

Health Development Agency

Ante- and post-natal home-visiting programmes: a review of reviews

Evidence briefing summary

Introduction

Visiting pregnant women and new mothers at home has become an increasingly important activity for public health nursing in many countries. In the US, for instance, the number of home-visiting programmes for parents of young children has grown substantially, with large numbers of children enrolled in such schemes (Olds et al., 2000.) This reflects a growing recognition of the importance of the early years of life in determining adult health, and in preventing a range of adverse child health outcomes that may be associated with social disadvantage. These include outcomes such as child accidents and injuries (which display a steep social gradient in the UK), and child abuse and maltreatment. However, the emphasis in many home-visiting programmes has also been to promote positive aspects of 'family wellness', including the cognitive and intellectual development of children, parenting skills and support, positive maternal mental health and use of other health services.

What is home visiting?

Home visiting is not a single or uniform intervention – it is a mechanism for the delivery of a variety of interventions directed at different outcomes. Home-visiting programmes are diverse in their goals, target recipients, mode and timing of their delivery and their theory and content. They may provide parent training/education, psycho-social support

to parents, infant stimulation, and infant and maternal health surveillance. The programmes may be provided by nurses, midwives or lay people within different professional bases. Home visiting may vary in when it begins, how long it lasts and how many times within this period it occurs. A programme may be provided to all families with a new baby, to families in disadvantaged circumstances, to parents or children with particular problems, or parents of children defined as 'at risk'.

In the UK, midwives visit all women ante-natally and at home up to 28 days after the birth. Health visitors also visit all women in the period after the birth as part of routine child health surveillance checks. In the US, by contrast, no universal home-visiting programme exists but it may be a targeted initiative provided in different ways with different underlying models.

In the current UK policy context the effectiveness or otherwise of home-visiting programmes has become an increasingly salient question. There are a number of policy drivers behind this. The most important has been the key policy priority of reducing health inequalities and, within this, the focus on children given in the *Independent Inquiry into Inequalities in Health Report* (Acheson, 1998). In the report, home visiting is identified as an important and promising intervention for tackling health inequalities from an

This summary presents an overview of the findings and recommendations from a review of selected systematic and other reviews and meta-analyses published since 1996. The full evidence briefing – Bull, J., McCormick, G., Swann, C. and Mulvihill, C. (2004). *Ante- and post-natal home-visiting programmes: a review of reviews*. London: HDA – can be accessed via: www.hda.nhs.uk/evidence. It represents an important first step in developing the evidence base for this subject.

Introduction (continued)

inter-generational perspective, with a recommendation for:

'...the further development of the role and capacity of health visitors to provide social and emotional support to expectant parents, and parents with young children.'
(Acheson, 1998, p76)

Home visiting by health visitors is now a key delivery mechanism for the Sure Start programme, which builds on these policy drivers in delivering a multi-component support strategy for families of 0-4 year olds in certain deprived communities.

More recently, Sure Start has offered the potential for an extended public health role for midwives, to include more intensive home visiting to women in disadvantaged areas during the post-natal period.

The green paper *Every Child Matters* (DfES, 2003) has proposed the

mainstreaming of Sure Start. The paper puts forward radical proposals for strengthening preventive services for children, providing support for parents and families, and earlier intervention for children at risk. These proposals include providing specialist support through frequent home-visiting programmes in the ante- and post-natal period. Finally, later in 2004, the Department of Health will publish the Children and Maternity Services National Service Framework (NSF). Its findings and recommendations should be considered alongside this evidence briefing.

While such policies reflect a growing consensus about the effectiveness of home visiting as a strategy for combating inequalities in child health, demonstrating evidence of effectiveness for such programmes in the scientific literature has been a more complex task. This is partly because of the

diversity of such programmes and the difficulties of demonstrating impact in controlled trials. The outcomes at which home-visiting programmes are directed are broad and often hard to measure. Problems of attributing change to components of the intervention are more than usually complex in the often multi-faceted interventions delivered in home-visiting programmes.

Evidence of effectiveness has been drawn from interventions which have not, for the most part, been replicated, and take place in different cultural and healthcare contexts. Most obviously, literature within the scope of this evidence briefing is heavily biased to North America and the US. Universal home visiting as provided by UK health visitors or midwives is largely unevaluated by controlled trials and US nurse-based home-visiting programmes therefore dominate the discussion of evidence which follows.

Methodology

The evidence briefing series from the HDA presents the findings of reviews of reviews on the current evidence for the effectiveness of interventions to improve health and reduce health inequalities. The following procedure was used to identify reviews to be included in the briefing:

- Systematic searching of the literature
- Selection of relevant review-level intervention studies
- Critical appraisal of selected reviews

by two readers for transparency, systematicity and relevance

- Assessment of the strength of the evidence, gaps in the evidence base and recommendations for further research.

HDA evidence briefings are intended to inform policy and decision makers, NHS providers, public health physicians and other public health practitioners in the widest sense. The briefings are not reviews of primary data or individual

intervention studies. Furthermore, in preparing this evidence briefing we have not conducted a systematic search for data on good practice or grey literature. Further work will be done to turn the summary of evidence presented here into advice for practice.

Nine reviews were included in the HDA Evidence Base and form the basis of the findings presented in this summary. These are listed in the References section.

