



Early Intervention through ENABLING INCLUSION

Centre of Excellence in
Rehabilitation for
Children with Disabilities

Amar Seva Sangam, Ayikudi, Tamil Nadu , India



REHABILITATION

Residential Program for differently abled

Medical Testing Unit

Early Intervention Program

Spinal Injured Care Centre

EDUCATION

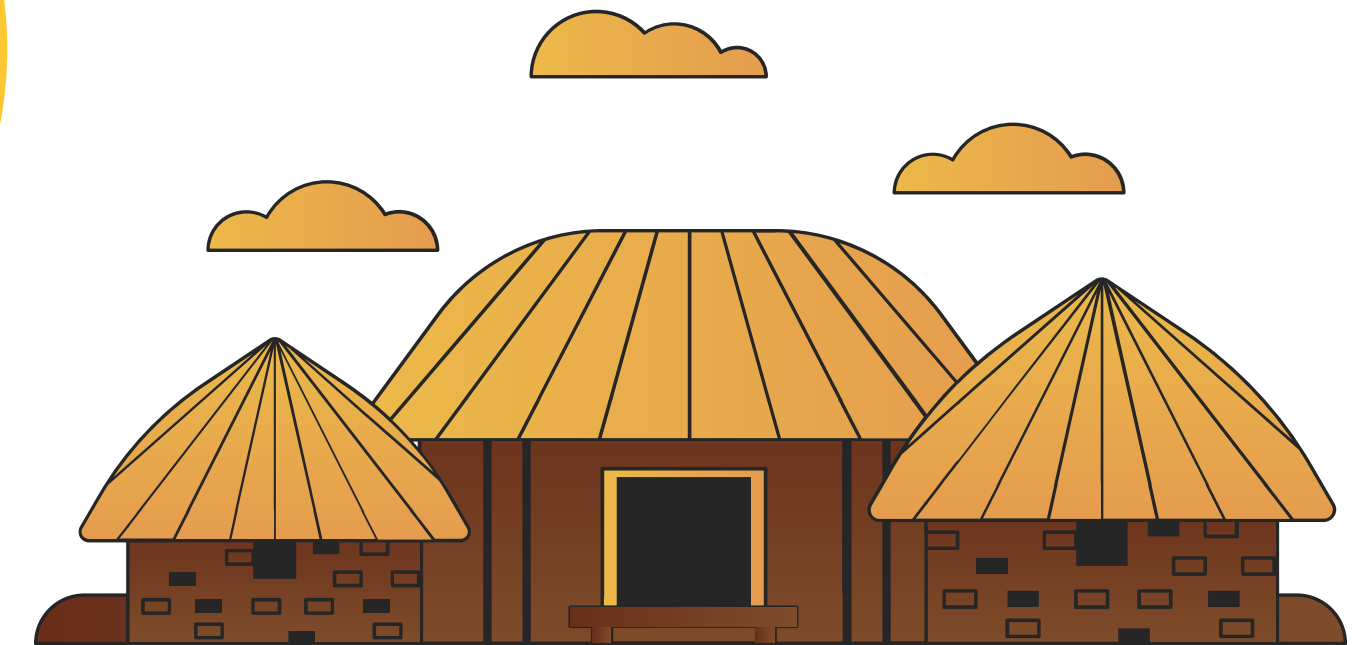
Inclusive Primary and Higher Secondary School

Special Teachers Training

Post Secondary Education Centre

School for Special Children

Inclusive Rehabilitation Amar Seva Sangam Model



Training & Employment

Differently Abled Youth Trainee Programme

Vocational Training Programs (Community and Centre Based)

Soft skills training programme

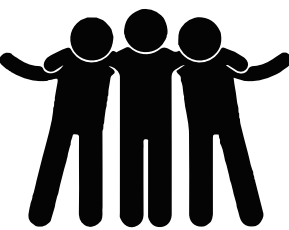
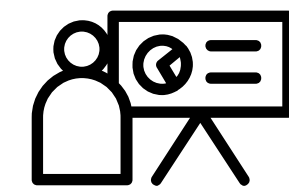
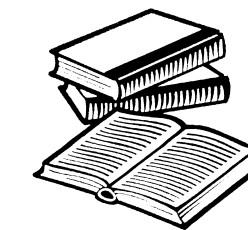
Social Inclusion

Self help groups

Livelihood programs

Micro finance

Disabled persons organizations



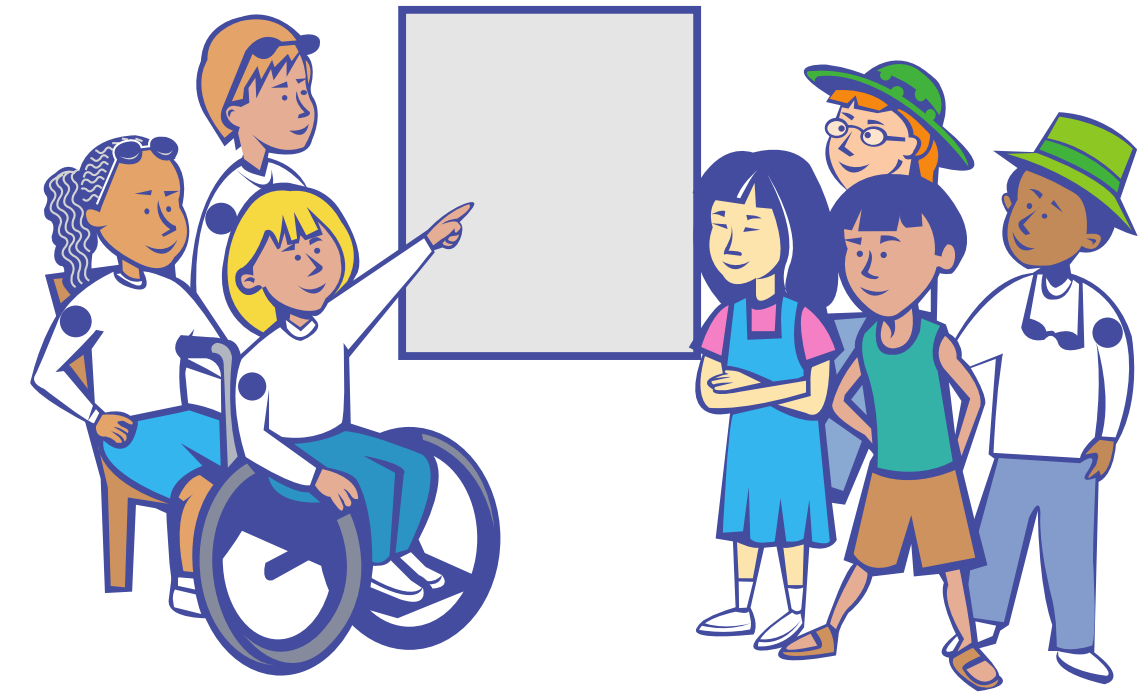
Amar Seva Sangam Village Communities

Challenges at Society Level

240 Million Children With Disabilities Globally
(UNICEF 2021)

In India:

- 8 million children with disabilities
- 90% have no access to early intervention / child rehab



