, and the European Union on average.

Table B.8: Total Expenditure – Family/Children, Euro per Inhabitant (constant 2000 prices), 2007

Rank	Country	Expenditure on Family/Children
(Euro per inhabitant)		
1	Luxembourg	2,139
2	Norway	1,518
3	Denmark	1,359
	European Union (EU-27) Average	439
13	United Kingdom	433

In terms of spend; the UK is lower than the EU average on the proportion spent on family and children.

In addition to this analysis of expenditure, the Eurostat database also provides estimates of childcare provision.

**Table B.9: Average number of hours/week of formal care, 2008
Between 3 years and compulsory school age**

Rank	Country	Hours per week
1	Iceland	35.4
2	Estonia	34.8
3	Denmark	32.7
	European Union (EU-27) Average	23.8
26	United Kingdom	15.6

**Table B.10: Average number of hours/week of formal care, 2008
Under 3 years**

Rank	Country	Hours per week
1	Denmark	24.7
2	Iceland	14.5
3	Belgium	14.4
	European Union (EU-27) Average	8.4
18	United Kingdom	4.6

The results clearly show that the amount of formal care in the UK compared with the rest of Europe is significantly less in both age groups.

**Table B.11: Formal childcare for 30 hours or more, 2008
Between 3 years and compulsory school age**

Rank	Country	Percentage of children
1	Iceland	88
2	Estonia	84
3	Denmark	83
	European Union (EU-27) Average	42
24	United Kingdom	20

**Table B.12: Formal childcare for 30 hours or more, 2008
Under 3 years**

Rank	Country	Percentage of children
1	Denmark	65
2	Iceland	36
3	Sweden	31
	European Union (EU-27) Average	13
22	United Kingdom	4

Similarly, the percentage of children receiving 30 hours or more of formal childcare in the UK is significantly below the European Union average, for both children aged between 0 and 3, and those between 3 and school age.

c) UNESCO Statistics

The data from the UN provides a sample of 24 countries, including countries from the European Union, North America and Asia. Figures listed are the latest data available (a mixture of 2006 and 2007 data).

Table B.13: Educational expenditure in pre-primary as a % of total education expenditure¹

Rank	Country	Percentage of education expenditure on pre-primary
1	Russia	14.0
2	Spain	13.6
3	France	11.3
	Sample Average	6.8
13 of 23	United Kingdom	6.6

Table B.14: Public expenditure on education as a % of total government expenditure

Rank	Country	Percentage of total government expenditure on education
1	New Zealand	19.7
2	Iceland	17.4
3	South Africa	16.9
	Sample Average	13.2
17 of 23	United Kingdom	11.7

Table B.15: Public expenditure on education as a % of GDP

Rank	Country	Expenditure on education as a percentage of GDP
1	Denmark	7.9
2	Iceland	7.5
3	Norway	6.8
	Sample Average	5.3
9 of 24	United Kingdom	5.6

These indicators show that expenditure in the UK is less than average as a percentage of total education expenditure and as a percentage of total government expenditure. Public expenditure on education as a percentage of GDP in the UK is similar to the average, but is well below some of the Nordic countries.

