

What Works for Children?

Annual Report 2002



Annual report

Executive summary

This report summarises the progress made by the ESRC *What Works for Children?* initiative over the past year. Key progress over the last twelve months has included:

- The appointment of a development officer and setting up a pilot initiative with five local authorities, allied to their Children's Fund work with children and young people aged 5-13.
- The production of summaries of evidence - *EvidenceNuggets* - in response to practitioners' requests, incorporating systematic or semi-systematic reviews.
- In addition, two overviews have been produced on the evidence on reducing inequalities in children health and preventing/reducing offending.
- Two seminars have been held with practitioners in the pilot authorities with a third event planned for December.
- A log of practitioners' requests and our responses to these has been developed and this is informing the mapping of evidence resources.
- The production of an evidence guide for practitioners wanting to search for evidence, interpret research material and implement it in their practice is close to completion.
- *What Works for Children?* has been presented in a range of policy, research and practice settings, and published in peer reviewed journals and periodicals. We have made links with research, policy and practice groups across the *EvidenceNetwork* and nationally and internationally.
- Through our development officer we have established day-to-day contact with practitioners and are identifying support mechanisms for now and the future use of evidence.
- We have received £25,000 from the Health Development Agency, 2002, for *EvidenceNuggets* related to reducing inequalities in child health

1. Introduction and context

The purpose of the *What Works for Children* node is to promote positive outcomes for children and young people, in collaboration with practice, policy and academic colleagues in the UK and beyond.

Our work plan is essentially that described in our original application, with a focus on the sharing and implementation of research evidence, rather than the generation of 'new' evidence. However, the time period between the proposal submission and the start of the project was one of considerable policy development for children in the UK. This meant that our initial task was to scan the policy and practice context for children in health and social care to ensure that our work was strategically placed.

1.1 Aims and objectives

We are doing this through:

- Developing an interactive network of research, policy and practice organisations and individuals with an interest in effective services for children and young people
- Identifying the best available evidence from research and, working with practice and policy colleagues, identifying gaps in knowledge
- Promoting the sharing of policy and practice interventions based on this evidence
- Understanding and developing ways to overcome obstacles to integrating research evidence into practice and policy
- Working with practitioners and policy makers to develop replicable models of implementing evidence-based based interventions
- Providing consultancy and training
- Developing the role of children and young people in policy and practice developments

1.2 Structure of the project

Our project is a collaborative one, including Barnardo's, City University and the University of York. Overall responsibility for the project lies with Helen Roberts (City), Di McNeish (Barnardo's) and Trevor Sheldon (York).

In the last year, Kristin Liabo, working at City University, has been appointed to the full time research officer post, and Sarah Frost, employed through Barnardo's, and working from the Children's Fund offices in Leeds, has been appointed to the full-time development officer post. Sarah works directly with practitioners on using evidence in practice; has regular meetings with practitioners, arranges seminars, and provides a conduit for two-way communication between researchers and practitioners. Appendix I describes Sarah's work since her appointment, and future plans.

Tony Newman remains a Barnardo's lead on research evidence, and supervises both of the CASE studentships linked to the award, one at the University of Bristol (academic supervisor Geraldine Macdonald) and one at University of Wales (academic supervisors Mick Bloor and Jo Sibert).

Kristin Liabo takes day to day responsibility for the research workload, producing 'nuggets' of evidence, responding to practitioners' requests, working on an evidence guide and evidence map, developing the website, and until the appointment of our implementation officer, arranging seminars. Kristin is also our link person with the British Library.

Patricia Lucas is employed 80% time, producing *EvidenceNuggets* with Health Development Agency (HDA) funding which are jointly branded Evidence Network and HDA. For a period during the summer, she was funded by the Department of Health to help produce evidence for the Children's National Service Framework (NSF) Child and Adolescent Mental Health Services evidence group, led by Carol Joughin, formerly project director at FOCUS at the Royal College of Psychiatrists. Carol will be joining the Child Health Research and Policy Unit at City in October, and will provide senior support to the *What Works for Children?* node.

Angela Underdown and Julia Gibbs, the former a qualified health visitor who had previously worked as a health policy officer with the Children's Society, and the latter the executive officer to the Chief Executive of Barnardo's, worked part-time (20% each) supporting the researchers on producing *EvidenceNuggets* from April to August when both left for full-time university posts.

Diane Rowland joined us from the University of Bristol in August on a full-time short-term contract supporting the production of nuggets. Madeline Stevens joined us in September working 60% time on the project as a research assistant. In October, we are appointing a joint Barnardo's/City intern who will provide research support to the team on a number of joint projects, including this one.

1.3 Policy and practice links

The period between our original application for funding and the start date of the project was one of considerable change in terms of policy development for children in the UK. In the light of this, our original intention to have one pilot site, and bring together a multi-disciplinary group was modified. Children's Fund projects work through multi-disciplinary teams and boards and in due course all local authorities will have Children's Fund resources. This policy and practice development is enabling us to work from the earliest stage of proposal development with Phase III projects, through to implementation in some of the Phase I areas. This work is taking place in the Yorkshire region, where the development officer is co-located with the Children's Fund in Leeds. Appendix I describes the work of our development officer, Sarah Frost.

Meetings have been held with *Research in Practice*, the Centre for Evidence based Social Services, FOCUS at the Royal College of Psychiatrists, and the evidence based child health group at the Institute of Child Health. The three principal researchers met with the children's 'Tsar', Professor Al Aynsley Green, and Carolyn Davies from the Department of Health, and a meeting was held with the evaluation staff of the Children and Young People's Unit.