**Lack of Early
Intervention / Lack of
Child Rehab
leads to**

• Lifetime consequences

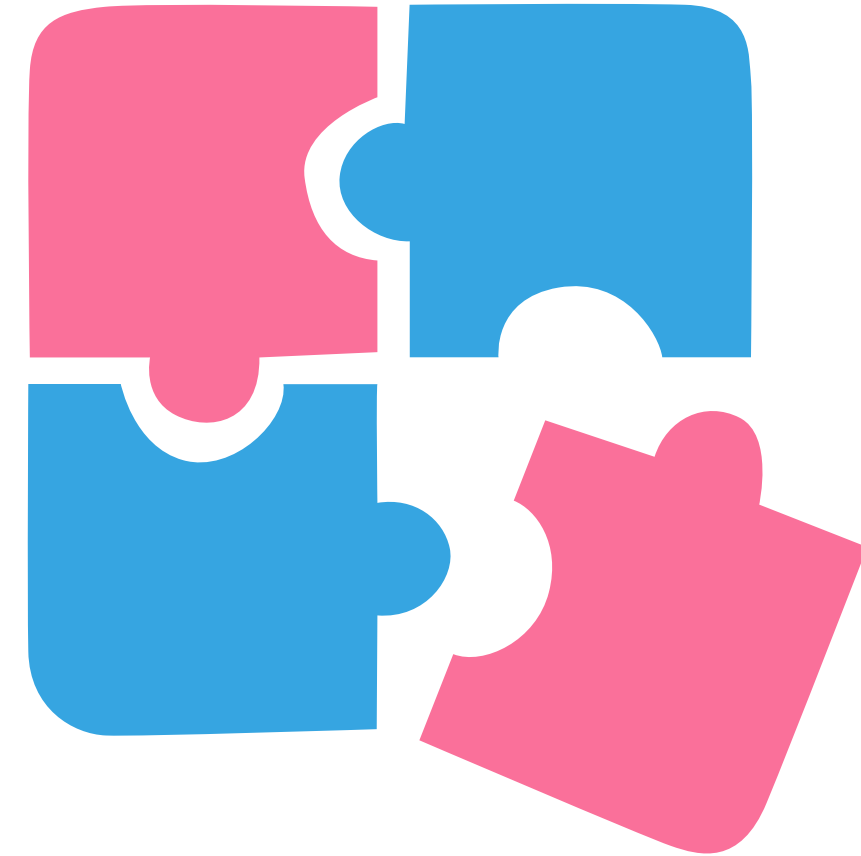
• Increased Poverty

• Profound exclusion



Challenges at NGO Level

At operational level, there is a need gap in effective technology for gaining last mile connectivity and outreach



Bottlenecks for provision of quality child rehab and early intervention

- **Intervention Planning**
- **Access to Rehab Specialists**
- **Tech tools for documentation**
- **Follow Up Planning**
- **Last mile connectivity**
- **School Enrollment**

EI Elements

A right mix of the 6 elements of **Early Intervention** along with Technology enabled services shall offer the required support system for any Government Organization / NGOs



- **Physiotherapy**
- **Special Education**
- **Speech Therapy**
- **Occupational Therapy**
- **Psychological Counselling**
- **Assistive Technology**





Solution at your Fingertip

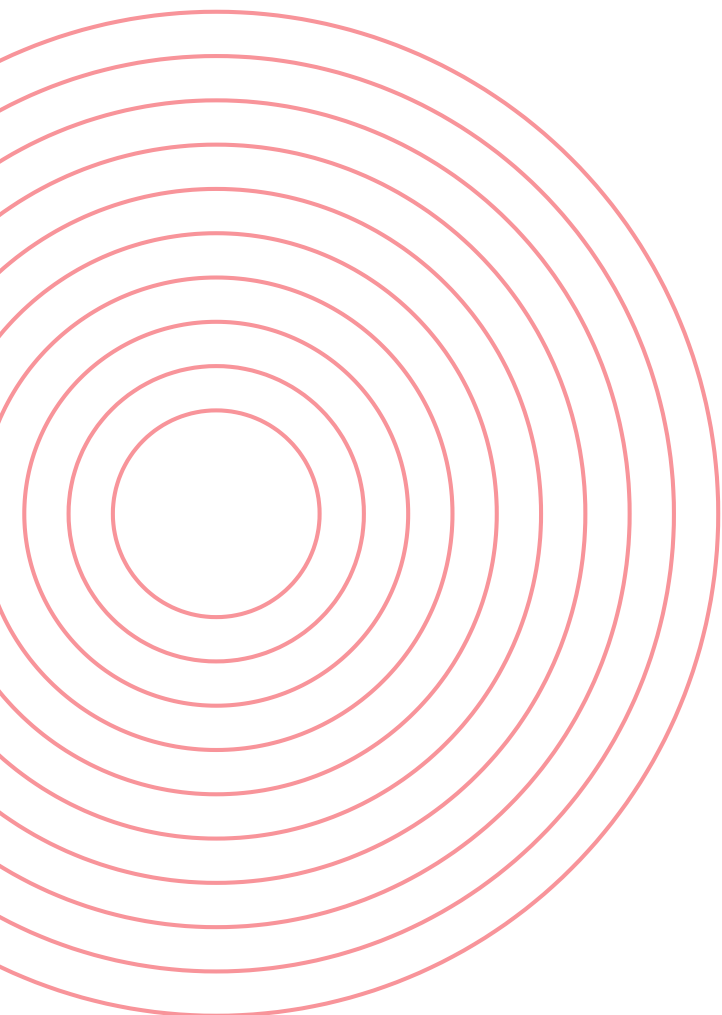


El[®] app connects community workers and parents to rehab specialists.

Home, Community, Centre-Based, School-Based or Mobile Clinic based Services ensures last mile delivery

El[®] app provides monitoring, evaluation and learning for outputs and outcomes of workers, children and families

Evidence based intervention planning ensures proper documentation, follow-up, high fidelity and quality rehab





