

Evidence-based decisions about early childhood programmes: Observations from Asia

Nirmala Rao
The University of Hong Kong

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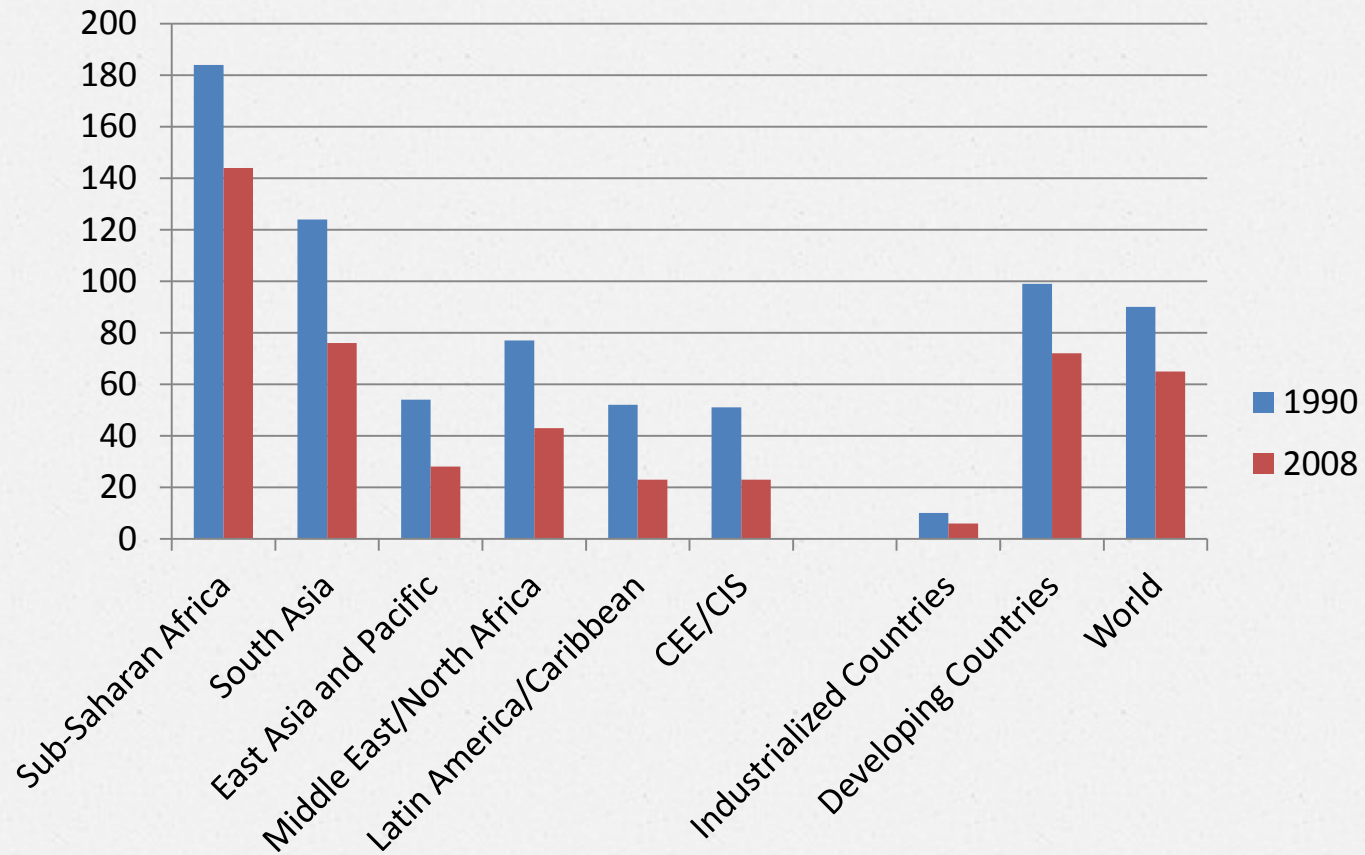
Overview

1. Importance of evidence-based decision making
2. Dearth of evidence on program efficacy in low-resource Asian contexts
3. Three examples from Asia
4. Conclusions

Importance of evidence-based decision making

- Situation of children in a changing world

Under-5 mortality rates



Source: Engle, Petrovic & Rao, in press

Percentage of children under 5 years who are stunted (by region)



Source: WHO data, cited in UNICEF, 2009.

From :UNESCO & UNICEF (2012) Asia-Pacific End of Decade Notes on Education for All Goal 1: Early Childhood Care and Education.

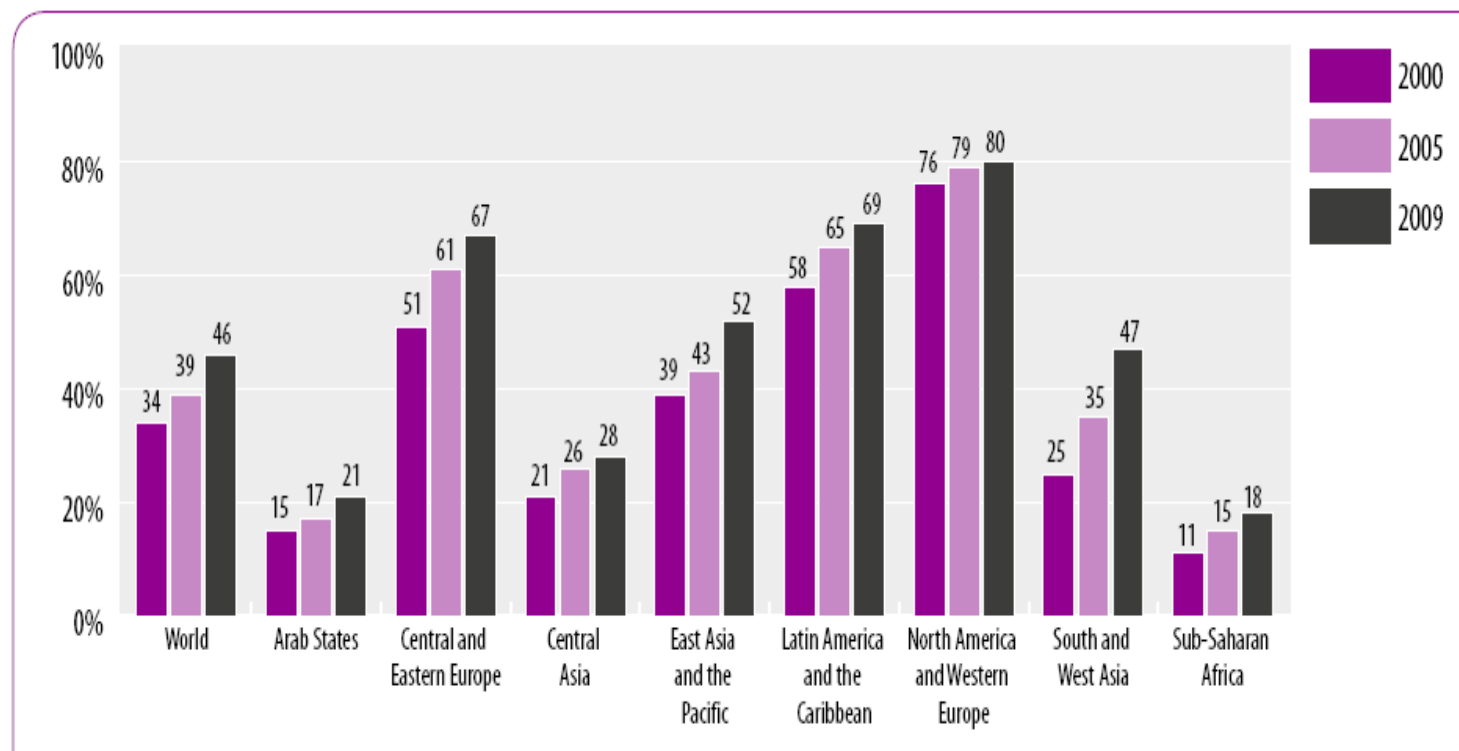
Importance of evidence-based decision making

- 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.

