Advancing Equity in Early Childhood Development: The Critical Importance of High Quality Services and Effective Systems

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Overview

1. Early Childhood Matters – why should we invest early?
2. Inequities in early childhood development
3. Decreasing inequities through early childhood interventions
4. The need for a focus on quality
5. Conclusions
Early Childhood Matters – why should we invest early?
Early Childhood Matters: Why should we invest early?

- Children face threats to development
- Arguments from Neuroscience
- The Economic Argument
- The Rights–based Argument
- Early interventions work
Early Childhood Matters: Why should we invest early?

Children Face Threats to Development

  - Over 200 million children below the age of 5 years in low and middle income countries do not reach their developmental potential (Grantham-McGregor et al., 2007)

- Threats to Development
  - Health risks
  - Nutrition risks
  - Psychosocial risks
  - Protection risks

- Large disparities across and within regions and countries, particularly in the Asia-Pacific region
Early Childhood Matters: Why should we invest early?

Children Face Threats to Development
Under-5 mortality rates

Source: Engle, Rao & Petrovic, 2013
Early Childhood Matters: Why should we invest early? Children Face Threats to Development

![Bar chart showing the percentage of children under 5 years who are stunted (by region).](chart)

- Sub-Saharan Africa: 42%
- Middle East and North Africa: 32%
- South Asia: 48%
- East Asia and the Pacific: 22%
- Latin America and the Caribbean: 14%
- World: 34%


Percentage of children under 5 years who are stunted (by region)
Scientific studies confirm that early life experiences are built into our bodies and that prolonged adversity in early childhood can result in toxic stress and lifelong impairments in learning, health and behaviour.
Early childhood is the most effective and cost-efficient time to ensure that children can benefit from school and later opportunities.
Early Childhood Matters: Why should we invest early?

Rights-based argument

- Investment in early child development programs helps reduce risks and supports development and can break the cycle of inequity faced by millions of children and families. Early child development is regarded as fundamental to the promotion of social justice and equity.
Inequities in Early Childhood Development
Inequities in Early Childhood Development Are apparent before birth

Source: UNICEF, 2009

The Relationship between Maternal Education and Receiving Antenatal Care
Inequities in Early Childhood Development

Develop early

FIRST 1000 DAYS

Reduction in risk factors, increase in protective factors, or intervention during a sensitive period.
Inequities in Early Childhood Development
Access Gaps across Regions


GERs for pre-primary education from 2000 – 2009 in different regions
GERs from 2for pre-primary education 000 – 2009 in sub-regions of the Asia-Pacific

Gender parity in GERs for pre-primary education (2000 – 2009)

Inequities in Early Childhood Development
Percentage of Children who have more than 3 books at home

Source: MICS 4: Learning materials at home: Children's books – Percentage of children 0–59 months old who have three or more children's books at home
Inequities in Early Childhood Development

Attendance in Early Childhood Education Programmes

Inequities in Early Childhood Development

**Adult support for Learning**

- Adult support for learning – Percentage of children 36-59 months old with whom an adult has engaged in four or more of the following activities to promote learning and school readiness in the past 3 days: a) reading books to the child, b) telling stories to the child, c) singing songs to the child, d) taking the child outside the home, e) playing with the child, and f) spending time with the child naming, counting or drawing things.
(Consequences of) Inequities in Early Childhood Development

Average years of schooling by location, wealth and gender for 17-22 year-olds

Source: UNICEF, 2012; Pakistan (DHS, 2007)
The global achievement gap

Socioeconomic gradients
(Consequences of) Inequities in Early Childhood Development Achievement Gaps

Early Childhood Care and Education and survival rate to the last grade of primary school

Country/economy's equity and performance in PISA 2009

Mean performance on the PISA reading scale

Difference in performance between advantaged and disadvantaged students
(higher values indicate lower equity levels)
Exposure to risks sets children on a lower developmental path

Long–term effects on schooling and income contribute to continued inequalities in the next generation

Inequalities can be reduced with intervention in the early years
Decreasing inequities through early childhood interventions
Substantial evidence indicates that disadvantaged children who attend early childhood programs have better outcomes than those that do not.

Consensus on the benefits of ECD interventions but questions remain.
Decreasing inequities through early childhood interventions

- Which type(s) of ECD interventions are effective and can be relatively easily scaled up in different contexts?

- What is the minimum “dosage” of intervention needed to achieve sustainable gains in child outcomes?

- Where should we allocate limited resources and which types of programs should be scaled-up?

→ Interest in cost, sustainability and scalability
Method of Review

- Relevant keywords reflecting two variables of interest (early childhood development and cognitive development) were used to search for potential evidence in nine electronic databases, reference lists of journals, and specialist websites.

- Publications were located and filtered by a rigorous screening procedure.

- The resulting 111 publications, involving studies conducted in 40 developing countries, were coded based on the type of intervention, and the rigour and soundness of the study.

