

A systematic rapid evidence assessment

Interventions to improve the coordination of service delivery for High Cost High Harm Household Units (HCHHHU)

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Methods and study characteristics in the systematic rapid evidence assessment

Interventions to improve the coordination of service delivery for high cost high harm household units (HCHHHU)

REPORT

The results of this systematic review are available in four formats. See over page for details.

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About this project

Between June and September 2006 the EPPI-Centre and the Government Social Research Unit completed a Systematic Rapid Evidence Assessment (SREA) for HM Treasury. The reporting format for the project was specified by the funder in order to meet the needs of the various policymaker audiences for the report. The findings from this project are available in four separate formats:

- Briefing Summary (1 page)
- Executive Summary (3 pages)
- A Report which details the main findings of the SREA
- A Technical Report which provides details of the methods used in the SREA and a detailed summary of the studies included in the SREA

All documents are available from: <http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=2312>

About this document

This document provides a summary of the methods used in the SREA and a detailed account of the results.

A detailed account of the methods used in the SREA and a detailed summary of the characteristics of the studies included in the SREA are contained in Technical report:

Newman M, Bangpan M, Brunton J, Tripney J, Williams T, Thieba A, Lorenc T, Fletcher A, Bazan C, (2007) *Methods and study characteristics in the Systematic Rapid Evidence Assessment: Interventions to improve the co-ordination of service delivery for High Cost High Harm Household Units (HCHHHU)*. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.

Contents

Summary	iv
1. Background	2
<i>Children and Young People’s Review</i>	2
2. SREA method	3
2.1 <i>Systematic Rapid Evidence Assessment (SREA)</i>	3
2.2 <i>How this SREA was conducted</i>	3
2.2.1 <i>SREA question</i>	3
2.2.2 <i>Definitions and scope</i>	4
2.2.3 <i>Process</i>	4
2.3 <i>What is not in this SREA</i>	5
3. The evidence map	6
3.1 <i>Number of papers/studies</i>	6
3.2 <i>Nature of intervention, services and support provided</i>	6
3.3 <i>Characteristics of study participants/target group of service provision</i>	6
3.4 <i>Outcome measures and evaluation methods</i>	7
4. In-depth review results	8
4.1 <i>Studies selected for the in-depth review</i>	8
4.2 <i>Quality of studies</i>	8
4.3 <i>Synthesis</i>	8
4.3.1 <i>Inputs/outputs</i>	8
4.3.2 <i>Impact on user outcomes</i>	8
4.3.3 <i>Perceptions</i>	10
4.3.4 <i>Economic evaluation</i>	13
4.4 <i>Summary of in-depth review findings</i>	14
5. Conclusions and discussion	15
5.1 <i>Implications</i>	15
5.1.1 <i>Implications for policy</i>	15
5.1.2 <i>Implications for research</i>	15
5.1.3 <i>Implications for practice</i>	16
5.2 <i>Strengths and weaknesses of this SREA</i>	16
6. References	18
6.1 <i>References included in the text</i>	18
6.2 <i>References for studies included in the SREA</i>	18
Appendix 2.1: THE EPPI-Centre SREA process	21
Appendix 2.2: Inclusion criteria used in this SREA	22
Appendix 4: Services provided to and problems experienced by participants in the studies in the in-depth review	23

Summary

What do we want to know?

We want to know whether, for families with persistent multiple problems spanning more than one generation, improving the co-ordination of service delivery improves family outcomes.

Who wants to know and why?

Budget 2006 announced the Children and Young People's (CYP) Review, to be led jointly by HM Treasury and the Department for Education and Skills. The CYP Review was tasked with considering how to embed the three principles identified in Support for parents, the best start for children (DfES, 2005) - rights and responsibilities, progressive universalism and prevention - to improve outcomes for children and young people. One strand of this Review was to focus on the subgroup of families and children who are at risk of becoming locked in a cycle of low achievement, high harm and high cost.

What did we find?

The volume of literature identified indicates that improving service co-ordination is a common feature of service development across the public sector internationally. However, there appear to be comparatively few evaluations of initiatives that seek to co-ordinate services for the particular subgroup of interest. Those studies that were identified were mainly of low quality, reducing confidence that the results can be attributed

to the initiative evaluated. Two higher quality studies suggest that such interventions improved school attendance and attainment but the costs and benefits of such approaches do not appear to have been rigorously evaluated, nor is it clear how generalisable these findings are.

How did we get these results?

We searched a number of bibliographic databases and conducted a limited search for unpublished literature. We identified 3,441 papers of which 89 were identified as meeting the initial inclusion criteria. We obtained 54 of these papers, which were coded for the map. Papers were published between 1994 and 2006, with 45 (83%) published from 2000 onwards. An additional criterion was applied to these studies to identify only those studies in which the participants were families in which multiple problems spanned more than one generation of family members of secondary school age or above. The 10 studies which met this criterion were included in the in-depth review.

What are the implications?

The results do not provide evidence to either support or refute the claim that improvements in service co-ordination will improve outcomes for the targeted group. The apparent paucity of robust empirical evidence in this area suggests that the main implication of this review is that any policy or practice initiatives of this type should be accompanied by rigorous evaluation.

CHAPTER ONE

Background

Children and Young People's Review

Budget 2006 announced the Children and Young People's (CYP) Review, to be led jointly by HM Treasury and the Department for Education and Skills. This was one of a number of policy reviews to inform the Comprehensive Spending Review by considering the implications of a number of long-term challenges facing Britain. The CYP Review was tasked with considering how to embed the three principles identified in Support for parents, the best start for children (DfES, 2005) - rights and responsibilities, progressive universalism and prevention - to improve outcomes for children and young people.

One strand of the CYP Review was to focus on the subgroup of families and children identified in the Social Exclusion Task Force's Action Plan on Social Exclusion (SETF 2006) who are at risk of becoming locked in a cycle of low achievement, high harm

and high cost. This Systematic Rapid Evidence Assessment (SREA) focuses on the 'stock' of families already regarded as high cost, high harm; those 'at high risk' of moving into this situation; and those cycling in and out of this category. The term High Cost High Harm Household Units (HCHHHU) was adopted as a label for this group of families. Early intervention aiming to prevent families moving towards such poor outcomes in the first place was not the main concern of this part of the SREA.