Importance of evidence-based decision making

- 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?

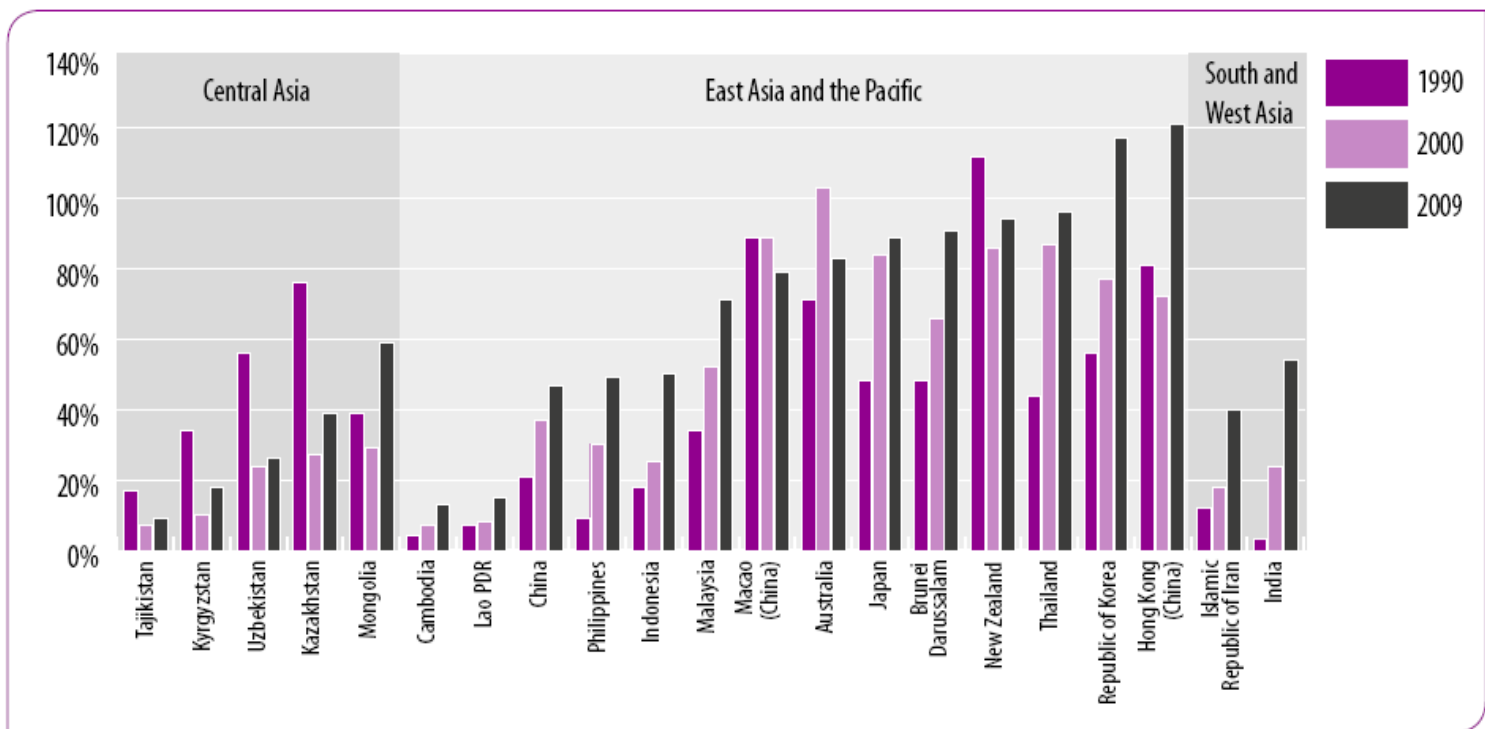
Gross Enrolment Ratios in Pre-Primary Education



Source: Statistical Annex, UIS, 2011.

From :UNESCO & UNICEF (2012) Asia-Pacific End of Decade Notes on Education for All Goal 1: Early Childhood Care and Education.

Increases in Gross Enrolment Ratios for Pre-Primary Education



Note: Ranked by data for 2009.

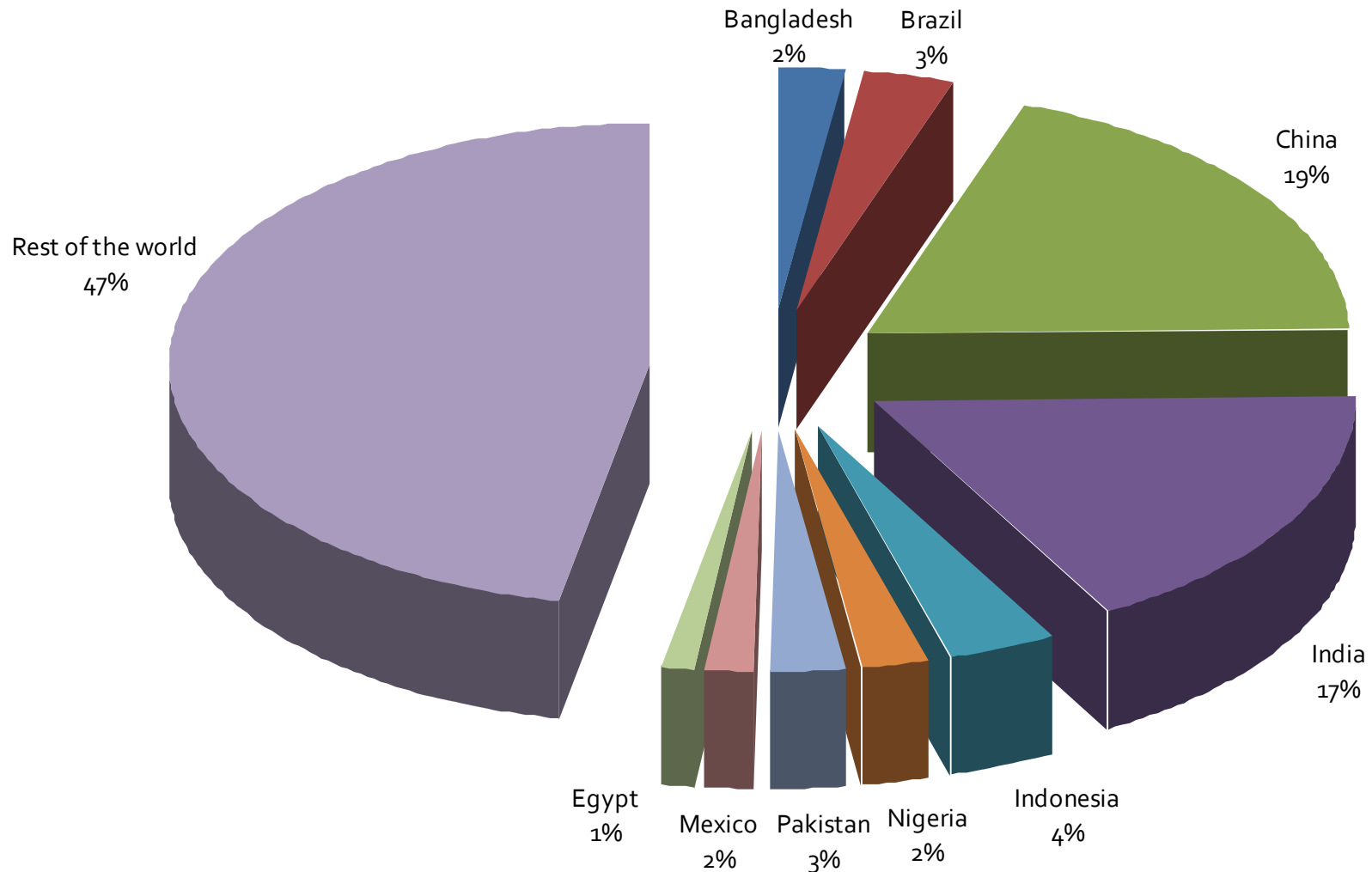
Source: Statistical Annex, UIS, 2011.

