Previous impact evaluation experience leads to the Early Human Capability Index (eHCI)

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Impact of ECD interventions LMIC

- If we are to be honest – mixed results and effect sizes not as high as we would like (0.1-0.3).

- Intervention problem vs measurement problem??

ECED IE in Indonesia

Indonesia's US$128 million ECED project reached approximately 738,000 children aged 0-6

6,000 poor communities across 50 districts

12,000 ECED personnel

Essentially community run playgroups/child care

Embedded clustered RCT to determine impact

Implementation started in 2006

Child development measured through a range of observational exercises and caregiver responses

- Observational and task based

    Physical health
    Language
    Cognitive (i.e. card sort task)
    Communication skills
    Draw a house / person

2. Caregiver's report

    Overall health and well-being
    Social competence and emotional maturity
    SDQ
    Short EDI

Learnings after 10 years working on the IE

1. We did not not end up using ANY of the direct assessments in the analy[sis]

   a. Not enough variation
   b. Ceiling effect
   c. Too much missing

   > After so much effort in adapting, training, costs etc – a very gloomy state

2. Out of the caregiver/teacher response instruments

   a. Did not end up using the SDQ
   b. Only left with the EDI – but reached ceiling too early limiting our ability to show impact

IE results

- Small effects on cognitive and non-cognitive outcomes found for the poorest of the poor (~0.2)

Brinkman SA, Hasan A, Jung H, Kinnell A, Pradhan M. The Impact of Expanding Access to Early Childhood Services in Rural Indonesia: Evidence from Two Cohorts of Children. World Bank Working Paper Series. July 2015. WPS7372.
http://documents.worldbank.org/curated/en/2015/07/24808116/impact-expanding-access-early-childhood-services-rural-indonesia-evidence-two-cohorts-children

Brinkman S, Hasan A, Jung H, Kinnell A, Nakajima N., Pradhan M. (2017). The role of preschool quality in promoting child development: Evidence from

ECED IE in Tonga

Tonga - Community Play Based Activities (CPBA)

A session of 2 hrs twice a week

Aims to not be in competition with preschool

Focuses on 0-3 age range, however all families are welcome

Children must come with a parent/caregiver

Can be run in many different types of venues

Flexible, adaptable

No fees for parents

Low cost for government

Why develop a new measure of ECD

- Many instruments in ECD are not sensitive to change. A real problem when evaluating interventions aimed at enhancing child development

- Most instruments are licensed and costly. An instrument that is free and without complex licensing agreements can enhance the uptake and scalability, particularly for lower and middle income countries.

- Most instruments have been developed in western cultures. Whereas a locally developed /adapted instrument can reflect local culture and empower local ownership.

- Most instruments are deficit based. However it is just as important to measure developmental capabilities. Instruments should be able to place individual children on a developmental continuum.

- Many instruments in ECD include items that don't predict later outcomes (i.e. lack predictive validity and are inefficient). There is little merit in measuring aspects of development, if they don't actually predict later outcomes.
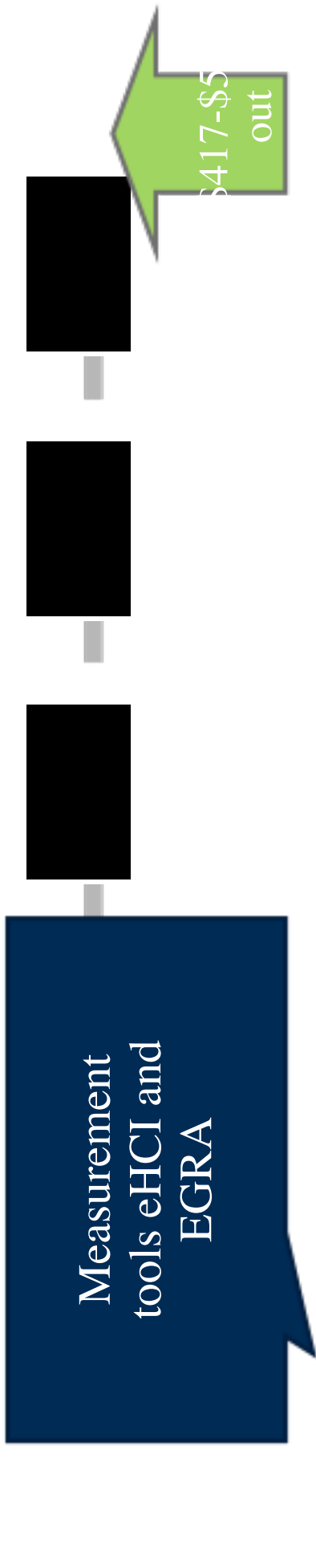
Early Human Capability Index (eHCI)

- Approaches to learning including perseverance
- Social and emotional skills
- Early math and literacy skills
- Physical health incl stunting & wasting
- Communication skills
- Culture/spirituality

Cost benefit early results – Community Playgroups in Tonga

Midline results showing an effect size range from 0.2 - 0.47

Measurement tools eHCI and EGRA

$417-$5 out

$67 in

$540 $67   8
$417 $67   6   for every $ spent you gain $6.00 – $8.00 return

Macdonald K., Brinkman S., Jarvie W., Machuca-Sierra M., McDonall K., Messaoud-Galusi S., Tapueluelu S., Thanh Vu B. (2017). Pedagogy versus School Readiness: The Impact of a Randomized Reading Instruction Intervention and Community-Based Playgroup Intervention on Early Grade Reading Outcomes in Tonga. WPS7944. World Bank.

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Countries currently using the eHCI

Locally adapted versions of the eHCI

1. Tonga (developed, whole country census was conducted in 2014/2015, monitoring and IE)

2. Tuvalu (adapted, whole country census was conduced in 2015)

3. Samoa (adapted, piloted, whole country census in 2016)

4. Kiribati (adapted, whole country census conducted early 2017)

5. Laos (adapted, piloted, and being used in a large scale IE – *note using MELQO also*)

6. China (adapted, piloted, over 200,000 children so far and continuing to roll out)

7. Brazil (adapted, piloted and being used to evaluate interventions and now monitoring)

8. Peru (adapted, piloted and being used to evaluate interventions)

9. Bangladesh (being translated and piloted now for an IE)

Interest in:

- Australia (Aboriginal remote communities), East Timor, Nairobi and Columbia

MELQO

- Some of the items from the eHCI have been included in the parent/teacher version of the MELQO

Early Human Capability Index (eHCI)

Validity/reliability work to date

- Tonga
  - Rasch, inter-rater reliability (parent to teacher), discriminant validity, predictive, sensitivity to change
- Brazil
  - Concurrent, construct, longitudinal comparative sensitivity to change, repeat test reliability
- Laos
  - Concurrent, construct, discriminant (will be tested for predictive and sensitivity to change through the impact evaluation)

Early Human Capability Index (eHCI). Advantages

- Contains items that predict well
- Sensitive to change
- Culturally adaptable
- Capabilities and delay
- Efficient
- Free and Unlicensed
- Easy to use

Early Human Capability Index (eHCI) Disadvantages/risks

- I don't know who is also using the eHCI
  - Don't know how how it's being implemented
  - Cant track adaptations/translations
  - Potentially a reputational risk
  - Lessons from implementation not necessarily shared with new users / continuous improvement potentially more difficult

- Would like to be able to raise funds for an authoritative/official website to host the different versions of the eHCI where users can