1

Designed for use in an Early Intervention / Child / Youth Rehabilitation program

2

Can be used in any service delivery model
Individualized Case Management

3

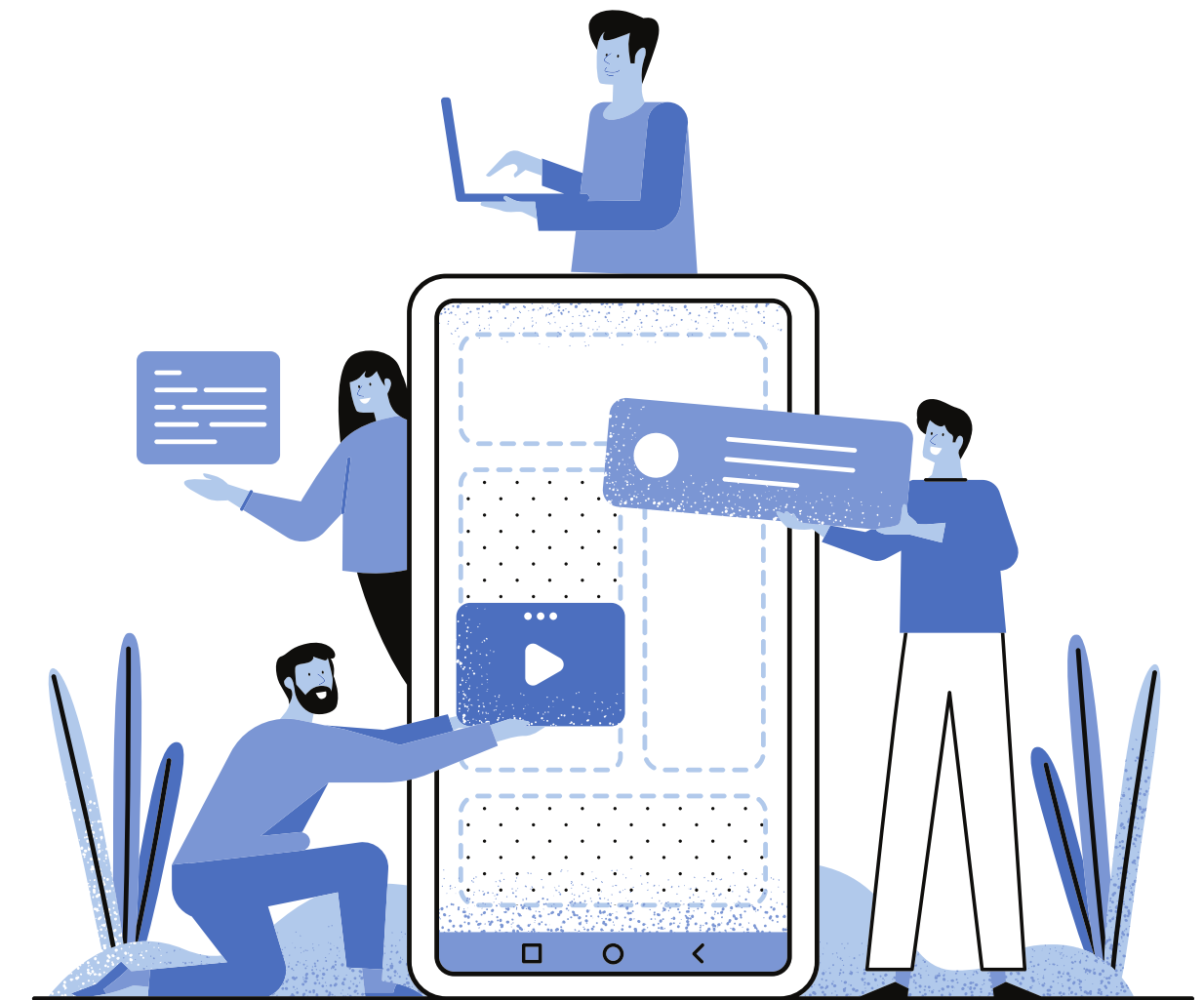
Covers all developmental domains

Covers ages 0 – 24

4

Focus on maximizing each child's potential for functional independence, participation and inclusion in community / school

EI® App





5

Family Centered
Focus

Follows WHO's ICF
Model

6

Scheduling

Planning

Execution

EI® App



7

Individualized –
Goal Setting
and Intervention
planning

8

Monitoring

Evaluation

Reporting



EI[®] APP

Screening Module

Awareness Programs and Capacity Building

Management Dashboard

Tracking Family Outcomes



Regular Therapy Visits and Support Services

General and Specialist Assessments & Child Outcome Evaluations

Goal Setting and Intervention Plan

Daily Scheduling and Advance Tour Plan



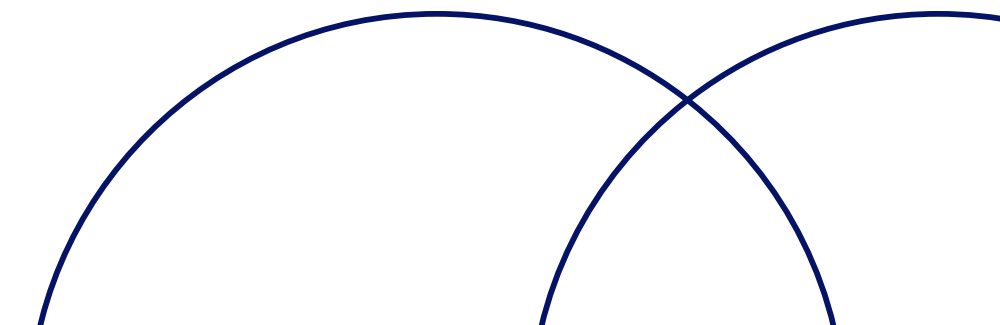
EI App Details

- **Web platform – Online version**
- **Mobile App platform – Off-line options – can sync when online**
- **Android system – can use with mobile device including tablets, smart phones**
- **English and all Major Indian and Global Languages**
- **Many Drop down options**
- **Easy to use for lay workers**
- **Compliance with GDPR Data Security and Protection Standards**



Who Can Use the EI App in Organizations?

- **Community Based Rehab Workers**
- **Rehab Specialists**
- **Program Management**
- **Data can be sent to researchers for impact evaluation**





Who will benefit?

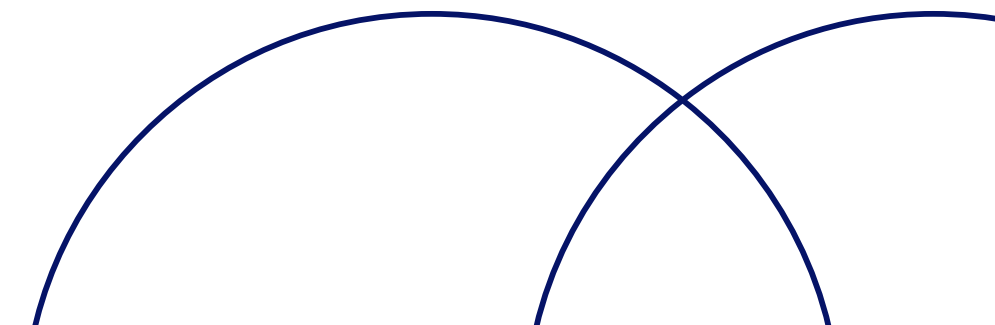
- **Children with developmental disabilities**
- **Parents, Caregivers, Families**
- **Community members (awareness programs)**
- **Teachers / Child development / ICDS workers, Health Workers**
- **Your service providers**
- **Your organization**

Benefits

For Organisations



- **Real-time monitoring of all workers with GPS technology and scheduling features**
 - **Monitoring of all workers activities, outputs and each child and families outcomes**
- **Proven to improve program attendance rate by 50%**
- **Efficient deployment of workers allows NGOs to improve their impact by 4 times**
- **Dashboard gives birds-eye view of program**
- **Reporting features allow for complete data analysis**
- **Allow for production of reports of each child for donors**
- **Allows you to capture and highlight your program outputs and outcomes to your Board and funders**

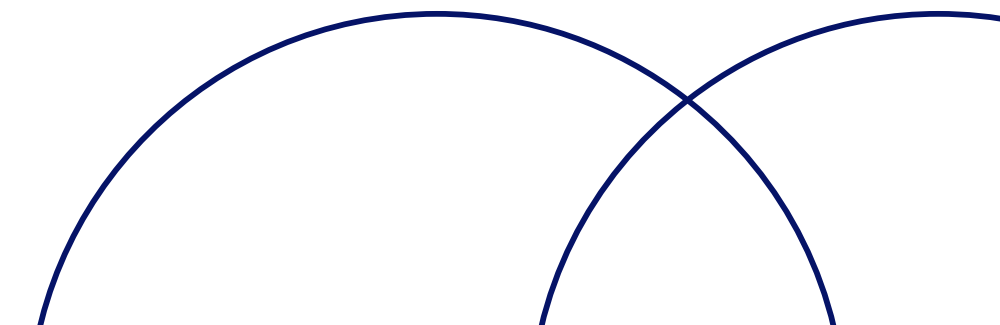


Benefits

**For
Rehab Service Providers**



- **Validated assessments and evaluations allow for tracking of child outcomes and helps with intervention planning**
- **Validated protocols provide evidence based therapy plans for each child using easy to understand drop down menu options**
- **Connects community workers to the expertise of rehab specialists**
- **Use of the app has proven to improve worker satisfaction**