From : UNESCO & UNICEF (2012) Asia-Pacific End of Decade Notes on Education for All Goal 1: Early Childhood Care and Education.

Dearth of research evidence in low-resource Asian contexts

- o In low resource contexts what characteristics of programs result in better outcomes?
- o Which dimensions of quality in early childhood programs are the most important?
 - o Physical and psychological Environment
 - o Curriculum
 - o Learning and Teaching Approaches
 - o Teacher-child interactions
 - o Programme management
 - o Community integration

World Population



Asia Pacific Region



Cambodia



Cambodia

- Low access to early childhood programs in Cambodia
- Current state of Cambodian children
- Alternative models of early childhood education (State Preschools, Community Preschools, Home-based programs) exist
- No systematic evaluation of the effectiveness of these alternative programming strategies

Objectives

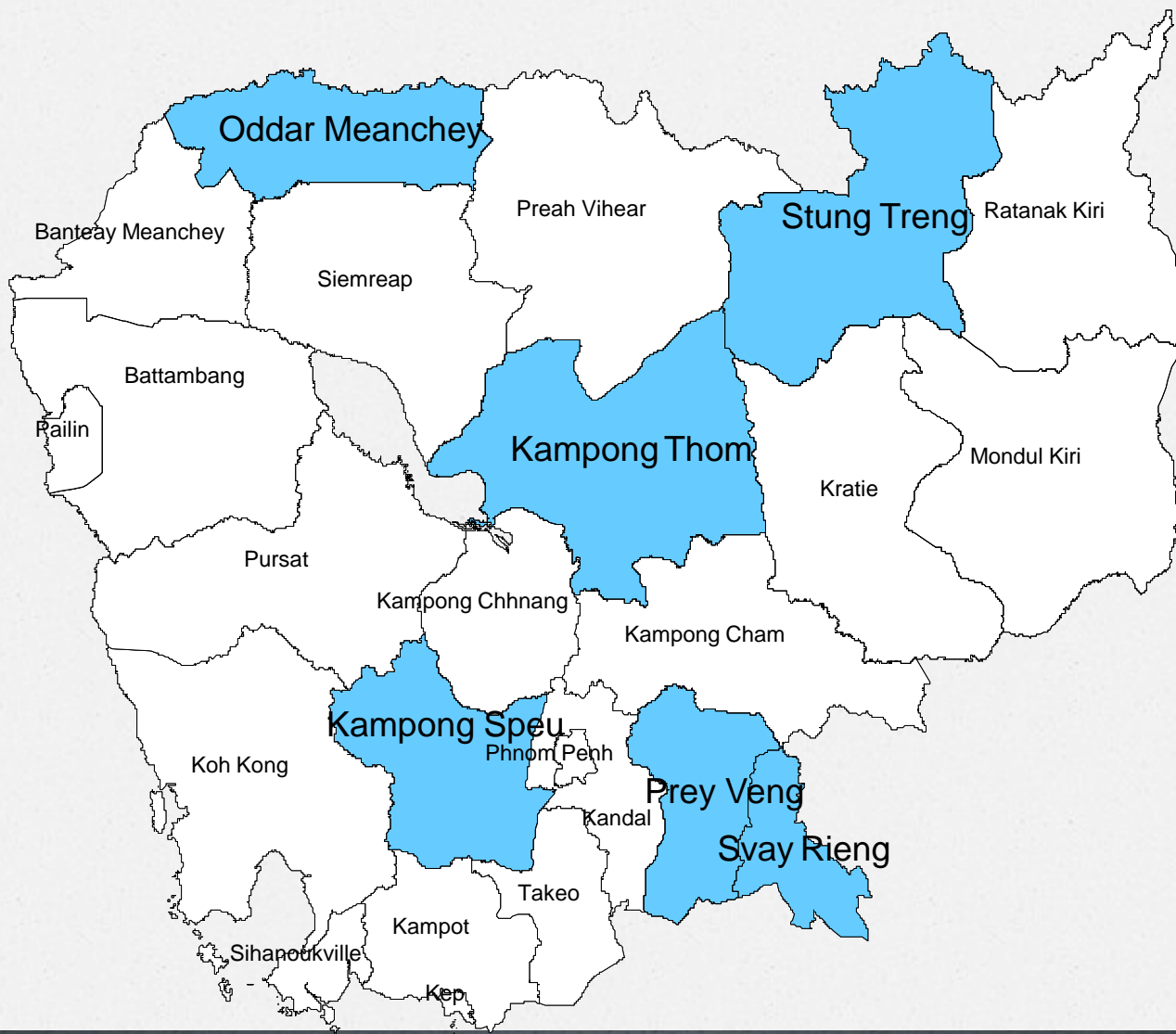
1. To assess the effectiveness of the State Preschool (SPS), Community Preschool (CPS) and Home-based programmes (HBP) on school readiness developmental outcomes (Rao et al., 2012a)
2. To examine the long term effects of preschool participation on school enrollment, grade repetition and drop-out rates at the end of Grades 1, 2 and 3.

