Enhancing Social-Emotional Health and Wellbeing in the Early Years

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Centre for Social Policy

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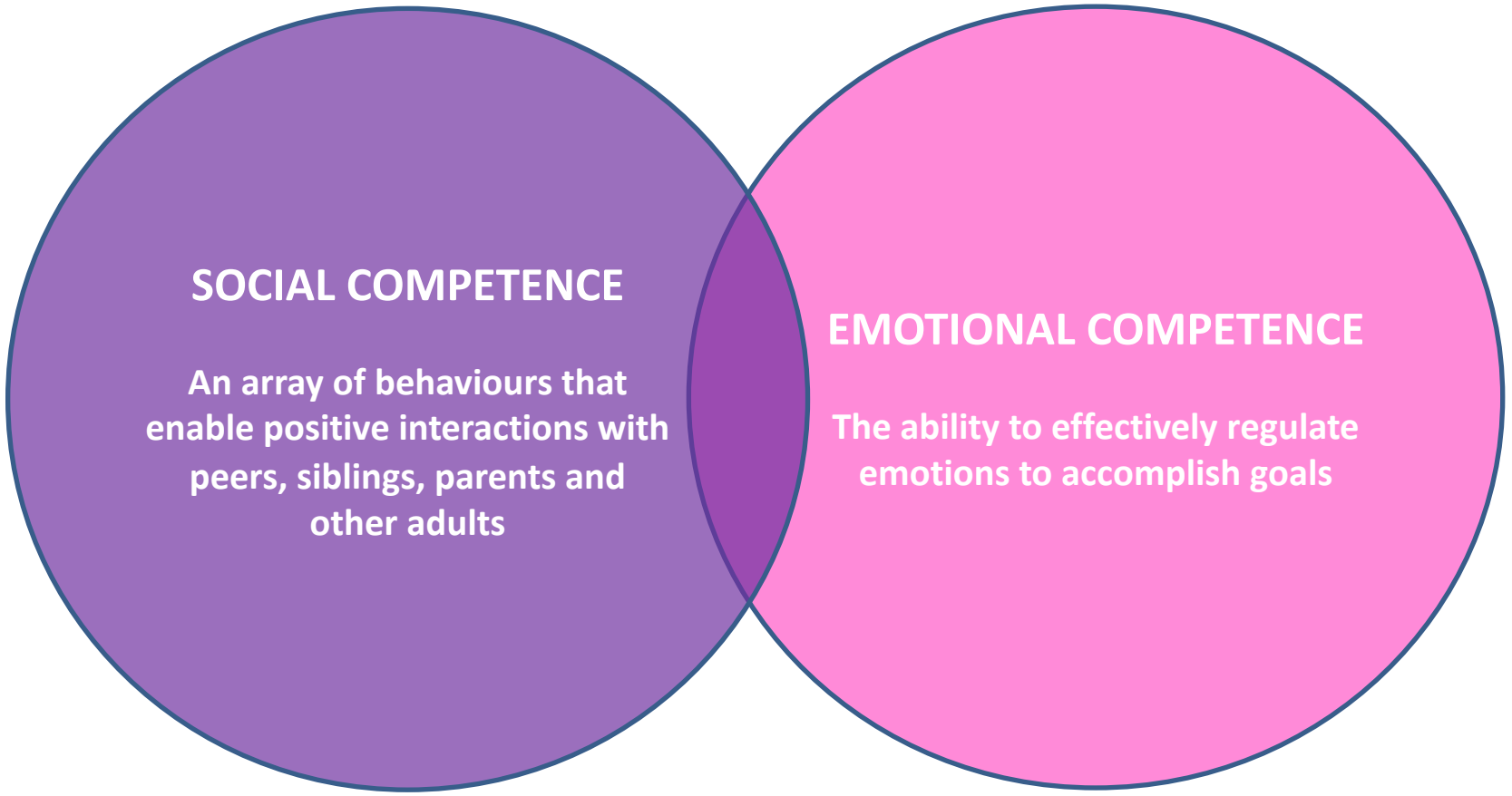
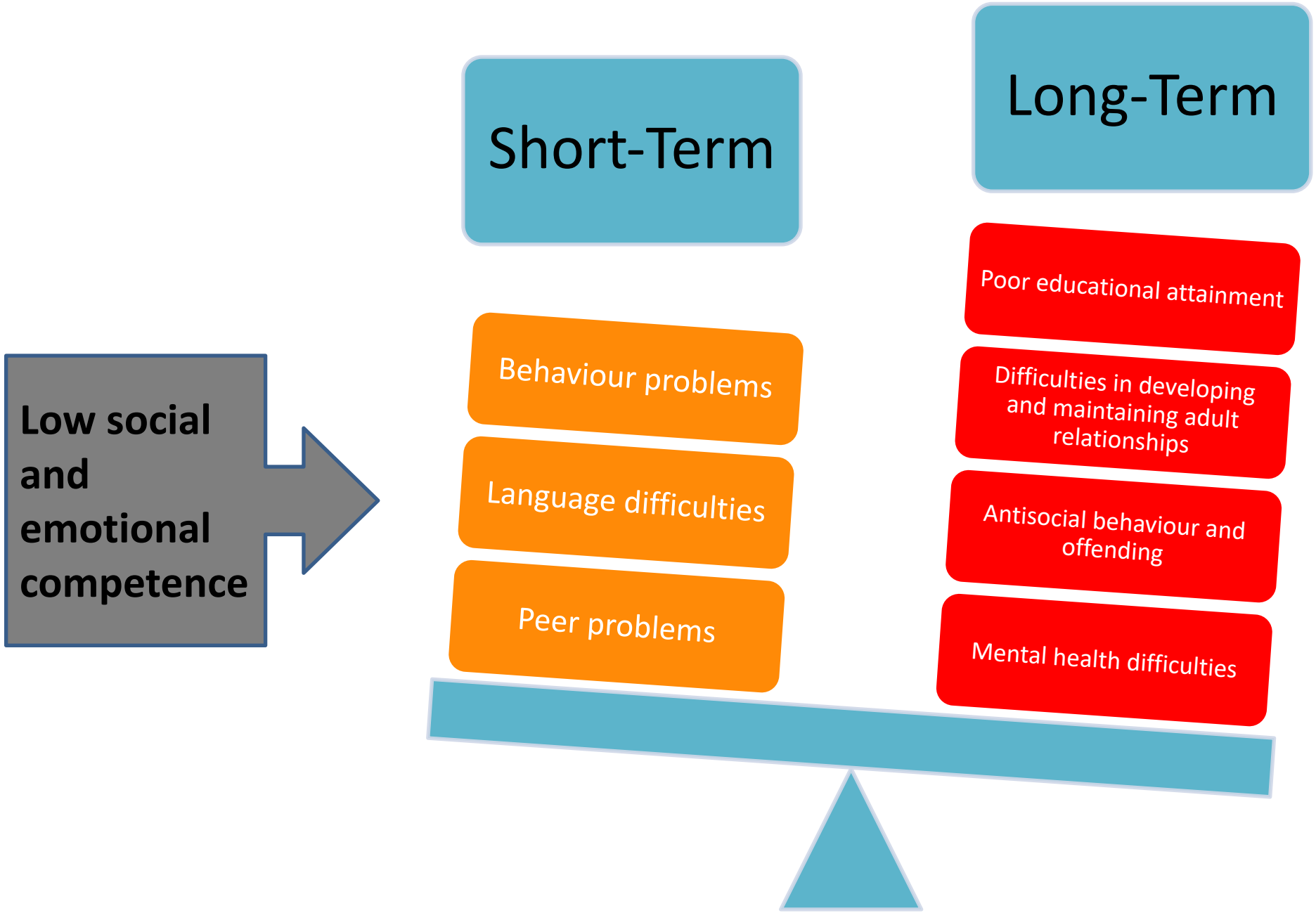
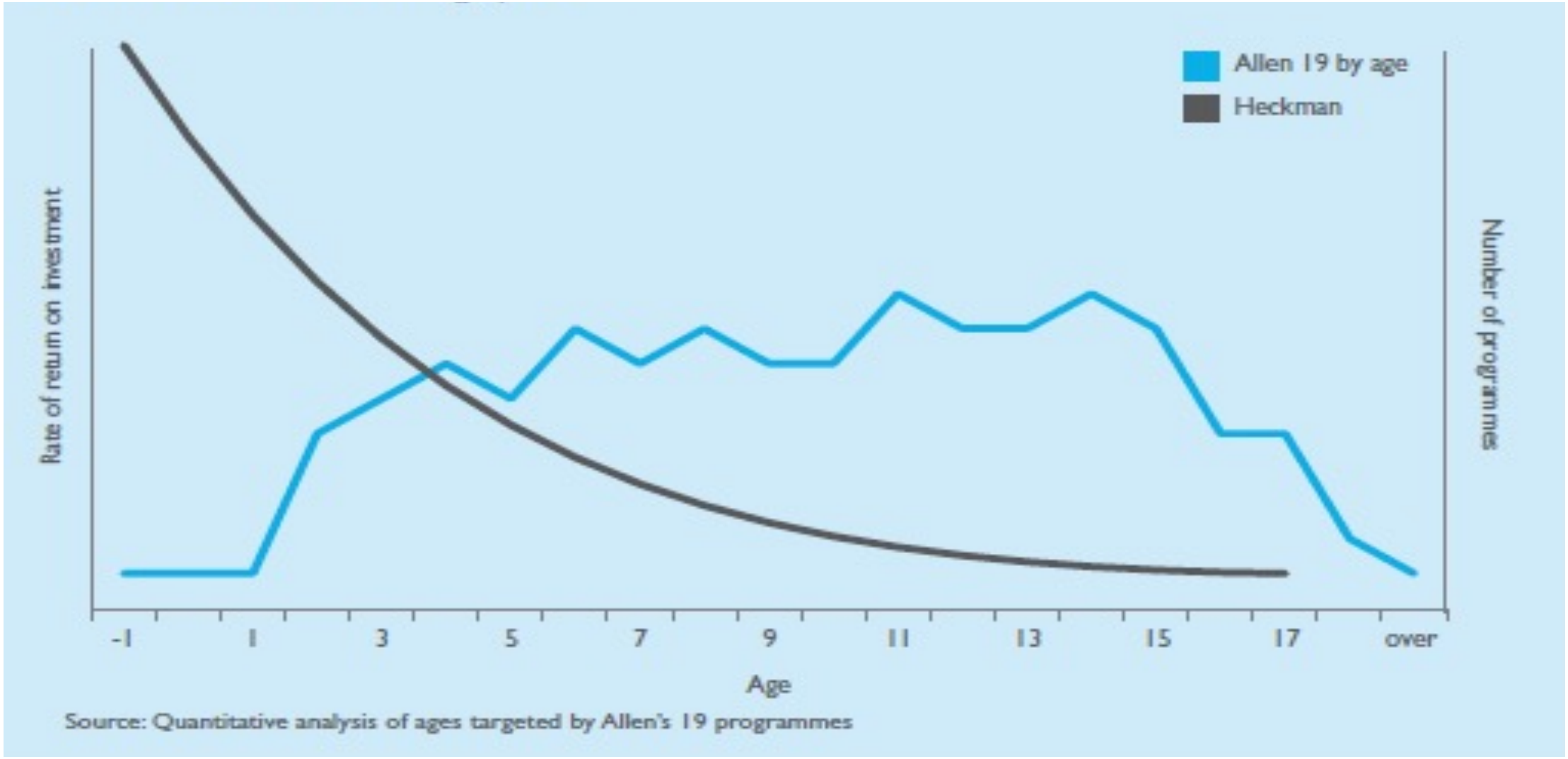
Social and emotional health and wellbeing