1. Where education spending covers pre-primary to tertiary spending on education.

3. Comparison of early years expenditure with other age groups

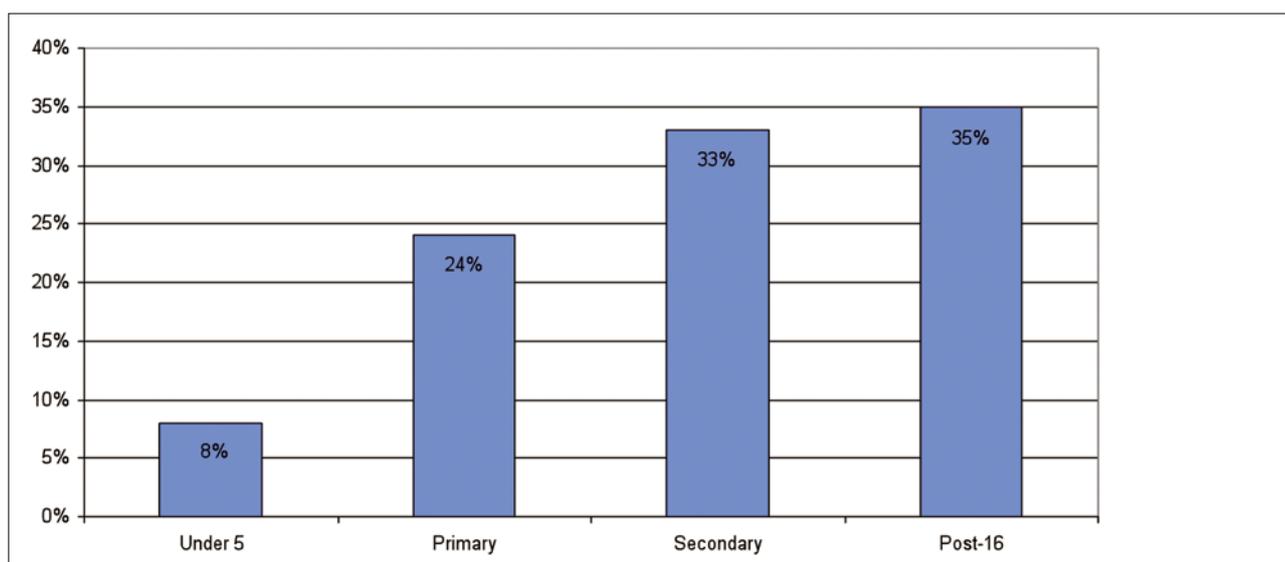
This section compares the amount of education expenditure in different age groups. Data from the Department for Education shows that total budgeted expenditure increases with age cohort.

Table B.16: Total education expenditure by cohort, United Kingdom 2008-09:

Cohort	Total Revenue Expenditure (£m)	Spending per pupil
Under 5	4,692	£2,792
Primary	19,140	£3,580
Secondary	21,910	£4,620
Higher Education	19,046	£4,220

Sources: DCSF, *Education and Training Statistics for the United Kingdom, 2009*; also DCSF, *Funding per pupil time series*.
Note: Spending per pupil for under 5 are for England; DCSF Benchmarking

Figure B.4: Proportion of Educational Expenditure by cohort, using 2008-09 data, United Kingdom



Source: Adapted from Marmot Review, Figure 4.1, page 97, 2009. Sourced from DSCF data

When we look at expenditure up to the end of compulsory school age, the proportion spent on under-fives education comprised just 12 per cent. When higher and further education is taken into account, this figure falls to eight per cent. Despite there being a far smaller number of pupils in higher levels of education, average expenditure per pupil increases with age.

In 2003/04, over £6.5 billion was spent on providing education and training for low skilled youths and adults, whereas data from the former DCSF indicates that less than £4 billion was spent on early years education. Hence, the amount spent on remedial education exceeds the amount spent on education in the early years. Further examples of remedial expenditure are discussed in the next section.

4. Costs of remedial measures for London and the UK

This section attempts to estimate some of the costs of remedial measures for London and the UK from a variety of sources. This ‘remedial spending’ is on activities that may not be necessary to some extent if early intervention was undertaken. It is difficult to estimate the level of remedial spending currently incurred by the government as there is very limited detail available, and expenditure occurs across a wide range of departments and activities. However, the following sources help to give an indication of the magnitude of expenditure on remedial measures.

New Economics Foundation: Backing the Future

The NEF Backing the Future paper has estimated some of the remedial costs for the UK and other European Union countries. The paper looks to calculate the costs of social problems and then argues that if costs were shifted towards early years policies, then remedial costs could be reduced in the long run.

The NEF paper looks at the following areas:

- Productivity losses of 16–19 year olds not in employment, education or training (NEET)
- Costs of obesity
- Costs of crime to the state and wider economy
- Welfare and health costs of teenage pregnancy
- Welfare and health costs of substance misuse
- Costs of mental health problems to the state and wider economy
- Costs of family breakdown to the state
- Regeneration costs from attempts to offset spatial inequality
- Health service costs related to violence experienced by children.