We have had considerable interest in the work of the node from policy and practice colleagues nationally and internationally. Section 4 of this report describes some of the work we have done in promoting and communicating our work with these colleagues, who include the Children's Fund, the Social Care Institute for Excellence (SCIE), and the New Zealand Treasury, who are considering their options on investing in children. Helen Roberts and Trevor Sheldon are on the HDA advisory group on evidence in public health, and Di McNeish is a board member of SCIE.

1.4 Collaborative activities within *EvidenceNetwork*

We have been fortunate in our collegial relations with other nodes within the network. We have particularly valued the training and library services offered by the British Library. By the Autumn of 2002, all staff associated with the node will have attended the training provided.

Mark Petticrew helped us to develop and implement our critical appraisal training in York. Mark and Helen Roberts have an article in press with the *Journal of Epidemiology and Community Health* on methodological triage. Matt Egan from the Glasgow node attended this training.

Sandra Nutley attended our Leeds meeting, and Helen Roberts presented at St Andrews University.

Frank Windmeijer and Laura Blow (IFS/Warwick node) attended a seminar and dinner hosted by City to provide Barnardo's with background material to research evidence on reducing inequalities in child health.

We collaborated with three nodes and other colleagues in two bids (Cabinet Office and ESRC) which were shortlisted but not funded. We intend to develop this work further, to seek funding.

1.5 Further funding related to ESRC *What Works for Children* funding

£25,000 from Health Development Agency, 2002, for '*EvidenceNuggets*' related to reducing inequalities in child health

2. Research outputs

This section describes our work to date, and relates this to the outputs in our original application.

2.1 Seminars

Our initial meeting with practitioners and policy colleagues was held in Leeds in February 2002. Speakers at the meeting included the deputy head of the Children's and Young People's Unit (CYPU), Kathy Bundred, as well as members of the children's node. Draft *EvidenceNuggets* and an evidence overview (see below) were prepared for the meeting, and small interactive group sessions were held for practitioners and policy colleagues to identify priorities for research summaries and support, and the barriers to using research in practice. (Feedback from the conference is attached as Appendix 2)

Feedback from the day informed our planning of future seminars and work with practitioners including the second meeting, which was held in York in June 2002. Practitioners had identified training in using evidence/critical appraisal as a priority, and this was the focus of the meeting. We received considerable help and support in organising and running the meeting from Mark Petticrew from the public health node. Feedback on the seminar was positive, and some participants have since given us feedback on particular *EvidenceNuggets*. Other sessions were provided by a statistics colleague at the University of York, Jeremy Miles, and Bob Phillips, a research registrar in paediatrics who presented on formulating a research question. The theme of the day was cognitive behavioural approaches, and both qualitative and quantitative papers were appraised. The programme is attached as Appendix 3.

Our next meeting, which will be held in Halifax in December, will also link in with current policy and practice priorities, and address effective interventions in reducing offending. A research overview will be produced for this meeting.

2.2 Nuggets

We were committed in our original bid to three evidence summaries on key policy and practice priorities for children. With the passage of time, and further funding from the Health Development Agency, this has been revised to a larger number of brief summaries of research evidence (*EvidenceNuggets*), and overviews. Topics have been identified in two ways. Firstly, by approaching research colleagues, asking them if there was one piece of research evidence they wanted to promote to practitioners and policy makers, what it might be. Secondly, practitioners and policy colleagues were asked for questions where they would like research evidence. (Appendix 4a is our request to practitioners and researchers, and Appendix 4b an example of an *EvidenceNugget*).

Nuggets are summaries of evidence, based where possible on a systematic review or, where none exists, a structured search. Current

'nuggets' include mentoring, parent-training, home visiting, CBT to reduce disruptive behaviour in school, CBT to reduce re-offending rates, breakfast clubs and traffic calming. They are currently being peer reviewed for both content and structure by practitioners, researchers and policy makers, and will be ready for wider dissemination by October 2002.

2.3 Overviews of the evidence and 'What Works' publications

The overview produced so far is what works in reducing inequalities in child health. A second overview of what works in reducing offending is currently in draft, and will be considerably revised and updated for the December seminar.

Two new *What Works* publication for Barnardo's series have been commissioned, on the basis of needs identified by the practitioners with whom we are working. These are *What Works in Young People's Participation* and *What Works in Partnership Working*. Summaries will also be produced from these substantial reports, and disseminated to practitioners. In addition, *What Works in Supporting Disabled Parents* is being prepared by Michelle Wate and Tony Newman. *What Works in Promoting Resilience* (ed Tony Newman) has been commissioned.

What Works in Family Placement is being revised and updated.

2.4 Evidence guide/map

An Evidence Guide is being produced for practitioners, building on work done by FOCUS at the Royal College of Psychiatrists, and a guide produced by Tony Newman in collaboration with the Centre for Evidence Based Social Services in Exeter. This work will include a resource list which will be developed into an evidence map. We expect to have it on the node website later in the year.

2.5 Website

We are concentrating our resources in putting more material onto other websites currently accessed by practitioners and policy makers, including the *EvidenceNetwork* site. In the light of our development officer's advice that the practitioners with whom we are working do not make use of the Internet in their work, we are considering how best to disseminate our products and whether our own dedicated site will be the best way of doing this.

2.6 Consultation with children and young people

We shall be producing material for parents and children in the coming year. Alongside our *EvidenceNugget* on traffic calming we intend to produce a poster on children's views on traffic and their calls for safe play areas? .

