RESTACKING THE ODDS

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COMMUNICATION BRIEF

Sustained nurse home visiting: An evidence based review of indicators to assess quality, quantity and participation

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RESTACKING THE ODDS

RESTACKING THE ODDS: PROJECT BACKGROUND

Inequities emerging in early childhood often continue into adulthood, contributing to unequal rates of low educational attainment, poor mental and physical health and low income. In some cases, this experience is part of a persistent cycle of intergenerational disadvantage. Inequities constitute a significant and ongoing social problem and – along with the substantial economic costs – have major implications for public policy.

To redress inequities, research tells us that efforts should be delivered during early childhood (pregnancy to eight years of age) to deliver the greatest benefits. Restacking the Odds focuses on five key evidence-based interventions/platforms in early childhood: antenatal care; sustained nurse home visiting; early childhood education and care; parenting programs; and the early years of school (see *Figure 1: Five Fundamental Strategies*).

These five strategies are only a subset of the possible interventions, but we have selected them carefully. They are notably *longitudinal* (across early childhood), *ecological* (targeting child and parent), *evidence-based, already available* in almost all communities, and able to be *targeted* to benefit the 'bottom 25 per cent'. Our premise is that by 'stacking' these fundamental interventions (i.e., ensuring they are all applied for a given individual) there will be a cumulative effect - amplifying the impact and sustaining the benefit.

Our intent is to use a combination of data-driven, evidence-based and expert informed approaches to develop measurable best practice indicators of quality, quantity and participation for each of the five strategies:

Quality: Are the *strategies delivered effectively*, relative to evidence-based performance standards? A strategy with 'quality' is one for which there is robust evidence showing it delivers the desired outcomes. A large number of research studies have explored aspects of this question (i.e., "What works?"). Therefore, we pay particular attention to the quality dimension in this report.

Participation: Do the *appropriately targeted* children and families *participate* at the right dosage levels? 'Participation' shows us what portion of the relevant groups are exposed to the strategy at the level required to trigger the desired benefit. (For example, attending the required number of antenatal visits during pregnancy). Participation levels can be calculated whether the strategy is universal (for everyone), or targeted (intended to benefit a certain part of the population).

Quantity: Are the strategies *available locally* in sufficient quantity for the target population? 'Quantity' helps us determine the quantum of effort and infrastructure needed to deliver the strategy adequately for a given population.

These indicators will help identify gaps and priorities in Australian communities. We will test preliminary indicators in 10 communities over the next three years to determine which are pragmatic to collect, resonate with communities, and provide robust measures to stimulate community and government action.

The findings summarised in this report provide essential inputs to guide our subsequent work. There is a similar report for each of the five strategies.

FIVE FUNDAMENTAL STRATEGIES

Antenatal	Early childhood		School years
	Birth to 2 years	2-5 years	
1 Antenatal care • Targeted at parents • Centre-based • *Outcomes:* healthy birth weight, good brain health, appropriate care, "adequate parenting"	**3 Early childhood education and care** • Targeted at all children (in groups) • High quality for all children • Delivered out of home in a "pseudo-home-learning environment" • *Outcomes:* children on optimal developmental pathway (cognitive and social-emotional), school readiness		**5 Early years of school** • Targeted at all children • School-based • *Outcomes:* children on optimal learning pathway by Year 3
2 Sustained nurse home visiting • Targeted at disadvantaged parents • Health and development support • Home-based • *Outcomes:* parents develop parenting skills			**4 Parenting programs** • Targeted at parents whose children have behavioural issues (higher prevalence in disadvantaged families) • Centre-based, delivered in groups or 1:1 • *Outcomes:* remedy of specific emerging behavioural issues

Figure 1: Five fundamental strategies

SUSTAINED NURSE HOME VISITING: RESEARCH SUMMARY

OVERVIEW

Nurse home visiting (NHV) programs specifically aim to promote health equity through a focus on disadvantaged/vulnerable families. NHV programs are used to deliver multiple services/interventions in the family's home [1]. They generally target risk and protective factors related to prenatal health, sensitive and competent care-giving, and early parental life-course outcomes. Advantages to home visiting include (a) improved access, (b) more opportunities for rapport building, and (c) service tailored according to individual family needs [2-4].