A key question for the strand of the CYP Review looking at HCHHHU was to consider whether we can better align existing local services to improve identification of, and effective intervention with, such families to support them in exiting the cycle of low achievement. The SREA described in this report was commissioned to contribute part of the evidence base in tackling this question, by undertaking a systematic synthesis of published international research studies.

CHAPTER TWO

Systematic Rapid Evidence Assessment method

2.1 Review type

Like any research activity, reviewing can be prone to intentional or unintentional bias, which is why 'systematic' reviews are often used. Systematic reviews answer a clearly formulated question using explicit methods to identify, select and assess relevant research for quality, and to draw conclusions from their results in a transparent way. They give policymakers and other stakeholders a transparent and unbiased picture of current research knowledge in a specific area to facilitate informed decision-making.

The review was a Systematic Rapid Evidence Assessment (SREA). The SREA is a focused limited-search review which uses the same methods and principles as a systematic review, but reduces the scope of evidence considered in order deliver the product more quickly.

In this case:

- the SREA question was very specifically focused on a particular subgroup and particular type of intervention for this subgroup only;
- the search was restricted in scope - bibliographic databases were searched using only a limited range of search terms rather than extensive search of all variants; and only a limited search for grey literature was undertaken;
- a simple descriptive map of included studies was produced to aid decisions on finalising the scope for the in-depth review.

Thus the SREA may not be as comprehensive and detailed as a full systematic review. However the processes involved are carried out systematically, hence the use of the term Systematic Rapid Evidence Assessment as opposed to just Rapid Evidence Assessment.

2.2 How this SREA was conducted

Full details of the method used to conduct this systematic review are given in the Technical Report (Newman et al. 2007) and a summary identifying the key stages in the process and the inclusion criteria used to select studies can be found in appendices 2.1 and 2.2.

The focus of the SREA, the criteria used to determine which studies should be included, and the topic of the in-depth phase were decided through a series of meetings and email exchanges between the team conducting the review and the CYP Policy Review Team.

2.2.1 SREA Question

The questions addressed by this systematic rapid evidence assessment were:

How effective are interventions that aim to improve the delivery of services to High Cost High Harm Household Units (HCHHHU) through integration/co-ordination mechanisms at producing improved outcomes (broadly defined)?

What evidence is there, if any, of the relative cost-benefit of any approaches?

In order to search the literature systematically, we needed to develop clear definitions for each of the terms in the research question. This was not straightforward. A major difficulty for research reviews in this field is that the concept of High Cost High Harm is poorly defined and is of comparatively recent provenance, and the specific term does not appear frequently in the research literature. Similarly, it was rare to find interventions that specifically label themselves as targeting this particular group. The concept of service reorganisation/integration/co-ordination is also hard to pin down. We wanted to know about

effective interventions that cross agency, service and/or government department boundaries to meet the *multiple* needs of families across *multiple* domains (e.g. combinations of low attainment in school, school refusal, eviction from housing, poor health, repeat offending etc.). It was recognised that even this comparatively focused group would contain a wide range of problems, individuals, families and interventions. In operationalising these concepts we therefore attempted to ensure that the review focused on situations where there were genuinely multiple problems being genuinely experienced by more than one individual, and where the focus of the interventions was the whole family as opposed to individuals within a family. The term 'household unit' was employed to ensure that any grouping of multiple generations socially constituted as a family would be included.

2.2.2 Definitions and scope

The following definitions were agreed with the policy team for the purposes of this review:

High Cost High Harm Household Units: These are taken to be household 'units' in which members are subject to (and have been, with little success, for more than one generation) multiple forms of intervention to address multiple problems which might include (but are not limited to) more than one of the following: antisocial behaviour; offending; addiction problems; child-welfare problems; lack of education/employment; poor health.

Interventions: In this context 'interventions' refers to initiatives or programmes which aim to redesign, reconfigure, co-ordinate, or integrate (referred to from hereon as co-ordination) the delivery of services to HCHHHU.

Outcomes: Outcomes will follow from the interventions considered. The specific outcome of interest is 'breaking the cycle of high cost high harm'. Such a concept is difficult to operationalise and, even if possible to operationalise, difficult to measure. It was therefore considered likely that outputs (i.e. improvements in service delivery) and/or specific outcomes, such as increased attendance at school, would be the major outcomes included in the review. However any outputs or outcomes were considered as part of the review.

These definitions provided a reasonable basis for the practical task of identifying studies, although this was not without some difficulty. The implications of these limitations are discussed further in Chapter 5.

2.2.3 Process

We conducted the SREA in two phases: a *mapping* phase and an *in-depth* phase. The mapping phase was conducted during June and July 2006. Through searching electronic databases, looking for citations in reference lists, searching the web and personal contact, we identified relevant research which evaluated interventions with the target group of HCHHHUs according to the above definitions. A number of inclusion and exclusion criteria were employed to assess, in an unbiased way, whether individual studies were relevant. The specific criteria are set out in Appendix 2.2.

Although they addressed the broad review question, the studies in the map were quite diverse, addressing a number of distinct sub-questions. It was therefore necessary to identify and prioritise a specific question for the in-depth review. A refined in-depth review question with an additional inclusion/exclusion criterion was developed after the review team consulted with advisory group members on the results of the mapping analysis.

The initial selection criteria included a need to focus on families where multiple problems spanned multiple generations. However it was recognised that in many of the studies in the map the second generation in question were young children and thus the extent to which the 'problems' could be considered truly multi-generational was questionable. It was therefore decided that the in-depth review would focus on studies where there were clearly two distinct generations of the household with multiple problems.

The in-depth phase was conducted in August and September 2006. A second set of inclusion criteria were used to identify only those studies in the map that looked in detail at the evaluations of the interventions which were focused on delivery of services to families in which the 'problems' or 'poor outcomes' spanned two or more generations of secondary school age or above.