At present the development officer is looking at consultations carried out by the Children's Fund with children and young people to identify their needs in local areas. After the mapping exercise a nugget will be produced in response to one of the priorities of children and young people and a focus group held to hear their views on the nugget and its usefulness.

2.7 Evaluation

We are exploring ways of evaluating our work and have built on contacts in Canada with a view to adapting an audit tool being used in SEARCH, a research and practice organisation funded by the Alberta Heritage Foundation for Medical Research. This Audit Tool will allow organisations to evaluate their capacity to acquire, assess, adapt and apply research evidence in the design and delivery of services. The tool can help organisations to identify specific areas of improvement related to the use of research evidence in practice. In using the tool at various stages of the project we hope to be able to track progress and identify changes in the use of evidence amongst participating organisations. The lead on this work will be our development officer.

2.8 Other research outputs

While written materials and posters alone are a relatively ineffective means of transferring evidence into practice, reminders are effective in combination with other methods. We are therefore working with Barnardo's to develop a series of project posters of key *what works* messages .

Barnardo's is producing a poster on effective services for looked after children together with *Research in Practice*, and the Joseph Rowntree Foundation.

3. Promotion

We have given a high priority to promoting the work of the Children's Network and the *EvidenceNetwork* as a whole. Some of this work is described above under research outputs.

3.1 Presentations

2001:

Plenary presentation on evidence-based policy and practice for children at the annual meeting for community paediatricians in Chester, September 20

Presentation on the *What Works for Children* node, Thomas Coram Research Unit, London, October 2nd

Evidence based policies for Children, Plenary address at FOCUS conference, Royal College of Psychiatrists, London, December 4th

Department of Health Meeting, Cumberland Lodge, Seminar speaker on developing an intervention framework for children's services.

ESRC teaching and learning programmes, Cardiff, plenary speaker on putting evidence into practice

2002:

Health Education Board for Scotland, speaker on *What Works for Children*, January

Network meeting with Children's Fund projects, Leeds, February 27th.

Presentation on Children's Node to the Research Utilisation meeting, St Andrews, March 6th

ESRC social determinants of health seminar series, presentation on policy issues for children and young people, London, May

Speakers (DM,SF, HR) Critical appraisal training, York, June.

Plenary speakers (DM and HR) on The Evidence Base for Social Care:Where does qualitative research and process evaluations fit in?, London, Social Care Institute for Excellence, July.

Plenary speaker at Campbell Collaboration Methods meeting, Baltimore, September.

Plenary speaker on evidence: HDA annual general meeting, London, September

3.2 Peer reviewed publications

McNeish D. Newman T and Roberts H (eds and contributors) (2002) *What Works for Children ?*, Buckingham, Open University Press.

Petticrew M. and Roberts H. (in press) Evidence, hierarchies and typologies: Horses for Courses, *Journal of Epidemiology and Community Health*

Lucas, P., Liabo, K. and Roberts, H. (in press) Do Behavioural Treatments for Sleep Disorders in Children with Down Syndrome work?, Archimedes section. *Archives of Disease in Childhood*

Liabo K. and Roberts H. (under review), Can traffic calming measures achieve the Children's Fund objective of reducing inequalities in child health?, Archimedes section, *Archives of Disease in Childhood*

3.3 Policy and practice publications and journalism related to ESRC funding

Roberts H. (2001) What works in reducing inequalities in child health? *Independent*, Podium column

Liabo K. (2002) *What Works for Children?* An evidence based information source for children's social care, *Learning and skills research*, Summer Vol 5, no 3

3.4 Other activities

Kristin Liabo attended the Campbell meeting in Philadelphia in February, making good links with international colleagues, some of whom have suggested or commented on our evidence nuggets.

The What Works team, together with a practitioner colleague, Mark Anslow from Calderdale, have submitted an abstract to the Campbell meeting to be held in Stockholm in February 2002. (Appendix 5).

APPENDIX 1

ESRC '*What Works for Children?*' Project
Work with Children's Fund Programmes and Practitioners
Sarah Frost – Development Officer

Activities since June 2002

Contact with CF Programmes / Practitioners

Initial contact meetings held with Children's Fund programmes in Leeds and Doncaster (wave 1), Calderdale and Barnsley (wave 2), and York (wave 3). Contact with Wakefield CF Manager soon to be made (only recently appointed).

Regular email contact maintained with all CF programmes to disseminate information / sources of evidence , obtain feedback and encourage generation of research questions.

Meeting with practitioners in Rotherham (YOT) involved in delivering Parent Training Programmes (link to Parent Training Nugget).

Development work with Calderdale CF and associated Street Crime Initiative steering group to provide evidence on 'What works in reducing offending'. Our input has resulted in the proposed development of interventions which reflect the research evidence summarised in Nuggets.

Audit Tool, '*Is Research Working for you?*' (adapted from a tool produced by Canadian Health Services Research Foundation) to be piloted with CF Programmes to establish current practice and evaluate their capacity to use research evidence.

Links made with the Policy Research Institute at Leeds Metropolitan University who are undertaking the local evaluation of Children's Fund programmes in Yorkshire. It is anticipated there will be some degree of crossover in our work in the evaluation of new / innovative services / projects.

Dissemination of Information

Dissemination of completed Evidence Nuggets to CF programmes to obtain feedback.

On going dissemination of relevant sources / databases of evidence to all CF programmes.