Results from meta-analytic reviews of home visiting programs suggest there are multiple benefits, spanning child health and development outcomes, improved parenting, and maternal life course. [5-9]. As such, there has been substantial financial investment and widespread implementation of NHV programs in the US [10], and they are becoming increasingly popular in other countries including Australia [11], the UK [12], Germany [13] and the Netherlands [14].

If governments are to invest significant resources in delivering NHV programs with the aim of achieving equity in health and development outcomes, it is important to know which programs work, for whom, and in what system contexts. An understanding of the program components that significantly improve child and parent outcomes is also critically important. Such knowledge can be used to guide the development of (a) programs with the best chance of achieving the desired outcomes and (b) measures to ensure continuous quality improvement in an Australian service system context.

Sustained nurse home visiting (SNHV) is one of the five effective early intervention strategies identified by Restacking the Odds and thus is the focus of this review. Earlier home visiting reviews (e.g. [2, 7]) suggest effective programs tend to include a greater number of visits and are delivered over a longer duration. The rationale for focussing on nurse-delivered programs is likewise evidence-based. Indeed, there is converging evidence from systematic reviews [15, 16], meta-analyses including within-study comparisons [17] and experimental investigations [18] suggesting nurse-delivered programs demonstrate improvements across more outcomes with larger effects than those delivered by paraprofessionals.

AIM

This restricted review of the peer-reviewed evidence base for sustained nurse home visiting three questions:

1. *Quality*. What practices in sustained nurse home visiting are significantly related to better birth outcomes or improved child or parent outcomes? What process indicators can be used to measure and define these practices?

2. *Participation*. What population is most likely to benefit from participation in a high quality parenting program and at what dosage-level?

3. *Quantity*. Given targeted provision, in what quantity should sustained nurse home visiting be available for a given population?

METHOD

Our literature review utilised a restricted evidence assessment (REA) methodology. The REA is a research methodology that uses similar methods and principles to a systematic review but makes concessions to the breadth and depth of the process. Rigorous methods for locating, appraising and synthesising the evidence related to a specific topic are utilised by the REA; however, the methodology places several limitations in the search criteria and in how the evidence is assessed.

Peer-reviewed literature

We sought to identify meta-analyses, systematic reviews and randomised controlled trials (RCTs) published between January 2008 and February 2018 from the peer-reviewed literature with the aim of identifying both (a) sustained nurse home visiting programs, and (b) analyses of the componentry underpinning program effectiveness.

Ranking the evidence

Each systematic review, meta-analysis, and RCT that met the inclusion criteria was subject to a quality and bias check. Study quality includes assessment of internal validity or the degree to which the design and the conduct of the study avoid bias (e.g. through randomisation, allocation concealment and blinding) and external validity or the extent to which the results of the study can be applied, or generalised, to the population outside the study. The quality and bias information was used to consider the conclusions of included studies and the potential effectiveness of each SNHV program identified.
Considering the accumulated evidence across different studies, we assessed the strength of the evidence base for each SNHV program as well as the generalisability to the Australian context. An overall ranking of the evidence was determined by

considering these two factors (see Appendix A for full details). The criteria was adapted from The California Evidence-based Clearinghouse for Child Welfare [19]. This was determined by two independent raters with consensus reached in the event of any rating discrepancy. The following overall ranking criteria were applied:

- *Supported*. Clear, consistent evidence of benefit. Generalisable and applicable to the Australian context.
- *Promising*. Evidence suggestive of benefit but more evidence needed. Population examined similar to the target population and somewhat applicable to the Australian context.
- *Evidence fails to demonstrate an effect*.
- *Unknown*. Insufficient evidence or no effect.
- *Concerning practice*.

Expert evaluation of draft indicators

The distilled list of indicators was vetted by two Australian experts.

- *Lynn Kemp*. Professor Nursing and Director TReSI, Western Sydney University
- *Graham Vimpani*. Conjoint Professor, School of Medicine and Public Health, Faculty of Health and Medicine, University of Newcastle

These experts were asked to independently comment on the developed list of supported SNHV programs and the indicators created for quality, quantity and participation.

