

Prevalence of Functional Difficulties at School Entry in Ethiopia, Kyrgyzstan, Peru, and Vietnam: Implications for Data Use and Interpretation

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Introduction

Sub-optimal health in early childhood is a consistent risk factor for poor academic and behavioural outcomes.

In high-income countries, 5-year-old children with at least 1 functional difficulty (FD) represent approximately 15% of the population and have poorer developmental health at school entry compared to their typically-developing peers (Janus 2011).

The study's objective is to estimate the prevalence of children with FDs in samples from the following four low- to middle-income countries:

- Ethiopia: a regional population of children attending a kindergarten program
- Kyrgyzstan: a regional sample of children in "Community-based-Kindergartens"
- Peru: an individually-based nationally representative sample
- Vietnam: a representative sample from several regions

We also examined how having a FD is associated with children's development.

Methods

Sample:

	Ethiopia	Kyrgyzstan	Peru	Vietnam
N	250	596	18,601	7,706
Mean age (SD)	6.21 (0.72)	6.80 (0.43)	5.94 (0.30)	5.84 (0.30)
% male	54.4	52.5	49.2	52.4
Sample base	8 areas in Addis Ababa	13 regions and 56 schools in two school districts	nationally representative sample of children attending kindergarten	385 communes within 102 districts and 55 provinces

Measures:

The Early Development Instrument (EDI; Janus & Offord, 2007) is a 103-item, teacher-completed, population-level checklist that assesses children's developmental health at school entry. The EDI measures children's developmental health in five domains:

- Physical Health & Well-Being
- Social Competence
- Emotional Maturity
- Language & Cognitive Development
- General Knowledge & Communication Skills