Identification of CF Priorities

Ongoing logging and responding to requests for information on general or specific questions from CF Programmes in conjunction with colleagues at City.

Undertook a review of CF Delivery Plans and consulted with CF programmes to identify their priorities in terms

1. Target groups
2. Needs / problems to be addressed
3. Services and interventions being considered

The results emphasise that there is much scope for cross over and many issues are inter-linked, may apply to more than one group, address several CF sub-objectives, etc. However, to summarise, the key target groups identified are:

- ◆ Children at risk of behavioural problems / offending behaviour
- ◆ Children of traveller families
- ◆ Children with disabilities
- ◆ Black and minority ethnic children
- ◆ Children affected by domestic violence
- ◆ Children of Asylum seeker / refugee families
- ◆ Young Carers
- ◆ Children at risk of mental health difficulties
- ◆ Children from homeless families

The key needs to be addressed (linked to the CF sub-objectives) are wide ranging but the main themes can be broadly summarised as follows:

- ◆ To improve attendance, performance and support at schools
- ◆ To reduce the risk of offending / re-offending – (much reference to diversionary activities)
- ◆ To reduce the number of, and provide support for, children who are victims of crime
- ◆ To increase community safety – linked to road safety, play, leisure, offending behaviour, bullying
- ◆ To increase social inclusion – particularly in access to leisure and education for children with disabilities / BME children
- ◆ Identify and address information needs of children, young people and parents

Training Events

Gave presentation on the role of research evidence in CF Programmes at York Seminar, June 2002, for CF colleagues.

Future training event on 'What works in Reducing Offending' to be held in December 2002. The main objectives of the event are to:

- ◆ Provide an overview of 'What works in preventing offending?'
- ◆ Discuss and evaluate the research evidence on particular interventions aimed at reducing offending.

- ◆ Explore how this evidence can be implemented and used in practice.

Planning possible pilot 'themed' workshop (linked to CF sub objectives) for CF Projects to assist with the development of project proposals.

Activities with other members of *EvidenceNetwork*

Attending Evidence Network meeting in Glasgow in October 2002 with Helen Roberts, Kristin Liabo and Madeleine Stevens.

Other Links

Met with *Making Research Count*, a collaboration between seven English universities to develop evidence-based social work. Initial discussions were held about possible joint working on events for CF programmes around dissemination and implementation of evidence.

Met with Children and Young People's Unit (CYPU) to discuss possible opportunities for joint working on the production of research evidence for Children's Fund Programmes. They were very interested in our work, particularly the Evidence Nuggets.

Links made with the Social Care Institute for Excellence (SCIE). SCIE seeks to improve the quality and consistency of social care practice and provision through the creation and dissemination of best practice guidelines in social care and therefore has links to our work.

Plans to produce 'Evidence Posters' in partnership with Research in Practice and Joseph Rowntree Foundation. These will be summaries of evidence on particular areas in poster format which can be circulated to service planners and practitioners.

Linking with other Barnardo's colleagues on Evidence Based Practice events for practitioners (in Belfast).

Forthcoming Barnardo's 'What Works' publications on Participation and Partnership Working are being produced.

APPENDIX 2

What Works for Children?



The role of research evidence in the Children's Fund
Leeds 27 February 2002

Around 50 managers and practitioners from eight Children's Fund (CF) authorities met at the Thackray Medical Museum in Leeds in February. The focus of the day was to share approaches and discuss how research evidence can be used in the development of CF programmes.

Evidence Based Policy and Practice

Evidence Based Policy and Practice (EBPP) aims to promote the use of research findings in the development of services. Research findings on what works, and what doesn't, can play an important part in the decision making process when new services are planned, funded and implemented. The Leeds seminar was the first in a series of meetings to foster learning between practitioners from the Children's Funds and researchers from *What Works for Children* initiative.

Some of the concerns you raised

Some concerns were raised, particularly in the morning sessions, about the role research can play in the development and practice implementation of the Children's Fund:

- How will research evidence be relevant to my local area and its specific conditions?
- There is a possibility that research could stifle innovation
- What if national and local policies conflict with research evidence?
- Reservations about how research is presented and need for more accessible versions in terms of language and medium

We shall start work to address all of these.

Your priorities for research evidence

We asked you which topics were your priorities for research evidence in summary format. A range of interests came up; **offending, education, disabled children and family support**. Three were mentioned several several times:

- **Partnership work**; implementing change, working together across sectors, models of good practice and how we can benefit from partnerships
- **Participation**; how to engage children, young people's views on different types of participation, involving young people at different stages of decision making and involving different groups of children
- **Mental health**; ADHD, psychosocial transition changes (eg loss and bereavement) and attachment disorders

The groups thought that a website and email information would be the best way of distributing evidence summaries or general information related to research evidence. It was emphasised that any information needs to be written in clear and concise English and should be suitable for children and families as well as practitioners.

Workshops and seminars for staff

How to work in partnership was again flagged up as an important topic that people would be interested in learning more about. There was also interest in

how to improve the relationship between research and practice – how research can be interpreted and made relevant to a local area. A number of you said you would like training in how to plan and conduct an evaluation and how users can be involved in local evaluations.



Workshops:

In the afternoon, participants split into three topic groups: offending, health inequalities and involving children.

Reducing offending

Much research is available in this area, both on risk factors (eg income level, family situation) and service delivery (in particular service effectiveness).

The group was particularly interested in how to work with schools, families, communities who present risk factors, and try to prevent offending from the beginning.