FINDINGS FOR SUSTAINED NURSE HOME VISITING

Supported programs

The literature search and screening process resulted in the identification of three relevant meta-analyses, one systematic review, two program-specific reviews and nineteen peer-reviewed publications covering ten individual trials of eight programs (n=9 RCTs). Most evaluations examined the US-based Nurse Family Partnership (NFP) or an adaptation. For full details of the related evidence see [20].

Effective SNHV programs were defined as programs demonstrating a statistically significant main effect on at least three valid child or parent outcomes in at least one RCT with low to moderate risk of bias. Seven supported programs were identified, and their beneficial outcomes for parents and children are shown below in Table 1.

Supported components

Three meta-analyses of home visiting programs explored the association between program components and program effectiveness [5, 6, 17]. The most recent of these considered 18 implementation factors relating to staff selection, training, supervision, fidelity monitoring and type of organisation delivering the program (Casillas 2016). An earlier meta-analysis (Filene, 2013) focussed mainly on program content but also included several components related to program implementation (e.g. staff selection). The earliest of the three (Nievar et al 2010) included only two program components (i.e. visit frequency and staff selection). The components related to specific outcomes are presented in Table 3 (for more detailed information see Molloy, Beatson [20]).
In addition to the findings from the 3 meta-analyses we identified components characterising effective SNHV programs by comparing components across supported programs. Based on the results shown in Table 3 we divided quality components into three categories: content (what is delivered), process (how it is delivered), and nurse-provider (by whom it is delivered). See Appendix B for a full list of components across supported programs.

Overall ranking

Based on the strength of evidence there were seven programs that were ranked as Supported:

- Nurse Family Partnership
- Family Nurse Partnership
- MECSH
- Minding the Baby
- Pro Kind
- right@home
- VoorZorg

Content components of effective programs

Previous meta-analyses [17] and reviews (Segal et al 2012) of home visiting programs suggest that the alignment of program aims with content influences program effectiveness. Similarly, the comparison of content components characterising effective SNHV programs suggests that program effects tend to emerge, unsurprisingly, on the specific outcomes most emphasised during program delivery.
The comparison of programs shows that the content delivered in effective SNHV programs tends to cover a comprehensive range of topics. All programs included content relating to prenatal health, child health and development, parenting practices, social support or community engagement, and economic factors (e.g. encouraging women to find employment and/or study, assistance to apply for social services support). Meta-analytic evidence identifies three content areas significantly associated with program effects on several outcomes. These include: sensitive and responsive parenting; discipline and behaviour management; and problem-solving skills.

Effective SNHV Programs	
Nurse Family Partnership is the most extensively evaluated SNHV program:	**Child outcomes** • Child injury • Language development • Child substance abuse (age 12-15 years) **Maternal outcomes** • Pre-eclampsia • Prenatal smoking • Breastfeeding (attempts) • Intimate Partner Violence • Subsequent births and abortions • Maternal welfare use (from 0-15 years) • Maternal mastery
Family Nurse Partnership is a UK-adaptation of the NFP:	**Child outcomes** • Child cognition • Child language **Maternal outcomes** • Breastfeeding intentions • Social support • Partner-relationship quality • General self-efficacy
Maternal & Early Childhood Sustained Home Visiting program is an Australian's first rigorously evaluated sustained NHV program:	**Maternal outcomes** • Breastfeeding duration • Maternal responsivity • SIDS knowledge
Minding the Baby is an interdisciplinary home visiting intervention delivered by a nurse practitioner and clinical social worker:	**Child outcomes** • Infant attachment **Maternal outcomes** • Subsequent pregnancies • Immunisation and well-child check ups
Pro Kind is a German adaptation of the NFP:	**Maternal outcomes** • Maternal attachment • Parental self-efficacy • Maternal stress • Partnership satisfaction
right@home is an Australian program trialled within an existing service system platform:	**Maternal outcomes** • Safety of family home • Regular bedtime • Varied home environment • Parenting (more warm & less hostile) • Facilitation of child learning
VoorZorg is a Dutch adaptation of the NFP:	**Child outcomes** • Child maltreatment • Child internalising problems **Maternal outcomes** • Intimate partner violence • Breastfeeding duration • Prenatal and postnatal smoking