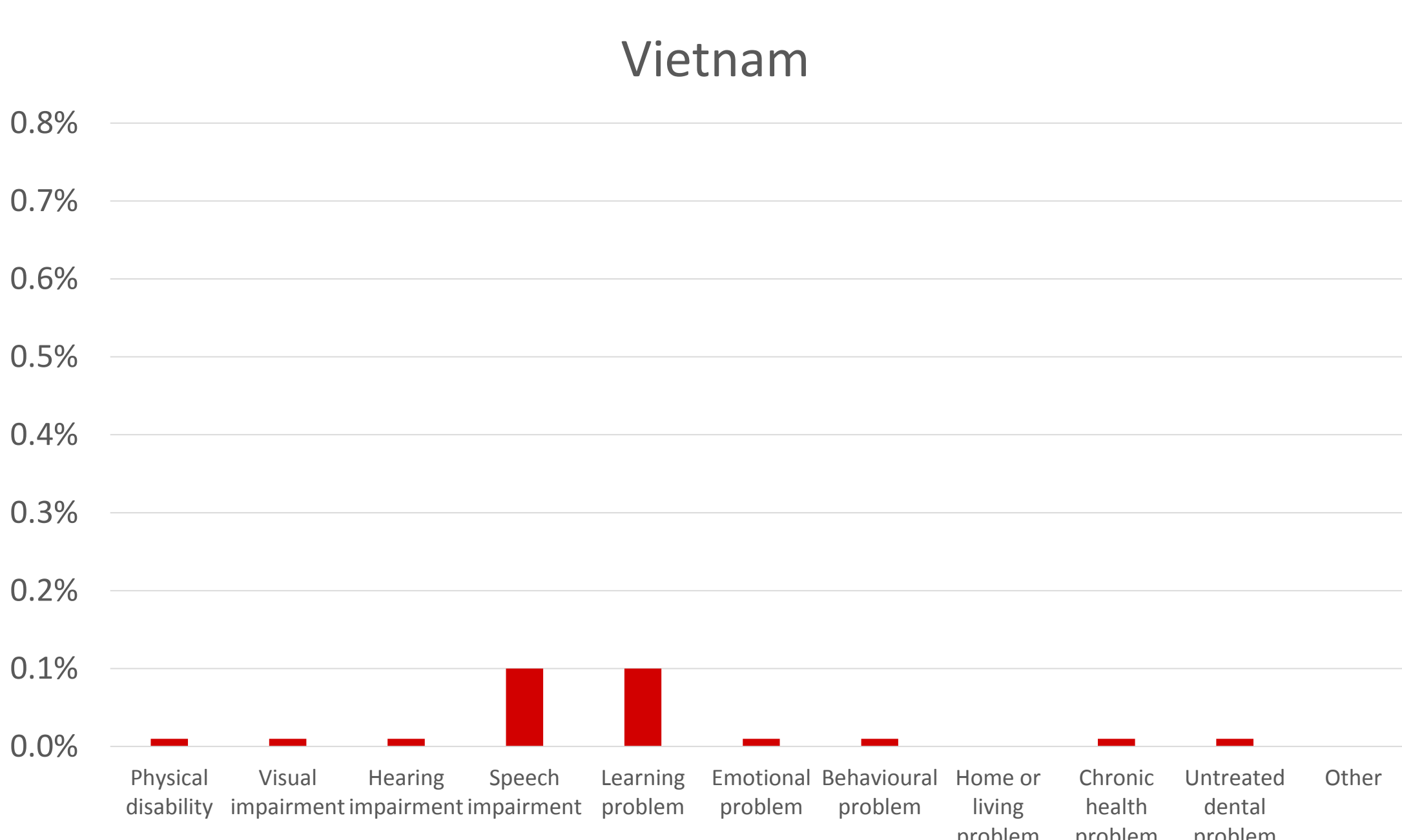
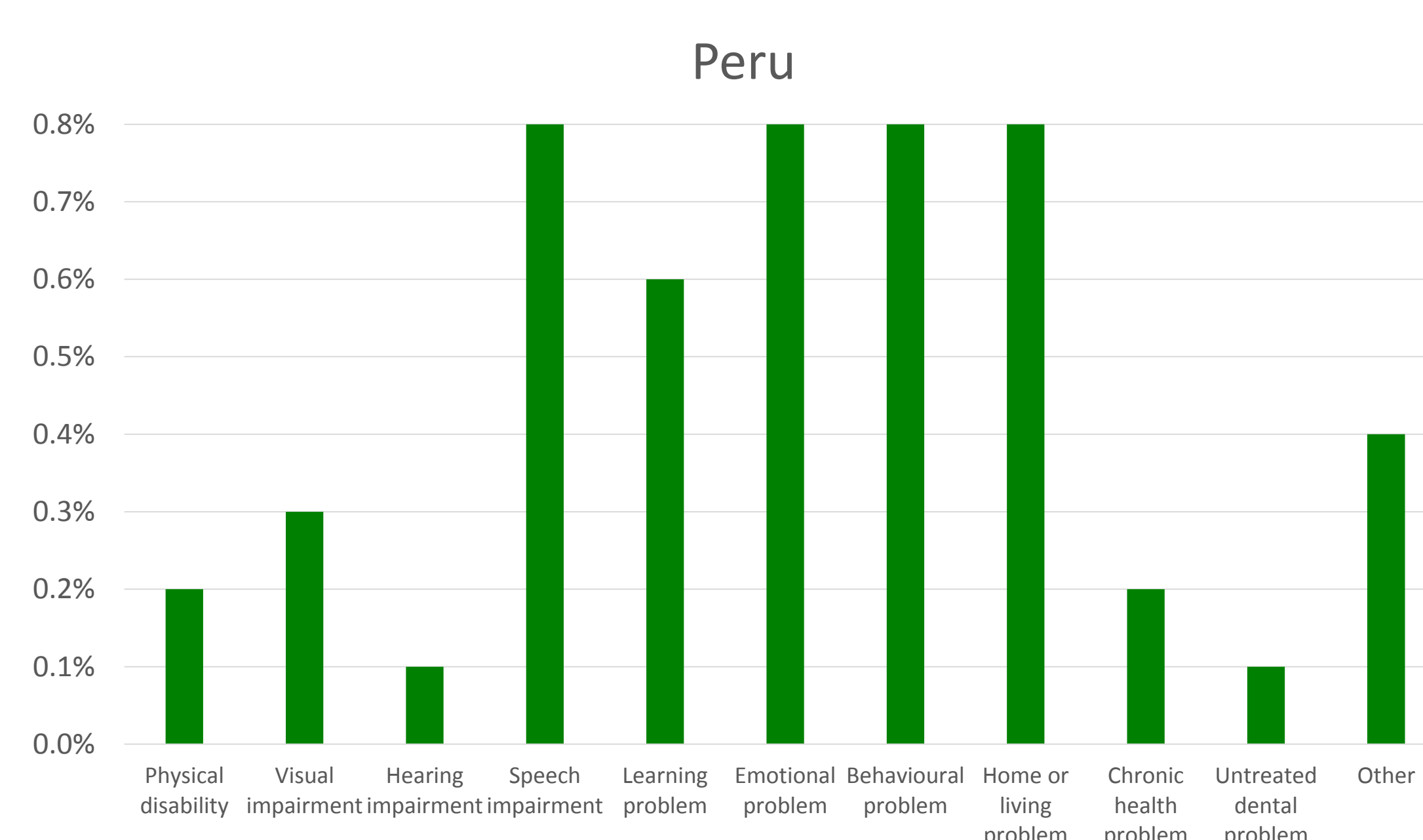
