

### Rationale

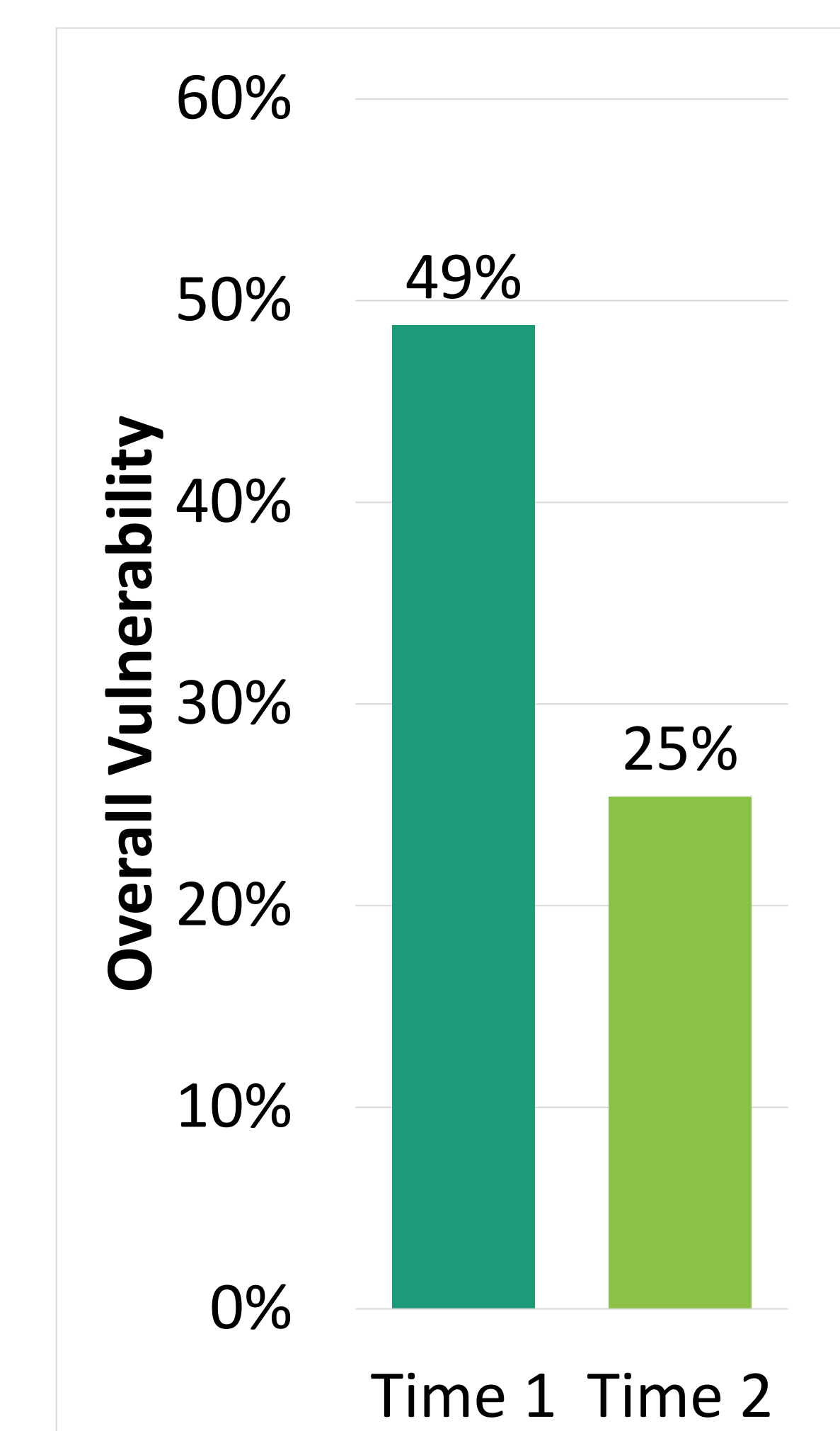
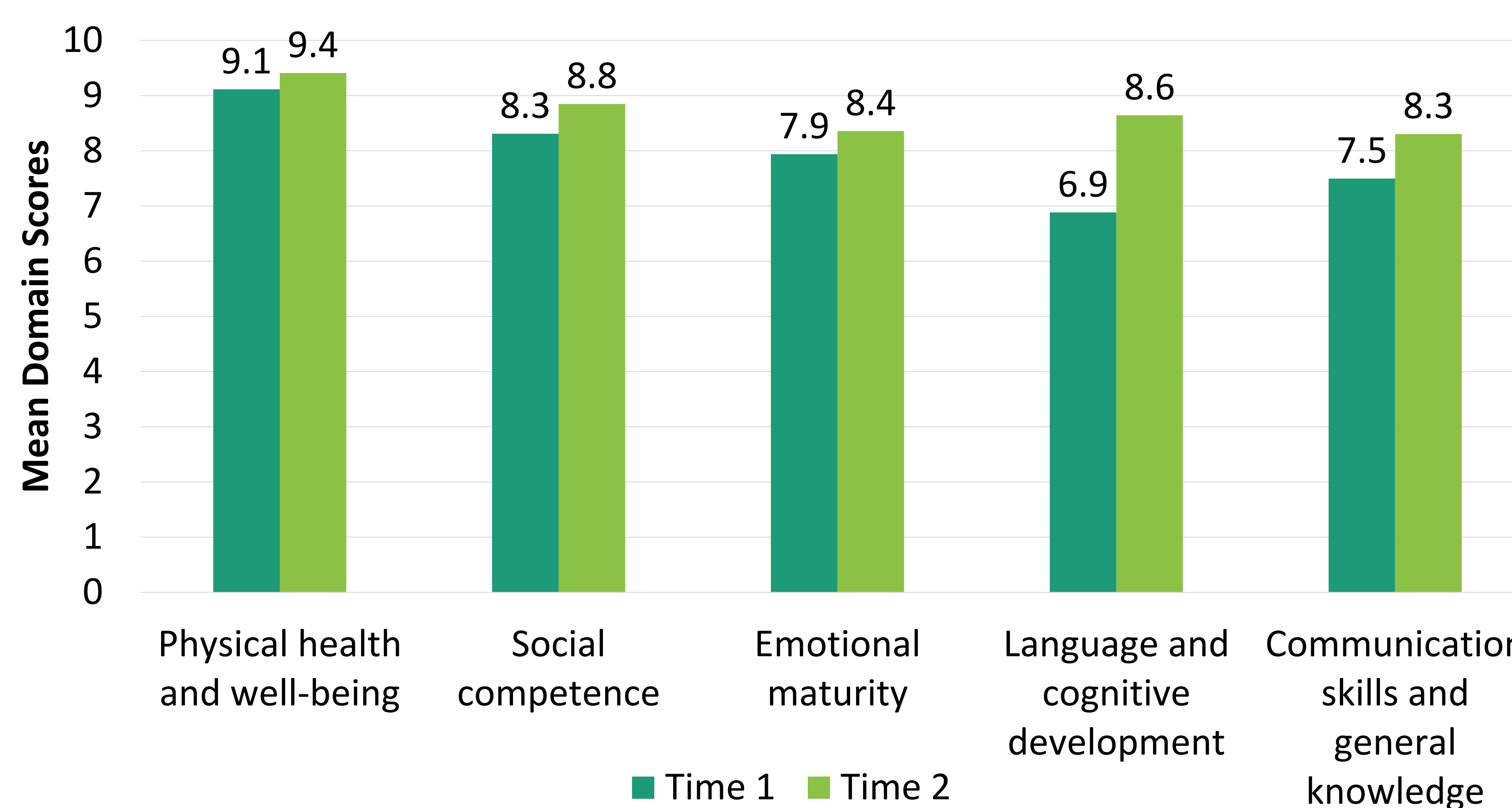
The Kyrgyzstan Early Education Project (KEEP) has been implemented in the Kyrgyz Republic to improve the accessibility, quality, and outcomes of early education for all children. Earlier evidence indicated that such investment has potential for increasing educational achievement for children in Kyrgyzstan.