- A quantitative meta-analysis was conducted to identify factors associated with effective interventions. Narrative summaries of 14 high-quality publications were also prepared to facilitate analyses.
## Location of Intervention

<table>
<thead>
<tr>
<th>Location of Intervention</th>
<th>No. of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central and Eastern Europe and the Commonwealth of Independent States</strong></td>
<td>4</td>
</tr>
<tr>
<td>Turkey</td>
<td>4</td>
</tr>
<tr>
<td><strong>East Asia and the Pacific</strong></td>
<td>20</td>
</tr>
<tr>
<td>Cambodia</td>
<td>2</td>
</tr>
<tr>
<td>China</td>
<td>4</td>
</tr>
<tr>
<td>Indonesia</td>
<td>6</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1</td>
</tr>
<tr>
<td>Philippines</td>
<td>2</td>
</tr>
<tr>
<td>Thailand</td>
<td>1</td>
</tr>
<tr>
<td>Vietnam</td>
<td>4</td>
</tr>
<tr>
<td><strong>South Asia</strong></td>
<td>31</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>13</td>
</tr>
<tr>
<td>India</td>
<td>13</td>
</tr>
<tr>
<td>Nepal</td>
<td>5</td>
</tr>
<tr>
<td><strong>More than one region</strong></td>
<td>1</td>
</tr>
<tr>
<td>Bangladesh, The Democratic Republic of the Congo, Tajikistan &amp; Yemen</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total: 12 Countries</strong></td>
<td>56</td>
</tr>
</tbody>
</table>
Decreasing inequities through early childhood interventions

**Focus on interventions in this region**

<table>
<thead>
<tr>
<th>Location of Intervention</th>
<th>No. of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>7</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>4</td>
</tr>
<tr>
<td>Japan</td>
<td>1</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1</td>
</tr>
<tr>
<td>Taiwan</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total: 5 Countries</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>
Decreasing inequities through early childhood interventions

Focus on interventions in this region

- Parent–focused interventions
- Child–focused educational interventions
- Nutrition and health interventions
- Other comprehensive programmes
Decreasing inequities through early childhood interventions
Parent-focused interventions in LAMIC in this region
Decreasing inequities through early childhood interventions
Child-focused educational interventions in LAMIC in this region
Decreasing inequities through early childhood interventions in LAMIC in this region
Decreasing inequities through early childhood interventions

All interventions in LAMIC in this region
Decreasing inequities through early childhood
All interventions in developed countries in this region
Decreasing inequities through early childhood interventions
All interventions in LAMIC in this region

Weighted average effect sizes across different types of intervention in developing countries in the Asia-Pacific Region (N = 69)
Decreasing inequities through early childhood intervention
All interventions in LAMIC in this region

Rigour of interventions (N=69) by intervention type in studies in LAMIC in the Asia-Pacific Region
Decreasing inequities through early childhood
All interventions in developed countries in this region

Number of interventions (N=14) by intervention type in studies in developed countries in the Asia-Pacific Region
The need for a focus on Quality
The need for a focus on Quality

- How do we define Quality?
  - Structural and Process variables
  - The importance of context

- Which dimensions of quality in early childhood programs are the most important?
  - Physical and psychological Environment
  - Curriculum
  - Learning and Teaching Approaches
  - Teacher-child interactions
  - Programme management
  - Community integration
The need for a focus on Quality

Student-child ratio in pre-primary education (2000 & 2009)

Cambodia
Objectives

1. To assess the effectiveness of the State Preschool (SPS), Community Preschool (CPS) and Home-based programmes (HBP) on school readiness developmental outcomes (Rao et al., 2012a)

2. To examine the long term effects of preschool participation on school enrollment, grade repetition and drop-out rates at the end of Grades 1, 2 and 3.
<table>
<thead>
<tr>
<th>Indicators</th>
<th>State Preschools</th>
<th>Community Preschools</th>
<th>Home-based Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year started</td>
<td>Before 2000</td>
<td>2004</td>
<td>2004</td>
</tr>
<tr>
<td>Age range of children</td>
<td>3-6 years</td>
<td>3 - 5 years</td>
<td>Birth to 6 years</td>
</tr>
<tr>
<td>Number of children covered in 2005 - 2006</td>
<td>75,669</td>
<td>22,265</td>
<td>7,181</td>
</tr>
<tr>
<td>Hours per day/week</td>
<td>3 hours per day/ 5 days a week</td>
<td>2 hours per day/ 5 days a week</td>
<td>Typically meet once a week but this varies across projects 24 weeks/year</td>
</tr>
<tr>
<td>Weeks per year</td>
<td>38 weeks/ year</td>
<td>24 - 36 weeks/ year</td>
<td></td>
</tr>
<tr>
<td>Establishment</td>
<td>Responsibility of the MoEYS MoEYS</td>
<td>Responsibility of Commune Councils MoEYS</td>
<td>Responsibility of Commune Councils MoEYS</td>
</tr>
<tr>
<td>Curriculum</td>
<td>to be aligned with the ELDS</td>
<td>to be aligned with the ELDS</td>
<td>to be aligned with the ELDS</td>
</tr>
<tr>
<td>Staffing</td>
<td>A teacher who has undergone professional training</td>
<td>A locally recruited and trained teacher</td>
<td>Mothers led by a “core” mother</td>
</tr>
<tr>
<td>Staff Training</td>
<td>A 2-year full-time teacher training course after Grade 12</td>
<td>Initial training for 10 day Annual refresher training for up to 6 days a year</td>
<td>Refresher training for 6 days a year</td>
</tr>
<tr>
<td>Salary/Incentives</td>
<td>MoEYS Monthly salary of USD 20</td>
<td>Teacher incentive of USD 7.5 per month</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