More information is needed about children aged 4-10 and how to work with children at various ages. Emphasis was placed on evidence on what doesn't work as well as what works – you want to know that you are not causing harm. More research is needed on how to engage with boys. The group wanted evidence on offending to be accessible to parents as well as to practitioners.

Reducing inequalities in child health

The group would like research evidence to be available on sex education, mental health, dental care and disabled children. Some concern was raised as to how

mental health and well-being are measured.



As well as research evidence, the group emphasised practitioners' own experiences as valuable in service development. One way of using this knowledge would be for the practitioners to record their own experiences to share with others.

Some participants wanted advice on how to build in an evaluation into the development of a service from the very start of the project.

Practitioners wanted to feel they had more of an ownership of the research carried out on their work - that the research process was made more inclusive.

Involving children and young people

The group expressed interest in research on young people's views on different types of participation, involvement of young people at different levels of decision making, different methods of involvement

for different ages of young people, especially those under 11, and methods that work with specific groups of young people, for example care leavers. Any research that could back up the importance of participation would be of use as well as information on how to co-ordinate user consultation across the strategy of the Children's Fund.

Consultation with young people runs the risk of raising expectations and there is a need to explain exactly what can be achieved from the start. In relation to this the group would like a) research into ways that difficult issues/government policies can be explained to young people and b) explaining participation research to young people in formats suitable to them.

What Works for Children

The next event with *What Works for Children* will be in Leeds in June this year, and will be addressing one or more of the issues raised on the last conference. A date for the event will be circulated shortly.

Kristin Liabo - City University

Helen Roberts - City University

Trevor Sheldon - University of York

Di McNeish - Head of Research and Development, Barnardo's

Patricia Lucas - City University

If you have any questions please contact Kristin Liabo at: Institute of Health Sciences, City University, Bartholomew Close, London EC1A 7QN; Direct line: 020 7040 5970; k.liabo@city.ac.uk

APPENDIX 3

'What Works for Children with behavioural difficulties? – How to read the papers'

York University, Heslington Hall, June 26th 2002



*WHAT WORKS FOR
CHILDREN?*

PROGRAMME

- 9.30 Registration, coffee/tea
- 10.15 Opening session
- 10.45 What do I want to know? About asking questions
- 11.00 Coffee/tea
- 11.05 Introduction to measures of effective interventions
- 11.35 Coffee/tea
- 11.40 What can quantitative studies tell us? Introduction to quantitative studies and 'what works'
- 12. 10 Group sessions, reading a paper
- 13.00 Plenum discussion
- 13.15 Lunch
- 14.15 What can qualitative studies tell us? Introduction to qualitative studies and 'what works'
- 14.30 Group sessions, reading a paper
- 15.00 Plenum discussion
- 15.15 Coffee/tea
- 15.30 Conclusion and short briefing on other papers
Where can we find the evidence? Some tips on searching, web sites and databases
- 16.00 Finish

APPENDIX 4a

FOR PRACTITIONERS

EVIDENCE WISH LIST

You have a pot of money to spend on children's services, no strings attached, except you are asked to be 'evidence-based'.

If the evidence base is thin (or you don't know how strong it is) don't let this hold you back. Good ideas need to be researched.

What would you choose to do?

Why?

Your details (if you'd like to be acknowledged)

APPENDIX 4b



WHAT WORKS FOR CHILDREN?

This EvidenceNugget, funded by the Health Development Agency, addresses sub-objective 4 of the Children's Fund i.e. To reduce child health inequalities among those children and young people aged 5-13 who live within the area. Since a priority for children and young people is their environment, it is also relevant for sub-objective 6, i.e. to develop services which are experienced as effective by individual and clusters of children, young people and families commonly excluded from gaining the benefits of public services

Area wide traffic calming schemes reduce childhood injuries from road accidents

- Child pedestrian injury - arising from road accidents - is a leading cause of accidental death
- Children in poor neighbourhoods are five times more likely to be hit by a car than those in affluent areas.
- Traffic calming is designed to control traffic in urban residential areas.
- Traffic calming schemes can reduce childhood injuries from road accidents by up to 15%.

Area wide traffic calming schemes reduce childhood injuries from road accidents

What is traffic calming?

Traffic calming refers to interventions that are designed to control traffic in urban residential areas. These aim to reduce the number of commuters using residential streets and the speed of the remaining traffic. Initiatives include improving main roads to carry additional traffic and restricting or removing traffic from residential streets by closing roads off to motor vehicles or introducing one-way systems. Speed reducing initiatives include speed cushions, humped pelican crossings, raised junctions, narrowing the road(s), gateways at the entrances to the area, build-outs to protect on-street parking spaces, and mini-roundabouts.

There is a lack of studies as to which of the above is the most effective, but speed reduction initiatives have shown to work both in rural and urban areas. In order to achieve the expected results it is necessary to put up signs warning the drivers of the lower speed limit and make some changes to the road itself.^{i ii}

Why is it important?

Accidental injury is the most important cause of child death in the United Kingdom and has a steep social class gradient.ⁱⁱⁱ Children themselves identify outdoor safety as being important. A report by the Children's Play Council found that 'general fears for personal safety' and 'traffic' were among the things that stop children from playing outdoors.^{iv} When asked how outdoor play space could be improved one child said:

"No cars in my street so that I can play outside"

On average area-wide traffic calming schemes has shown to reduce the number of accidents involving injury by 15%. This rises to 25% on residential streets.^v An area wide approach is more effective in reducing the number of accidents in residential areas than targeting "black spots".

