

A Good Start for Every Child: Lessons from the KidSTART Evaluation

Study commissioned by Early Childhood Development Agency (ECDA) for Centre for Evidence & Implementation (CEI)

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KidSTART empowers lower-income families with skills and knowledge to give their children a good start in life

Since its pilot in 2016, more than 9,700 children have been supported

Component	KidSTART Home Visitation	KidSTART Supported Playgroups
Service Model	<ul style="list-style-type: none">• Regular fortnightly/ monthly visits• To develop parental skills and practical knowledge of child development, health and nutrition	<p>[Physical Playgroups]</p> <ul style="list-style-type: none">• Weekly sessions (30 in total)• To build parental skills in child development and parent-child bonding through structured and purposeful play <p>[e-Playgroups during COVID-19 pandemic]</p> <ul style="list-style-type: none">• Weekly individual video calls to deliver content to families
Target Age	0 to 3	1 to 3
Delivered by	Trained practitioners from KidSTART Singapore Ltd. with experience in the early childhood, community and/or social service sector	

Important to evaluate the effectiveness of KidSTART

- **What** works?
- **How** does it work?
- For **whom** does it work?
- Are we **reaching** those whom we think it will work for?



5-year evaluation study (2017 – 2022)

Evaluation design based on Logic Model/Theory of Change, intended outcomes, and implementation stability of KidSTART components

Components	Evaluation Approach
KidSTART Home Visitation Programme	Outcome Evaluation (Randomized Controlled Trial)
KidSTART Supported Playgroups	Outcome Evaluation (Quasi-experimental)

What we evaluated

1. To what extent has **KidSTART met its desired outcomes** to help children from lower income families achieve age appropriate developmental and health outcomes, and be school ready?
2. To what extent can **changes/improvements in outcomes be attributed to KidSTART** (i.e. how effective is KidSTART vis-à-vis control group)?

**Child and Family Outcomes
(Effectiveness of intervention)**

**Implementation Outcomes
(How intervention
was delivered)**

Evaluation Measures

Child Development and Behaviour Outcomes

Brigance Inventory of Early Development (IED-III)
Vineland Adaptive Behavioural Scales
Strengths and Difficulties Questionnaire (SDQ)

Parenting, Family Functioning, Social Support Outcomes

Parenting Interactions with Children: Checklist of Observations Linked to Outcomes (PICCOLO)
Parent Sense of Competency Scale (PSOC)
Depression, Anxiety and Stress Scale (DASS)
Healthy Families Parenting Inventory (HFPI)
Duke-UNC Functional Social Support Questionnaire (FSSQ)

Implementation Outcomes

Parent/Caregiver interviews
Focus group discussions with implementation teams, practitioners
Administrative data (e.g., programme participation, needs assessments, cost data)

Evaluation Findings



Key Finding 1: KidSTART Home Visitation had positive impact on parenting, social support and child outcomes

At 12 months,
KidSTART parents/caregivers:



Were **less stressed**



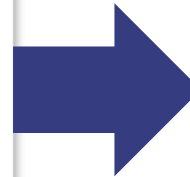
Perceived themselves to be **more competent** (than at baseline)



Perceived to have **better social support**



Observed to demonstrate **more positive, quality parent-child interactions** (small-to-medium effect)



By age 3,
KidSTART children:



Had **improved child development scores** (e.g., socio-emotional, daily living skills, adaptive behaviour)



Had **more prosocial behaviours**



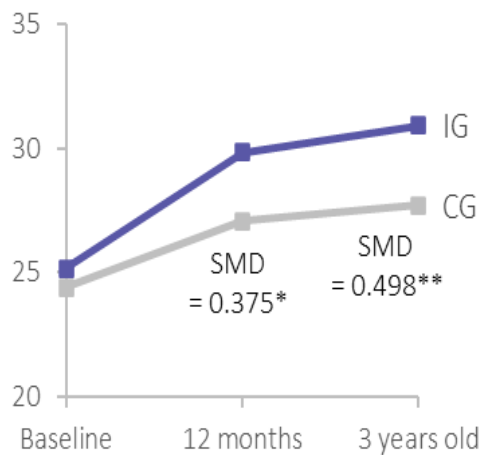
Observed to demonstrate **more positive, quality parent-child interactions** (strengthened to medium effect)