Early Childhood Programs

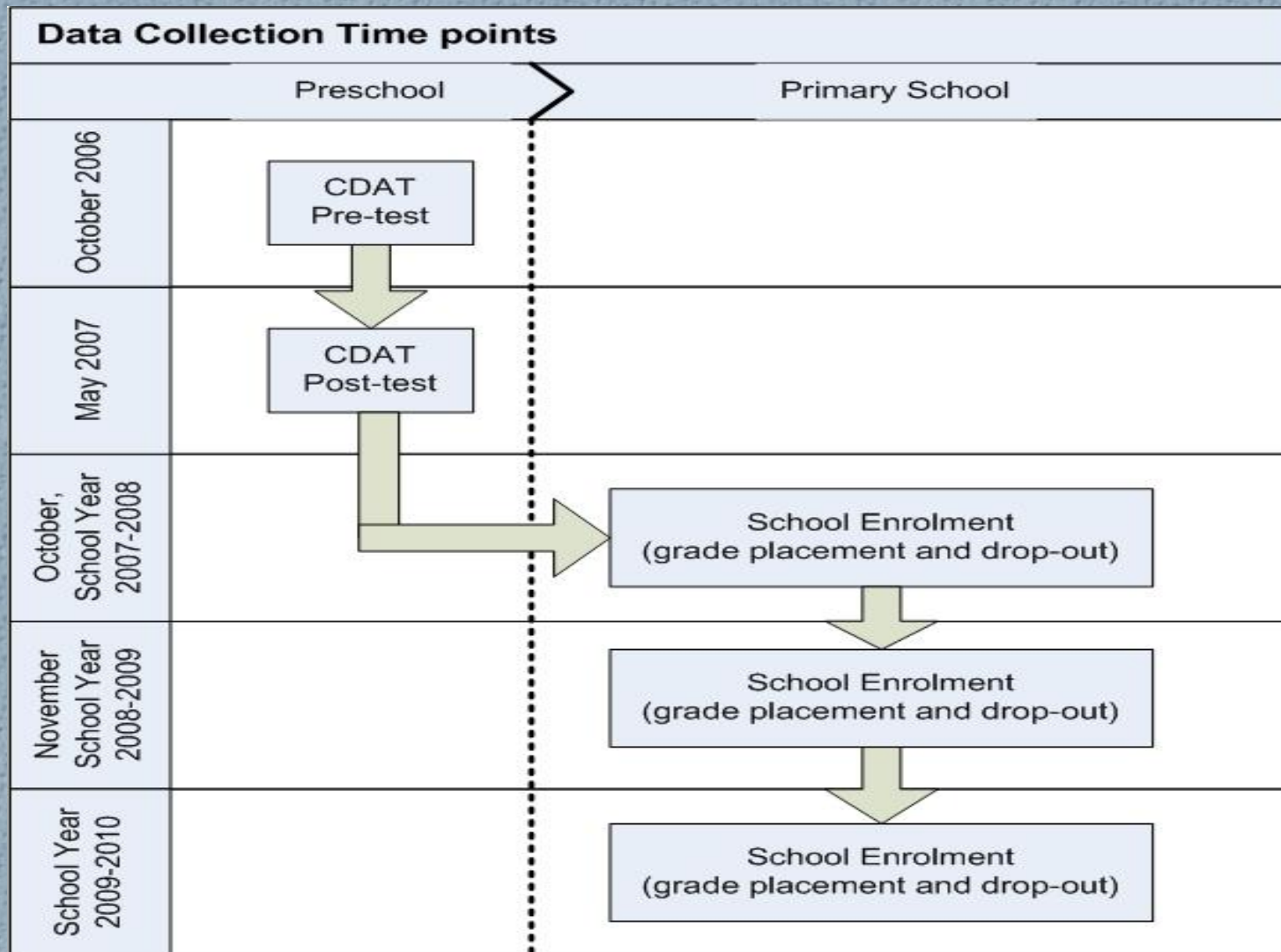
Indicators	State Preschools	Community Preschools	Home-based Programs
Year started	Before 2000	2004	2004
Age range of children	3-6 years (3 classes L1-L3)	3 – 5 years	Birth to 6 years
Number of children covered in 2005 – 2006	75,669	22,265	7,181
Hours per day/week Weeks per year	3 hours per day/ 5 days a week 38 weeks/year	2 hours per day/ 5 days a week 24 – 36 weeks/year	Mother groups and the children typically meet once a week but this varies across projects 24 weeks/year
Establishment	Responsibility of the MoEYS	Responsibility of Commune Councils	Responsibility of Commune Councils
Curriculum	MoEYS to be aligned with the ELDS	MoEYS to be aligned with the ELDS	MoEYS to be aligned with the ELDS
Staffing	A teacher who has undergone professional training	A locally recruited and trained teacher	Mothers led by a “core” mother
Staff Training	A 2-year full-time teacher training course after Grade 12	Initial training for 10 day Annual refresher training for up to 6 days a year	Refresher training for 6 days a year
Salary/Incentives	MoEYS Monthly salary of USD 20	Teacher incentive of USD 7.5 per month	Not Applicable

Note. MoEYS is the Ministry of Education, Youth and Sports.