There are 54 studies in the map and 10 studies in the in-depth review. These are described in more detail in chapters 3 and 4 respectively.

2.3 What is not in this SREA

The details of the inclusion and exclusion criteria used to select studies for the SREA are given in 2.2. However, a brief explanation of why certain high-profile interventions, which some may feel are relevant to the topic area, are not included are probably warranted at this point.

Maximizing efficiency through service co-ordination and integration has been a key theme of service development initiatives across a wide range of public services and client groups. However, the key focus of this review is the co-ordination/integration of multiple services to household units with identified multiple problems. These are not universal services to families at risk, preventative services, or services that are primarily

preventative. For this reason, evaluations of initiatives such as Sure Start, Health Action Zones, Education Action Zones and the Home Office-funded 'On Track' programme in the UK, and Headstart, Healthy Families America and the Comprehensive Community Mental Health Programme in the USA, were not included in the SREA. Similarly, single interventions that may include working with families but which focus on one particular problem such as parenting classes, multi-systemic therapy (which appears to focus on family dynamics in particular) or interventions to prevent antisocial behaviour or offending in young people are also not included. Reviews (systematic or otherwise) have been conducted in all these areas (Farrington and Welsh 2003; Bunting 2004; Moran and Hagell 2001; Littell et al. 2005; Sutton et al. 2004; Prior and Paris 2005; Penn et al. 2004).

CHAPTER THREE

The evidence map

This section provides a brief summary of the main findings of the map. Further information and a full list of references to the studies in the map can be found in the technical report (Newman et al. 2007).

3.1 Number of papers/ studies

Total number of papers identified = 3,441

Duplicate papers = 304

Total number of studies identified as meeting inclusion criteria = 89

Number of linked items (N=28) and unavailable items (N=7) = 35

Total number of studies coded for map = 54

Papers were published between 1994 and 2006, with 45 (83%) published from 2000 onwards

3.2 Nature of intervention, services and support provided

All studies appear to evaluate some form of collaboration, integration or co-ordination of service. The nature of these arrangements are not always clear but they appear to include reorganisation into multiservice/disciplinary teams, partnership arrangements between separate agencies, and/or co-ordination of service access/delivery through case worker-type approach.

- A wide range of services are the subject of the improved delivery efforts. Support with service access and resources and personal social family support are the biggest categories. However, this may be a function of the broad nature of these categories

- A range of agencies are the subject of the improved delivery effort. Child welfare/social services and health care services are the biggest categories. However, this may reflect to some extent the direction of searching efforts and/or the fact that these categories are quite broad.
- The type of agency (in terms of its organisational characteristics - e.g. private or public) was not well reported in most studies. A large number of studies took place in the USA making it more hazardous to make judgements about this.

3.3 Characteristics of study participants/target group of service provision

- Sixteen studies were carried out in the UK, with 9 only in England. The bulk of the remainder were carried out in the USA.
- All subjects were High Cost High Harm Household Units (HCHHHU) and in 17 studies this appeared to extend over more than one generation in the family. This refers to the initial definition of multi-generational which included younger children. In only 10 of these 17 studies did the younger generation consist of children of secondary school age or above.
- In 24 studies the whole family was the subject of the service/data collection. A small number of studies focused on the 'the community' and in a smaller number service providers themselves were the subject of service delivery/data collection.

3.4 Outcome measures and evaluation methods

- The majority of studies (N=41) measured impact on service user outcomes. Many studies measured service outputs (i.e. use) and/or inputs (N=22; N=15). Almost a third of studies measured stakeholder perceptions (N=17).
- Studies used a range of methods with many studies reporting using more than one method.
- Economic analysis was carried out in 9 of the 54 studies included in the map (in 5 of these studies a cost-benefit analysis was completed; 2 studies completed cost effectiveness analyses; and in a further 2 studies the cost of the intervention only was reported).

CHAPTER FOUR

In-depth review results

4.1 Studies selected for the in-depth review

Ten out of 54 studies in the systematic map met the second set of inclusion criteria and are therefore included in the in-depth analysis. Table 4.1 below provides details of the authors, location and name of the programme studied. Further details on the services and nature of clients' problems in each study can be found in appendix four. A detailed summary of each study can be found in the technical report (Newman et al. 2007).

4.2 Quality of Studies

Full details of the methods used to assess the quality of the studies are given in the technical report (Newman et al. 2007). Table 4.2 below shows the results of the assessment of the quality of studies. For eight out of the ten studies the overall quality of the study for answering the SREA question was judged to be low.

4.3 Synthesis

In the first stage of synthesis the outcomes measured in the individual studies were categorised into four different groups. The grouping was based on the review teams' assessment of the degree of similarity between the outcome measures either conceptually or practically or both.

- Inputs/outputs -This includes indicators of service performance/output, co-ordination, and relationships between staff
- Impact on user outcomes
- Perceptions
- Economic evaluations

4.3.1 Inputs/outputs

The reporting of the detail of the service inputs and outputs was generally very limited. Furthermore, as has already been noted the overall quality of reporting for most studies was poor. It was not therefore possible to explore patterns of relationships between service inputs, outputs and outcomes. The information that was reported about the characteristics of the service co-ordination/integration effort in each study is summarised in appendix four of the technical report (Newman et al. 2007).

4.3.2 Impact on user outcomes

Prior to conducting the synthesis it was hypothesised that impacts of interventions might vary across the different outcomes reported in the studies. Therefore the second stage of synthesis explored the pattern of the results reported in the individual studies across five different outcome groups which are shown table 4.3.2 below.

4.3.2.1 Economic wellbeing outcomes

Two studies (Jones et al. 2006 and Nixon et al. 2006) evaluated interventions aiming to improve household economic wellbeing (see table 4.3.2.1 below). This outcome is measured at the level of the family as a whole. Both studies indicated positive impacts on reducing the risk of losing housing, minimising threat of possession action, and securing tenancies. However, both studies were judged to provide a low WoE. Lack of comparison groups and insufficient levels of detail reported in both studies raised some doubts of their results, even though they provided baseline data that can be used for indicating changes (i.e. pre/post-test evaluation). Therefore, without robust evidence, we cannot be sure whether the effects identified were caused by the interventions or something else.