Table 2: Effective components by outcome

Improved parent or child outcome	Implementation component shown to be effective		
	Content	**Process**	**Nurse provider**
Parent behaviour and skills	• Developmental norms and appropriate expectations[2] • Discipline and behaviour management strategies[2] • Responsive and sensitive parenting[2] • Substance use[2]	• Once-off or occasional fidelity monitoring[1] • Fidelity monitoring assessing quality as well as content[1] • At least 3 visits per month[3]	
Children's cognitive outcomes	• Programs teaching responsive and sensitive parenting[2] • Programs using rehearsal or role play[2]		• Programs requiring role-play in visitor training[1] • Training that does *not* include practice cases[1] • Supervision specific training for supervisors[1]
Children health outcomes	• Discipline and behaviour management[2] • Programs without support group content[2]		• Delivery through professional home visitors (e.g. nurses, psychologists, social workers)[2]
Child maltreatment	• Problem solving[2] • Selecting appropriate alternative caregivers for children[2]	• Independent fidelity monitoring (not by home visitor or supervisor)[1] • Monitoring of fidelity quality (not just content)[1] • Fidelity monitoring by home visitors (vs no monitoring by home visitor)[1] • Fidelity monitoring by supervisor (vs not monitored by supervisor)[1]	• Training including observation[1]
Birth outcomes			• Non-professional home visitors[2] • Visitors and clients matched on race/ethnicity[2]
Maternal life course	• None	• None	• None

1= Casillas et al (2016); 2=Filene et al (2013); 3=Nievar et al (2010)

Process components of effective programs

Results from the meta-analyses suggest monitoring of program fidelity and nurse home-visitor quality are important components associated with effective home visiting programs. Our comparison of common process components shows that SNHV programs with a relatively strong evidence base are characterised by individual tailoring of program content (e.g. focus on goals prioritised by parents), inclusion or encouragement of family participation, continuity of care, and a process of monitoring the fidelity of program implementation.

Nurse provider components of effective programs

Reslts from the meta-analyses show larger effects have been demonstrated by programs where nurses receive (a) training involving role-play, (b) reflective supervision, (c) supervision with observation, and (d) supervision-specific training of supervisors. The comparison of nurse-provider components common to effective SNHV programs showed that nurses typically had Bachelor-level qualifications, at least two years nursing experience, program-specific training, at least monthly supervision, a caseload of no more than 30 families, and multidisciplinary support from social workers.

Quality indicator

The SNHV program is one of the seven supported programs, or the SNHV program reaches the high quality threshold for each of the three quality domains of content, process, and nurse-provider.

The full list of quality indicators are show in Table 3.

SNHV programs participation

The population of interest for this review was socially disadvantaged mothers and their children. Consistent with other reviews of nurse home visiting programs for socially disadvantaged mothers and their children [21], we defined women as socially disadvantaged if they were: experiencing low Socioeconomic Status (SES) (in terms of low income, receipt of welfare, unemployment, or unskilled/semi-skilled occupational status), educationally disadvantaged (i.e. non-completion of high school), young parents (<20 years of age), or sole parents. The participation levels required to effect positive outcomes may be related to several factors. These include program commencement (i.e. antenatal/postnatal) and duration (months/years), completion rates, the number of intended and delivered visits, and visit frequency.

Overall, determining the optimal dose required to effect positive outcomes is difficult. Evidence from the included meta-analyses of NHV suggests at least three visits per month are required to observe moderate improvements in maternal behaviour and a minimum of two is required to achieve small effects. The comparison of components characterising effective SNHV programs shows that (a) all commenced prenatally, and most (b) continued to child age 2 years, (c) included at least 25 scheduled visits, with (d) visit duration of 60-90 minutes, and (e) more frequent visitation in the antenatal and early post-partum period compared with later in the program.

Participation indicator

The target population (i.e. mothers living it adversity) should attend a high quality SNHV program at the right dose. A high quality program is defined as one of the seven Supported SNHV programs or if a NHV program achieves a "high" quality threshold for each quality domain (content, process, nurse-provider). (The threshold is the estimate required to deliver a quality NHV program that will be tested in the field and re-evaluated).