To this end, an expanded kindergarten program was introduced: universally accessible and focused on children's readiness to learn in primary school, focused on academic areas. One of the project components included introduction of a measurement system that would allow monitoring the developmental outcomes for participating children.



### Purpose

This poster describes the results of the use of the Early Development Instrument (EDI) to monitor the progress of a cohort of children in Kyrgyzstan, who participated in the Community-based Kindergartens (CbKs) under KEEP.



Figures 1 and 2: Mean domain scores (left) and overall vulnerability (right) in the pre-baseline (Time 1) and baseline (Time 2) samples at the national level in Kyrgyzstan.

### Early Development Instrument

The EDI is an internationally-validated teacher-completed instrument measuring the developmental status of kindergarten-aged children on five domains: Physical Health and Well-being, Social Competence, Emotional Maturity, Language and Cognitive Development, and Communication Skills and General Knowledge (Janus & Reid-Westoby, 2016). Children are classified as "vulnerable" if their scores fall below a specific threshold on a domain; "overall vulnerability" indicates that a child scored below the given threshold on at least one of the five domains.



### Methods

The instrument and accompanying guide was translated into Kyrgyz and Russian and adapted to the Kyrgyz Republic, then validated in a pilot study in collaboration with the Ministry of Education and Science.

The finalized instrument was applied to a cohort of children participating in the CbKs in schools in 13 regions in 2015/16 school year twice: Time 1 was in November 2015, and Time 2 in February/May 2016. This design allows tracking the progress of children over the course of the program. Because no control group (children not participating in the program) was available we did not assess causality in any kind of policy effect. We examined the change in EDI scores over the course of the program.

Table 1: Effect sizes (difference/standard deviation) of changes in mean scores between Time 1 and Time 2

Domain	Effect Sizes
Physical Well-Being	0.29
Social Competence	0.35
Emotional Maturity	0.28
Lang/Cognitive Development	1.02
Communication/Gen Knowledge	0.38

### Results

1. On average, children's EDI scores have improved over the timeframe of the program (Fig. 1 and 2). This improvement was particularly large in the Language and Cognitive Development, a known precursor to academic achievement later in the life course (Table 1).
2. Several social and demographic inequalities observed between the children in the sample (i.e. by mother's education/measures of wealth) diminished over the course of the program.

### Discussion/Conclusion

Findings indicate that 1) achieved gains were largest in the domains addressed in CbKs, 2) accessible pre-school education should be continued in Kyrgyzstan, and coverage should be expanded to as many children as possible in the country.

Further understanding of those gains can be strengthened by following children in the current sample with assessments of learning in primary grades. This will allow for examination of lasting effects of the CbKs in Kyrgyzstan and contribute to the understanding of the impact of early education.

### References

Janus, M., & Reid-Westoby, C. (2016). Monitoring the development of all children: The Early Development Instrument. *Early Childhood Matters*, 125, 40-45.