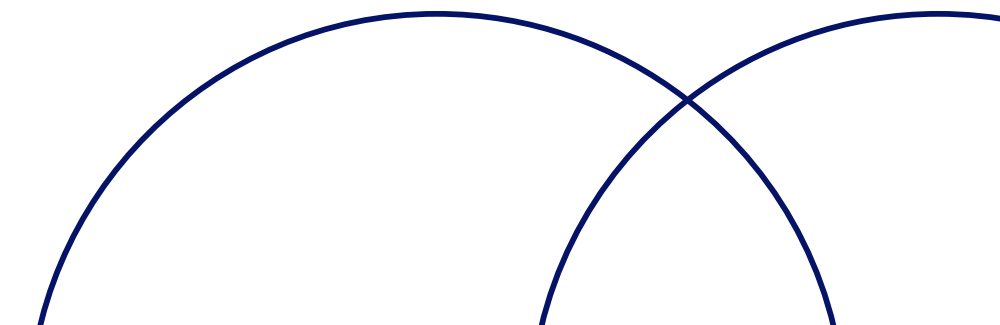


**For
Families**

Benefits



- **Family-centered goal setting tools in the app allows parents to set their priorities.**
- **Use of app has proven to reduce caregiver strain and increase their empowerment.**
- **Allows caregivers to learn the therapeutic interventions so that they can integrate therapy into child daily life**

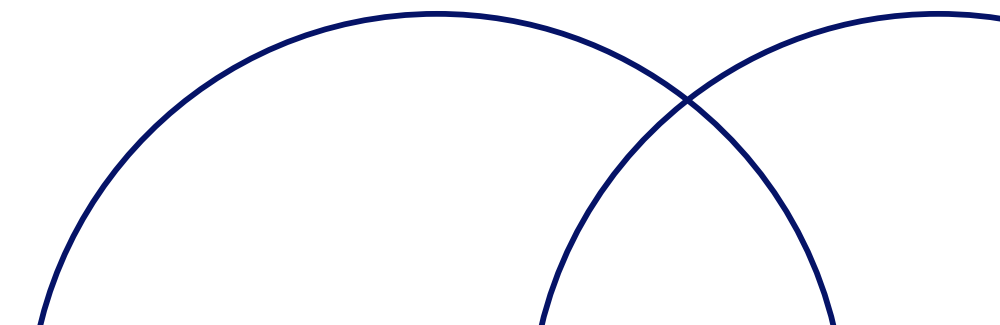
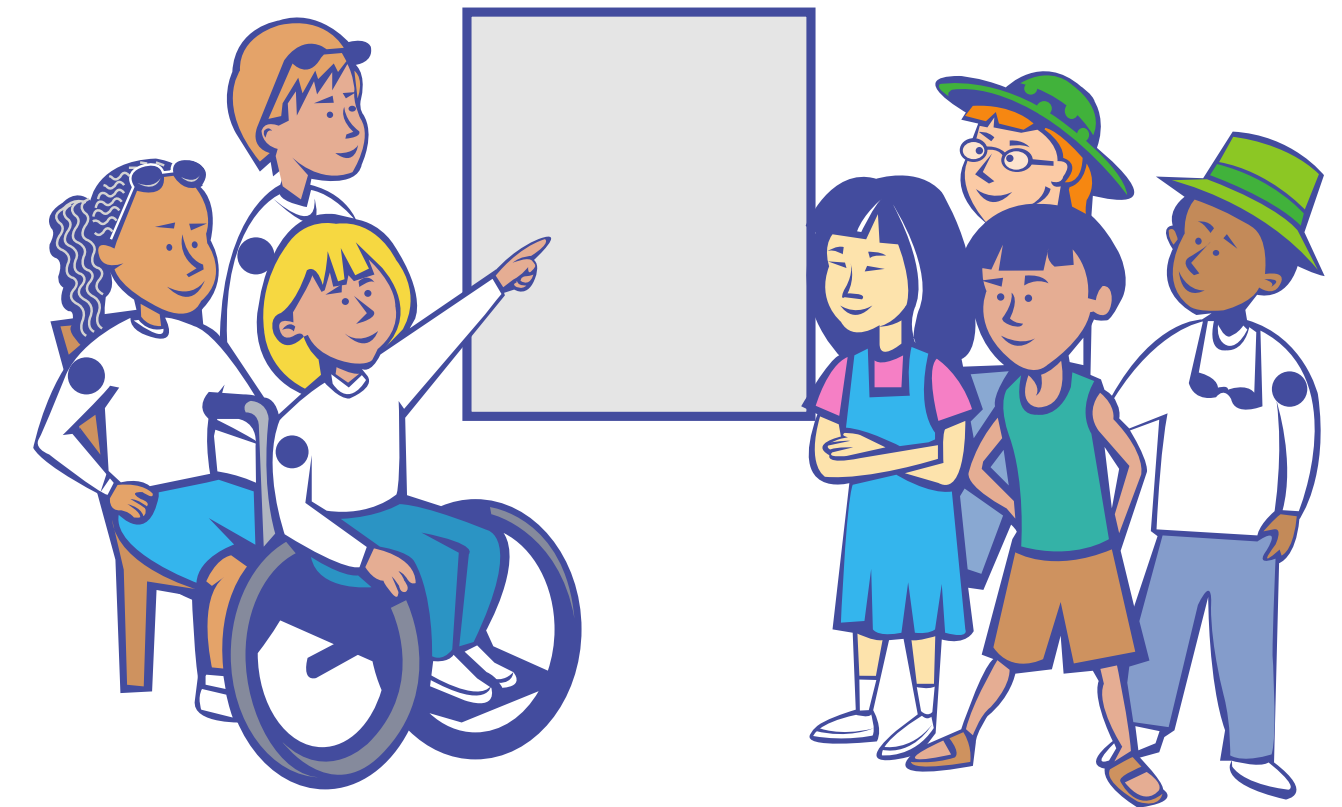


Benefits

**For
Children with Disabilities**



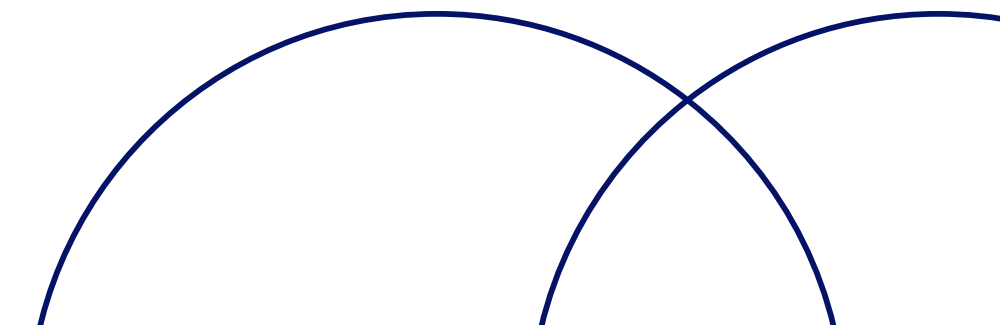
- **Individualized therapy plans based on child's needs**
- **Covers all developmental domains**
- **Covers children and youth from 0 – 24.**
- **Improves their development in all domains**
- **Improves their school enrolment and integration**
- **Allows them to reach their true potential to enable inclusion**



**For
Community**

Benefits

- **Awareness program feature proven to improve communities knowledge**
- **Build the right attitudes**
- **Decrease disability stigma**
- **Promotes integration of children with disabilities in society**





Design



- Designed in 2014 by Amar Seva Sangam
- Major upgrades through continuous stakeholder feedback / consultation
- Input of many leading experts in Early Intervention / Child Rehab / Tech

- Significant research and effort went into developing the App
(with >\$500,000 invested in development alone)

The Impact



Research published in international journals has showed use of app based EI[®] model:

- Increased therapy program attendance and engagement
- Improved school enrollment
- Improved child development
- Reduced caregiver strain and improved parent empowerment
- Provided robust capacity building to service providers
- Improved service provider job satisfaction

Challenge: How do we scale the impact of this innovation?



