Maternal Early Childhood Sustained Home-visiting (MECSH): A UK update

› Abstract

The Maternal Early Childhood Sustained Home-visiting (MECSH) programme is being implemented in Australia, South Korea, the USA, the UK and the Channel Islands. In the UK, the programme has been implemented at scale in Essex, Plymouth and Lewisham and in regions of Somerset as part of a trial. The purpose of this article is to provide an overview of the MECSH programme and outline the evidence of the programme's effectiveness, fit for the UK context, and research that is still in progress; and explore how the programme achieves changes in outcomes for families and children.

Key words

› Home health nursing › Evidence-based nursing › Health-care systems

The Maternal Early Childhood Sustained Home-visiting (MECSH) programme grew out of an intervention research project conducted between 2002 and 2008 in a deprived area of south western Sydney, Australia. Underpinning the research project was a recognition that the health and opportunities of families living in disadvantaged communities is lower than those of others living in more prosperous areas.

The aims of developing the MECSH programme were to reduce inequalities by improving the health and social wellbeing of vulnerable families with new babies, while also strengthening child and community health service provision through the integration and coordination of services, particularly by child and family health nurses (the Australian equivalent of health visitors). The programme is delivered as part of a tiered service system model that sits within the broader universal health system. The MECSH programme is led by the health visitor providing primary health care to families. Through integrative and collaborative work, families are linked with other relevant provision, like speech and language therapy, social care practitioners and other community support.

This article will explain why MECSH has developed as a manualised home visiting programme that, uniquely, is fully integrated with universal and local community services, as well as describing why the programme fits so well with British health visiting and families needing universal partnership plus provision (Public Health England (PHE), 2016), in the context of a proportional universal service (Cowley et al, 2012).

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The MECSH programme

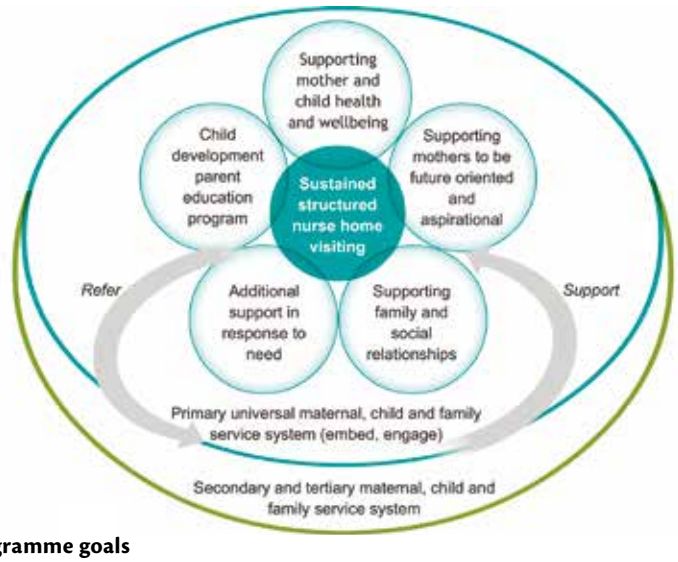
Integral to programme development was a randomised controlled trial (RCT), which demonstrated that MECSH was effective in improving child and maternal outcomes, and the developmental quality of the home environment. The programme evidence has been subjected to independent scrutiny and received approval as a quality evidence-based programme by the US Department of Health and Human Services (DHHS) Home Visiting Evidence of Effectiveness programme (DHHS, 2012). The programme is being implemented in Australia, South Korea, the USA and the UK. In the UK, MECSH has been implemented at scale in Essex, Plymouth and Lewisham, and in regions of Somerset as part of a trial, and has also been implemented in the Channel Islands. MECSH is designed to be delivered at whole population scale (by every health visitor for the vulnerable families on their caseload) and, through training and capacity-building for professionals and systems, to promote improved ways of working that have 'spill-over' effects that benefit all families in the community. This programme approach is commensurate with the emerging policy position internationally, as summarised by Daro and Dodge (2010: 79), who propose that the most benefits from home visiting would come from:

'a home-visitation policy framework that embeds high-quality targeted interventions within a universal system of support that begins with an assessment of all new parents. This assessment process would carry the triadic mission of assessing parental capacity, linking families with services commensurate with their needs, and learning to do better.'