More positive and higher quality parent-child interactions

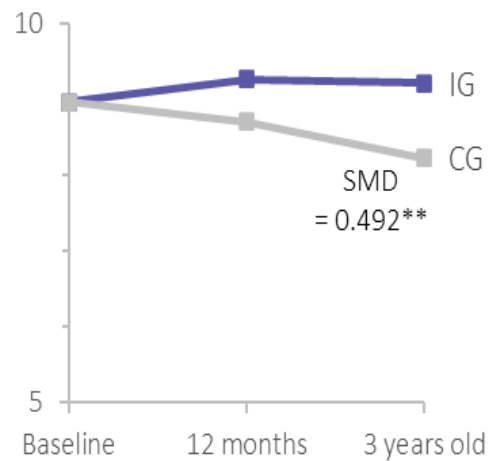
PICCOLO:

- Improvements of all PICCOLO domains and Total score over time
- KidSTART families outperformed control group at both timepoints on PICCOLO Total score and Teaching domain

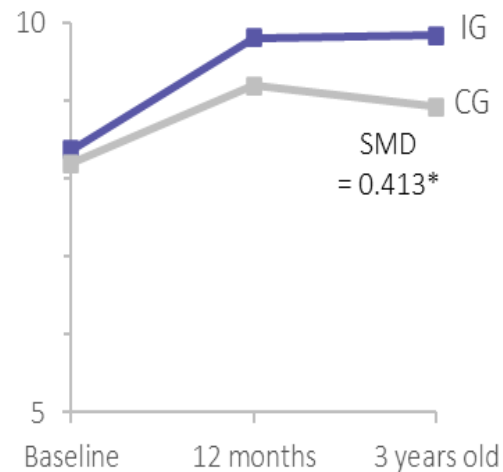
PICCOLO Total:
T1 to T2¹ p = 0.105; T1 to T3² p = 0.052



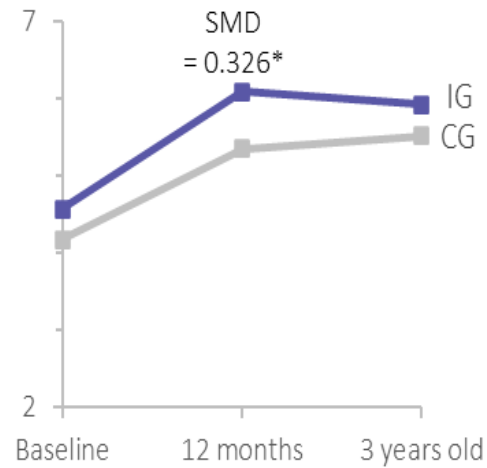
PICCOLO Affection:
T1 to T2¹ p = 0.108; T1 to T3² p = 0.012*



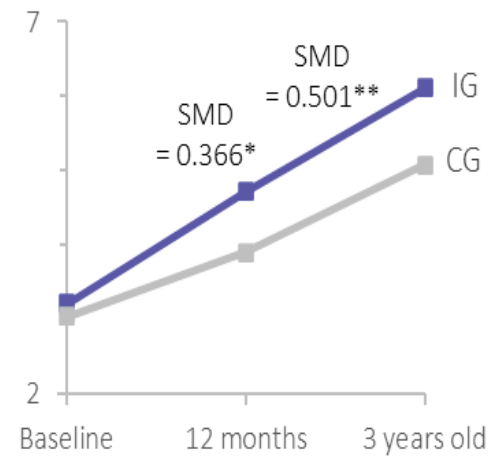
PICCOLO Responsiveness:
T1 to T2¹ p = 0.341; T1 to T3² p = 0.126



PICCOLO Encouragement:
T1 to T2¹ p = 0.379; T1 to T3² p = 0.955



PICCOLO Teaching:
T1 to T2¹ p = 0.091; T1 to T3² p = 0.041*



Improved child development scores and prosocial skills by age 3

At age 3, KidSTART children outperformed control group on:

- **SDQ – Prosocial behaviours**
- **Brigance – Social and Emotional Development and Self-Help (Daily Living) domains**
- **Vineland – Daily Living Skills domain**