(1) Krishna, D., Krishnamurthy, S., Kalyanasundram S. A Unique Smart Village for People with Different Abilities. Smart Villages. Bridging the Global Urban-Rural Divide. Edited by Lakshmanan, VI, et. al. Springer, 2021. Pages 401-424. (2021).

(2) Krishna D, Mutthukarrupan S, Bharathwaj A, Ponnusamy R, Srinivasan, S, et al. Rapid-cycle evaluation in an early intervention program for children in South India: optimizing service providers' quality of work-life, family program engagement and school enrollment. Frontiers in Public Health. (2020).

(3) Muthukaruppan S, Cameron C, Campbell Z, Krishna D, Srinivasan, S, et al.. Impact of a family-centred early intervention programme in South India on caregivers of children with developmental delays. Disability and Rehabilitation. (2020).

(4) Hunt M, Ponnusamy R, Goulet A, Anthonypillai C, Krishna D. An integrated knowledge translation project to develop, implement, and evaluate a train-the-trainer program at a community rehabilitation program in Tamil Nadu, India. Disability and Rehabilitation. (2020).

Organizational Structures to Facilitate Scale-up



- **Amar Seva Global Association** : Non-profit social enterprise established to license the EI[®] app to other organizations
- **Amar Seva Centre of Excellence in Rehabilitation and Development for Children with Disabilities** - established to create a collaborative ecosystem of stakeholders including national, state and local government, NGOs, private-sector, parents, children, and service providers in order to provide and support high quality child development and rehab solutions to thousands of children, families and communities globally.



Amar Seva Centre of Excellence



Divisions:

- (1) Partnership Development
- (2) Technology (including development and support)
- (3) Monitoring & Evaluation (M&E) and Partnership Support
- (4) Training / Capacity Building
- (5) Research and Innovation
- (6) Administration



Multidimensional Scaling Strategy

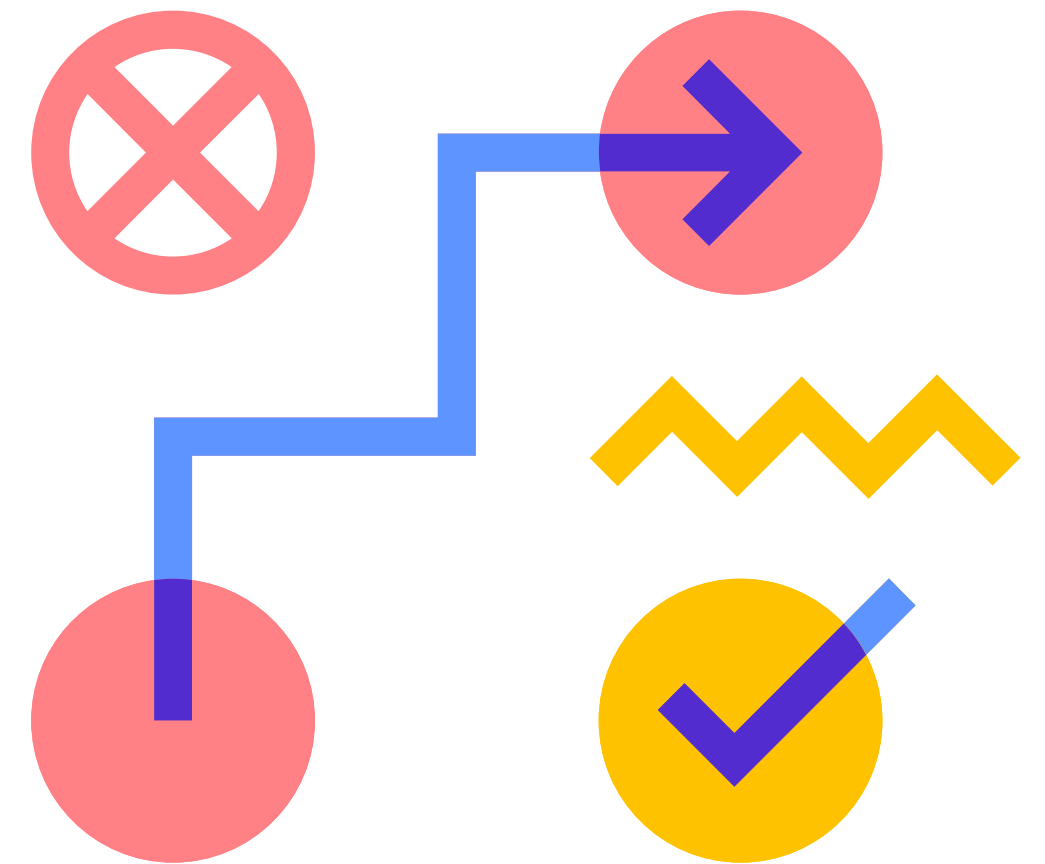


(1) Vertical Scaling

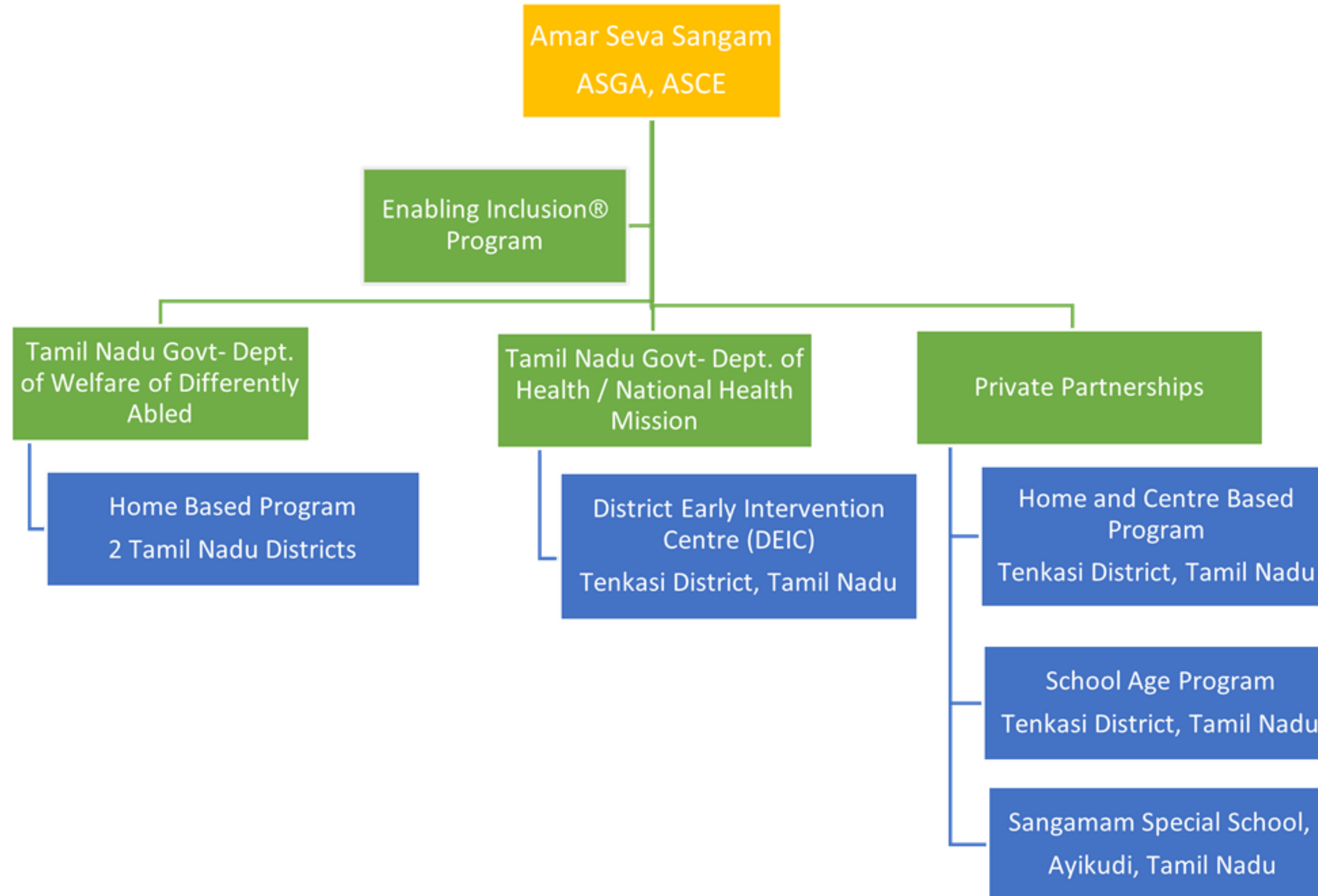
Expansion of an existing program or set of programs within the existing geography. (UNICEF)