The full list of participation indicators are show in Table 4.

SNHV programs quality

The key dimensions related to quantity are:

- Is there sufficient infrastructure? i.e., the number of places in a high quality SNHV program per defined population for a sustained period.

- Is there sufficient workforce? i.e., the number of qualified nurses with manageable caseloads (i.e. that do not compromise program implementation quality or staff well-being and retention).

The meta-analyses and RCTs included in the review generally provided little information about what proportion of a population should receive support from a home visiting service. Data from the Commonwealth Department of Social Services could be used to determine what proportion of each Local Government Area (LGA) is considered socially disadvantaged and eligible to receive a SNHV place.

Quantity indicator

The number of places offered in a local community, in Supported (high quality) SNHV programs.

The full list of quantity indicators are shown in Table 5.

Table 3: Full list of quality indicators for NHV programs

NURSE HOME VISITING		
Content	**Process**	**Provider**
QL A supported SNHV program is offered		
QL 1 % of visits addressing home learning (e.g. talking, reading)	**QL 8** % of families who have their aspirations and goals documented	**QL 24** % of nurse home-visitors with specialised child & family training and at least 2 years nursing experience
QL 2 % of visits addressing parenting issues (e.g. sensitive and responsive parenting, behaviour and discipline)	**QL 9** % of families with continuity of care	**QL 25** % of nurse home-visitors with program/service specific training
QL 3 % of visits in which problem-solving skills are taught	**QL 10** % of families with reported improvement in documented goals	**QL 26** % of staff provided training which included role playing exercises
QL 4 % of antenatal & early post-partum visits where breastfeeding education/support is offered	**QL 11** % of NESB families receiving a translated version of the program/service and/or support from an interpreter	**QL 27** % of staff receiving weekly supervision including reflection (on experiences, thoughts, and feelings about visit) and not merely administration or case-management
QL 5 % of visits that focused on at least one of the key issues identified by the parent as a priority area on referral/enlistment	**QL 12** % of new staff observed implementing the program and assessed for quality	**QL 28** % of staff who have received Family Partnerships Training or an equivalent working in partnership with families program
QL 6 % of families offered program specific support from evidence-based programs (e.g. Triple P; Crib to Cradle; Promoting First Relationship; Smalltalk; Learning to Communicate)	**QL 13** % of women who are asked about their smoking status (and % recorded)	**QL 29** % of nursing staff who have undertaken professional development relevant to their current work in the past 12 months
QL 7 % of families provided information about local and free or low cost community engagement opportunities (e.g. play groups; toy libraries; pram walking sessions; library rhyme or story time)	**QL 14** % of women who are asked about the status of their mental health (and % recorded)	**QL 30** % of supervisors provided supervision-specific training
	QL 15 % of women who are asked about family violence (and % recorded)	**QL 31** % of staff with caseloads as defined by the program/service
	QL 16 % of women who are asked about alcohol & substance abuse (and % recorded)	**QL 32** % of staff provided access to multi-disciplinary support
	QL 17 % of women with a mental health problem who are referred for psychological intervention	**QL 33** % of staff provided training in cultural competence
	QL 18 % of women experiencing domestic violence who are referred to an evidence-based support service	
	QL 19 % of women with drug or alcohol problems referred to an evidence-based support service	
	QL 20 % of women experiencing financial difficulty provided information about avenues for assistance	
	QL 21 % of women given opportunity to provide nurse feedback during program/service implementation	
	QL 22 % of women given opportunity to provide confidential program feedback	
	QL 23 % of women who rate the program and nurse-family relationship highly (average score >80% on satisfaction measures) on exit survey (administered regardless of completion)	