Impact

Size of the problem (addressed by this intervention)

Child pedestrian injury - arising from road accidents - is the leading cause of accidental death. In 2000, 134 child pedestrians/pedal cyclists under the age of 16 were killed on British roads, 3850 were seriously injured and 18,460 child pedestrians/pedal cyclists suffered less severe injuries such as cuts and bruises.^{vi} These figures are reported from STATS 19 data, collected by the police, but studies have estimated that there are around three times more seriously injured casualties and twice as many slightly injured casualties attending hospital as a result of road accidents than reported by STATS 19.^{vii}

Most child pedestrian injuries occur in urban environments, close to home in residential streets.

Short and long term effects

Over the last 20 years there has been a reduction in the number of children injured and killed as pedestrians.^{viii} One reason for this is that fewer children are walking, as increasingly parents take children to school and other places by car. Increased car use, as well as being detrimental to children's physical development, increases pollution and the risk to those children who do walk or cycle. Little is known as to whether traffic-calming schemes increase the number of pedestrians in the area, but an intervention aimed at improving the safety of cyclists found that cycling increased in the area where the scheme was introduced.^{ix} This may indicate that as well as the short term effect of reduced accident rates in the area, traffic calming could help boost the number of child pedestrians or cyclists, which would impact on children's physical health in the longer term.

Road accidents have been estimated to cost Britain over £16,000 million per year^x and as well as the immediate benefits of saving lives, traffic calming measures would also have economic benefits in the longer term.

Who will benefit most?

Social deprivation is strongly associated with child pedestrian injuries.^{xi} Children from social class V are five times more likely to be killed in an accident than children from social class I. Children whose families have fewer resources tend to live in more dangerous housing and road environments, have fewer safe places to play, and go out on foot more often than children from wealthier homes.^{xii xiii}

Research evidence

The faster the traffic, the greater the risk of death and serious injury. When a child is hit by a car travelling at 40 mph only one child in 20 will survive; when the car is travelling at 20 mph 19 children out of 20 will survive.^{xiv} The risk of injury increases with traffic volume, absence of play areas, poorly protected play area, and high proportion of kerbside parking.^{11 xv}

One important review¹ included 33 studies that evaluated the effects on road safety of urban traffic calming schemes.⁵ The evidence from each study was assessed according to how well designed the study was. If studies were using a matched control group they were given a greater emphasis than when a general comparison group was used. The magnitude of the safety effects was also found to be similar in different countries.

¹ A systematic review uses explicit criteria to identify research reports on a particular topic and then appraises them using clearly defined standards.

Although there are no randomised controlled trials of traffic calming, it has been shown to be a promising intervention. The review described above found area-wide urban traffic calming schemes reduced the number of injury accidents by 15% (25% on residential streets and 10 % on main roads). All of the schemes included in this review had the following in common:

- The areas where traffic calming was introduced were predominately residential, often close to the central business district of a major city. Such areas tend to have high road accident rates.^{xvi} Traffic calming schemes in Britain tend to be more common in affluent areas, and there is a need to equal this distribution by increasing the number of schemes in poorer neighbourhoods where accidents are more frequent.
- Before the schemes were introduced the streets were multi-purpose and used both for residential purposes and as through-fares. Commuter drivers short cutting through residential streets ('rat running') was a common problem. Area wide traffic calming involved a reclassification of the street network in the area, aiming to remove through traffic from residential streets and concentrate it on a few streets designated as main roads.
- On roads designated as residential streets, or local roads, measures were taken to reduce traffic volume by means of, for example, street closures, turning bans at junctions, staggered one-way systems or street narrowing.
- In some projects, these measures were supplemented with speed reducing devices in local roads, most often humps.
- Roads designated as main roads were upgraded to serve a greater volume of traffic. This often involved installing or upgrading traffic signals at junctions, prohibiting kerb parking or widening the road.

A systematic review summarising research on a range of interventions found that traffic calming was more effective in reducing child traffic accidents than were educational programmes.^{xvii} Another study from New Zealand showed that if money spent on traffic safety education was spent on traffic calming, 18 pedestrian hospitalisations might be prevented in one year.^{xviii}

What are the resource implications?

Traffic calming schemes target residential areas with problems of commuter through traffic and have not been shown to work on larger roads. It has been difficult to distinguish the effects of different types of measures that were used and the size of the effect on accidents.⁵

The table below shows estimated examples (round figures) of typical costs of traffic reduction and slowing schemes in the UK. Taken from average spends on each intervention by Hertfordshire Council in their 1998 Home Zone scheme, adjusted for inflation.^{xix}

Permanent Road Closures	£5,342/junction
HGV ban	£8,547/width restriction
Speed cameras	£26,710
Round topped speed humps	£1,603/hump
Flat topped speed humps or speed cushions	£10,684/hump
Chicanes	£5,342/series
Junction tables	£7,479/table
Kerb build outs at junctions	£0.53/metre
Road surface signage (e.g. white lines, hatch boxes)	£13/metre
Road surface changes	£5,342/metre
Road narrowing	£5,342/narrowing
Road gateways	£5,342/gateway (at entrance)

Funding has been announced by DTLR (Department of Transport, Local Government and the Regions) of up to £20,000 for organisation other than local authorities to spend on road safety priorities as set out in DTLR road safety strategy (<http://www.roads.dtlr.gov.uk/roadsafety/strategy/tomorrow/>). Applications can be made in April and October.