(2) Horizontal scaling

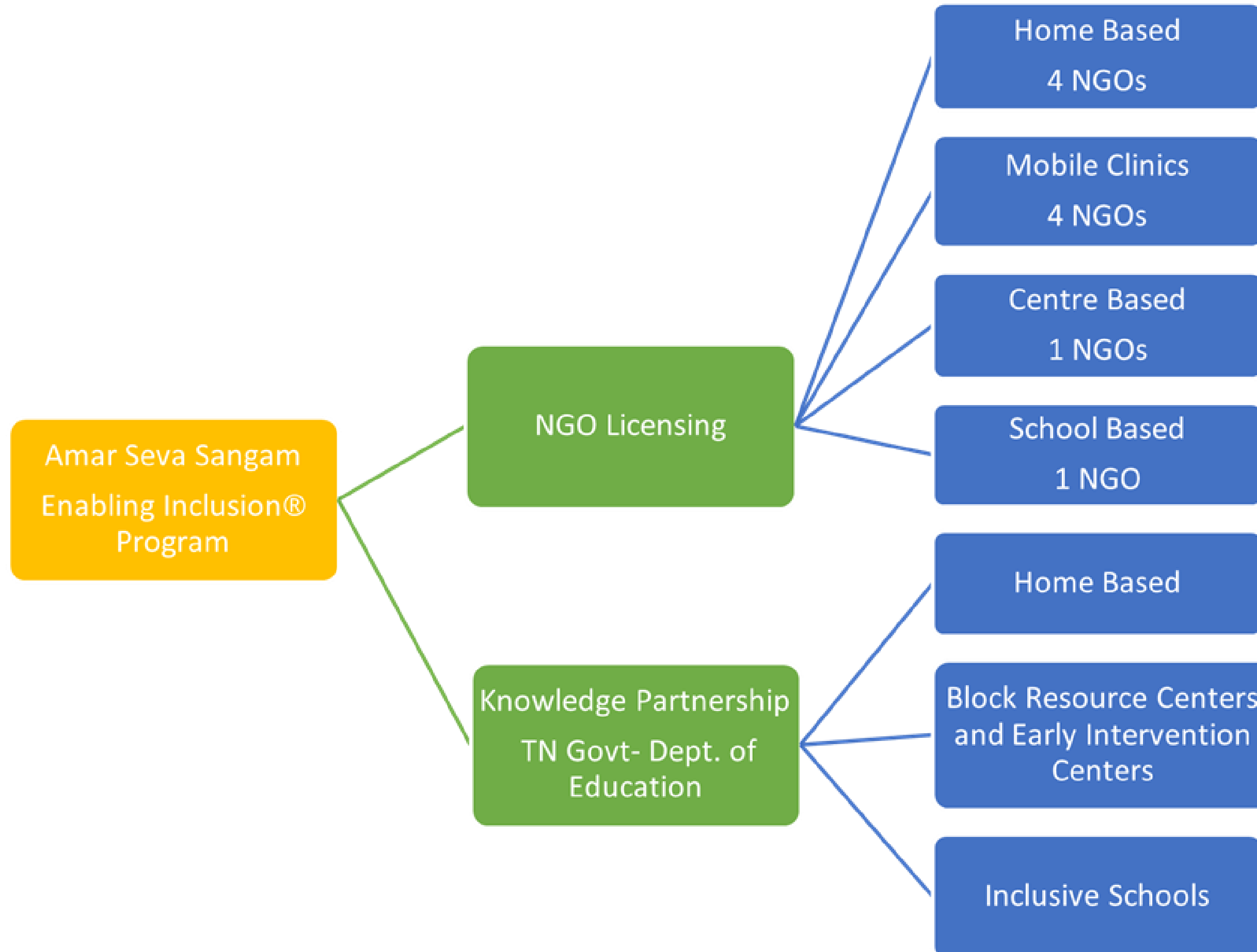
Expansion of an existing program to increase beneficiaries from NEW geographies and communities (UNICEF).