Table 4.1

Study	Location	Programme
De Paul and Arruabarrena (2003)	Spain	The Gipuzkoa Program
Dillane et al. (2001)	Scotland	Dundee Families Project
Harrell et al. (1999)	USA	Children at Risk Program
Hunter et al. (2004)	USA	Wraparound Milwaukee Program
Jones et al. (2006)	England	Shelter Inclusion Project
Nelson et al. (2000)	USA	SET (Structural Ecosystems Therapy)
Nixon et al. (2006)	England	Rehabilitation projects for families at risk of losing their homes as a result of anti-social behaviour ¹
Pritchard (2001)	England	The Dorset Healthy Alliance Project
Sen and Goldbart (2005)	India	Family-based intervention for children with disability
Tischler et al. (2004)	England	A family support service for homeless children and parents

¹ This is the interim report of the evaluation of the Anti-Social Behaviour Intensive Family Support Projects. The final report was published in October 2006 after this SREA was completed. The final evaluation published as Department for Communities and Local Government (DCLG) (2006) Anti-social behaviour Intensive Family Support Projects: An evaluation of six pioneering projects for families at risk of losing their homes as a result of anti-social behaviour. <http://www.communities.gov.uk/index.asp?id=1503785>

Table 4.2

	Weight of Evidence A: quality of execution	Weight of Evidence B: appropriateness of research design and analysis	Weight of Evidence C: relevance of particular focus of the study	Weight of Evidence D: overall weight of evidence
Nixon et al (2000)	Low	Low	Medium	Low
Harrell et al. (1999)	High	High	High	High
Nelson (2000)	Low	Low	Low	Low
Dillane et al. (2001)	Medium	Low	High	Low
Pritchard (2001)	High	Medium	High	Medium
De Paul and Arruabarrena, (2003)	Medium	Low	Medium	Low
Hunter et al. (2004)	Low	Low	Low	Low
Tischler et al. (2004)	Medium	Low	Medium	Low
Sen and Goldbart (2005)	High	Low	Medium	Low
Jones et al. (2006)	Medium	Low	High	Low

4.3.2.2 Education outcomes

Three studies (Harrell et al. 1999, Nixon et al. 2006, Pritchard 2001) measured education outcomes ranging from peer support and school performance to educational and job expectations (see table 4.3.2.2 below). This outcome measures impact on individual members (children) within HCHHU.

Table 4.3.2.2 Education outcome measures

Harrell et al.'s study (1999) found positive effects on peer support, drop-out and peer pressure. However the authors report they found 'no difference' on school performance, educational and job satisfaction and school attendance, without providing any data to support this interpretation. This is problematic: the results would never be absolutely zero, so one is left wondering how they decided there was no difference, as the other results they report as 'different' do not appear to use statistical significance or any other such criteria to be described as showing a difference. Furthermore it would appear inconsistent to find a positive effect on reducing drop-outs and yet no effect on attendance. The study by Pritchard (2001) found positive effects on all the outcomes measured in this category. Nixon et al. (2001) also found a positive effect on school attendance. The poor reporting in the study by Harrell et al. notwithstanding, the fact that both this study and the study by Pritchard are of better quality would give us more confidence in any patterns that emerge from the results. The results appear to suggest that these co-ordination interventions do impact on attendance at school.

4.3.2.3 Antisocial behaviours

This group measured impact at the level of individuals within HCHHU. However changes in these behaviours will obviously have impacts on other individuals within the same HCHHU. Table 4.3.2.3 below shows data on the outcome measures of interventions targeting antisocial behaviours. Harrell et al. (1999) reported positive impacts on substance misuse and criminal offence outcomes on high-risk adolescences and their households. The Pritchard (2001) study showed improvements in behaviour, attitude, lowered crime and substance misuse, and better aspiration for the future in primary and senior school settings. Two cross-sectional studies (Nixon et al. 2006, Jones et al. 2006) and one single-group pre/post-test study (De Paul and Arruabarrena 2003) provided less reliable approaches than those which had control groups, although they reported the same pattern of positive impacts on antisocial behaviours.

This consistent pattern of results across the five studies (particularly the two better-quality studies) suggests that interventions were leading to improved outcomes in this category. However, some

caution is necessary in accepting this analysis, as all of these data were obtained by self-reporting. It may be notable that the only data that was not based on self-reporting is in the study by Jones et al. (2006) where data based on case records indicated a worsening in antisocial behaviour for a subgroup of participants in the study over the period of the intervention.

4.3.2.4 Family outcomes

These outcomes can encompass impact both on individuals within HCHHU (e.g. running away) and on the family as a whole (e.g. evaluations of family dynamics). Two studies reported on effects of family outcomes (see table 4.3.2.4 below). The De Paul and Arruabarrena (2003) study used a self-report questionnaire to screen for risk of physical child abuse; the authors report a decrease in the score indicating risk of physical abuse between pre- and post-evaluation. Scores on 'Parenting role performance', 'familial capacities', 'child role performance' and 'child capacity' scales also showed improvement at the end of the intervention (De Paul and Arruabarrena 2003).

In the Harrell et al. (1999) study, the authors claim (no data reported) there were reductions in early pregnancy and runaways in the intervention group but on the other family outcomes, no positive or negative results were identified.

4.3.2.5 Mental health and wellbeing outcomes

These outcomes measured impact on individuals within HCHHU. Only De Paul and Arruabarrena (2003), rated low WoE, reported positive results on mental health and wellbeing outcomes (loneliness and depression). Harrell et al. (1999), rated as high WoE, reported no difference on self-esteem, alienation and risk-taking between young people who received the services and the ones who did not. Given this pattern of findings we cannot be confident that the interventions had any impact on mental health and wellbeing outcomes.