*Note. MoEYS is the Ministry of Education, Youth and Sports.*
## Data Collection Time points

<table>
<thead>
<tr>
<th></th>
<th>Preschool</th>
<th>Primary School</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>October 2006</strong></td>
<td>CDAT Pre-test</td>
<td></td>
</tr>
<tr>
<td><strong>May 2007</strong></td>
<td>CDAT Post-test</td>
<td></td>
</tr>
<tr>
<td><strong>October School Year 2007-2008</strong></td>
<td><strong>School Enrolment</strong> (grade placement and drop-out)</td>
<td></td>
</tr>
<tr>
<td><strong>November School Year 2008-2009</strong></td>
<td><strong>School Enrolment</strong> (grade placement and drop-out)</td>
<td></td>
</tr>
<tr>
<td><strong>School Year 2009-2010</strong></td>
<td><strong>School Enrolment</strong> (grade placement and drop-out)</td>
<td></td>
</tr>
</tbody>
</table>
The need for a focus on Quality Preschool Participation and School enrollment in Grade 3 (2009-2010)
China
Objectives

- To systematically examine the relationship between preschool experience and children’s learning outcomes after they had entered primary school

- To gain a better understanding of the nature of children’s early learning experiences in the different types of ECE programs that these children had attended.
<table>
<thead>
<tr>
<th>Management</th>
<th>Kindergarten</th>
<th>Separate pre-primary class</th>
<th>Grade 1 class (Sitting-in group)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational authorities or communities</td>
<td>Primary schools</td>
<td>Primary schools</td>
<td></td>
</tr>
<tr>
<td>Ages of children served</td>
<td>3–5/6</td>
<td>5–6</td>
<td>3–7</td>
</tr>
<tr>
<td>Location of program</td>
<td>Independent premises in larger towns</td>
<td>Separate classes in primary schools</td>
<td>Grade 1 classrooms in primary schools</td>
</tr>
<tr>
<td>Education of caregiver</td>
<td>Basic training in ECE</td>
<td>Typically no formal teaching qualifications in ECE</td>
<td>Typically having a formal qualification for teaching primary school children but not for those below six</td>
</tr>
<tr>
<td>Type of instruction / focus of care</td>
<td>Play-based methods are typically used and usually have child appropriate furnishings, toys, and educational materials.</td>
<td>Elements of the Grade 1 syllabus form part of the pre-primary curriculum. Children sometimes have time for free play, but few toys are provided.</td>
<td>Grade 1 syllabus</td>
</tr>
<tr>
<td>Daily duration of service</td>
<td>Full day</td>
<td>Full day</td>
<td>Full day</td>
</tr>
</tbody>
</table>
The need for a focus on Quality Literacy attainment of children with different preschool experiences
The need for a focus on Quality Mathematics attainment of children with different preschool experiences

- Kindergarten
- Separate pre-primary class
- Sitting-in Grade 1
- No preschool experience

Mathematics Attainment (adjusted means)
India
The need for a focus on Quality Physical Development (N = 67)

Ratings of Physicians who were blind to Center attended also did not differ.

- Center I
- Center Y

<table>
<thead>
<tr>
<th>Weight (kgs.)</th>
<th>Height (cms.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>10</td>
<td>90</td>
</tr>
</tbody>
</table>
The need for a focus on Quality Overall development (N = 67)
Conclusions
Conclusions

- Ensure that rapid expansion in access to services in the Asia-Pacific region is not associated with a decrease in their quality → move beyond only increasing access to a focus on the quality of provision

- Invest in providing high quality programs that
  - are culturally and contextually appropriate
  - offer support to parents of young children
  - are integrated (holistic)
  - promote Equity
  - ease children’s transition to primary schools

- Invest in **training** for change agents/teachers and continued supervision and support for providers
Conclusions

- Invest on the most disadvantaged

- Implement systems of quality assurance which take into consideration the range of programmes available, the ages of children served and contextual variables

- Promoting multi-sectoral integration
Conclusions

- Invest in research that monitors and evaluates programs to identify the most effective interventions (cost, sustainability, scalability)

- Evaluate strategies to promote equity

- Developing sustainable funding mechanisms
Conclusions

High quality and “Holistic early childhood development builds the health and wealth of nations and advances social justice by:

- Improving child health and nutrition;
- Educating the future generation and promoting nation-building;
- Bringing about high economic returns for nations; and
- Alleviating inequity and promoting national harmony”

(ARNEC, 2013)
Thank you!