The health effects of Sure Start

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Sure Start

One of the major programmes for early intervention

- Children’s centres offer a ‘one-stop shop’ for families kids up to age 5
- Services related to health care, education, employment, and childcare

But more recent context has been one of cuts, consolidations, and closures of the centres
Total spending on Sure Start

Source: Belfield, Farquharson, and Sibieta (2018)
Share of Sure Start sites declared closed by July 2018, by local authority

Note: Percentage of sites closed is calculated based on the number of centres open in 2010 and the number of sites that have been officially recorded as closed.

Source: Figure 2.11
Putting the policy cart before the evidence horse?

We know surprisingly little about the effects of Sure Start over time

- Previous evaluations focused on the earliest years of the programme or descriptive evidence

Meanwhile...

- “There seems to be little strategic direction to Government policy on early years” (Education Select Committee)
- Gov’t has commissioned new research on early years services
- Forthcoming Spending Review is a chance to shape policy
How has Sure Start affected the health of children and their families during the period when it was being rolled out?

• Do some groups benefit more than others?
• Is Sure Start a cost-effective way to promote health?

We focus on the impacts of greater access to Sure Start on hospitalisations, obesity, and mothers’ mental health

This is the first evidence about the impacts Sure Start had during its rollout (1999-2010)

• We use variation from the rollout to estimate the causal impacts of access to Sure Start
How was Sure Start rolled out?
Sure Start was initially targeted at the most disadvantaged areas

Sure Start centres in 2000

Source: Figure 2.2
In 2004, the government pledged “a Children’s Centre in every community”
By the end of 2006, the poorest 30% of neighbourhoods still hosted over 80% of Sure Start centres.

Source: Figure 2.2

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And the programme continued to ‘fill in’ in richer areas over the next few years.

Source: Figure 2.2
Predictors of the Sure Start rollout

We look at local area characteristics that predict higher Sure Start coverage (centres per thousand children aged 0-4)

- Not causal – this is just about good predictors

In line with policy guidance, Sure Start was rolled out first in the most disadvantaged areas

But other characteristics matter too, for example:

- Lower employment rate → higher Sure Start coverage the next year
- Fewer English as Additional Language students → higher coverage
- County/borough council controlled by Labour → higher coverage

But ultimately, there is lots of variation between similar areas in the level of access to Sure Start and the speed of the rollout
A ‘difference-in-differences’ methodology

We compare children born earlier or later in the same (small) neighbourhood

They have different Sure Start coverage based on when they were born

Our methodology strips out both permanent differences between neighbourhoods and national differences between years

We can then look at children and mothers’ outcomes and how they relate their access to Sure Start

Note: Coverage for each month and year of birth is defined as the average coverage over the first five years of life. Grey lines show coverage for each of 323 local authority districts in England (excluding the Isles of Scilly, City of London, and West Somerset). The blue line shows the average for England.

Source: Figure 4.1
What are Sure Start’s impacts?
Measuring Sure Start’s impacts

We look at Sure Start’s impacts on hospitalisations, obesity, and mothers’ mental health

We consider the impact of providing access to one centre per thousand children aged 0-4

• This is roughly the average level of coverage at Sure Start’s peak

Hospitalisations:

We look at hospital admissions during primary school (ages 5-11)

• Using the Hospital Episode Statistics for 1997-2014
• Probability that there was at least one admission in a neighbourhood-sex-month and year of birth cohort
Effect of increasing Sure Start coverage on hospitalisations

Note: Impacts are based on an increase of one centre per thousand children aged 0-4. Effect sizes are calculated using the baseline probability of admission in a neighbourhood-sex-month of birth-year of birth cell.

Source: Figure 5.2
Boys tend to benefit more than girls...

<table>
<thead>
<tr>
<th>Age 5</th>
<th>Age 6</th>
<th>Age 7</th>
<th>Age 8</th>
<th>Age 9</th>
<th>Age 10</th>
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Note: Impacts are based on an increase of one centre per thousand children aged 0-4. Effect sizes are calculated using the baseline probability of admission in a neighbourhood-sex-month of birth-year of birth cell.