FURTHER INFORMATION ON ROAD SAFETY AND TRAFFIC CALMING

www.homezones.org for information about 'home zones' and how to establish one in your area

www.rosipa.co.uk for information about The Royal Society for the Prevention of Accidents (RoSPA). This site provides comprehensive information about interventions to reduce accident rates.

www.dft.gov.uk Department for Transport

www.roadpeace.org for information about RoadPeace, a charity for the victims of road crash accidents.

www.capt.org.uk Child Accident Prevention Trust: charity for the prevention of children being killed, disabled and seriously injured as a result of accidents

www.slower-speeds.org.uk The Slower Speeds Initiative campaigns for lower and better enforced speed limits, higher profile for speed reduction initiatives, development of speed control technology, changes in the law to allow conviction of speeding drivers who kill and maim

<http://depts.washington.edu/hiprc/childinjury/topic/pedestrians/environment.html> provides evidence on traffic calming

www.quiet-roads.gov.uk Quiet Lanes is an initiative of the Countryside Agency.

How will you audit a traffic calming intervention?

Ask first whether the conditions in your agency are in place for this intervention to be implemented or adapted. Have you got the funds, people and training resources that you would need to implement traffic calming? Do you have an enthusiastic and focussed group who could drive this through? Do you have, or can you make, links with transport planners and road engineers? Do you have local parents and children on board? Can you recruit a good press officer to help you?

If implemented, the question is: is it happening? Are traffic calming measures being introduced in the target areas? Do the changes cater for children and families 'on-the-go'? Are the measures being followed up and maintained?

How will you evaluate a traffic calming intervention?

Effects of introducing an area-wide traffic-calming scheme would be best measured by comparing before and after figures. Numbers of accidents reported over an agreed period of time after introduction of the scheme compared with levels of accidents reported over a similar period of time prior to the introduction of the scheme, preferably comparing the figures with a similar area with no intervention or another measure. Data could include local traffic accident data such as hospital and A&E data, if they are available.

In addition speed could be measured using a radar gun on a number of randomly selected vehicles or at a set location before and after introduction of the scheme and comparisons drawn between the two.

Finally, given that road safety is a priority amongst children and families, one important outcome would be whether these groups feel that the scheme has improved the environment in their area. This type of data could be gathered via interviews after the introduction of the intervention with the children, families and school(s) in the area. You may also want to interview other people who may have been affected by the changes, such as local businesses or other pedestrians.

APPENDIX 5

Using evidence in social care practice: An example from a UK based project

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Introduction:

The UK based '*What Works for Children?*' initiative works to disseminate and promote evidence based practice whilst identifying barriers and levers in this process. Summaries of evidence are prepared in response to practitioners' requests, usually incorporating systematic or semi-systematic reviews of a particular intervention. The aim of these is to present the evidence, or lack of it, in such a way as to encourage practitioners to prioritise evidence-based interventions in order to achieve target outcomes. This is supplemented by a development officer who works directly with managers and practitioners in six local authorities in England to disseminate these results.

The strategy is exemplified by evidence for the mentoring of young people who truant from school, commit crimes, reject social norms of behaviour, or are thought to be at risk of developing these behaviours.

Participating practitioners and policy makers identified mentoring as an area where they would like to know more about available evidence. We were unable to locate a systematic review. Given the time and budget constraints of practitioners and policy makers, we carried out a semi-systematic search using the following strategy:

Search strategy:

Structured question:

What effect do mentoring schemes have on rates of truancy, offending, re-offending or violent behaviour amongst young people?

What effect do mentoring schemes have on academic achievement/inclusion of the participants?

Mentoring was defined as: unrelated adults, working with children and young people within an organised scheme in the community.

Inclusion/exclusion criteria:

Community mentoring schemes for children aged 5-18.

We did not include mentoring schemes in residential settings, but did include school-based schemes.

Key words: “mentor*” as key word and text word in abstract and title AND evidence reviews. Then “mentor*” as key word and text word in abstract and title AND (“experimental design” or “quasi-experimental design” or “control group”) where necessary refining search by including AND (“delinquent*” or “young offenders” or “truan*” or “school attendance” or “aggressive behaviour”). Search terms varied by database and an alternative strategy was employed in an attempt to identify any studies that may have used mentoring in this context.

Search procedure:

The published literature was searched using databases (ERIC, BEI, Psychinfo, Cochrane DARE) for reviews and controlled trials (including non-randomised controls) of mentoring programmes for children (aged 5-18 years) with challenging behaviour. The grey literature was surveyed following leads from published literature, contacting workers in the field and searching the Internet.

Results:

Reviews were rare and non-systematic. Thirteen controlled trials (including non-random) and three other evaluations were identified.

There was little evidence that mentoring changed behaviour. Rates of mentor/mentee relationship “success”, and the acceptability of mentoring to young people were seldom reported. When asked, mentors, parents and teachers reported positive experiences of mentoring. The frequency of positive responses was not given.

Evidence of effectiveness to lower the risk of offending was particularly scant, and included evidence of harm in some studies.