Vertical Scale-up



Horizontal Scale-up



Enabling Inclusion® programs across India & Globally

11 organizations across India and Africa have licensed the app

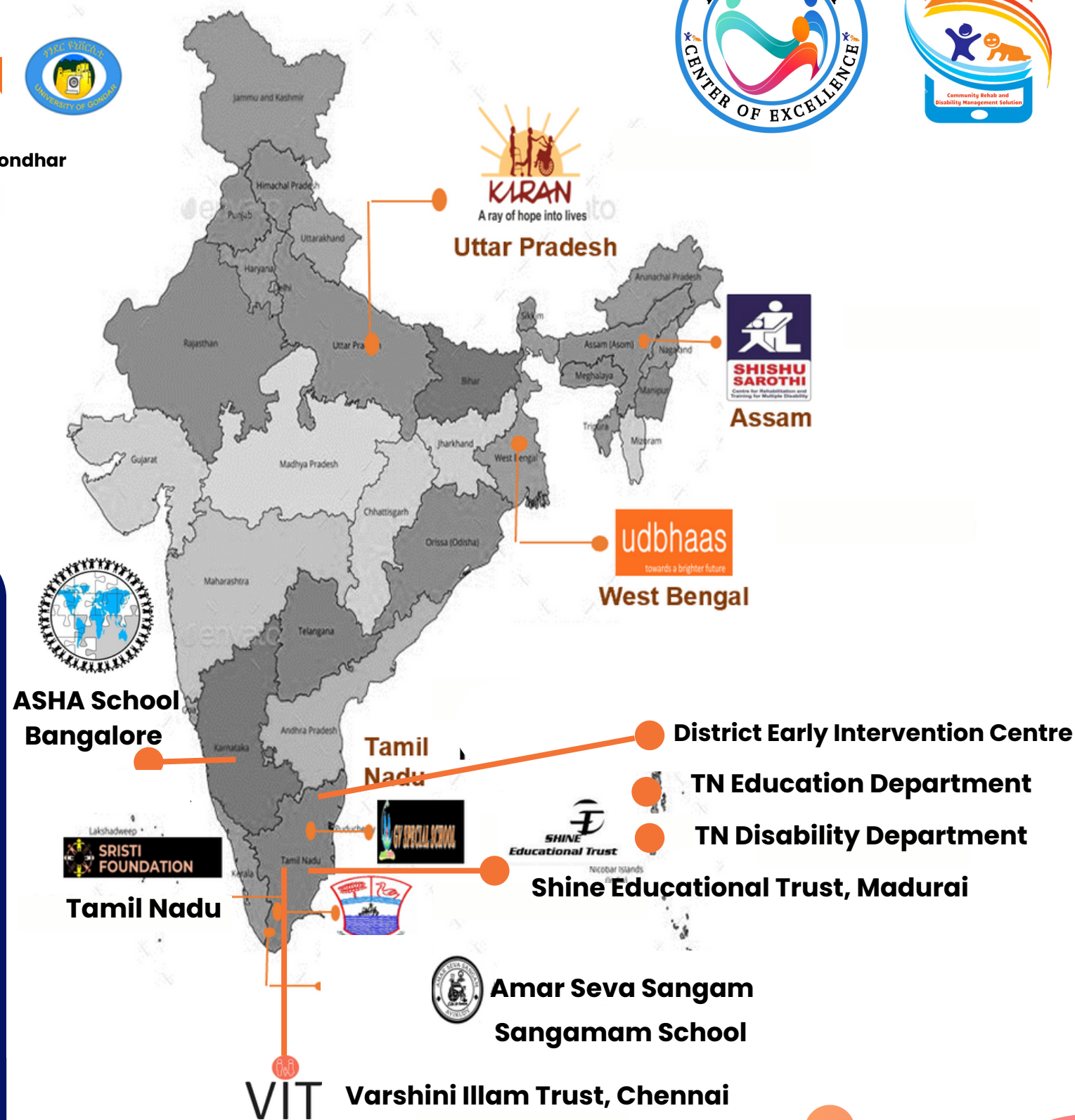
3 Govt departments using Enabling Inclusion® app



Light For the World
World Vision and University of Gondhar



ETHIOPIA



Monitoring, Evaluation and Learning Framework



Guided the scaling process

1. Key program indicators
2. Key performance indicators
3. Stakeholder feedback



Key Program Indicators



Service Providers

Screening

Services Accessed

Child Demographic Characteristics

Parent Demographic Characteristics

Distribution of Child Impairments

Family-Centered Goal Setting

Parental Outcomes

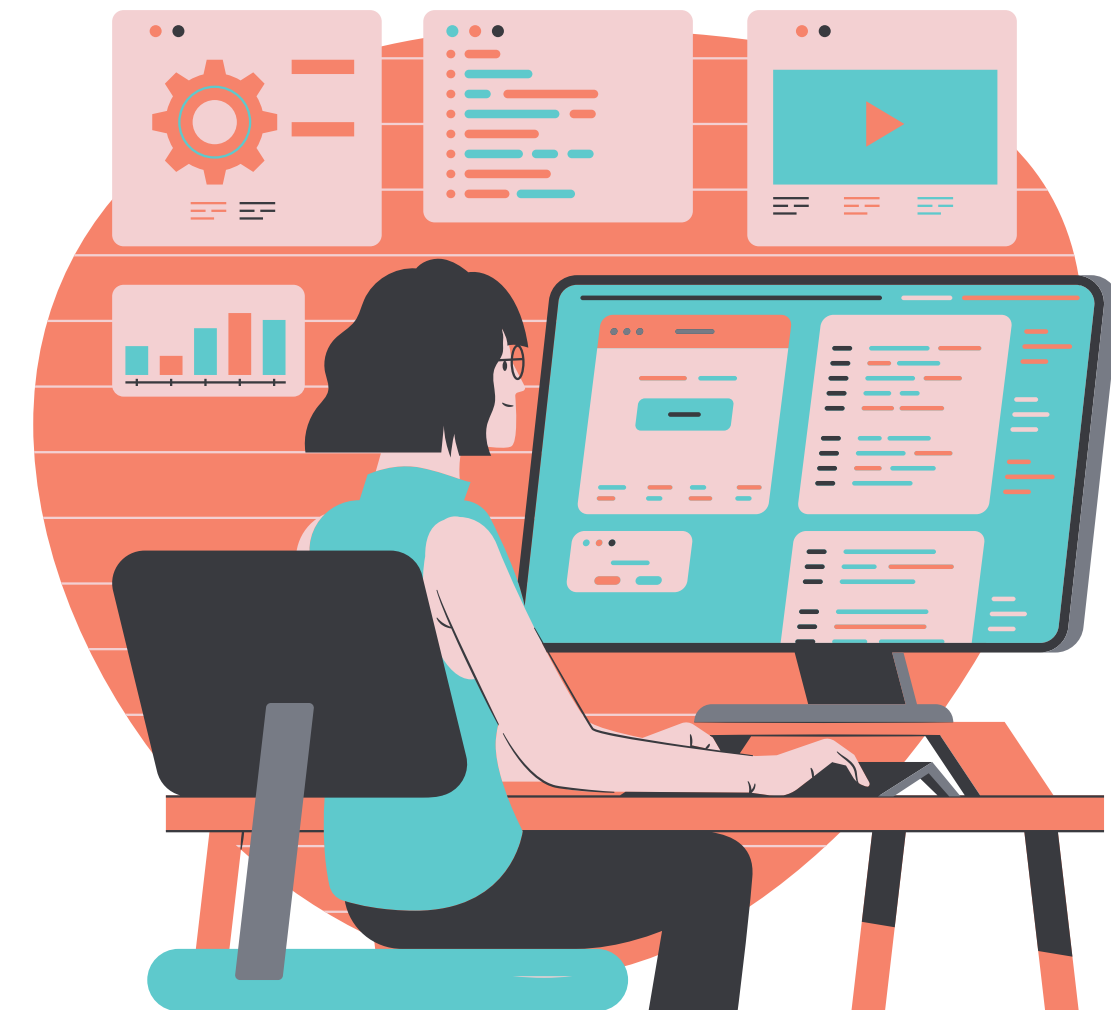
Goals, Intervention and Child Development Outcomes

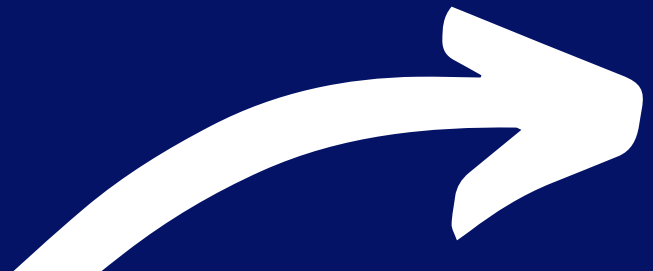


Key Performance Indicators of EI® app Use

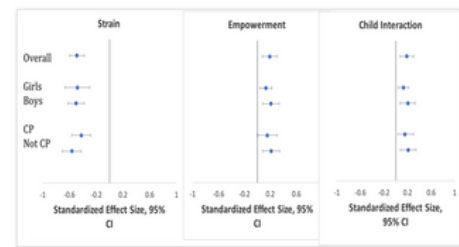


- Which features of the EI® app are maximally utilized and which features are under utilized by rehab service providers in the various program sites.
- Across the various program sites, what is the completion rate of the various EI® app module activities .
- Percentage of planned service provider therapy and non-therapy activities completed.