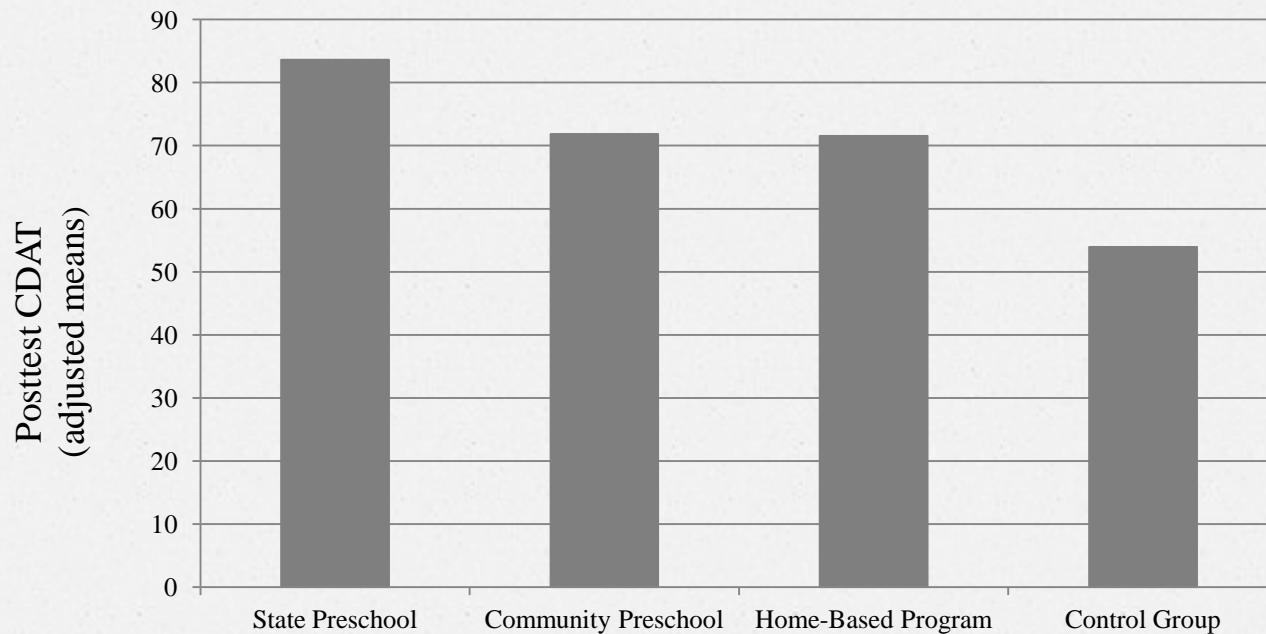
Cambodia



Study Design

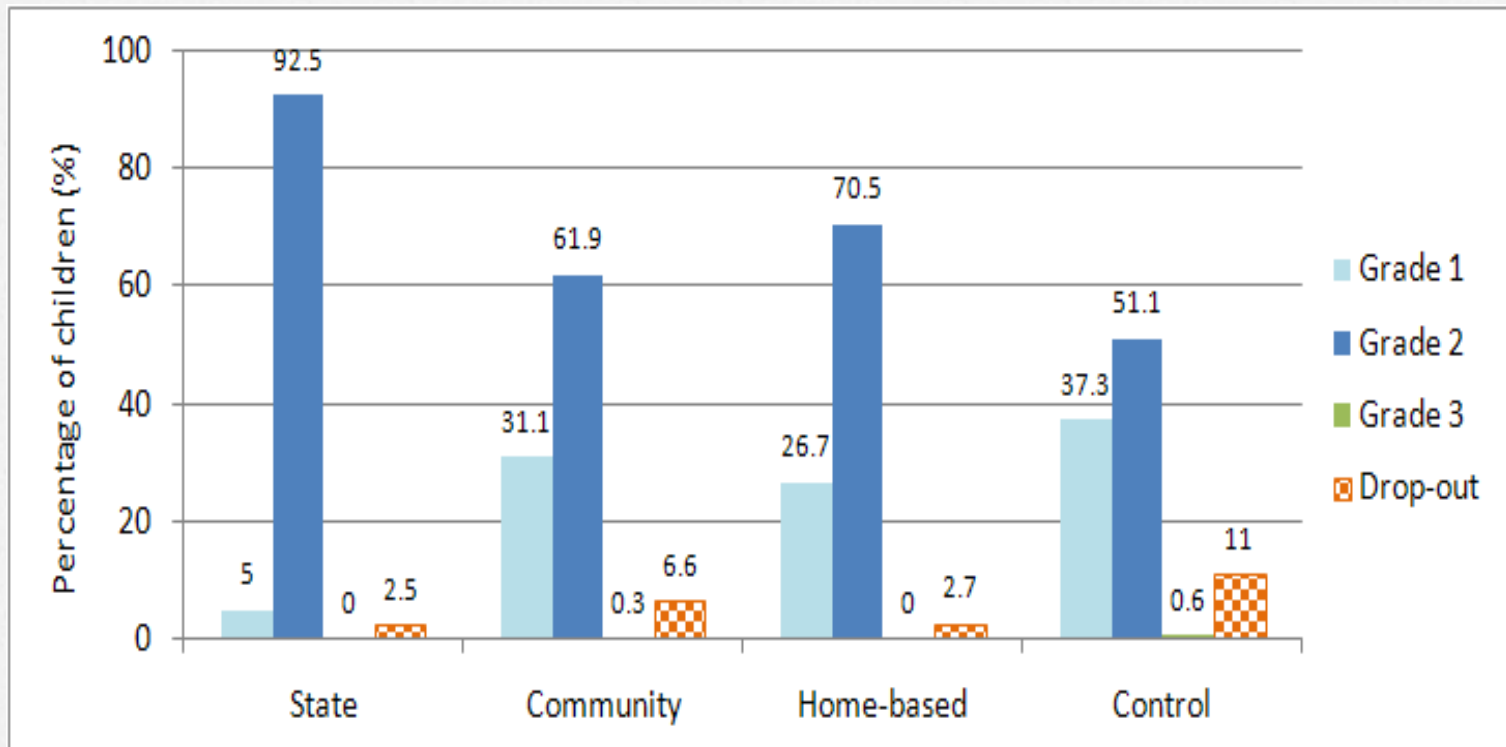


CDAT post-test scores for children with different preschool experiences

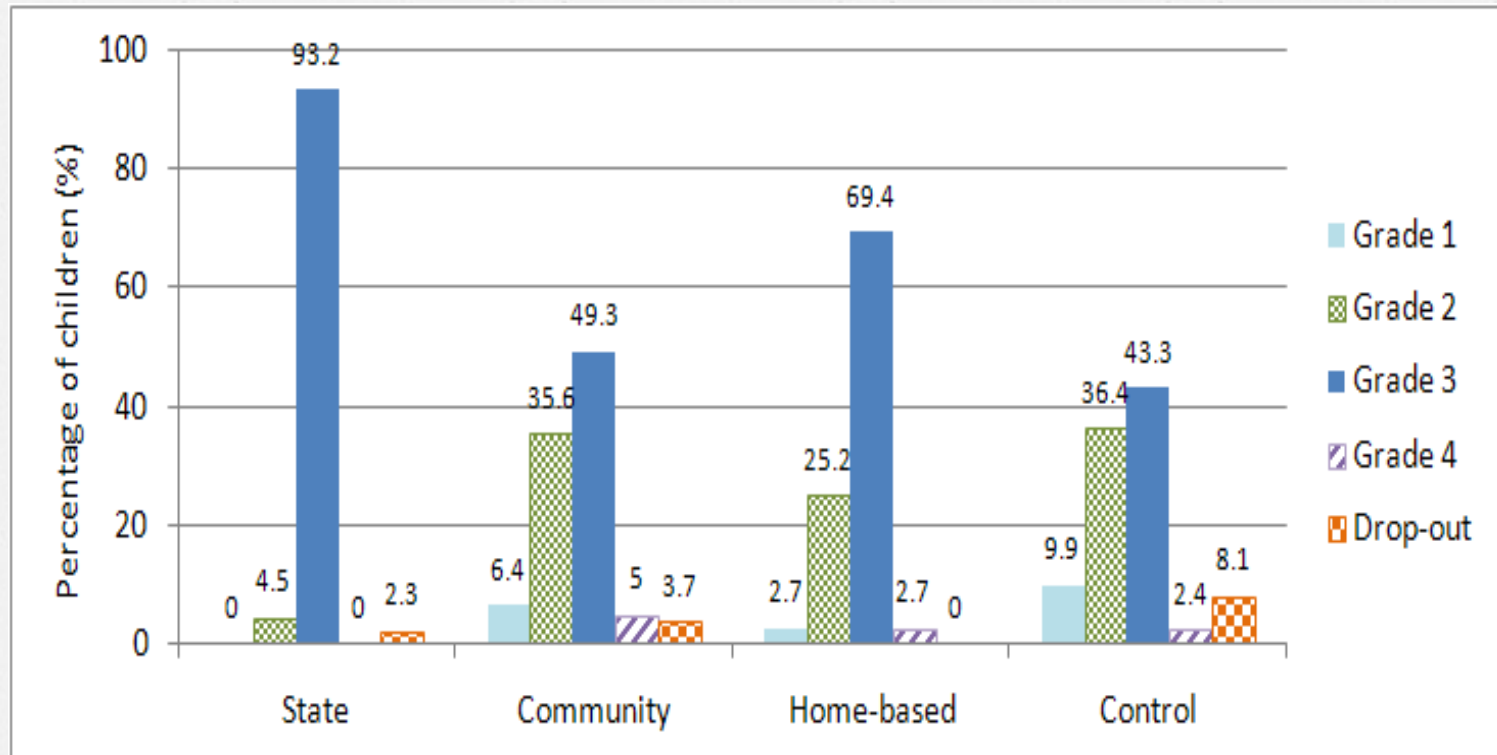




Preschool Participation and School enrollment in Grade 2 (2008-2009)



Preschool Participation and School enrollment in Grade 3 (2009-2010)





Evidence led to new policy

- Government used findings from research to develop a new policy
- Scaled up preschool programs
- The Kingdom has recently mandated that all children, regardless of the type of program they attend, have to attain Early Learning and Development Standards. This will drive equity in quality of provision.