4.3.3 Perceptions

Five studies evaluated outcomes using only interviews, surveys, or case study methods, although all studies provided some data of this kind. Tischler et al. (2004) described service experiences and satisfaction by homeless families who received support from family support workers. In general, families felt that the family support workers helped with their emotional problems and also appreciated advice provided on parenting and schooling.

Nelson et al. (2000), a case study, provided in-depth details on intervention process and activities on helping family reunification. Structural Ecosystems Therapy was used in the case study. The author claimed that this approach led to an

Table 4.3.2 Outcomes measured in each synthesis category	Synthesis category	Actual outcome measure used in study
	Economic wellbeing	Housing status, economic status, money management
	Education outcomes	School performance, school attendance, exclusion, peer support
	Antisocial behaviours problems, substance misuse	Criminal/offence, antisocial behaviour, behaviour
	Family outcomes	Family relationship, child abuse/neglect (risk of)
	Mental health and wellbeing	Attitude, self-esteem, satisfaction, depression, emotional problems

Table 4.3.2.1 Economic wellbeing outcome measures	Synthesis category	Actual outcome measure used in study
	Economic wellbeing	Housing status, economic status, money management
	Education outcomes	School performance, school attendance, exclusion, peer support
	Antisocial behaviours problems, substance misuse	Criminal/offence, antisocial behaviour, behaviour
	Family outcomes	Family relationship, child abuse/neglect (risk of)
	Mental health and wellbeing	Attitude, self-esteem, satisfaction, depression, emotional problems

Table 4.3.2.2 Education outcome measures	Education outcomes	Weight of evidence	Result	Outcome measures
	Harrell et al. (1999)	High	+	Peer support
			+	Drop out
			+	Peer pressure
			No difference	School performance
			No difference	Educational and job expectation
			No difference	School attendance
			+	Potential gain in the area of educational risk
	Nixon et al.(2006)	Low	+	School attendance
	Pritchard (2001)	Medium	+	School performance
			+	School attendance
			+	School exclusion
			+	Peer support

Table 4.3.2.3

Antisocial behaviour outcome measures (*statistically significant)

Antisocial behaviour	Weight of evidence	Result	Outcome measures
Harrell et al. (1999)	High	+*	Substance misuse (drug use, or purchase)
		+*	Criminal offences (violent crime)
		+	Criminal offences (any crimes)
		+	Gang membership
		No difference	Severe personal problem
	Medium	+	Antisocial behaviour: vandalism (primary school)
		Negative	Antisocial behaviour: vandalism (middle school)
		+	Antisocial behaviour: vandalism (senior school)
		+	Criminal offences (primary school)
		Negative	Criminal offences (middle school)
		+	Criminal offences (senior school)
		+	Substance misuse: alcohol (senior school)
	Low	+	Antisocial behaviour (based on report from project workers)
		Negative	Antisocial behaviour (based on case records)
	De Paul and Arruabarrena (2003)	Low	+*
Nixon et al. (2006)	Low	+	Antisocial behaviour

Table 4.3.2.4

Family outcome measures (*statistically significant)

Family outcomes	Weight of evidence	Result	Outcome measures
Harrell et al. (1999)	High	No difference	Family risk of family conflict, family violence, attachment, family organisation, problem behaviours among parents and siblings
		+	Early pregnancy or parenthood
		+	Runaway
De Paul and Arruabarrena (2003)	Low	+ +*	Risk of Child Abuse (score) Parenting/child role, family/child capacity

Table 4.3.2.4

Mental health and wellbeing outcome measures (*statistically significant)

Mental health and wellbeing	Weight of evidence	Positive	Outcome measures
De Paul and Arruabarrena (2003)	Low	+ +*	Loneliness Depression
Harrell et al. (1999)	High	No difference	Self-esteem, alienation, risk taking

improvement in family relationships, inter-agency collaboration, and an improved relationship between the mother and agency representatives which resulted in a successful family reunification.

The Dundee family project aimed to help families who were homeless or at risk of homelessness as a result of antisocial behaviours. The study evaluated the processes and outcomes of the project using qualitative methods. Follow-up interviews of 10 families identified positive views about how the project had been implemented. Families felt that the project provided benefits to improve housing status, facilities for children, personal development and family relationships and behaviour (Dillane et al. 2001).

Sen and Goldbart (2005) described a three-year intervention for families with disabilities in India. The study reported positive improvements at the family level. Parents felt that they could handle their children more confidently and appropriately and behavioural problems in their children had reduced. Relationship with their neighbours had improved.

In the study by Jones et al. (2006) service users felt that the project's intervention had made a significant difference to their lives. In particular, many felt that it had stopped them from being evicted. Most people felt they were managing to address antisocial behaviour, through feeling more in control of their lives and better able to deal with problems such as debt. Agency representatives reported that the project had been successful in helping service users address problems in their lives. Some conflicts of interest were addressed through the professionalism of the project, and good trust had been established. The project was felt to have played a part, alongside other initiatives, in addressing wider social exclusion at a local level.

4.3.4 Economic evaluation

Only three studies (Dillane et al. 2001, Jones et al. 2006, Pritchard 2001) in the review included cost-benefit analysis (CBA). That is, costs and benefits of intervention were identified and weighed against each other in financial terms. The study by Nixon et al. (2006) reports some cost savings that were reported by a Housing Association in their study, but with insufficient detail to assess the veracity of the claimed savings. Full details of the methods used and of the results of these analyses can be found in the technical report (Newman et al. 2007). With the exception of the study by Pritchard (medium WoE) the other studies were rated as low quality in terms of their research design and methods. All of the studies were rated low for the quality of their economic analysis. All considered only a limited range of costs (of the project budget), and all estimated savings only in terms of savings in public expenditure. Estimates of the financial value of benefits were all based on costs estimated from other data. These estimates were not tested for sensitivity, nor were any adjustments made for the differential timing of costs and savings (i.e. service budgets are spent now and savings - say from reductions in crime - are realised some time in the future). It is not always clear how estimated savings or returns related to the outcomes of the study. For example, estimates of costs/benefits did not appear to take into account costs or outcomes of those who dropped out of the intervention, or did so in only a limited fashion.