Observed means of child outcomes at age 3

Child Outcome Measures	Child Outcome Domains	Intervention Mean (SD)	Comparison Mean (SD)
SDQ (Child Behaviour)	Total	11.57 (5.61)	13.12 (5.67)
	Emotional Problems	1.73 (1.74)	1.87 (1.77)
	Conduct problems	2.70 (1.86)	3.18 (2.01)
	Hyperactivity	4.36 (2.22)	4.85 (2.10)
	Peer Problems	2.78 (1.97)	3.22 (1.94)
	Prosocial*	7.20 (1.95)	6.42 (2.18)
Brigance (Child Devt)	Total	252.2 (40.2)	256.4 (77.0)
	Physical	68.4 (5.7)	66.3 (10.4)
	Language	111.2 (24.7)	115.4 (44.5)
	Social and Emotional*	29.8 (7.2)	26.2 (8.5)
	Self-Help (Daily Living)*	25.8 (4.7)	23.8 (5.2)
Vineland (Child Devt)	Communication-Receptive	87.4 (18.7)	82.4 (22.4)
	Socialization-Interpersonal	71.5 (13.5)	67.1 (14.5)
	Motor Skills	90.3 (10.7)	86.1 (14.3)
	Daily Living Skills*	45.3 (13.9)	39.9 (13.2)

*Domains with statistically significant differences between intervention and comparison groups

First time caregivers benefited more than others, higher risk families may require more support

Compared to more experienced caregivers*, first time caregivers showed:

- More **positive parenting behaviours**
- Improved **parenting competence**

*Parents who had children before having a child who was supported by KidSTART.

Families with moderate-to-high risk levels at baseline continued to see:

- Caregivers with **more depressive and stress symptoms**
- Caregivers displaying **fewer positive parenting behaviours**
- Poorer **child behaviour, motor skills, social-emotional development**



Signals importance of catching families upstream, from firstborn



Suggests higher risk families may require more support and may benefit from pre-requisite services prior to commencing KidSTART

Home Visitation likely has positive spillover effects and influence on long-term change in child outcomes and well-being

- Children with **higher levels of social and emotional skills** are likely to **benefit more from any investments to increase their cognitive skills** (OECD, 2015)
- **Social and emotional skills are predictors for outcomes for later life**, such as educational attainment, less likelihood of interaction with criminal justice system
- **Positive results from KidSTART Home Visitation not easily replicated in other early childhood interventions**

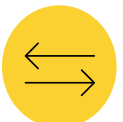


Key Finding 2: No significant improvements in parenting, social support and child outcomes for those receiving KidSTART Supported Playgroups



Delivery of playgroups affected by implementation factors (e.g. sustaining attendance, engagement of families) – No difference between physical and digital sessions

- **General decline in attendance** over time due to **high commitment required**, though weekly sessions were paced between delivering curriculum and family bonding activities
- **Logistical challenges**, especially for caregivers who need to travel to playgroup venue with multiple children



Programme content was not always good fit, had low transferability to families' home settings

- While adapted to local context, some families found playgroup activities and examples **unsuitable for their context** (i.e. difficulty applying parenting strategies acquired at playgroup setting to their home environment due to **shortage of living spaces or resources for their children**)



International studies similarly show lack of good empirical evidence for such supported playgroups in enhancing child development outcomes

Additional subgroup analyses on KidSTART Supported Playgroups did not show any significant findings

Subgroup analyses

What did we find?



Impact of **age of child at baseline**

- Outcomes of children <2 years old versus >2 years old

No significant differences in caregiver or child measures at subsequent timepoints



Impact of changes in service delivery from **COVID-19**

- Outcomes of children receiving Supported Playgroups before announcement of COVID-19 Circuit Breaker (7th April 2020) versus after

No significant improvement in caregiver or child measures



Impact of **Supported Playgroups attendance**

- Outcomes of families who completed > 50% versus < 50% of sessions

Caregivers with higher attendance demonstrated fewer behavioural problems and greater positive parenting behaviour, although they may have been better functioning from the start



Impact of Supported Playgroups **In-home Support (IHS)**¹

- Outcomes of families who received additional IHS, versus families who did not

Mixed results → Not able to be attributed to having received IHS

¹IHS was provided to families assessed to require additional support, beyond attending the Supported Playgroups. Supported Playgroup Facilitators would visit these families at home to provide this additional support based on playgroup curriculum and parenting strategies.