The development of MECSH is detailed elsewhere (Kemp and Harris, 2012), but it made use of the most effective components and approaches identified through a large literature review (Aslam and Kemp, 2005). MECSH is based on an ecological framework (Jack, 2000), recognising that health, development and the wellbeing of children are the product of complex interacting factors at the individual, family and community level. MECSH has an emphasis on integrated working and enabling parents to engage ('mesh') with local services. These can be summarised as using multi-level interventions; for example, focusing on parents and child, and undertaking sufficient home visits and service development that will enhance the skills and capacities of vulnerable families and the services and systems designed to support them. Key components embedded in the goals and model of the programme are shown in *Figure 1*.

The goals are achieved through 25 scheduled home visits from pregnancy, ideally, or commencing postnatally up to the 6–8-week mandatory contact after birth (or up to 6 weeks post-discharge for infants with prolonged hospitalisation at birth) and continuing until the child is 2 years old. Qualified health visitors who have the knowledge and skills to use strengths-based approaches and work in partnership with parents deliver the home visits, incorporating a structured child development parent education programme, and enabling development and use of community-based support groups and services. This includes supporting parents who have the confidence to attend existing groups, or developing specific MECSH group activities for those who need to develop that confidence.

The programme requires a system for identifying mothers-to-be (primiparous or multiparous, of any age) who are most likely to benefit from MECSH, because they have a known mental health or social risk (such as abuse in childhood, family violence or substance misuse) and/or they are experiencing psychosocial distress in pregnancy (evidenced by a Edinburgh Depression Score (Cox et al, 1987) of 10 or higher or other similar assessment). Usually, this requires collaboration with midwifery services, who identify the women early in pregnancy and refer to health visitors; or mothers may be identified at first antenatal or at postnatal visits by a health visitor.



Programme goals

- Improve transition to parenting by supporting mothers through pregnancy. This includes providing support with the mother's and family's psychosocial and environmental issues, supporting the health and development of the family including older children, providing opportunity for discussion, clarification and reinforcement of clinical antenatal care provided by usual antenatal midwifery and obstetric services, and preparation for parenting
- Improve maternal health and wellbeing by helping mothers to care for themselves. Guided by a strengths-based approach, the health visitor will support and enable the mother and the family to enhance their coping skills, problem-solving skills and ability to mobilise resources; foster positive parenting skills; support the family to establish supportive relationships in their community; mentor maternal–infant bonding and attachment; and provide primary health care and health education
- Improve child health and development by helping parents to interact with their children in developmentally supportive ways. This includes supporting and modelling positive parent–infant interaction and delivery of a standardised, structured child development parent education programme
- Develop and promote parents' aspirations for themselves and their children. This includes supporting parents to be future oriented for themselves and their children, modelling and supporting effective skills in solving day-to-day problems and promoting parents' capacities to parent effectively despite the difficulties they face in their lives
- Improve family and social relationships and networks by helping parents to foster relationships within the family and with other families and services. This includes modelling and supporting family problem solving skills, supporting families to access family and formal and informal community resources and providing opportunities for families to interact with other local families

Figure 1. Maternal Early Childhood Sustained Home-visiting programme goals (Kemp et al, 2011)

The research

The MECSH programme has been demonstrated to be effective, with immediate and longer-term effects on children and their families who receive the programme, and on the broader community. MECSH is the subject of a systematic programme of research to ensure that the intervention has a strengthened and current evidence base.

Individual family impact

In the initial RCT, the MECSH programme was delivered to 111 eligible mothers and usual (health

Table 1. School entry comparisons

Domain of development	Mean proportion (%) of children vulnerable in the domain at school entry (higher score indicates greater vulnerability)			
	MECSH Trial* community	Comparable disadvantaged communities#	All Australia	All NSW, Australia
Physical health and wellbeing	6.8	13.2	9.3	8.6
Social competence	7.0	13.2	9.5	8.8
Emotional maturity	6.5	11.8	8.9	7.4
Language and cognitive skills	4.3	13.9	8.9	5.9
Communication skills and general knowledge	11.5	14.1	9.2	9.2
Vulnerable on 1 or more of the above domains	21.6	32.0	23.6	21.3
Vulnerable on 2 or more of the above domains	9.0	17.5	11.8	10.3

** Maternal Early Childhood Sustained Home-visiting (MECSH) programme trial implementation group children represented approximately 15% of children entering school in the trial community*

 # Comparable disadvantaged communities are those in the bottom quintile on the Australian Bureau of Statistics Socio-economic Index for Areas

visiting) care to a control group of 97 (Kemp et al, 2011). In keeping with the MECSH model's strengths-based, salutogenic and ecological conceptual framework this trial measured maternal and child health and development, and the quality of the home learning environment, rather than focusing on measures that may show change in disordered parenting. The trial found that mothers in the intervention group had improved perinatal health, confidence in parenting and self-reported health; and children were breastfed for longer and were living in a more developmentally nurturing environment. Mothers assessed during pregnancy as having psychosocial distress showed improved mental health in the postnatal period and felt more enabled to care for themselves and their baby, and were linked in and more engaged with services (Kemp et al, 2011; 2013).