All the studies reported that the interventions generated net savings. The figures are difficult to compare as they are not calculated in or presented in the same way. Dillane et al. (2001) estimated an overall cost saving of £117,600 per annum. In the Pritchard study (2001) the estimated total net saving per annum ranged from £65,000 to £434,000 depending on the assumptions made about savings accruing from future reductions in crime and antisocial behaviour. Jones et al. (2006) estimated a saving of £9,500 per family, but it is not clear whether this is a per annum figure or a lifetime saving.

Given the limitations of the study methods generally and the economic analysis in particular it would appear unwise to over-interpret the results of the economic analysis in these studies.

4.4 Summary of in-depth review findings

- Overall the quality of the reporting of the studies was poor: eight studies were given a low overall weight of evidence, one medium and one high.
- Ten studies were categorised based on reported outcome measures into five groups: economic wellbeing, education outcomes, antisocial behaviour outcomes, family outcomes, and mental health and wellbeing outcomes.
- The pattern of results seen suggest that the co-ordination intervention led to positive effects on attendance at school but no clear pattern emerged on the other educational outcomes measured (three studies: one high WoE, one medium, one low)
- The pattern of results seen suggest that the co-ordination intervention led to positive effects on self-reported antisocial behaviour and delinquency (five studies: one high WoE, one medium, three low)
- No clear pattern of results emerged on the family-related outcomes measured (two studies: one high WoE, one low)
- No clear pattern of results emerged on the mental health and wellbeing outcomes measured (two studies: one high WoE, one low).
- The two studies that measured economic wellbeing-related outcomes were consistent in identifying positive effects but were designed in such a way as to preclude the demonstration of cause and effect relationships (two studies both low WoE).
- Studies that investigated the perceptions of clients about the co-ordinated intervention they had received suggest that such interventions are acceptable and welcomed by those who responded (5 studies all low WoE).
- The lack of high quality studies in the review, poor reporting of characteristics of the co-ordination/integration effort, and the consistency in findings between the two better quality studies meant that it was not possible to explore the potential impacts of different aspects of the structure and management of the co-ordination and integration efforts that were the subject of the studies.
- The studies which included economic analysis were consistent in reporting cost savings associated with the interventions. However, the quality of the economic analysis was low in all cases and in only one of the studies was the general quality of the study better than low, suggesting that care is needed when making inferences from this pattern of findings.

CHAPTER FIVE

Conclusions and discussion

5.1 Implications

The large number of citations identified in the searches suggests that service co-ordination/integration has been a consistent theme of public service development initiatives internationally for some years. It would appear however that the targeting of such initiatives on services for families with multiple existing problems over multiple generations is much less common. Where such initiatives have been undertaken they appear to involve a wide range of services and provide support to families with a wide range of problems. However, this SREA has identified few rigorous evaluations of the costs and benefits of such initiatives. Any possible implications for policy and practice based on the findings of the SREA must therefore be viewed as provisional.

5.1.1 Implications for policy

Policymakers will presumably look to this SREA with a view to answering the question 'Does greater co-ordination/integration of existing service provision produce better outcomes for HCHHHU?'. Unfortunately this SREA identified little rigorous empirical research that addressed this question. It is not that the studies identified provide evidence that such interventions lead to poorer outcomes, but simply that they do not provide convincing evidence of outcomes that are clearly attributable to the intervention - not evidence of absence of effect, but absence of evidence of effect.

On the basis of the studies identified we can be reasonably confident that the clients found the interventions acceptable and useful. Of the studies identified for this SREA only two were designed in such a way that we could reasonably be confident that any impacts identified were due to the interventions evaluated (Harrell et al. 1999, Pritchard 2001). It is these two studies which provide the strongest evidence that such interventions may impact on

antisocial or delinquent behaviour and improve school attendance. These studies were both predominantly school-based and contained a strong educational element linked with social welfare. However this cannot be taken as evidence that this type of intervention should be pursued at the expense of other types, merely that such approaches hold promise for a particular group of HCHHHU. It is difficult to judge how generalisable the success of these interventions would be as - for all their similarities - they are quite different in some respects, not the least in the fact that one was conducted in the USA and the other in Dorset.

Overall the difficulty with obtaining strong results from this SREA highlights the importance of including robust evaluation in the implementation of new policy measures.

5.1.2 Implications for research

More research beyond this SREA is being undertaken in the Treasury and other government departments to gather comprehensive and conclusive evidence of effective interventions on the topic area. The studies reported on in this review illustrate some of the difficulties in designing robust studies for evaluating the (net) impact and cost effectiveness of policy interventions in this area. Further methodological work in this area would be helpful.

The need for well designed studies to control for, or at least minimise, potential confounding variables is particularly important. Take, for example, a study that compares an integrated/co-ordinated service intervention and an intervention that consists of different agencies working independently: in such a study we can compare those who received an integrated service with those who have not received the same services. In addition, a complex intervention may require evaluations with a long follow-up period. This is because outcomes, such as changes in attitudes or working practices improvements in attainment,

may take more time to emerge. Furthermore, a wider range of impacts may need to be considered. For example, interventions may increase school attendance amongst children from HCHHHU, but does this have any longer term impact on their future employment, and does it have any adverse impact on other children in the school?

The design of such evaluations will involve grappling with many complex methodological and ethical issues by researchers, funders and participating agencies. It is therefore imperative that in planning any new policy or practice intervention funders take consideration of the need for adequate funding of and time for planning and implementing the evaluation.

Some of these questions may be answered by extending and expanding the scope of the SREA. For example, in this SREA there was no opportunity to look at research on co-ordination/integration interventions for other types of clients/services. As noted earlier projects in the 'The Children's Fund' are considered to be 'preventative' and thus were excluded from the SREA. Similarly projects in the 'ON Track' programme were excluded from the SREA because they were considered to target individuals rather than families. However, many of the projects in each of these programmes target children at risk usually with multiple problems, and through the children often work with whole families. Many of the projects would also appear to involve a high degree of service co-ordination (Sokratis et al. 2006, Hughes and Fielding 2006).