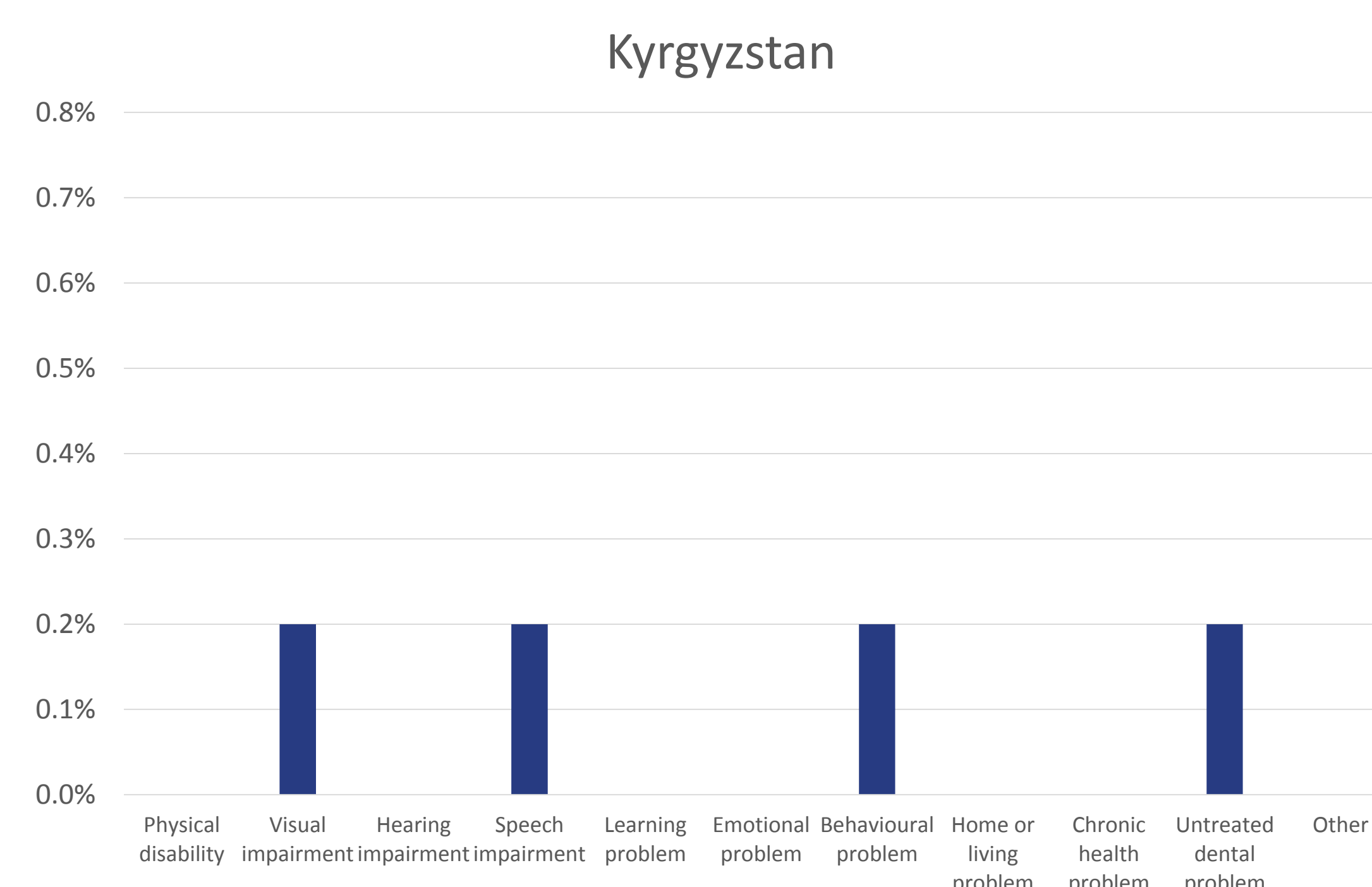