Abbreviations: QL, quality indicator; SNHV, sustained nurse home visiting

Table 4: Full list of participation indicators for NHV programs

NURSE HOME VISITING	
Participation	
Overall attendance	Frequency of visits
P % of mothers living in adversity who attend a high quality NHV program	
P1 % of women receiving at least 25 home visits by child age 2 years	**P9** % of pregnant women who are visited at home at least twice in the 3rd trimester
P2 % of women retained in program to child age 2 years	**P10** % of women visited at least weekly in the first month following birth
P3 % of women receiving at least 15 home visits by child age 1 year	**P11** % of women visited at least fortnightly to child age 3 months
P4 % of women receiving no more than 10 HV in the 2nd year	**P12** % of pregnant women from disadvantaged groups (HCC, refugee, ATSI, NESB) who are visited at home at least twice in the 3rd trimester
P5 % of funded hours delivered	**P13** % of women from disadvantaged groups (HCC, refugee, ATSI, NESB) who are seen at least weekly from birth to child age 1 month
P6 % of women living in adversity	
P7 % of eligible ATSI women accepting a place	
P8 % of eligible women from NESB accepting a place	

Abbreviations: P, Participation indicator; NHV, nurse home visiting; SNHV, sustained nurse home visiting; HCC, health care card; ATSI; Aboriginal and/or Torres Strait Islander; NESB, non-English speaking background

Table 5: Full list of quantity indicators for NHV programs

NURSE HOME VISITING	
Quantity	
Health infrastructure	Health workforce
QN 1 Number of Maternal and Child Health centres by suburb per 10, 000 women of child-bearing age	**QN 4** Maternal and Child Health nurse density Number per 10, 000 women of child-bearing age
QN 2 Funded SNHV program places Number per 1, 000 pregnant women	**QN 5** Social care practitioner density Number per 10, 000 women of child-bearing age
QN3 Funded SNHV program hours Number per 1, 000 pregnant women	**QN 6** Community health worker density Number per 10, 000 women of child-bearing age

Abbreviations: QL, quality indicator; SNHV, sustained nurse home visiting

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CONCLUSION

We have established an evidence based set of indicators for best practice indicators of SNHV quality, participation and quantity.

Quality

We identified eight specific SNHV programs, which were tested in good quality RCTs and demonstrated effectiveness on at least one child or parent outcome. Seven of these programs demonstrated significant and positive effects on more than three outcomes (Nurse Family Partnership, Family Nurse Partnership, right@home, VoorZorg, Maternal and Early Childhood Sustained Home Visiting, Minding the Baby, and Pro Kind). Other SNHV programs should include the 34 indicators across the components of content, process, and nurse-provider.

Quality indicator
The SNHV program is one of the seven supported programs, or the SNHV program reaches the high quality threshold for each of the three quality domains of content, process, and nurse-provider.

Participation

The literature supports SNHV programs that (a) commence prenatally, (b) continued to child age 2 years, (c) include at least 25 scheduled visits with (d) visit duration of 60-90 minutes, and (e) more frequent visitation in the antenatal and early post-partum period.

Participation indicator
The target population (i.e. mothers living it adversity) should attend a high quality SNHV program at the right dose. A high quality program is defined as one of the seven Supported SNHV programs or if a NHV program achieves a "high" quality threshold for each quality domain (content, process, nurse-provider). (The threshold is the estimate required to deliver a quality NHV program that will be tested in the field and re-evaluated).

Quantity

When assessing the quantity, the key consideration is whether there is sufficient infrastructure and a quality workforce to support the relevant populations to attend at least 25 visits over 2 years.

Quantity indicator
The number of places offered in a local community, in Supported (high quality) SNHV programs.

Sustained nurse home visiting indicators: Application

The preliminary indicators we have selected will help identify gaps and priorities for SNHV programs in Australian communities. We will test them in ten communities over the next three years to determine which are pragmatic to collect, resonate with communities, and provide robust measures to stimulate community and government action. We will follow a similar path for the other four fundamental strategies that are the focus of Restacking the Odds: antenatal care, parenting programs, early childhood education and care, and the early years of school.