In this SREA we ran a simple search on limited sources, mainly electronic databases. Keywords used in this review did not cover all possible relevant terms. 'High cost high harm household unit' and integration/co-ordination terminology are not only loosely defined but also can be used in a broader ways and contexts. Searching would also be expanded to include citation searches and to extend the period of time covered.

A more detailed analysis of the included studies and/or any other additional relevant research publications would be possible if sufficient time were available to contact authors to get more data and information about their studies.

It would also be appropriate to conduct a systematic review of all types of interventions (i.e. not just service co-ordination and integration) for HCHHHU, particularly if this group were to become a major focus for new policy interventions.

5.1.3 Implications for practice

Given the limitations of the studies in the review, there are few implications that can be drawn from the studies regarding how co-ordination/integration should be initiated, managed, and funded; who should do it; what qualities staff need; which organisational cultures are most

conducive; what training staff need; which incentives work; and so on. However, work on other areas of effective organisational change and management suggests that all such issues should be at least considered (Sheaff et al. 2004).

5.2 Strengths and Weaknesses of this SREA

This SREA was carried out in a very short space of time (about 12 weeks) and was delivered within the deadlines set by the funder. This was important as it allowed the results to be fed into the policy-making process in a timely fashion. The SREA was also carried out using a systematic and transparent approach which means that it can be extended and updated much more easily than any other non-systematic approach. It also means that any judgements made by the review team are transparent and open to scrutiny, as are the limitations of the review.

The broad review question was necessarily loosely defined, particularly in respect of the target population (i.e. what is meant by HCHHHU) and the intervention (i.e. what is meant by improving service delivery through co-ordination/integration). This and the time resource constraints means that the search for evidence cannot be considered comprehensive or exhaustive. This means that there may be research evidence on forms of 'service integration/co-ordination' that were not identified. For example, it appears that 'case management' is often used as a descriptive term for the brokering process involved in service co-ordination efforts. This term was not included in the search strings.

Ultimately the quality of any systematic research synthesis is dependent on the quality of the primary studies that are included in the synthesis. Quality in this context refers to the degree to which the included study provides an answer to the review question. The majority of studies included in this review were of low Weight of Evidence. This meant that they were only able to contribute a very limited amount to answering the in-depth review question, which required not only demonstration of impact but also establishment of a cause and effect relationship between the co-ordination intervention and the outcome measured.

It is not unusual in subject areas where the existence of widely accepted definitions and/or empirical evidence creates accepted boundaries to adopt a comparatively narrow scope for a systematic review question - for example, a systematic review of randomised experiments on the effectiveness of treatment X for condition Z on patient group Y. However, when such an approach is used in subject areas where conceptual, practical and evidential boundaries are more provisional or do not yet exist, as in this case, it may leave 'gaps' in the review. This raises the question of whether the SREA approach should be used in such

circumstances. We suggest that one of the benefits of using this approach has been that process of designing the SREA helped policymakers to clarify their thinking about, amongst other things, what is meant by 'HCHHU' and 'service integration/co-ordination'. We hope that the report will make a further contribution to developing conceptual and practical clarity in this area.

Given the limitations of the SREA it is reasonable to ask whether alternative methods of 'reviewing' evidence in the field would have produced a better or more useful outcome. Ultimately this is an empirical question which cannot be answered in the absence of an alternative method of review on the same topic. It is not clear whether it

would have been possible to do a full systematic review within the time available, even if sufficient resources had been made available to do so, as a certain amount of 'review time' is associated with the process of 'thinking and discussing' the review, a process that is not necessarily made any quicker by using more people. An alternative method and one used in other parts of the CYP review is that of 'asking expert(s)' to produce a review on a topic. This approach may have other advantages but the disadvantages of this approach in terms of its lack of transparency, possibility of selection bias and lack of a sound basis for systematic expansion or updating are also well known (Gough and Elbourne 2002).

CHAPTER SIX

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Appendix 2.1: The EPPI-Centre Systematic Rapid Evidence Assessment process

What is a Systematic Rapid Evidence Assessment (SREA)?

A systematic review is a piece of research following standard methods and stages. A review seeks to bring together and 'pool' the findings of primary research to answer a particular review question, taking steps to reduce hidden bias and 'error' at all stages of the review. The review process is designed to ensure that the product is accountable, replicable, updateable and sustainable. The systematic review approach can be used to answer any kind of review question. Clarity is needed about the question, why it is being asked and by whom, and how it will be answered. The Systematic Rapid Evidence Assessment follows the same process as a systematic review but is modified to facilitate the completion of the process more quickly. In this review the modification consisted of restricting the search for possible studies by searching only a limited number of bibliographic databases, using a limited number of keywords and carrying out only limited follow-up of identified citations. The scope of the review was also defined very tightly using very specific inclusion criteria.

Stages and procedures in a standard EPPI-Centre Review

- Formulate review question and develop protocol
- Define studies to be included with inclusion criteria
- Search for studies - a systematic search strategy including multiple sources is used
- Screen studies for inclusion
 - Inclusion criteria should be specified in the review protocol
 - All identified studies should be screened against the inclusion criteria
 - The results of screening (no. of studies excluded under each criterion) should be reported
- Describe studies (keywording and/or in-depth data extraction)
 - Bibliographic and review management data on individual studies

- Descriptive information on each study
- The results or findings of each study
- Information necessary to assess the quality of the individual studies

At this stage the review question may be further focused and additional inclusion criteria applied to select studies for an 'in-depth' review

- Assess study quality (and relevance)
 - A judgement is made by the review team about the quality and relevance of studies included in the review
 - The criteria used to make such judgements should be transparent and systematically applied
- Synthesise findings
 - The results of individual studies are brought together to answer the review question(s)
 - A variety of approaches can be used to synthesise the results. The approach used should be appropriate to the review question and studies in the review
- The review team interpret the findings and draw conclusions and implications from them

Quality assurance (QA) can check the execution of the methods of the review, just as in primary research, such as:

- Internal QA: individual reviewer competence; moderation; double coding
- External QA: audit/editorial process; moderation; double coding
- Peer referee of: protocol; draft report; published report feedback
- Editorial function for report: by review specialist; peer review; non-peer review

Appendix 2.2: Inclusion Criteria used in this SREA

Inclusion criteria

- The study report must be published after 1992.
- The study must be published in English.
- The 'evidence' must be a report of an evaluation of an intervention with data or outcomes (of any kind).
- The subjects of the intervention must be:

service providers or services that are targeted specifically or have the aim of providing services to target group (see HCHHHU definition below); OR

HCHH Household Units in which members are subject to multiple forms of intervention to address various problems which might include more than one of the following: antisocial behaviour; offending; addiction problems; child-welfare problems; lack of education/employment; poor health; OR communities or localities in which HCHHHU are present.