China



Preschool Access in China

- ❖ GER increased from 21 in 1990 to 37 in 2000 and 47 in 2009 (4- to 6-year-olds, UNESCO data)
- ❖ GER in 2007 for 3- to 6-year-olds was 55.6 for urban areas and 35.6 for rural areas (National Bureau of Statistics, 2008)
- ❖ Extrapolating from government data 17 million 3-6 year olds in rural areas attend prior to school programs but 32 million did not

Preschool Programs

	Kindergarten	Separate pre-primary class	Grade 1 class (Sitting-in group)
Management	Educational authorities or communities	Primary schools	Primary schools
Ages of children served	3-5/6	5-6	3-7
Location of program	Independent premises in larger towns	Separate classes in primary schools	Grade 1 classrooms in primary schools
Education of caregiver	Basic training in ECE	Typically no formal teaching qualifications in ECE	Typically having a formal qualification for teaching primary school children but not for those below six
Type of instruction / focus of care	Play-based methods are typically used and usually have child appropriate furnishings, toys, and educational materials.	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.	Grade 1 syllabus
Daily duration of service	Full day	Full day	Full day







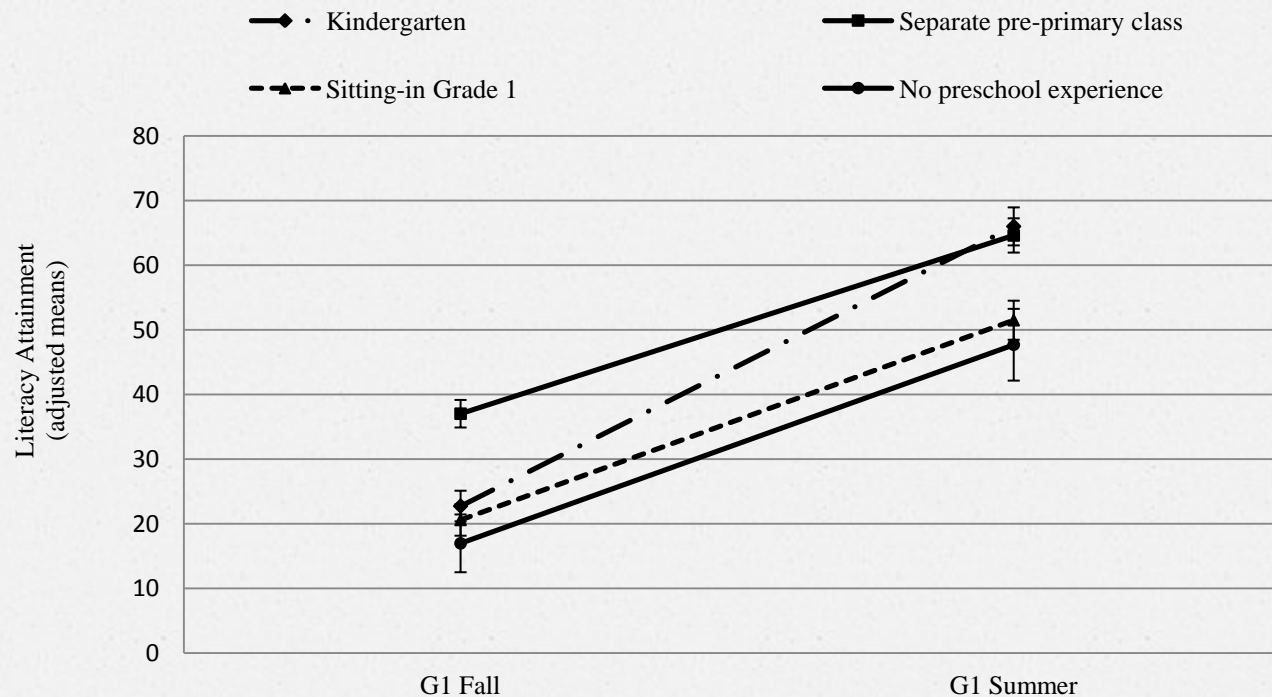
Objectives

- 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.

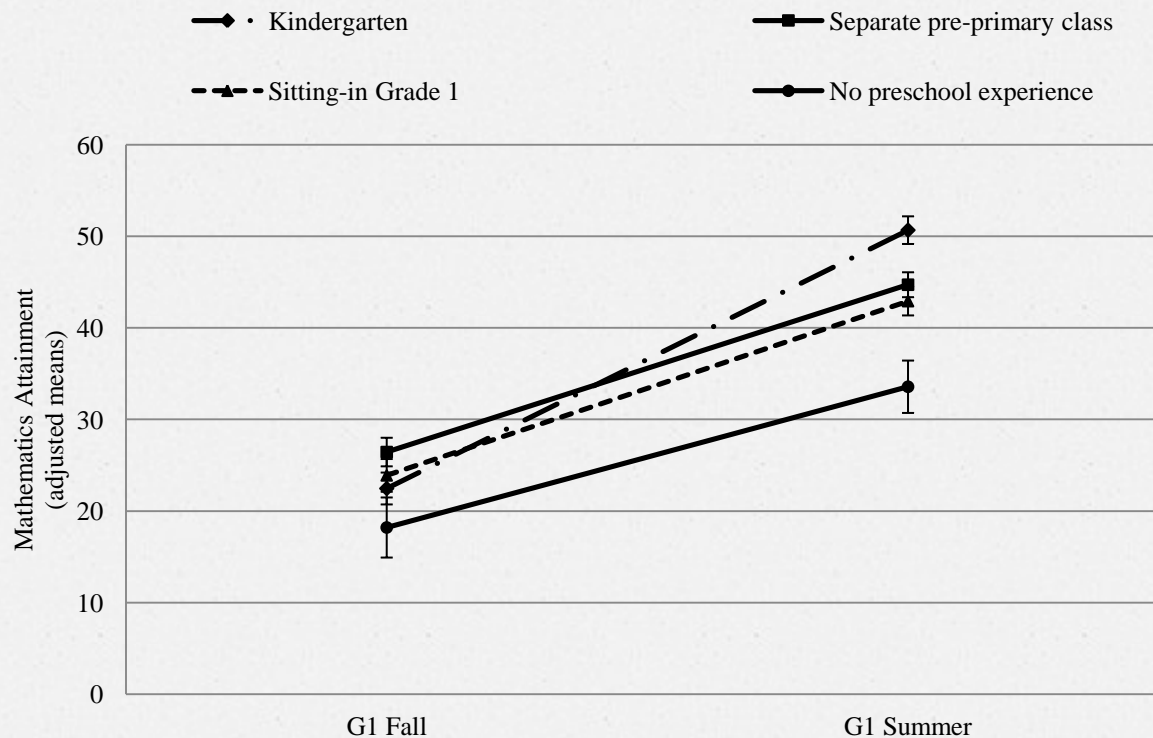
Method

- The school preparedness, and the literacy and mathematics attainment of first graders with different preschool experiences (kindergarten, separate pre-primary class, “sitting-in” a Grade 1 class, no preschool experience) were assessed ($n = 205$).
- Identical tests were administered at the beginning and end of the academic year.
- Preschool programs attended by participating children were directly observed. (Rao et al., 2012b)