Qualitative evidence demonstrated that the programme continued to have an impact on families in the longer term, with mothers reporting that they were better able to deal with things because of their experience during the programme, continued use of learning and resources with both their MECSH child and subsequent children, and continued engagement with other services (Zapart et al, 2016). Recently, a mother contacted the team 11 years after starting the programme to report:

'Hey [MECSH practitioner], [Sianna] has been accepted to uni to study speech therapy, [I'm] immensely proud and not allowed to brag about it on Facebook. However I wanted you to know you played a role in her success and the success of my family unit. I know it may seem like a million years ago and [Louise, MECSH child] is turning 11 next week but the effects of that time and your visits, support and advocacy still ripple through my life. Support that the programme offered does pay off, and situations can change for people and families, and it certainly had positive benefits for my mental health, which has definitely benefited my children and will continue to do so. Thank you so much, you'll never know how much.'

Community impact

As the MECSH programme is based in the health visiting service and embedded in the broader community service system, it has, by design, 'spill-over' effects on the broader community. In the original trial there was significant investment in improving provision, access and integration of the family and child health and the community service system. Subsequent follow-up of the initial trial community showed that this 'meshed' service system resulted in a lower proportion of children with vulnerabilities at the time of school entry, as assessed by the 2009 Australian Early Development Census (a teacher-reported population measure of Australian early childhood health and development based on the Canadian Early Development Instrument) (Australian Government, 2009), particularly when compared to urban communities with a similar level of socioeconomic disadvantage (*Table 1*).

Continuing research programme

The MECSH programme is undergoing a multi-study, multi-design programme of research, as summarised in *Table 2*.

Table 2. Maternal Early Childhood Sustained Home-visiting research in progress

Population	Study design	Reporting date
Urban indigenous population in NSW, Australia	Quasi-experimental trial: whole population intervention compared with historic control	Mid-2017
Seven localities in Victoria and Tasmania, Australia	Randomised controlled trial: individual randomisation, arms-length (independent) trial	Mid-2017
Somerset, UK	Quasi-experimental study: 1. MECSH intervention families in two localities compared with matched sample drawn from other non-intervention localities 2. Whole population outcomes for two implementation localities compared with whole population from other localities	From mid-2017 (perinatal outcomes) to mid-2019 (child development outcomes)
Essex, Plymouth and Lewisham, UK; Jersey and Vermont, USA	Mixed method studies: 1. Cohort studies comparing MECSH intervention families with whole population outcomes 2. Case studies	From mid-2017 (case studies) to end-2018 (child development outcomes)

MECSH theory of change

The MECSH programme has a developed theory of change that is reflected in the training and support provided for health visitors working in the MECSH model. The programme is both a structured model of sustained home visiting for families experiencing vulnerability to poorer child and family outcomes, and the promotion of a service system that supports all families to be 'meshed' into their community and local services. Through at scale provision by the whole workforce and development of whole systems, rather than using separate specialist teams, the MECSH programme promotes the reduction of inequities and whole population improvement in participating sites. To achieve this, the MECSH programme operates from three underpinning principles:

- A core and adaptation model of local implementation. The MECSH programme has core components (number of visits, curriculum, structures), methods (partnership working, visit scheduling and timing, group activities and service in-reach), and infrastructure (training and supervision, data and systems for quality monitoring, and a supporting service structure) that must be in place in all programme sites. In addition, the programme has a proactive and structured process to incorporate the local healthy child programme and mandatory visits, as well as other components or foci to 'me[c]sh' with local policy and address local needs (Kemp, 2016)
- Health as the ability to 'adapt and self-manage' (Huber et al, 2011). In December 2009, the Health Council of the Netherlands proposed a new definition of health to recognise the numbers of people who, living with chronic health conditions, would not be able to achieve health, defined as 'a complete state of physical, mental and social wellbeing' as defined by the World Health Organization (WHO, 1946). The MECSH programme recognises that many of the issues facing families (for example, a history of abuse and chronic poverty) cannot be 'fixed' but that families should be supported to learn the skills, build their capacity and source the resources needed to adapt and self-manage in their parenting journey, and parent effectively despite the difficulties and challenges they face (Kemp et al, 2016)
- A salutogenic, rather than pathogenic approach (see *Figure 2*). Consistent with one of the core principles of health visitors' effective work (Cowley et al, 2015), working salutogenically starts with the health potential of the child and family, rather than a disease or problem focus, and takes a proactive, preventive approach to enhance the family's ability to achieve their goals and enhance life opportunities (Becker et al, 2010).

The last two principles are well expressed by a MECSH practitioner who reflected the view of most practitioners who have adopted MECSH practice:

'In essence, I feel challenged, liberated and also rewarded working as a MECSH practitioner. It requires "unlearning" as well as juggling best timing for providing maternal child health practice and expertise.

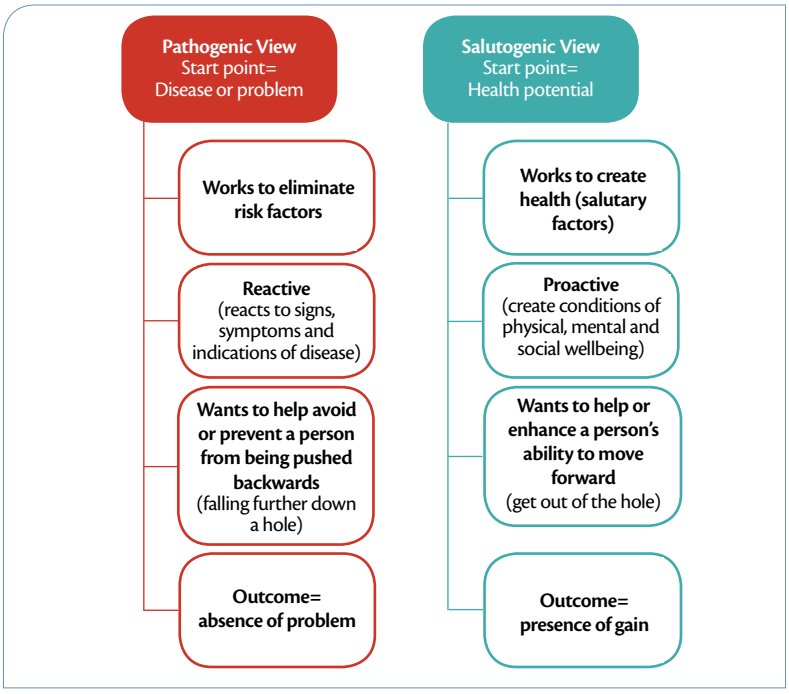


Figure 2. Comparison of pathogenic vs salutogenic health perspectives (based on data from Becker et al, 2010)