- Self-regulation
- Compliance
- Adaptive functioning
- Autonomy
- Affect
- Social-communication
- Interaction


Low social and emotional competence
Short-Term
Long-Term
Behaviour problems
Language difficulties
Peer problems
Poor educational attainment
Difficulties in developing and maintaining adult relationships
Antisocial behaviour and offending
Mental health difficulties



Intervening in the early years – significant policy interest

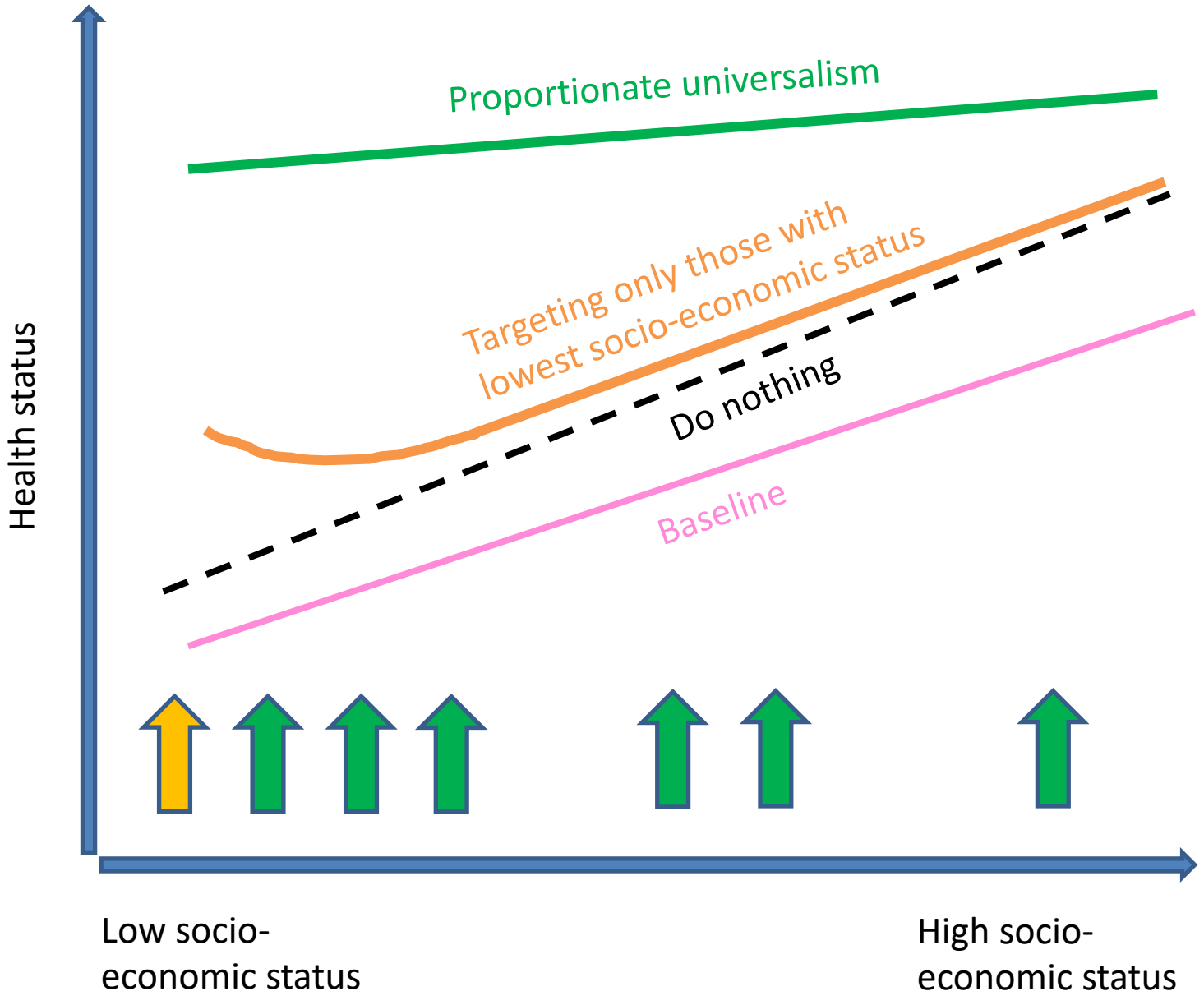
BUT Lack of evidence on effective interventions

NIHR Public Health Research Call 13/93

- **Commissioned call announced in 2012**

- **What are the effective and cost-effective interventions to promote social and emotional well-being among children aged under 2 years?**

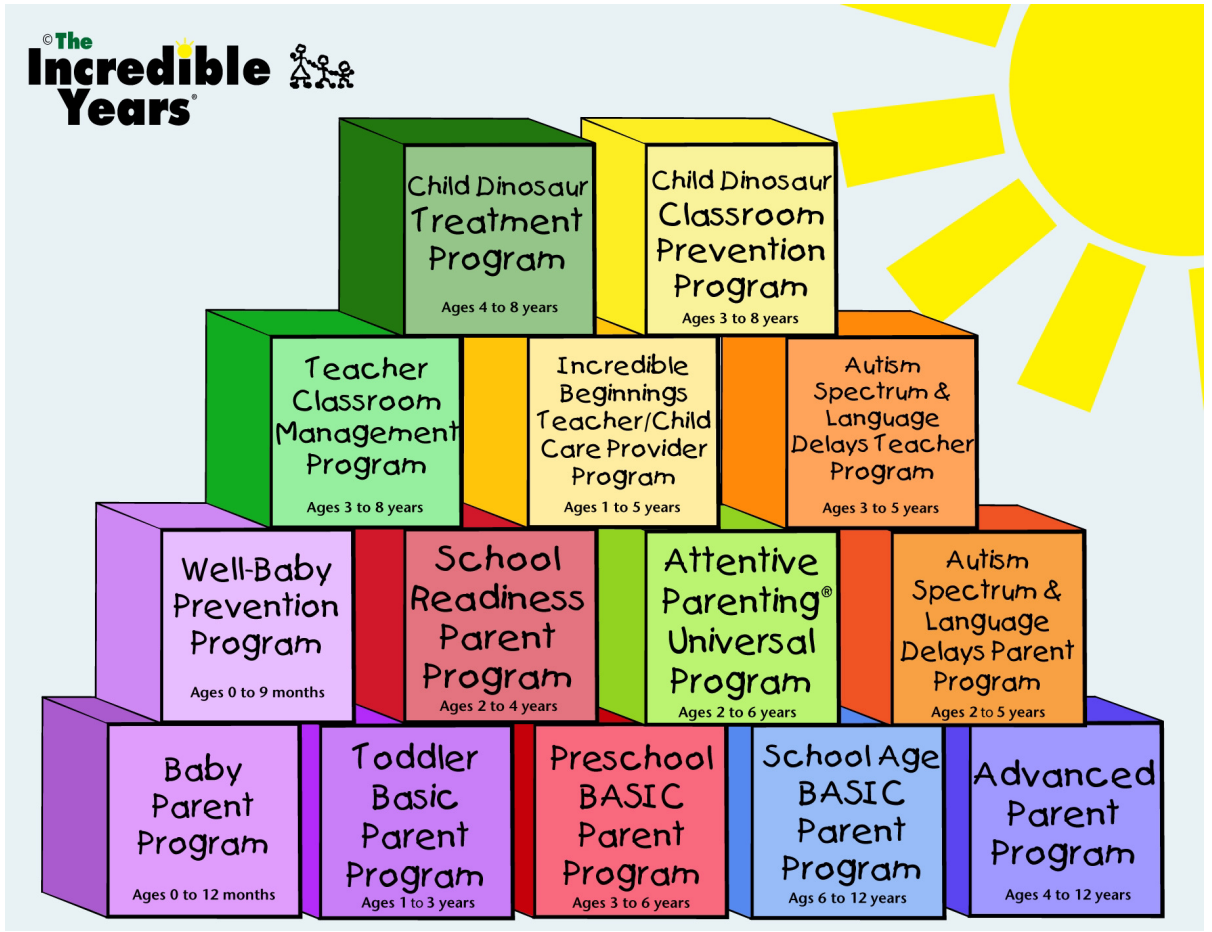
- **Proportionate universal** interventions
- Delivered in the community


Health status
Proportionate universalism
Targeting only those with lowest socio-economic status
Do nothing
Baseline
Low socio-economic status
High socio-economic status

Selecting an intervention to evaluate

Barlow & Coren (2018) review of reviews:

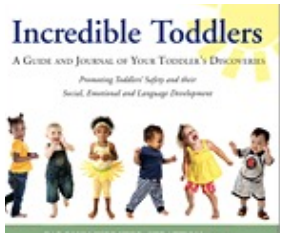
‘parenting programmes are effective in improving child emotional and behavioural adjustment in addition to enhancing the psychosocial wellbeing of parents’



E-SEE STEPS

PARENTS WITH SYMPTOMS OF DEPRESSION AND/OR CONCERNS ABOUT CHILD SOCIAL AND EMOTIONAL DEVELOPMENT AT AGE 11 MONTHS

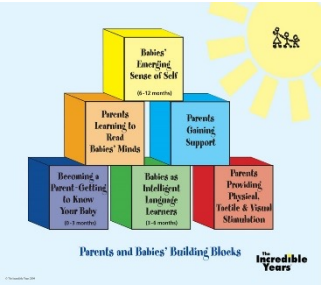
TARGETED IY TODDLER: 12-week Incredible Years Toddler programme and Incredible Toddlers book