Proven Outcomes



Parents:

- Decreased Strain
- Increased Empowerment
- Improved Child Interaction



Improved Child Development



Center on the Developing Child
HARVARD UNIVERSITY



Krishna D, Sankara Raman Srinivasan SR. Rapid-cycle evaluation in an early intervention program for children in South India: optimizing service providers' quality of work-life, family program engagement and school enrollment. *Frontiers in Public Health*. 30 November 2020. <https://doi.org/10.3389/fpubh.2020.567907>

Muthukaruppan SS, Srinivasan SR, et al. Impact of a family-centred early intervention programme in South India on caregivers of children with developmental delays. *Disability and Rehabilitation*. Received 28 Aug 2019, Accepted 08 Oct 2020, Published online: 25 Oct 2020. <https://doi.org/10.1080/09638288.2020.1836046>

4 x the impact

If programs are currently supporting 50 children, with EI app and model you can support 200 (with the same implementation cost).



75% Decreased Caregiver Strain and increased parent empowerment

Regular support and therapy services reduced caregiver strain / stress / burden



60 → 95% Programme Engagement

High level of family engagement improved child development in all domains.



<30% → 85% School Enrollment Increase

Rehabilitation services improved school enrollment and integration.



NEWS TODAY

11/02/2020

Page # 03

'School enrollment rate of special children up'

◆ Early intervention therapy helps them, says study
◆ Govt to inaugurate Amar Seva Sangam's conference 14 Feb

[NT Bureau]

Chennai, Feb 11:

The school enrolment rate of children with special needs improved from 69 per cent to 85 per cent when they received early intervention therapy, finds a study by Amar Seva Sangam, Ayikudi (ASSA), a premier non-profit organisation in the field of disability management.

According to a press release, the study was conducted in association with the University of Toronto and McGill University, Canada on the outcomes of ASSA's Village-Based Early Intervention & Rehabilitation Programme that covered 1,152 children with special needs.

ASSA's study found that the severity of disability and the lack of early intervention were the two primary reasons that prevent the children with special needs from

attending schools. The lowest enrolment was seen with children with cerebral palsy (CP), particularly those with more motor severity and cognitive impairment. Children with higher early intervention programme attendance levels had higher rates of achieving school enrolment, the release said.

In order to share its experiences in early intervention, and to highlight other successful early intervention models and interventions from across the world, ASSA is organising an international conference on 'Early intervention for children with special needs' in Chennai. The two-day conference will be inaugurated by Governor Banwarilal Purohit 14 February.

There will also be two pre-conference workshops 13 February on the topics - 1) Designing, implementing, monitoring and scaling-up early intervention programs

for children with disabilities, and 2) Home-based early intervention for children with developmental disabilities and cerebral palsy: A family-centred interdisciplinary approach.

The international conference will have presentations from more than 50 experts on a wide range of themes such as early identification, early stimulation, intervention through play, assistive and adaptive technology, inclusive education, and social security schemes, among others.

About 500 participants, including the executives of non-governmental organisations, physiotherapists, occupational therapists, special educators, paediatricians, doctors and senior government officials from different parts of the country and the world are expected to attend the workshops and the international conference, the release said.

Home Based

Disability Dept, Tamil Nadu
Amar Seva Sangam, Tamil Nadu
UDBHAAS, West Bengal
Kiran Society, Uttar Pradesh
Light for the World / World Vision /
University of Gonder, Ethiopia

Centre Based

Amar Seva Sangam, Tamil Nadu
Sishu Saroti, Assam
District Early Intervention
Centres, Tenkasi and Golaghat
Dept of Education Samagra
Siksha Centres, Tamil Nadu

Mobile Clinics

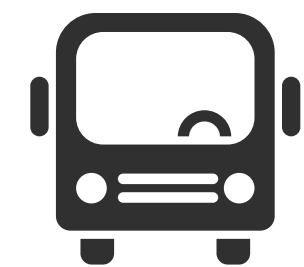
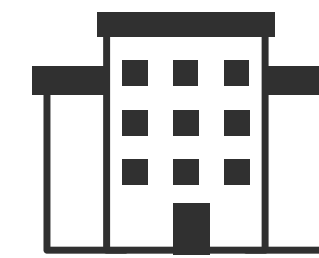
VOCES, Tamil Nadu
Varshini Illam, Tamil Nadu
GV School, Tamil Nadu

School Based

Sangamam Special School
Tamil Nadu
ASHA school, Bangalore



EI APP User Groups



**Modules adjusted to organizations
work-flow and set-up**

Reach & Impact



> **1,50,000** Children Screened



> **6500** Health and Education workers trained



> **6000** Children impacted with therapy



> **18,000** Caregivers Empowered



> **1,20,000** people with reduced stigma



More **Inclusive** Society

Awards & Recognition



2021 Canada India Healthcare Innovation Award



2020 Project of the Year – NGO India



2019 Microsoft Equal Opportunities Awards 2019 – India



2020 Most Inspiring Digital Innovation Winner – Netherlands



2014, 2017, 2020 Saving Brains / Grand Challenges Canada Stars in Global Health Challenge Winner, Transition to Scale Winner x 2 – Canada

Awards & Recognition



2016 Vodafone Mobile for Good Award – India



2018 , 2021 Azim Premji Philanthropic Initiative Funding Winner – India



2019 World CP Day 2019 Major Award: Medical/Therapeutic – Australia



2019 MIT Solve – USA



Zero project – Inclusive Education Award (**2020**), Independent Living Award (**2023**) – Presented at the United Nation in Vienna, Austria



2022 – ATF Award for Best Assistive Technology Initiative for NGOs

1

Training



2

Technology



3

Support



4

Value Added Services



El App Licensing

For Organizations

1

Free (Trial)

2

Basic

3

Trans Disciplinary

4

Multi Disciplinary



El App Versions

For Organizations

Free Version

0

Basic Version

₹ 12500
per Year

For each
1000 Children

**Trans Disciplinary
Version**

₹ 750
per child
per year

**Multi Disciplinary
Version**

₹ 1200
per child
per year



EI App Pricing

For Partner Organizations

Initial Training
Server set-up
App Set Up
Optional Features
Schedule & Visit Tracking -
at
Extra Cost

Our Funding Needs



- Funding to continue direct implementation in 23 Blocks of Tirunelveli and Tuticorin District, after funding from Tamil Nadu Disability Dept expires. (~3.5 crores INR per year for 2600 children, 13,500 INR per child per year. Includes technology cost)
- Funding to reach new Districts, States Funding to support partners in implementing their programs
- Funding Centre of Excellence Building in Amar Seva Sangam Campus (2 Crores INR)
- Funding other NGOs to pay the EI app technology / licensing fees to Amar Seva Sangam to support the solution

Centre of Excellence Management



S. Ramakrishnan
Chairman,
Amar Seva Global
Padma Shree, 2020



S. Sankara Raman, CA
Vice-Chairman and CEO,
Amar Seva Global
Ashoka fellow and Harvard
SNMI



Dinesh Krishna, MD
Director of Strategy,



Rajeshwaran, CA
Chief Operations
Officer



Navamanni,
Msc PT
Chief Executive, Learning
& Capacity Development



Marie Brien, Msc PT
Associate Director of
Research and Capacity
Development



Paramkalyani, MCA
CITO – Information
Technology



Franzina Coutinhi,
PhD OT
Director of Research



**Amar Seva Sangam,
Ayikudi
Tamil Nadu, India**