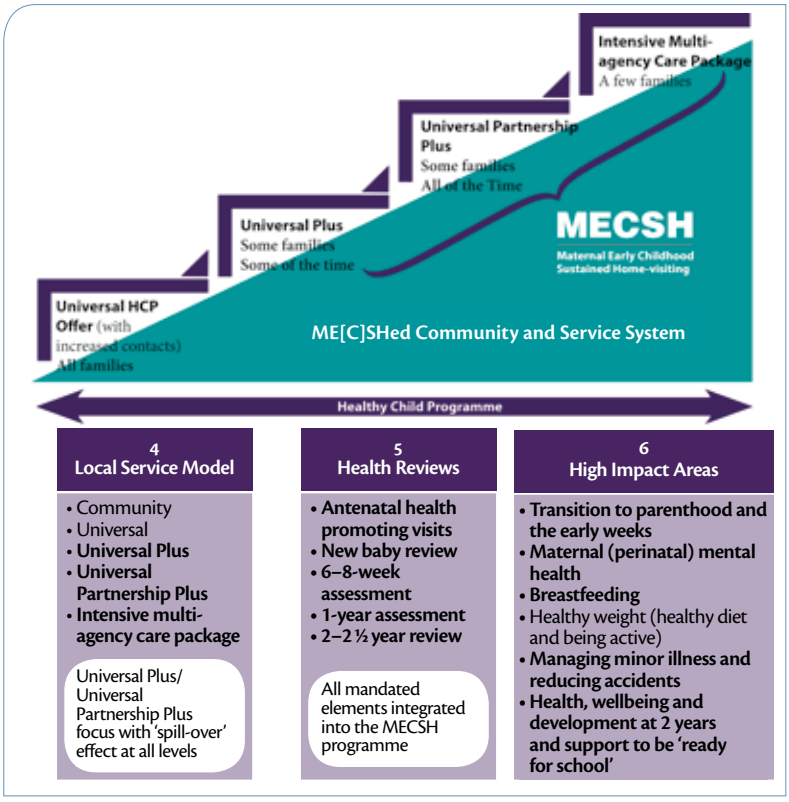


Figure 3. MECSH fit with the health visiting offer

It's been great to witness the benefits of holding back/sitting on my hands/withholding well-meant advice. I continue to marvel at the multiple benefits of this newfound game of patience. It's also as rewarding for me to observe the reluctant mother unearthing her own ability to best manage things as it must be for her to discover her capabilities. The thrill is in her taking responsibility and feeling confident to take charge in the next situation.'

Fit with the UK system

The MECSH programme is designed to be integrated within a universal healthy child programme (see *Figure 1*). MECSH fits into the health visiting offer in England (PHE, 2016) as both a Universal Partnership Plus programme of sustained home visiting predominantly for families needing ongoing support through the Universal Partnership Plus offer, but also serving some families who require a more comprehensive Universal Plus response, and, where appropriate, as part of the intensive multi-agency care package. For example, the MECSH programme is appropriate for a family who may initially present with an issue that could be resolved with a Universal Plus shorter-term intensive intervention, but where there is concern that the family's context and capacity might limit their ability to effectively engage with or make positive long-term change, such as a mother with breastfeeding difficulties who also experiences learning difficulties, or the mother with depressed perinatal mood who has long-term life stressors, including poverty.

The MECSH programme is appropriate for families as part of an intensive multi-agency package, particularly when the family is expressing aspirations to make changes. Implementation of the MECSH programme also supports a ME[C] SHed (connected and integrated) service system and community for all families (*Figure 2*). This is achieved through the group work that connects families to other families within their community, connecting families with the services they need, as well as supporting local service providers to enhance their interdisciplinary and interagency engagement. In addition, the MECSH programme addresses the 4-5-6 model of health visiting, intervening at all service levels, integrating the five mandated elements and with evidence of impact on measures in five of the six high impact areas, as illustrated in *Figure 3* (MECSH programme elements and impacts in bold). The inclusion of programme components targeting healthy weight is currently in development, through inclusion of the effective Healthy Beginnings programme (Wen et al, 2015).

The core and adaption process described above was applied to ensure fit to the UK context, including a systematic and ongoing process of review of health visiting and early years policies. Initial preparations for introducing MECSH also included a retrospective audit in two services in England of health visitor records. Health visitors

identified families that would potentially have been eligible for the MECSH programme, had MECSH been available. This revealed that the number of visits delivered to those families by the time the child was age 2 years ranged from 14 (for families needing ongoing psychosocial support) to over 20 (for families with complex needs including those on a safeguarding plan). The MECSH schedule of 22 postnatal visits is consistent with the volume of health visitor service provision for vulnerable families, but requires a reorientation of visit activity to an anticipatory, structured and salutogenic programme. The consistency with volume and desired focus of practice ensures that the MECSH programme is likely to be implementable in a UK context within existing health visitor capacity as developed through the *Health Visitor Implementation Plan* (Department of Health, 2011), and with minimal marginal cost.

Conclusion

The MECSH programme is a high-quality evidence-based intervention based in the universal child and family health service system, providing long-term structured support to all families vulnerable to poorer child and parent outcomes. The programme has an established theory of change that is consistent with the basis for best practice health visiting, and a structured home visiting schedule commensurate with health visitor capacity with minimal impact on funding. Through embedding in a proportionate universal health visiting service, the programme has designed 'spill-over' effects producing outcomes for the whole community. JHV

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Key points

- The Maternal Early Childhood Sustained Home-visiting (MECSH) programme is a high-quality evidence-based health visiting intervention uniquely based in the universal child and family health service system
- The programme promotes the reduction of inequities and whole population improvement in participating sites
- The programme has an established theory of change that is consistent with the basis for best practice health visiting

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