Literacy attainment of children with different preschool experiences



Mathematics attainment of children with different preschool experiences



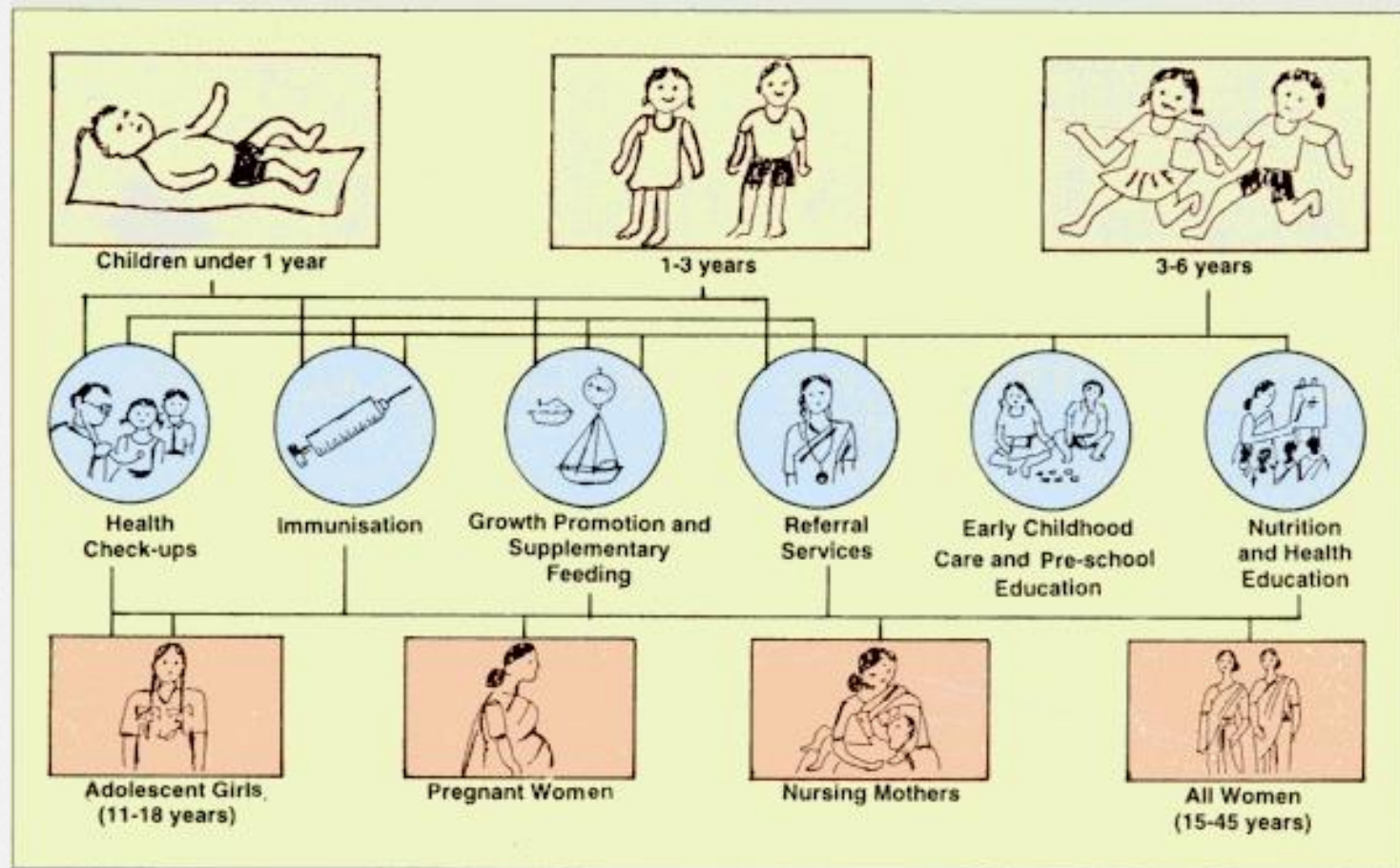
Evidence and Implications for Policy

- Our observational data substantiate concerns which have been expressed about the quality of existing ECE programs in rural China.
- There were variations in the children's attainment depending on the type of program the children had experienced.
- Implications for scaling up ECE programs in rural China.

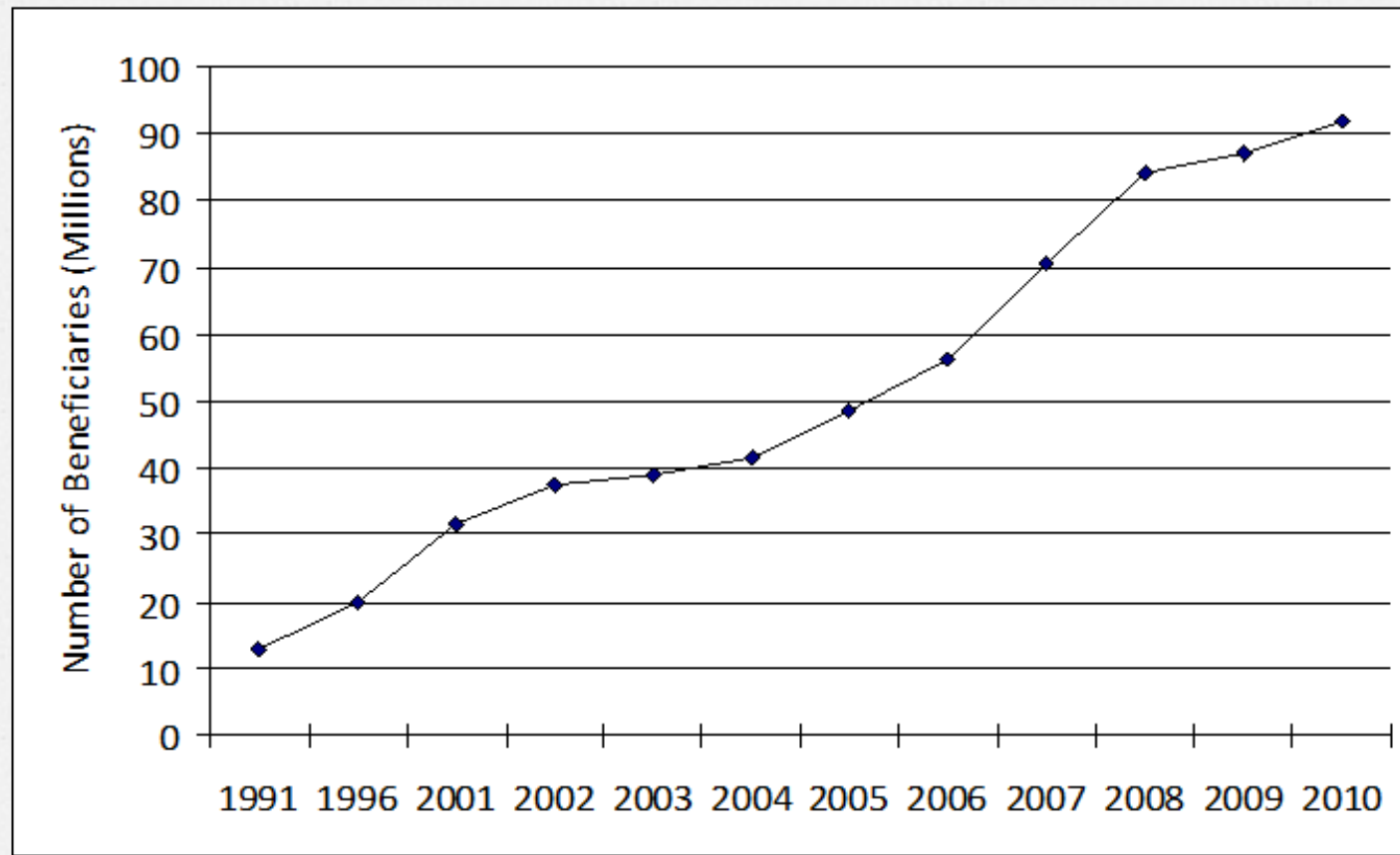
India



Integrated Child Development Services (ICDS)



ICDS beneficiaries



The Anganwadi

- ICDS reaches its beneficiaries through a network of anganwadis (courtyard centers)
- What does an Anganwadi look like?
- What happens there?