Parenting Pyramid
Toddlers (1 - 3 years)

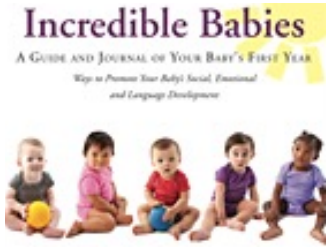
PARENTS WITH SYMPTOMS OF DEPRESSION AND/OR CONCERNS ABOUT CHILD SOCIAL AND EMOTIONAL DEVELOPMENT AT AGE 4 MONTHS

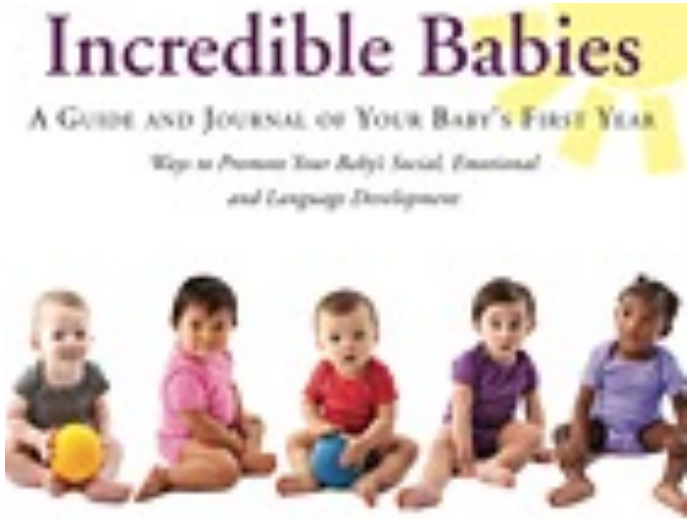
TARGETED IY BABY: 10-week Incredible Years Baby programme

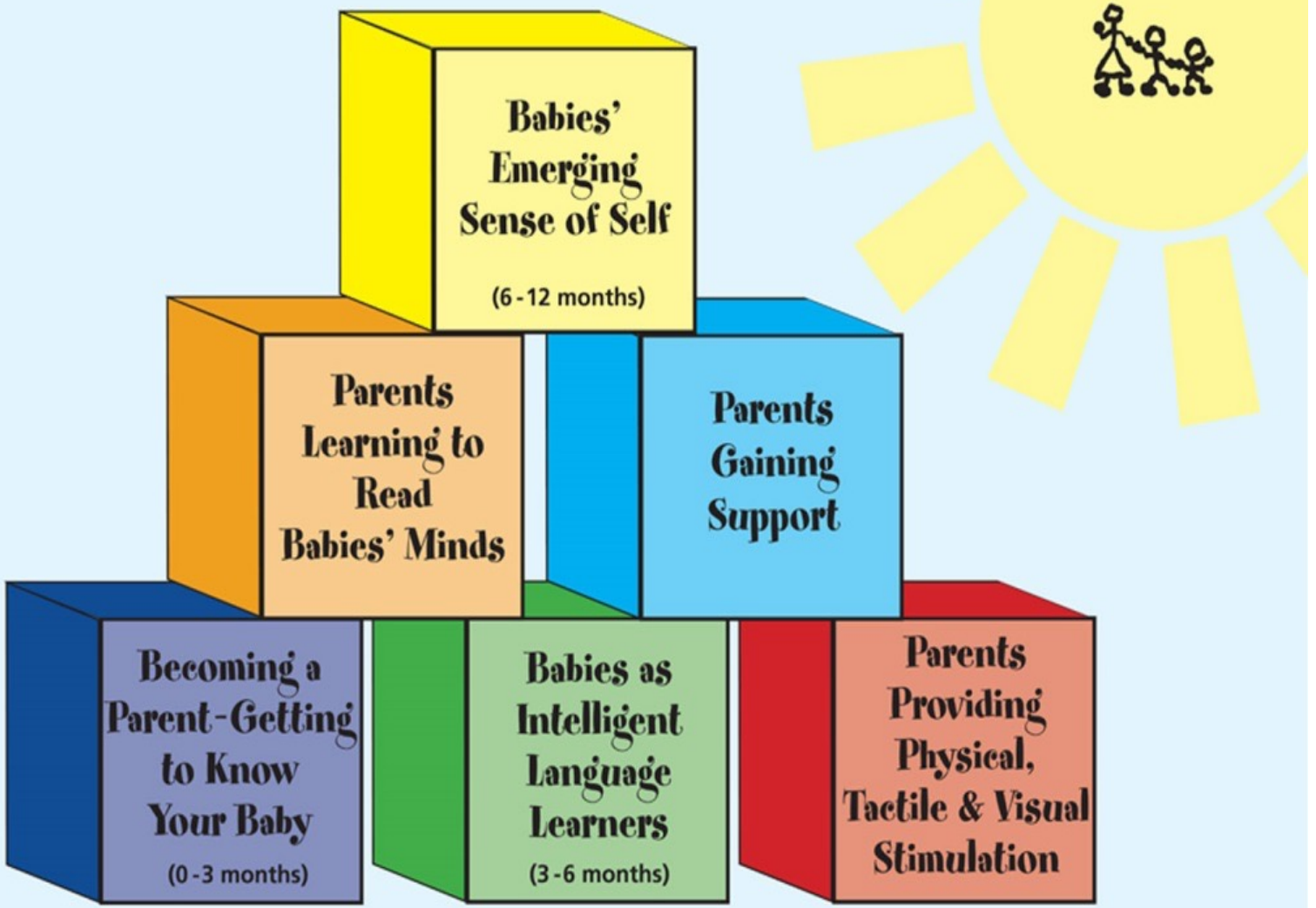


ALL PARENTS WITH CHILD AGED 0-2 MONTHS

UNIVERSAL LEVEL: All intervention parents receive a FREE copy of the incredible Babies Book