Qualitative Finding 1: Through interviews, families described receiving varied benefits from KidSTART, with generally high satisfaction

Home Visitation

- **89% rated “Agree” or “Strongly Agree”** to questions on different areas of satisfaction
- Helpful in acquiring knowledge about appropriate **parenting behaviour, self care**
- Home Visitors supported and enhanced **family relationships**



Some families who received Home Visitation described more benefits relating to parenting ability

Supported Playgroups

- **77% rated “Agree” or “Strongly Agree”** to questions on different areas of satisfaction
- Some helpful strategies (e.g., **how to manage and communicate with their child**)
- Physical version of Playgroups allowed caregivers to **meet/make friends with other KidSTART families**
- 1-1 virtual format could better accommodate caregivers’ schedules, **allow more individualised guidance** of caregivers’ interactions with children



Some families who received Supported Playgroups described more benefits relating to sharing information, accessing support

Qualitative Finding 2: Programme contextualisation and role clarity as critical enablers for effective implementation

Focus groups with practitioners identified **key enablers and challenges that influence implementation:**

Localisation and customisation of intervention

- Ensure intervention is good fit for local and familial contexts to engage families effectively
- Build rapport to understand families' context and needs
- Continuously refine assessment tools based on increased knowledge of families' context

Clear roles and collaborative relationships with early childhood and social service ecosystems

- Understand their roles vis-à-vis other partners in ecosystem
- Close handshakes with partners for holistic support to families

Structured implementation teams, processes and culture

- Good internal team culture of support and communication to address implementation challenges early and reiteratively
- Relevant training / mentoring / supervisory support and resources

Enablers contribute to:

- Quality of delivery
- Participant acceptability, receptiveness, responsiveness
- Tighter feedback loop between policy, planning and implementation
- Fidelity as programme scales

KidSTART service model changes and nation-wide expansion



Overview of KidSTART service model changes

Service model has incorporated evaluation insights and has been enhanced by:

1. Expanding Home Visitation to support all KidSTART children till age 6
2. Discontinuing Supported Playgroups
3. Better support for KidSTART Practitioners to build capabilities
4. Clarifying roles of KidSTART Practitioners vis-à-vis other providers in providing child development support and social support

Additionally, the revised service model will continue to be regularly monitored and refined:

1. Using child development / family / maternal assessments (e.g., ASQ, Edinburgh Postnatal Depression Scale (EPDS)) to inform tiering of intervention according to needs, monitor families' progress
2. Monitoring implementation fidelity through robust and systematic tracking of data, outcomes of nationwide service model

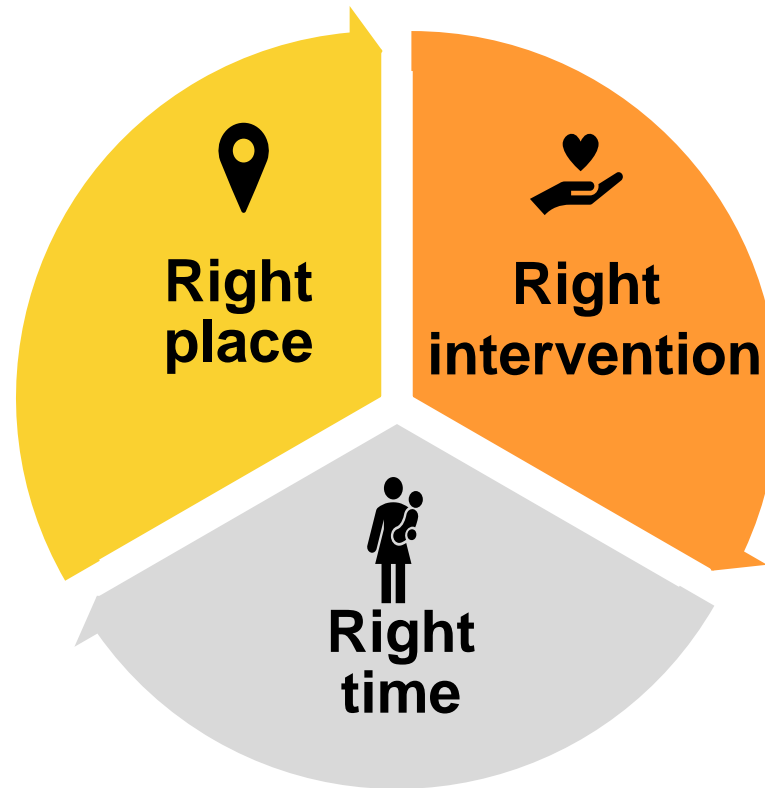
Expanding Home Visitation and discontinuing Supported Playgroups