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APPENDICES

Appendix A: Overall ranking of the evidence

OVERALL RANKING OF THE EVIDENCE	
	Definition
Supported	Clear, consistent evidence of benefit. No evidence of harm or risk to participants. A well conducted systematic review or meta-analysis or at least one RCT (with low to moderate risk of bias) found the intervention to be more effective than a control group on at least three child or parent valid outcome measures.
Promising	Evidence suggestive of benefit but more evidence needed. No evidence of harm or risk to participants. At least one RCT (with low to moderate risk of bias) found the intervention to be more effective than a control group on at least one child or parent valid outcome measure.
Evidence fails to demonstrate effect	A well conducted systematic review or meta-analysis or at least one RCT found the intervention to be ineffective compared with a control group. The overall weight of the evidence does not support the benefit of the practice.
Unknown	The data reported across trials is inconsistent. One or more RCTs show a high level of bias. There are insufficient trials to provide an evaluation of the evidence-base.
Concerning practice	At least 1 RCT with low risk of bias where the practice has been shown to have no effect or a negative effect sustained over at least 1 year.

C-

Content components	FNP	MECSH	Minding the Baby	NFP	Pre Kind	right@ home	VoorZorg
Smoking	✓	✓	✓	✓	✓	implied	✓
Alcohol	✓	✓	✓	✓	not reported	implied	✓
Substance use	✓	✓		✓		implied	
Maternal mental health	✓	✓	✓			implied	✓ (referrals)
Parenting	✓	✓	✓	✓	✓	✓	✓
Home learning environment	✓	✓	✓	✓		✓	
Child health and development	✓	✓	✓	✓	✓	✓	✓
Social support/ Community engagement	✓	✓	✓	✓	✓	✓	✓
Economic factors	✓	✓	✓	✓	✓	✓	✓
Family violence	✓	✓	✓	✓		implied	✓

✓ =yes, publications included information about component

Appendix B: Comparison of content, process and nurse-provider components characterising SNHV programs by evidence ranking (cont.)

Process components	FNP	MECSH	Minding the Baby	NFP	Pro Kind	right@ home	VoorZorg
Continuity of care		✓		✓	✓	✓	
Individualised	✓	✓	✓	✓	✓	✓	✓
Flexible delivery		✓	✓			✓	✓
Inclusion of family	✓	✓	✓	✓	✓	✓	✓
Fidelity monitoring	✓	✓			✓	✓	✓

✓ =yes, publications included information about component

Nurse-provider components	FNP	MECSH	Minding the Baby	NFP	Pro Kind	right@ home	VoorZorg
Provider demographics					Female German 40 years (range 22-53)		
Multi-disciplinary supports		✓	✓		✓	✓	
Qualifications	Majority have undergraduate degree	Mostly postgraduate	Masters-level	Majority had undergraduate degree	University/ College level	Postgraduate qualification required	Not reported
Previous experience		9 years post-registration, 5 years in community nursing		Nurses had experience in community or MCH (amount not quantified)	Visitors: 15 years experience (range 0-31), 11 years (range 0-30) with disadvantaged clients	Not reported	At least 2 years nursing experience
Training provided	12 days delivered in block mode	Yes	Yes	1 month extensive	16 days for visitors, 5 days for supervisors	23 hours: MECSH, Right@Home modules and Family Partnership Model	Yes
Supervision		Monthly	Weekly, joint supervision of nurse and social worker	Yes (details not reported)	1 hour weekly + regular team meetings	1 hour per month minimum; reflective; not line manager	Weekly
Caseload	Goal was 25 families per nurse	21-25 families per nurse		25 families per nurse	~9.5 vs 12.5 clients (for continuous vs tandem model)	30 families per full-time nurse	18 mothers per full-time nurse

RESTACKING THE ODDS

THE TEAM

Restacking the Odds is a collaboration between three organisations, each with relevant and distinctive skills and resources:

Murdoch Children's Research Institute (MCRI) brings deep knowledge and credibility in the area of health and educational research, along with a network of relevant relationships

Prof Sharon Goldfeld – Deputy Director Centre for Community Child Health and Co-group leader Policy and Equity, Royal Children's Hospital and Murdoch Children's Research Institute

Dr Carly Molloy – Research Officer and Project Manager, Murdoch Children's Research Institute

Social Ventures Australia (SVA) brings expertise in providing funding, investment and advice to support partners across sectors to increase their social impact

Nicholas Perini – Principal, SVA Consulting

Bain & Company brings expertise in the development of effective strategies that deliver real results

Chris Harrop – a senior partner, and a member of Bain's worldwide Board of Directors

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