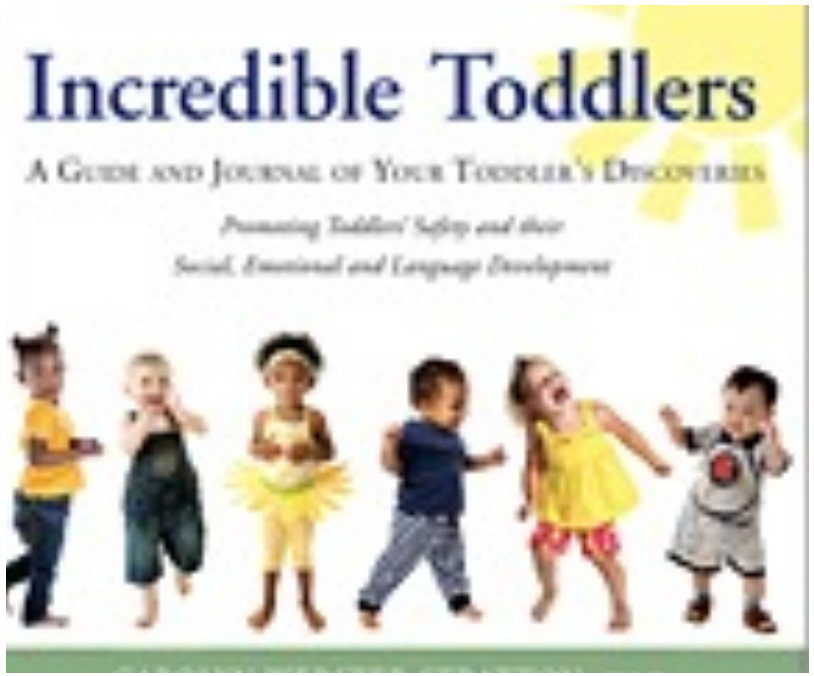


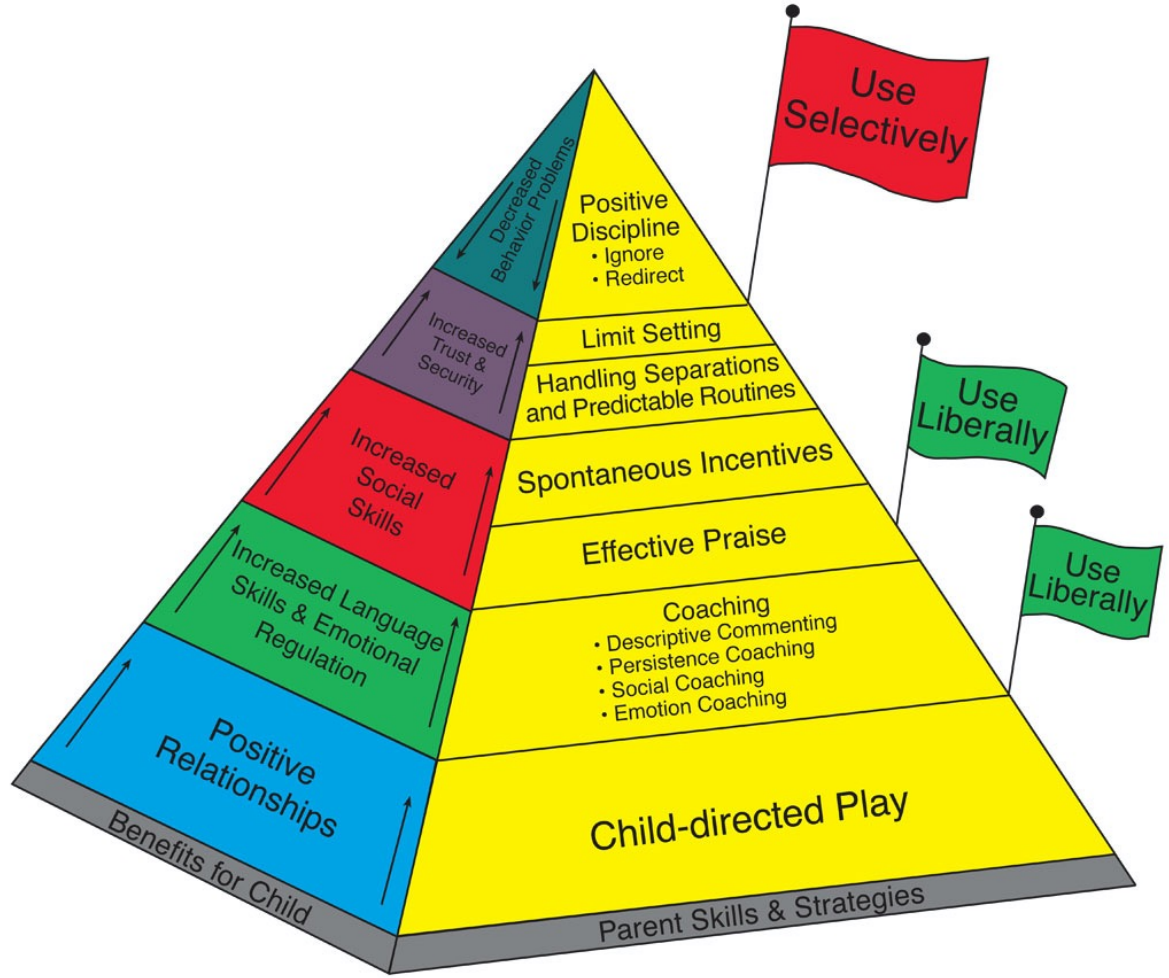


Parents and Babies' Building Blocks

The Incredible Years®

© The Incredible Years 2009





Parenting Pyramid
Toddlers (1 - 3 years)

The Incredible Years® Parents, teachers, and children training series

Trial funded 2015 to 2020

(2015-17 external pilot; 2017-20 main trial)

Expertise from a variety of Universities

Universities of York, Sheffield, Exeter, UCLAN, Maynooth in Ireland

Carolyn Webster-Stratton and IY Seattle advisers

BUT this was an independent evaluation

Five research sites in England

South west, South coast, East midlands North West, North East

Service design process during study set-up

Research questions

Process evaluation:

Can ESEE Steps be delivered with fidelity, what are the barriers/facilitators?

Outcome evaluation:

Can ESEE Steps enhance social emotional wellbeing of very young children when compared to control arm who only receive services as usual?

Economic evaluation:

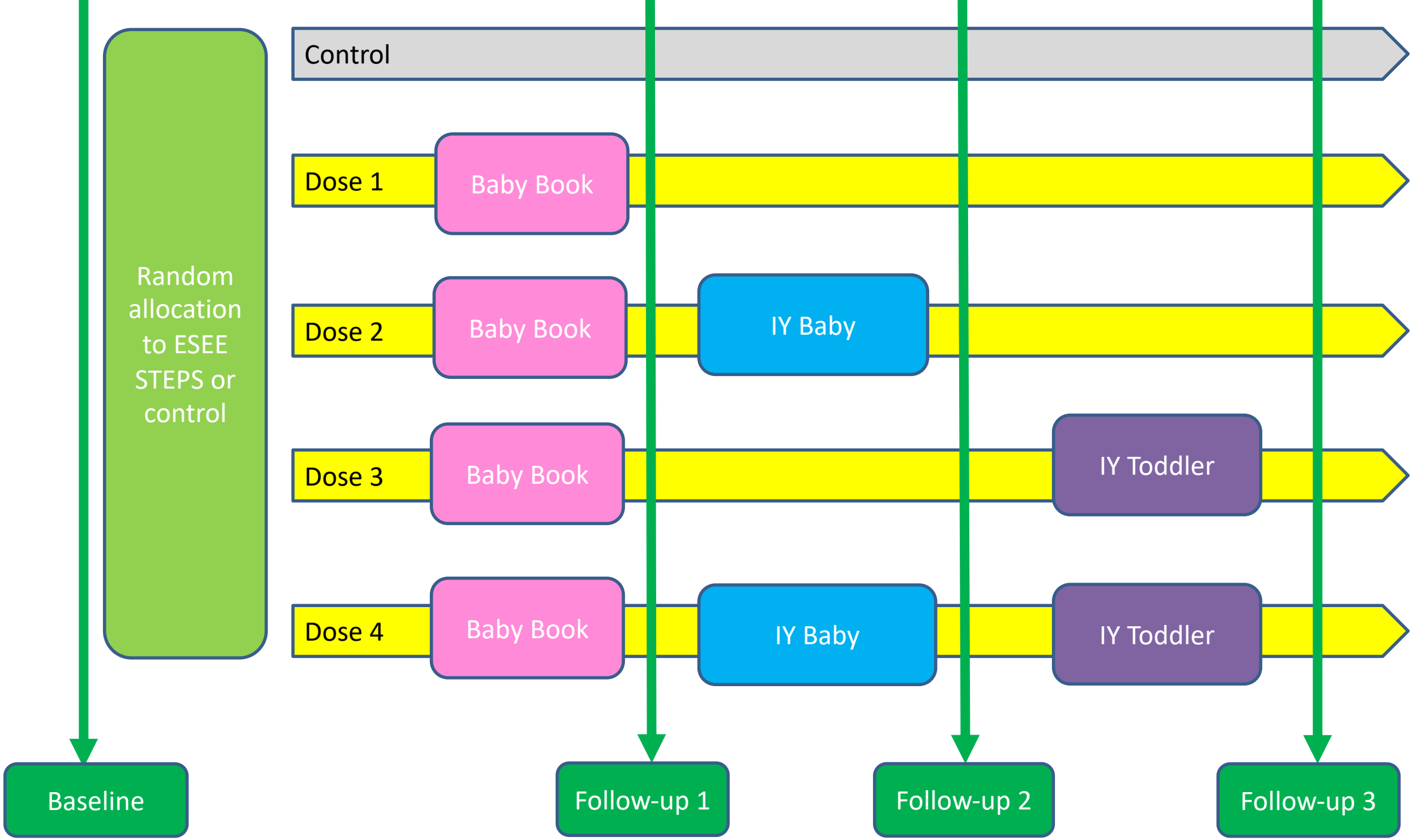
Is ESEE Steps cost-effective compared to control?

Study Design

Outcome evaluation

- Randomised controlled trial
- Parents of very young infants (<8 weeks) recruited (dyads)
- Baseline data collection
- Dyads randomised to either intervention or control (5:1)
- Data collection at 3 further timepoints (all dyads)
- Intervention dyads offered IY proportionate to their needs
- Intervention and control outcomes at 18 months post baseline (child age 20 months) compared to determine effectiveness

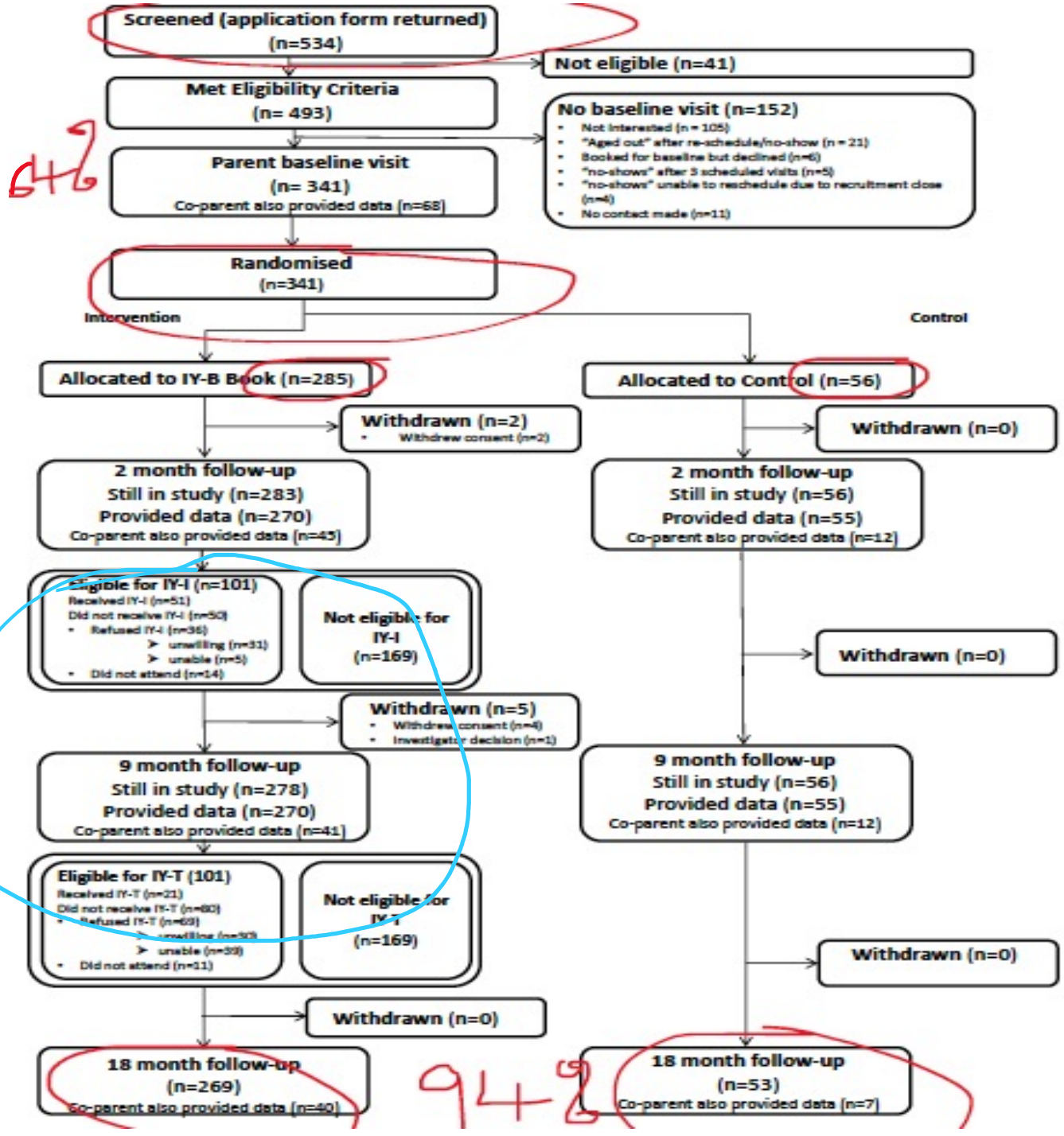
Embedded process and economic evaluations.