1. Expand Home Visitation (HVP) support from antenatal till age 6

HVP allows Practitioners to **meet families where they are**, at convenience of their homes and time

Home Visitation comes at a right time for families,

- focusing on parental well-being early, and
- intervening early in a child's developmental trajectory



Using developmental assessments and screeners allows Practitioners to **reliably assess** how the child is doing developmentally, to **tailor content** appropriately

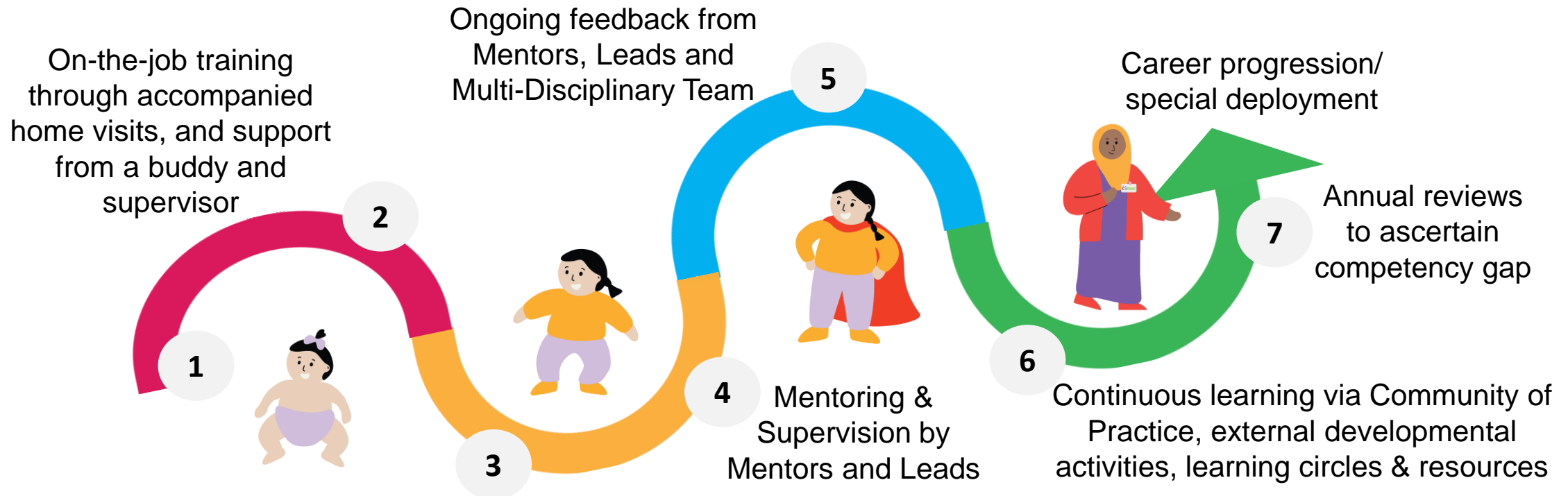
Implementation fidelity, maturity influence programme outcomes

2. Discontinue KidSTART Supported Playgroups (KSG)

- Leverage KidSTART community events to **promote social connectedness**

Better support for KidSTART Practitioners to build capabilities for implementation fidelity

Learning & development journey of a KidSTART Practitioner



Ongoing training based on Practitioners' Training Framework to acquire functional competencies and specialised knowledge

KidSTART Mentors support practitioners in acquiring required competencies for effective and consistent implementation

Supervisors develop competency and confidence of practitioners in practice, support job performance and professional efficacy, and ensure service/practice standards are met