These costs were assessed for the UK and then using international statistics were computed for other European countries using UK cost equivalents. This assumption simplifies the analysis, and creates a degree of uncertainty in the estimates. It assumes that the costs are equalised across Europe. However, it is likely that costs in individual countries may be higher or lower than the UK estimate.

The paper compares indicators across the selected categories and then compares with the UK. It found the annual cost of social problems to be £161.3 billion per annum (and asserts that in a do-nothing scenario, costs could total almost £4 trillion over the next 20 years). This was an estimate that was £40 billion higher than for any other country in the sample. This implies that across many social outcome indicators, the UK performs significantly worse than Europe on average.

Table B.17: Annual cost of social problems in European countries

Rank	Country	Costs per annum (£ billions)
1	Finland	44.6
2	Denmark	84.9
3	Sweden	88.5
	Sample Average	105.4
16 of 16	United Kingdom	161.3

Source: *Backing the Future*, NEF, 2009, adapted from Table 1

The indicators used to create this estimate were sourced from the OECD. However, it could be argued that some of the social problems outlined in this report could only be tenuously linked to a lack of early years intervention.

For example, regeneration costs or other factors that can only be partially attributed to a lack of intervention such as family breakdown. In this situation it is likely that there are a number of contributing factors, only some of which would be improved through early years interventions.

Estimating the social costs from other sources

Another paper, by RAND (2005), looks at potential spillover benefits and costs of improved outcomes from early childhood intervention problems. However, this paper does not make a monetary estimate of the impact. The benefits (of relevance to the UK) considered include:

- improved child care
- reduced child maltreatment, accidents and injuries
- reduced number of teenage pregnancies
- reduced use of special education
- increased labour force participation
- reduced use of welfare programmes
- reduced crime and contact with the criminal justice system
- reduced incidence of smoking and substance abuse.

If estimates of these areas can be robustly measured and monetised, then it is possible to assert that a proportion of the costs can be offset over time as a result of successful early years interventions. The following sections look to provide estimates of remedial spend in different areas. However, it would be unwise to add together all the following estimates and conclude this as the total remedial spend to society. This is because of the different sources used and the difficulties in disaggregating the spending data to a sufficiently meaningful level.

Crime and Youth Exclusion

The Home Office estimates that the total costs of crime against households and individuals stood at £36.2 billion in 2003/04. This figure includes impacts on the health service, productivity and costs to the criminal justice system.

The Prince's Trust in their paper 'The Cost of Exclusion' estimated that the total cost of youth crime was £1 billion in 2004, and that youth unemployment (16 – 24 years) costs approximately £20 million a week in jobseeker's allowance. The paper illustrates that there are many costs associated with youth exclusion and underachievement, including crime and unemployment.

Costs of teenage pregnancy

Teenage pregnancy imparts costs on many different areas. Teenage mothers are less likely to complete educational qualifications and as such are vulnerable to reduced job opportunities. The public sector often needs to provide additional benefits, such as child and housing benefits, and medical services for the mother and child. In a speech in 2006, the Labour government outlined that in the first five years of life, each birth to a teenage parent imparts an average public sector cost of £57,900.

Approximately 41,300 women under 18 became pregnant in 2008 according to the ONS, of which, 49 per cent had their pregnancies terminated. Assuming 20,000 births as a result, this indicates that costs of teenage pregnancy would be approximately £231 million per annum.

Substance abuse

Addaction, a drug and alcohol treatment charity, estimated that over the course of the ten years to 2008, the total costs of substance abuse towards the health service and the criminal justice system stood at £110 billion. This takes account of health and welfare costs such as income support, care, drug treatment services and victims of substance abuse related crime.

Obesity costs

In 2007, Foresight estimated that the total cost to the NHS of diseases related to an elevated body mass index in England to be £17.4 billion. Of this, £2.3 billion was directly attributable to obesity. The wider total costs, including indirect costs such as productivity losses were estimated at £15.8 billion per year. In addition, NEF has estimated the total UK costs of obesity as £39.5 billion.

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