Random allocation to ESEE STEPS or control
Control
Dose 1
Baby Book
Dose 2
Baby Book
IY Baby
Dose 3
Baby Book
IY Toddler
Dose 4
Baby Book
IY Baby
IY Toddler
Baseline
Follow-up 1
Follow-up 2
Follow-up 3

Dyads recruited when **infant is ≤8 weeks old** – remained in the study for **18-months** and were visited by the research team in the family home at four time points

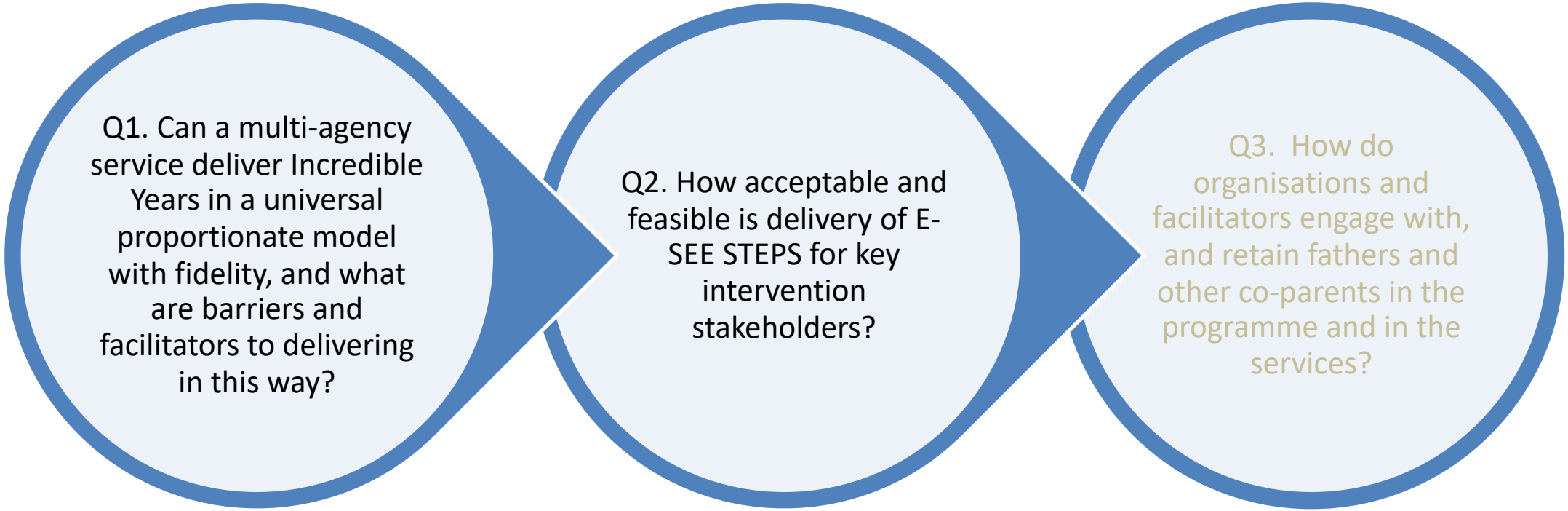
Table 1 Overview of measures

Outcomes and timepoints	Measures	Description	BL	Fu1	Fu2	Fu3
Social and emotional well-being	ASQ:SE-2	Parent self-report	√	√	√	√
Parent or co-parent depression	PHQ-9	Parent/co-parent self-report	√	√	√	√
Attachment	CARE Index	Parent observation	√	√	√	√
Service use	CSRI*	Data collector administered	√	√	√	√
Parenting skill	PSoC	Parent/co-parent self-report	√	√	√	√
Parent or co-parent health	EQ5D-5L	Parent/co-parent self-report	√	√	√	√
Demographics	Bespoke form	Data collector administered	√			
Short demographics	Bespoke form	Data collector administered		√	√	√
Child health (and quality of life)	PEDsQL	Parent/co-parent self-report				√
Attachment	MPAS/PPAS†	Parent/co-parent self-report				√
Child behaviour	SDQ	Parent/co-parent self-report				√



- Target sample = 606, 341 achieved across 4 sites in England (2 North, 2 South)
- Eligible families had a baby 8 weeks or younger
- We cannot look at individual 'doses' of IY, i.e. IY baby Book, IY baby programme or IY toddler programme in isolation (not enough statistical power)

Process evaluation



- Mixed methods

285 intervention parents:

IY Baby book

49%

141 eligible

Baby 28%

Toddler 28%

Both 44%

65%

91 accepted

Baby 47%

Toddler 29%

Both 24%

43%

60 attended at least 1 session

Baby 65%

Toddler 15%

Both 20%

Site	Type	Number Eligible (% of intervention)	Number accepted (% of those eligible)	Number attending at least 1 session	Average individual attendance at group*
Site 1a	Baby	20 /60 33%	13 (65%)	8	5.3
Site 1b	Baby	15 /45 33%	7 (46.7%)	6	3.3
Site 2	Baby	24 / 71 34%	21 (87.5%)	11 (*2)	[illegible]
				6	6.8
Site 3	Baby	17 / 50 34%	13 (76.5%)	6	7.7
				7	7.6
Site 4	Baby	25 / 59 42%	11 (44%)	9 (*2)	8.1
				2	7.3
TOTAL		**101 (38%)**	**65 (64%)**	**55 (*4)**	**6.5 sessions (9)**
Site 1a	Toddler	15/60 25%	6 (40%)	4 (*1)	4.3
Site 1b	Toddler	17/45 37%	6 (35.3%)	1	2
Site 2	Toddler	26 / 71 37%	15 (57.7%)	6 (*1)	7.5
				2	6.6
Site 3	Toddler	17 / 50 34%	5 (29.4%)	2	9.4
Site 4	Toddler	26 / 59 44%	16 (61.5%)	10 (*2)	8.3
TOTAL		**101 (38%)**	**48 (47.5%)**	**25 (*4)**	**6.4 sessions (12)**

Site	Programme	No. of groups	Practitioners trained	Co-delivery?	Lead where not co-delivery	Transport/Creche provided	Home visits before groups started
Site 1a	Baby	1	13	Y	-	C & T	Y (n=4)
Site 1b	Baby	1		Y	-	C & T	N
Site 2	Baby	2	16	N	Health	C	Y (n=6)
Site 3	Baby	2	17	Y	-	C	Y (n=1)
Site 4	Baby	2	10	Y	-	C & T	N
Site 1a	Toddler	1	9	Y	-	C & T	Y (n=4)
Site 1b	Toddler	1		Y	-	C & T	Y (n=3)
Site 2	Toddler	2	10	N	Health	C	N
Site 3	Toddler	1	11	N	Children's Services	C	N
Site 4	Toddler	1	8	Y	-	C & T	N

BABY GROUPS Site	Recommended vignettes (n=43)	Mean number of recommended vignettes shown per session	Total number of additional vignettes shown	'Did I' statements (n=73)	Adherence using PPIC observation (max score = 40)	Quality of delivery using PPIC (max score = 35)
Average	34.4 (80%)	4.4	11.8	65.1 (89%)	21.8 (55%)	26 (74%)
Site 1a	27 (63%)	3.4	14	72 (99%)	29 (73%)	26 (74%)
Site 4 'B' group	28 (65%)	3.9	10	64 (88%)	12 (30%)	17 (59%)
Site 1b	30 (70%)	4.2	3	61 (84%)	17 (43%)	27 (77%)
Site 2 'S' group	36 (84%)	4.5	19	66 (90%)	23 (58%)	29 (83%)
Site 3 'S' group	37 (86%)	4.6	19	62 (85%)	13 (33%)	23 (66%)
Site 4 'I' group	37 (86%)	4.6	1	65 (89%)	28 (70%)	31 (89%)
Site 3 'H' group	38 (88%)	4.6	4	64 (88%)	21 (53%)	24 (69%)
Site 2 'L' group	42 (98%)	5.3	24	65 (89%)	31 (78%)	31 (89%)