- The intervention must be the co-ordination/integration of multiple services and/or agencies. The intervention is intended to change the way that multiple services are delivered to or accessed by the targeted group by increasing or improving co-ordination/integration.

For a paper to be included in the systematic map, it should not have been excludable under any of the criteria given below

Exclusion criteria

- 1 The study report was published before 1993.
- 2 The study report was NOT published in English.
- 3 The 'evidence' is NOT a report of an evaluation of an intervention with data or outcomes (of any kind).
- 4 The intervention is NOT the delivery/co-ordination/integration of multiple services and or agencies. The intervention is not intended to change the way that multiple services are delivered to or accessed by the targeted group.

- 5 The subjects of the intervention are:

NOT service providers or services that are targeted specifically or have the aim of providing services to target group (See HCHHHU definition); OR

The subjects of the intervention are NOT HCHHHU in which members are subject to multiple forms of intervention to address various problems which might include more than one of the following: antisocial behaviour; offending; addiction problems; child-welfare problems; lack of education/employment; poor health; OR

The subjects of the intervention are NOT communities or localities in which HCHH household units are present.

- 6 The study must NOT report on an evaluation of a project aimed at preventing children from developing problems of any kind even if targeted at so called 'high risk' families and involving co-ordination/integration of services. (Early years education projects and universal school-based prevention projects would come under this heading).

Exclusion criterion for the in-depth review:

- The 'target group' for the service provision in the study did NOT explicitly include families in which 'problems' or 'poor outcomes' span two or more generations of secondary school age or above. (NB Studies that referred to the younger of the two generations as youth, juvenile, adolescent, or teenager were included.)

Appendix 4: Services provided to and problems experienced by participants in studies in the in-depth review

Study	Who provides the service(s)?	Problems experienced by individuals in the sample
De Paul and Arruabarrena (2003)	Counsellor/therapist, social worker, teacher/education support staff, psychologist	Unemployment, antisocial behaviour, low education level (parents), child abuse/neglect, poor health outcomes, substance misuse, mental health problems, family breakdown, socio-economic deprivation, social isolation, marital discord, conflict with relatives
Dillane et al. (2001)	Criminal justice system staff, community/outreach worker, social worker, teacher/education support staff, health care worker, family support workers	Unemployment, antisocial behaviour, exclusion/non-attendance at school, criminal convictions, poor health outcomes, substance misuse, mental health problems, family breakdown, looked after children, socio-economic deprivation, domestic violence, housing problems
Harrell et al. (1999)	Criminal justice system staff, community outreach worker, teacher/education support staff, healthcare worker, family support workers, employment advisor/case worker	Unemployment, antisocial behaviour, exclusion/non-attendance at school, criminal convictions, substance misuse, mental health problems, socio-economic deprivation, poor quality of physical environment, domestic violence, family and relationship problems
Hunter et al. (2004)	Criminal justice system staff, counsellor/therapist, social worker, psychologist	Exclusion/non-attendance at school (educational problems/special educational needs), criminal convictions, child abuse/neglect, substance misuse, mental health problems, family breakdown, looked after children, temporary accommodation, domestic violence
Jones et al. (2006)	Family support workers, management/administrator, young persons worker	Unemployment, antisocial behaviour, exclusion/non-attendance at school, criminal convictions, poor health outcomes, substance misuse, mental health problems, family breakdown, looked after children, temporary accommodation, socio-economic deprivation, domestic violence
Nelson et al. (2000)	Criminal justice system staff, counsellor/therapist, social worker, healthcare worker	Unemployment, child abuse/neglect, poor health outcomes (HIV+ women), substance misuse, family breakdown, looked after children, temporary accommodation, socio-economic deprivation

Nixon et al. (2006)	Community/outreach worker, residential care worker, family support workers	Unemployment, antisocial behaviour, exclusion/non-attendance at school, criminal convictions, child abuse/neglect, poor health outcomes, substance misuse, mental health problems, family breakdown, looked after children, temporary accommodation, socio-economic deprivation, domestic violence
Pritchard (2001)	Criminal justice system staff, counsellor/therapist, teacher-counsellors, educational social worker, teacher/education support staff, health care worker including child protection team	Unemployment, antisocial behaviour, exclusion/non-attendance at school, criminal convictions, child abuse/neglect, poor health outcomes, substance misuse, mental health problems, family breakdown, looked after children, temporary accommodation, socio-economic deprivation, high age-related pregnancy rates
Sen and Goldbart (2005)	Community/outreach worker	Poor health outcomes, socio-economic deprivation, poor quality of physical environment (families lived in slum housing), low literacy levels
Tischler et al. (2004)	Social worker, teacher, educational welfare or Sure Start staff, healthcare worker, family support workers	Exclusion/non-attendance at school, poor health outcomes, mental health problems, family breakdown, looked after children, temporary accommodation, socio-economic deprivation, poor quality of physical environment

The SREA is divided into four parts

**BRIEFING
SUMMARY**

A 1 page summary that has key findings from the review

**EXECUTIVE
SUMMARY**

A 3 page summary that has a summary of the methods used in the review and the key findings

REPORT

A report which details the main findings of the SREA

**TECHNICAL
REPORT**

A Technical Report which provides details of the methods used in the SREA and a detailed summary of the studies included in the SREA

All documents are available from <http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=2312>

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