Source: Figure 5.4
But the big differences in impacts are between rich and poor neighbourhoods

<table>
<thead>
<tr>
<th>Age 5</th>
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<th>Age 7</th>
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<th>Age 9 **</th>
<th>Age 10 ***</th>
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Effect size (% of baseline)

Richest 30%

Middle

Poorest 30%

Closes ~half the gap in hospitalisations between poor and rich areas at age 11

Note: Impacts are based on an increase of one centre per thousand children aged 0-4. Effect sizes are calculated using the baseline probability of admission in a neighbourhood-sex-month of birth-year of birth cell. ‘Poorest’ areas are in the bottom 30% of the rankings for the 2004 Index of Multiple Deprivation, ‘richest’ areas in the top 30%.

Source: Figure 5.5
Sure Start’s impact on hospitalisations for different causes

Note: ‘Preventable’ admissions are for Ambulatory Care Sensitive conditions, which the NHS deems should either not occur (e.g. gangrene) or should be treatable with primary care (e.g. asthma).

Source: Figure 6.2
Sure Start’s impact on hospitalisations for different causes

Source: Figure 6.3
Sure Start’s impact on hospitalisations for different causes

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Source: Figure 6.3
Impacts on other outcomes

Obesity
• Using the ‘National Child Measurement Programme’ in 2008-2014
• All children in Reception Year (~age 5), ~600k kids per year
• No significant impact of Sure Start on BMI, overweight, or obesity

Mothers’ mental health
• Using the ‘Understanding Society’ survey, 1993-2014
• ~4,000 mothers, access to Sure Start for eldest child
• No significant impact on mothers’ mental health, measured using the GHQ-12 (General Health Questionnaire)
**Cost-benefit analysis**

**Financial benefits from Sure Start’s effect on hospitalisations**

Direct savings to the NHS

- Fewer hospitalisations at ages 5-11 (up to 18 for injuries)
- Based on specific costs for paediatric fractures, head injuries (intracranial and non-) and infections

Indirect savings to children’s parents

- e.g. Less work time lost caring for child

**Long-term benefits**

- Averted costs from traumatic brain injury or child maltreatment
Spending on Sure Start (total and per eligible child)

Average cost per child: £416

Source: Figure 9.1
## Estimated costs and benefits of Sure Start

We estimate the costs and (financial) benefits of Sure Start for a representative cohort

<table>
<thead>
<tr>
<th>Total costs</th>
<th>£1,055 million</th>
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<tr>
<td>Total averted costs</td>
<td>£65 million (6%)</td>
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<td><strong>Of which</strong></td>
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<td>Direct health care costs (14%)</td>
<td>£9 million</td>
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<td>Indirect costs (3%)</td>
<td>£2 million</td>
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<tr>
<td>Lifetime costs (83%)</td>
<td>£54 million</td>
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This is only based on hospitalisations – more research is needed into other outcomes
What’s next?

We have ongoing research to look at Sure Start’s effects on other outcomes:

1. Other measures of child health
2. Mothers’ (physical) health
3. Parental employment
4. Academic outcomes and behaviour
5. Children in foster care
6. Family violence and crime
Summary

We provide the first causal evidence of the health impacts of Sure Start over its rollout (from 1999 to 2010)

There are big benefits:

• Significant reduction in hospitalisations among children by the time they finish primary school: 18% reduction at age 11
• Benefits stronger for disadvantaged children: gap between rich and poor areas halved.
• Reductions at all ages for injuries: by 30% at age 11.

We find no impacts on obesity or maternal mental health

The benefits of the programme from averted hospitalisations cover around 6% of the costs
Two questions for policymakers

Given the substantial benefits for children’s health that we find, is the current level of cuts to Sure Start’s budget appropriate?

• Our research provides strong evidence that the Sure Start model has worked to improve health
• The Spending Review offers a chance to have a conversation around spending on early intervention and prevention

In a context where spending is cut back from its peak, how should these cuts be delivered?

• Sure Start’s benefits are concentrated in the poorest areas
• Unpicking to what extent this is driven by the choices the centres make or the characteristics of the families they serve is critical
• But for now, our findings suggest focusing limited resources on poorer neighbourhoods rather than spreading them thinly