Clarifying roles of KidSTART Practitioners vis-à-vis other providers in providing child development and social support

Integrate with national programmes like ComLink+* for greater role clarity in supporting families

- KidSTART to focus on child development and parenting interventions; ComLink+ to provide families with baseline social support
- Streamline number of workers/touchpoints per family to only 1 to 2 per family
- Provide support from antenatal till all children in family enter primary school

*ComLink+ is a national programme that aims to uplift lower-income families with children towards stability, self-reliance and social mobility. Under ComLink+, dedicated family coaches work with families to co-develop action plans, coach and motivate them towards achieving their goals, and help them better navigate social support services.

Revised KidSTART service model: From pregnancy until child turns 6 years old

Entry



Antenatal outreach
by hospitals



Community outreach,
by ComLink+, Family
Service Centres
(FSCs), and other
agencies



Self-referrals

Case Support

<p>Antenatal KidSTART</p>	<ul style="list-style-type: none"> • Enhanced support to pregnant mothers at KK Women's and Children Hospital (KKH) and National University Hospital (NUH) • Clinic touchpoints/ Home-based delivery of support • Support from Transdisciplinary Clinical team
<p>Postnatal KidSTART</p>	<ul style="list-style-type: none"> • Home-based delivery of support in child development and parent-child interaction • 1 KidSTART Practitioner per family • Tiered support based on needs / risks of family
<p>ComLink+ Family Coach</p>	<ul style="list-style-type: none"> • Case lead for non-FSC families residing in rental flats • Coordinate baseline social support around family's needs (i.e., preschool enrolment and attendance, up-to-date child immunisations and coordination of services for family)
<p>Family Service Centres (FSCs)</p>	<ul style="list-style-type: none"> • Case lead for FSC families • Coordinate baseline social support around family's needs

Clients' needs (Level of Care) are assessed based on the KidSTART Child and Adolescent Needs and Strengths (CANS) tool.

Continued collaboration with Hospitals and Social Service Agencies

KidSTART Singapore Ltd delivers KidSTART, alongside hospitals focusing on clinical care and appointed KidSTART agencies providing deeper expertise in child development and parent-child interactions





12 KidSTART Implementing Agencies

1. KidSTART Singapore Ltd
2. Allkin Singapore
3. Care Corner Singapore
4. Fei Yue Community Services
5. Kampong Kapor Community Services
6. Montfort Care
7. NTUC My First Skool Limited
8. TOUCH Community Services
9. Tasek Academy and Social Services
10. Singapore Children's Society
11. KK Women's and Children's Hospital
12. National University Hospital

Invitation to give more children a good start in life!

Who can benefit from KidSTART?

 Pregnant mothers and families with Singapore Citizen children aged up to 6 years old

 Monthly Gross Household Income (GHHI) ≤ \$2,500 / Per Capita Income (PCI) ≤ \$650

What families can expect from KidSTART?



Antenatal education, advice on maternal antenatal care and emotion support



Support for child until 6 and caregiver with focus on child development, parent-child interactions, child health, safety and nutrition, and family well-being/parent capacity



Educational learning resources to support better health and nutrition for children, and invitations to KidSTART events and initiatives

Refer a family to KidSTART, join us as a volunteer or connect with us on socials

  @kidstartsingapore

 www.kidSTART.sg

 contactus@kidstart.sg



“

KidSTART really boils down to individuals, **their relationships with families, and its evidence-based intervention.** At the end of the day, it boils down to **their passion to help children from low-income families.** If this is their starting point, then the engagement, training, capability building, mentoring and delivery of KidSTART is much easier. **If they strongly believe that this will make a difference to the families, then they will go the extra mile. Knowing how to do it and actually doing it is the difference.”**

– KidSTART pilot team

“

I struggled to understand my child before KidSTART, child wasn't listening, child's misbehaviour was causing tension in marriage. KidSTART has helped with marital disagreement and tensions. When I share advice learnt from KidSTART with husband; lessons shared have increased husband's understanding and empathy for me...He has improved since learning parenting tips. Open my family door to a happy moment.

KidSTART taught me how to love myself and my child better.

– KidSTART parent





Thank You!