Findings

Can home visiting improve child health outcomes?

- There is insufficient evidence to suggest that home-visiting programmes can have a beneficial impact on low birth weight or other pregnancy outcomes.
- The findings from review-level studies of home visiting on child abuse present an incomplete and complex picture. Where positive effects have been found, they tend to be in measures of parenting rather than in

direct measures of abuse. There appear to be significant methodological problems with measuring child abuse in trials of home visiting, with a serious problem of outcome report and surveillance bias. As a result, there is inconclusive evidence for any impact of home visiting on child abuse outcomes in review-level data, and outcome report and surveillance bias are likely to be a threat to the validity of findings in current or future trials.

- There is good evidence to suggest that home visiting can have an impact in reducing rates of childhood injury.
- There is some evidence to suggest a beneficial impact of home visiting on measures of intellectual development in children; these effects appear to be most apparent among children with identified problems associated with low birth weight or failure to thrive.
- There is insufficient evidence to determine the influence or effect of

Findings (continued)

home-visiting interventions on immunisation or hospital admission rates.

- Evidence suggests that home visiting has the potential to encourage and support breastfeeding but more research is needed.
- There is some weak evidence to suggest a positive effect of home-visiting interventions on children's diets, but further research is needed to assess this effect in the light of methodological issues.

Can home visiting improve the quality of parenting?

- There is some good evidence to suggest that home visiting can produce positive effects on various dimensions of parenting or mother-child interaction. Further work is needed to evaluate which types of programme, or which programme

components, are likely to replicate these impacts and to develop measures which limit bias in results.

Can home visiting improve outcomes for mothers?

- There is some evidence for a positive effect of home visiting on the detection and management of post-natal depression. Issues of measurement and report bias need careful consideration in future trials.
- There is insufficient evidence to prove any long-term benefit of home visiting on access to social support.
- There is insufficient evidence to prove any long-term benefit of home visiting on maternal life course development such as participation in education or employment, or the spacing of subsequent pregnancies.

How are home-visiting programmes best delivered?

- Evidence suggests that home-visiting interventions that are restricted to the pursuit of only a narrow range of outcomes are less effective than those with a more comprehensive approach in which the multiple needs of families are addressed.
- There is some evidence to suggest that more intensive programmes of home visiting have greater impact than others, but there is no clear answer to the exact prescription for the intensity and duration of home-visiting programmes to be found within existing evidence.
- Current evidence is not clear on the issue of whether home visiting is more effective when professionals rather than lay people provide it.

Recommendations for research

Current UK home-visiting programmes are not well evaluated and there is a clear need for more well designed studies to build the UK knowledge base in this area. In particular, the following research gaps need to be addressed:

- A general need for more UK trials of home visiting which address the methodological limitations identified in this evidence briefing. Elkan et al. (2000) suggest controlled trials of the UK programmes need to be carried out, designed to measure short- and long-term outcomes for both children and parents

- A need for future evaluations to address some of the key questions about delivery currently unanswered in the literature. For example:
 - Studies on the effectiveness of home-visiting programmes delivered to high-risk groups compared with those not identified as at risk
 - Studies on the effectiveness of an intervention delivered by nurses compared to the same delivered by para-professionals
 - Studies designed to compare effect sizes in interventions of different intensity and duration

- A need for more trials to look at both the effectiveness and cost effectiveness of home-visiting programmes, including economic evaluations
- Studies that address the issues of client satisfaction as related to the outcomes measured. Measurement tools tested for reliability and validity should be used. The cultural acceptability of home-visiting interventions for families of different ethnic backgrounds needs careful consideration
- More studies in the areas of child abuse, child injury and accident prevention, post-natal depression.

Conclusions

Evidence from review-level literature presented in this evidence briefing suggests that home-visiting programmes to parents of young children can be associated with:

- Improvements in parenting
- Reported improvements in some child behavioural problems
- Improved cognitive development, especially among some sub-groups

of children such as those born prematurely or born with low birth weight

- A reduction in accidental injury among children
- Improved detection and management of post-natal depression.

There is either no evidence or inconclusive evidence for the impact of home visiting on the other outcomes

reviewed in this briefing, including child abuse, increased uptake of immunisation, reduced hospital admissions or maternal participation in education or in the workforce.

Given the potential importance of the contribution of home visiting to tackling child health inequalities, there is an urgent need to further develop the UK evidence base in this area.

References

HDA Evidence Base reviews

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HDA Evidence Briefings

This evidence briefing summary is part of a series of publications covering a wide range of public health topic areas to be published by the HDA over the next few years. Published subjects include: alcohol misuse, teenage pregnancy and parenthood, HIV prevention, obesity, prevention of low birth weight, breastfeeding, accidental injuries in children and older people, and health impact assessment. Other briefings will include the promotion of physical activity, drug use prevention, smoking cessation, depression in older people, and good mental health.

Evidence briefings provide detailed commentaries on the strengths and weaknesses of the evidence, identify gaps in the evidence, analyse future primary and secondary research needs, and discuss the implications of the evidence for policy and practice. Each briefing is accompanied by a freestanding summary.

The documents are also supported by the HDA website (www.hda.nhs.uk/evidence). Electronic copies of the original systematic reviews upon which the evidence briefings draw as well as full bibliographical information about the relevant primary sources will also be found on the website.

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