Although our initial search (May 2002) did not locate any meta-analyses or systematic reviews of the evidence, a meta-analysis was published in April 2002, and subsequently included. This analysis found some evidence of effect in response to mentoring, but concluded that the effects were modest and should be viewed in the context of other interventions that may have more

powerful effects. This review was not recorded in ERIC, Medline or on the Campbell collaboration website. In Psychinfo, it was recorded with keywords "Mentors" and "Program Evaluation" and not "meta-analysis". The review's authors appealed for the creation of a trials' database to facilitate the task of identifying primary sources. We would echo this, and add a plea for the systemisation of key word assignment

Research dissemination:

The results were summarised and distributed to practitioners, along with summaries on parent training and cognitive behaviour therapies (CBT) for disruptive behaviours and offending. At this time, social care managers of one participating authority were considering mentoring as a strategy to reduce the risk of offending amongst 8-13 year olds. Managers agreed that the evidence base for mentoring was weak, particularly for non-directive schemes. They also recognised that existing mentoring schemes tended to target older children and focused on educational attainment and training rather than reducing the risk of offending. Rather than shifting priority to other more effective interventions, the practitioners preferred to improve mentoring schemes by introducing them as part of a wider scheme and including training for directive mentoring.

Discussion:

Young people have the right to a say in interventions, to participate freely and to expect these interventions to be based on the best available evidence. It is not clear that children and young people benefit significantly from mentoring, nor that such relationships respond to their needs.

Our semi-systematic search and the meta-analysis of the effects on mentoring has shown only modest effects from this intervention in comparison with other interventions such as parent training programmes or CBT. The conclusion on the effect on mentoring is sensitive to what and how outcomes are measured. For example, when considering risk of offending, studies using administrative records (rather than youth reports) to identify criminal or disruptive behaviour have not shown effects.

For researchers the implications of the evidence for policy and practice often seem obvious, in this case to consider alternatives to mentoring schemes, or to continue practice in the context of a trial, and to ensure strict evaluation of existing schemes. However, for practitioners, managers and policy makers it is rarely that simple. The consideration of earmarked funding schemes, existing projects and belief in many years' work with mentoring informs interpretation and action. The literature shows that parenting programmes can be highly effective in addressing the same range of outcomes as mentoring and as researchers we see this comparison as clearly in favour of parenting programmes. But our discussions with practitioners indicate that the choice of programme is more complex than a matter of the relative effectiveness derived from a systematic review. However, within one participating authority,

our development officer persuaded managers and practitioners to combine mentoring with interventions better supported by the evidence.

If evidence-based research in social care is to make a real difference to end users, in this case children and young people, we need to convince practitioners of the importance of basing policy and practice more fully on the results of good research. Whilst evidence of need has been established and used in social care practice, other influences are currently more important than research evidence on effectiveness, such as practice experience, current priorities and 'common sense'.

ⁱ Department of the Environment, Transport and the Regions (1997) *Measures for rural single-carriageway roads* (S203M), Unpublished TRL final report PR/TT/058/97, <http://www.roads.dtlr.gov.uk/roadsafety/research98/road/4a.htm#S203M>

ⁱⁱ NHS Centre for Reviews and Dissemination, University of York et al (1995) 'Preventing unintentional injuries in children and young adolescents', *Effective Health Care*, Vol. 2 (5), 16p

ⁱⁱⁱ Roberts H (2000) What works in reducing inequalities in child health? Barnardos

^{iv} Cole-Hamilton, I. (2002) 'Something Good and Fun', Children's Play Council

^v Elvik R (2001) Area wide urban traffic calming schemes: a meta-analysis of safety effects. *Accident Analysis and Prevention*, 33, 327-36

^{vi} Department for Transport, Transport Statistics, Transport Statistics Great Britain: 2001 Edition. <http://www.transtat.dft.gov.uk/tables/tsgb01/4/41501.htm>

^{vii} TRL Report 173 (1996) Comparison of hospital and police casualty data: national study

^{viii} DETR (1998) <http://www.transtat.dtlr.gov.uk/facts/accident/children/child98.htm>

^{ix} Garder, P., Leden, L. and Pulkkinen, U. (1998) 'Measuring the safety effects of raised bicycle crossings using a new research methodology', *Transportation Research Record*, 1636, pp. 64-70

^x <http://www.rospa.org.uk/CMS/> (Road Safety Project Sheet)

^{xi} Wazana, A., Krueger, P., Raina, P. and Chanbers, L. (1997) 'A review of risk factors for child pedestrian injuries: are they modifiable?' *Injury Prevention*, Vol. 3, pp 295-304

^{xii} Roberts, I., Norton, R. and Taua, B. (1996) 'child pedestrian injury rates: the importance of 'exposure to risk' relating to socio-economic and ethnic differences, in Auckland, New Zealand', *Journal of Epidemiology and Community Health*, Vol. 50, pp 162-165

^{xiii} Roberts, I. and Power, C. (1996) 'Does the decline in child injury mortality vary by social class? A comparison of class specific mortality in 1981 and 1991', *British Medical Journal*, Vol.313, pp 784-786 (28 September)

^{xiv} Child Accident Prevention Trust Fact Sheet, available free on <http://www.capt.org.uk/FAQ/default.htm>

^{xv} Roberts I (1995) Adult accompaniment and the risk of pedestrian injury on the school-home journey. *Injury Prevention*, 1995; 1(4): 242-244.

^{xvi} OECD Road Research Group (1979) *Traffic Safety in Residential Areas*. Paris OECD

^{xvii} NHS Centre for Reviews and Dissemination (1996) 'Preventing unintentional injuries in children and young adolescents', *Effective Health Care*, Vol 2, No 5

^{xviii} Roberts, I., Ashton, T., Dunn, R. and Lee-Joe, T. (1994) 'Preventing child pedestrian injury: pedestrian education or traffic calming?', *Australian Journal of Public Health*, Vol. 18, No. 2, pp 209-12

^{xix} <http://www.homezones.org/index.html>