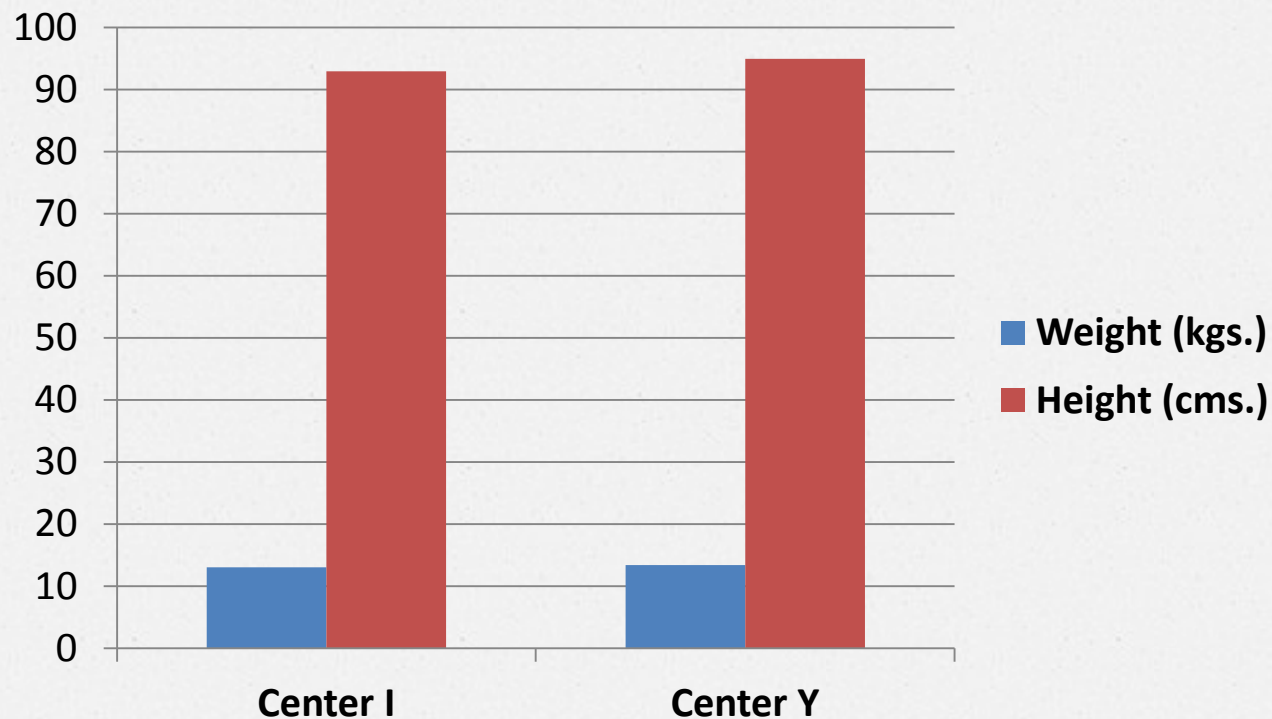
Objectives

- o What is the relationship between the quality of ICDS centers and child development?
- o What aspects of programs (structural and process quality) are associated with better child outcomes?

Method

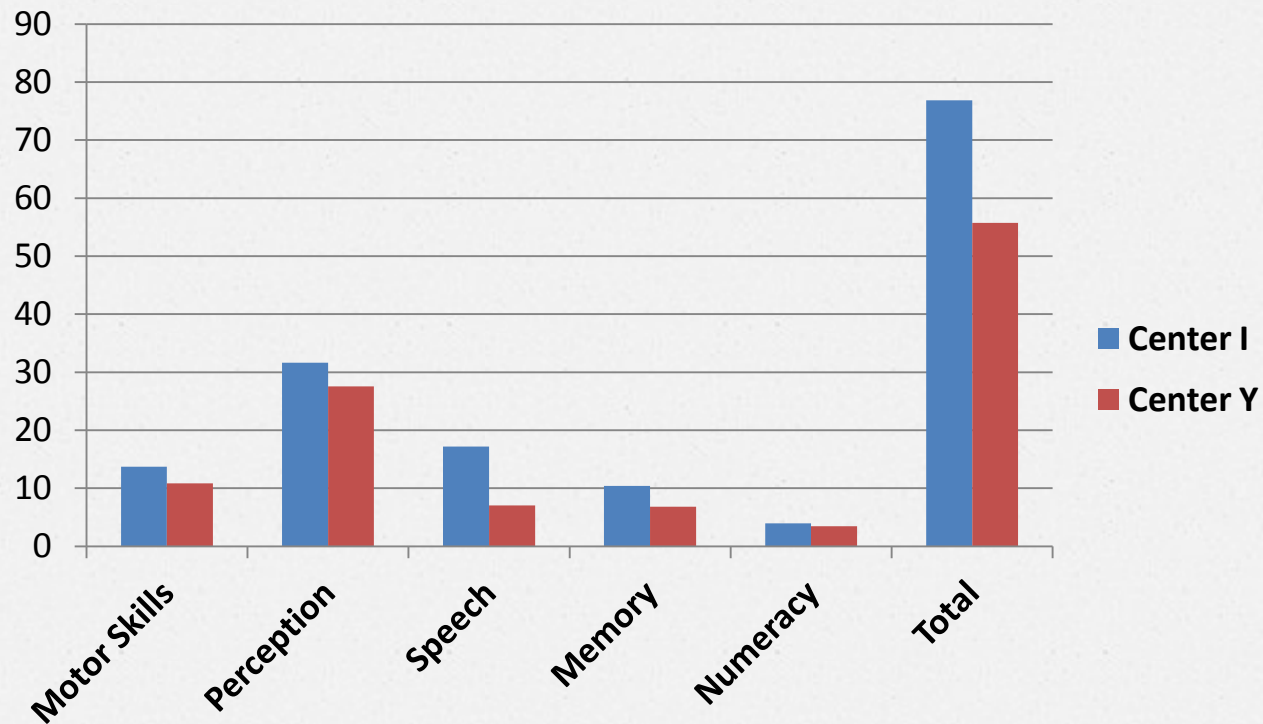
- Examined child outcomes in two different centers (posttest only).
- Assessed the quality of the centers repeatedly. Government funded inputs were the same for both centers so we assumed that there would be no differences in structural quality between the centers.

Physical Development (N = 67)



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

Overall Development



Quality of Centers

	Center I	Center Y
Infrastructure	13	12
Personal Care Routines	6	6
Physical Learning Aids	8	8
Language and Reasoning Activities	9	7
Fine & Gross Motor Activities	10	7
Creative Activities	9	6
Social Development	16	12

Results

- Higher preschool quality was associated with better overall development.
- Age accounted for 35% of the variance while Preschool Quality and Sex contributed another 31% and 5% of the variance, respectively.

Evidence and Implications for Policy

- There were no differences in structural quality between the centers -- one of them had better process quality than the other.
- The higher quality center was closer to the Project Office
- Wide variations in quality of programs across states and districts
- Maintaining quality when taking programs to scale
- Recent changes in Policy

Conclusions

- Studies in Cambodia and China show that “something is better than nothing” in these contexts
- All three studies show that the quality of provision matters

Conclusions

- Given variability in child outcomes as a function of preschool experience → focus on the quality of provision and implement systems of quality assurance which take into consideration the range of programs available, the ages of children served and contextual variables
- Evaluate process and output indicators in addition to input indicators.

Thank you!
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