TODDLER GROUPS Site	Recommended vignettes (n=117)	Mean number of recommended vignettes shown per session	Total number of additional vignettes shown	'Did I' statements (n=120)	Adherence using PPIC observation (max score = 40)	Quality of delivery using PPIC (max score = 35)
Average	64.7 (55%)	6.1	<1	86.3 (72%)	27.8 (70%)	26.7 (76%)
Site 1a	52 (44%)	4.3	0	88 (73%)	25 (63%)	25 (71%)
Site 4 'I' group	58 (50%)	4.9	1	92 (77%)	29 (72%)	29 (83%)
Site 1b	15 (54%)	5	0	29 (90%)	29 (73%)	28 (80%)
Site 3	71 (61%)	6.5	1	86 (72%)	30 (75%)	27 (77%)
Site 2 'B' group	98 (84%)	8.2	0	113 (94%)	18 (45%)	20 (57%)
Site 2 'S' group	94 (80%)	7.8	3	110 (92%)	39 (90%)	31 (89%)

Barriers

Existing Professional Practice and resistance

The IY Programme

Service engagement processes

Complex interventions in complex systems

Facilitators

Skills, Supervision & mentorship

Connection and personalisation

Organisational support for planning & delivery

Acceptability of E-SEE STEPS:

1. Good satisfaction/acceptability for attending parents but low conversion likely due to nature of the offer
2. Mixed acceptability for parents with low mood/depression due to demands of attendance and programme processes
3. IY books need situating – questions over utility of IY-Baby book as a universal resource

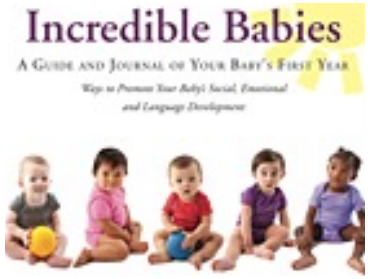
Feasibility of E-SEE STEPS:

1. Practitioner and manager preference for IY Baby due to easier recruitment and retention but greater parent satisfaction and PPIC adherence for IY Toddler
2. Relational nature of the offer is critical - familiarity and trust
3. System fit – practitioners and service managers perceive a good fit between programme and their service needs but there is a mismatch between service preference to deliver and commissioning arrangements

Conflict between programme content and BFI

unicef
UNITED KINGDOM

THE BABY FRIENDLY INITIATIVE



Author receiving her newly born son in 1984 before the current recommendations for skin-to-skin contact and breast feeding within 30 minutes of birth.

The big question…….

Outcome evaluation

Confusing!!

Model	Adjusted Mean Diff (95% CI)	P-value	Direction of effect
ASQ:SE (Primary outcome) primary analysis	3.02 (-0.03, 6.08)	0.052	Favours SAU
ASQ:SE sensitivity analysis	2.56 (0.69, 5.80)	0.122	Favours SAU
PHQ-9 (key parent outcome) primary analysis	-0.61 (-1.34, 0.12)	0.100	Favours E-SEE
PHQ-9: sensitivity analysis	-0.63 (-1.35, 0.07)	0.077	Favours E-SEE

- **Primary outcome** was ASQ:SE2, also used as a child screener. PHQ9 was adult screener and most important outcome for parents.
- Outcome data was skewed, so unplanned sensitivity analyses were conducted. Primary and key parent outcome measures show opposing, non-significant trends.
- **Other outcomes:** No other measures demonstrated a difference at final timepoint between intervention and control (SAU)

Economic evaluation

	Cost-effectiveness	Costs	QALYs	ICER
Overall	Services as usual	£1,988.61	2.5868	
	E-SEE Steps	£2,609.46	2.61775	£20,062
ADULT	Services as usual	£942.44	1.31392	
	E-SEE Steps	£1,388.26	1.34818	£13,011
CHILD	Services as usual	£1,000.28	1.2742	
	E-SEE Steps	£1,177.33	1.26957	Dominated

- **Cost-effectiveness:** E-SEE Steps is on the margin of being borderline cost-effective. The mean cost of E-SEE Steps was found to be £621 per family more than SAU
- Overall E-SEE Steps had higher costs and was marginally more effective (0.031 QALY gain) compared to SAU, resulting in an incremental cost effectiveness ratio (ICER) of approx. £20,062 per QALY compared to SAU. Costs were higher for both adults and children, but QALY gains in adults outweighed small QALY losses for the children resulting in a QALY gain overall.

Discussion

- SAU offer better?
- Results may be due to poor uptake of the group programmes
- Reach
- Measurement issues?
- The ‘system’ increasingly struggles to deliver intensive programmes
- Trial design and processes posed barriers
- Facilitators were enthusiastic and saw additional benefits to their usual professional practice
- Families who attended one session were likely to continue with the group sessions, and demonstrated high satisfaction levels
- E-SEE Steps is borderline cost-effective over the trial period. However, if the small negative outcomes observed for the children may suggest E-SEE Steps is not cost-effective in long term.

Limitations

- Effectiveness of each level of dose unknown
- Implementation issues
- Due to the low take-up, per-protocol and CACE analysis were rejected
- We do not know if our sample is representative
- We do not have a large enough, or diverse enough sample to explore cultural variation
- A limitation of all trials is potential control arm bias

Strengths

- The proportionate universal trial design reflects real world intervention delivery
- In-depth process and economic evaluation
- The trial was flexible with regard to site specific delivery models
- The areas were also new to IY so there was no risk of contamination
- High retention to trial (94%) mitigated against low recruitment figures and enabled us to retain power to answer the main research question with confidence
- Included both parent report and independent observational measures.
- Our PAC helped in measure selection and were very helpful in various aspects of the trial
- There was no major imbalance between arms at baseline
- We have very rich data, some of which will be accessible to other researchers.

Next steps

- Evidence gap remains – more definitive RCTs are needed e.g. VIG and CoC
- Develop and test a ‘pre-intervention’ component
- Establish validity and reliability of measures of interest across infancy and toddlerhood eg. SDQ, ASQ:SE-2, ICI, PSOC,
- Developed short parent-child ‘bonding’ measure to be used a screener. Co-produced with health visitor and parent input
- Completion of coding all videos with the Infant CARE Index
- We will perform a meta-analysis of pilot and main study, limiting the outcome to FU1, to explore the universal IY-B outcome with increased power
- Longer-term follow-up is needed when index children enter school
- TWiCs of Incredible Years Toddler in Bradford

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- Trial Steering Committee and Data Monitoring and Ethic Committee
- Parent advisory committee
- Carolyn webster-Stratton, IY mentors and trainers
- All local IY delivery staff, organisational staff and Health Visitors, and research sites
- ALL participating families

Disclaimer The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

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Thank you for listening

Any questions?

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https://www.york.ac.uk/healthsciences/research/public-health/projects/e-see-trial/

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NHS
National Institute for Health Research

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