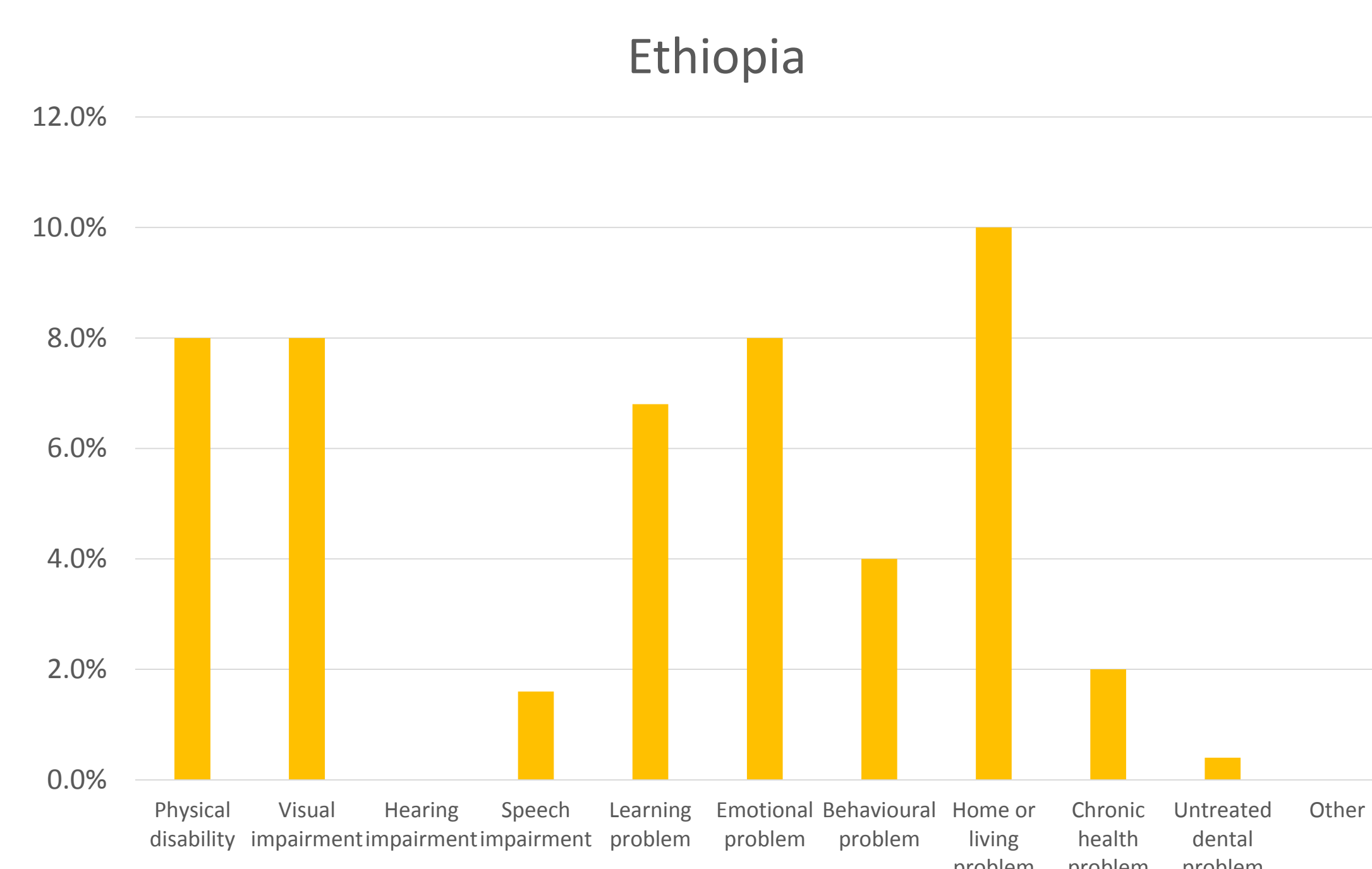
Statistical analyses:

- Comparison of prevalence rates of FDs in the 4 countries
- Comparison of children's development (EDI domains) between children with and without FDs in each country

Results

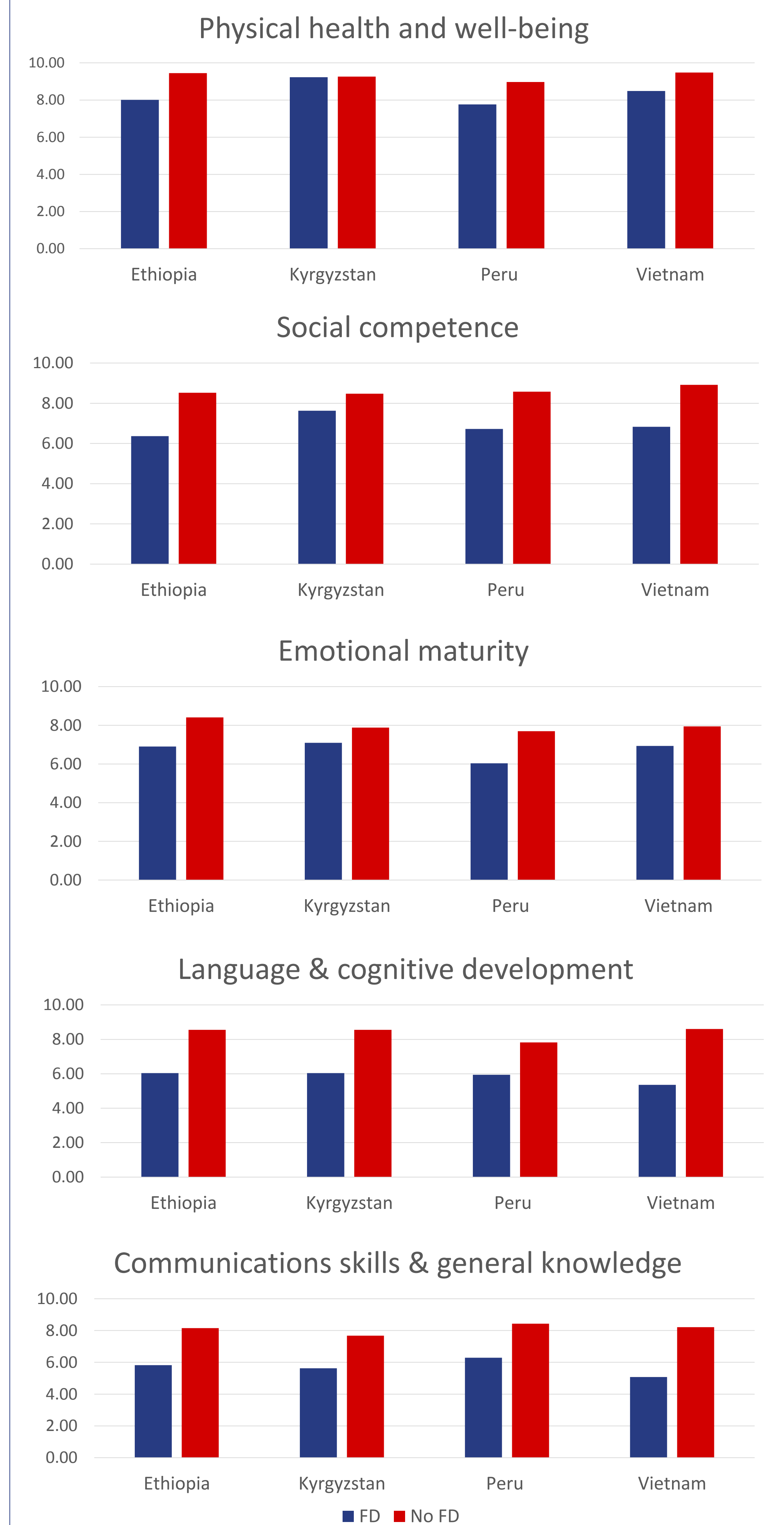
	Ethiopia	Kyrgyzstan	Peru	Vietnam
% of any FDs	20.4%	0.5%	3.4%	0.2%

Prevalence of functional difficulties in the 4 countries (note different scale on the first graph)



Results

Domain Scores



Discussion

There were marked differences in the overall prevalence, as well as in the prevalence of specific FDs among the 4 countries. Prevalence of FDs may be influenced by school admission systems. This could contribute to children with FDs facing greater challenges in obtaining equitable education compared to their typically-developing peers. The impact of FDs on child development is noticeable across countries, with the largest observed in Ethiopia.

Future research needs to combine evidence on access to education with educational outcomes for children with FDs to facilitate our understanding of inclusion, as well as, impact on development.

References

- Janus, M. & Offord, D. (2007). Development and psychometric properties of the Early Development Instrument (EDI): A measure of children's school readiness. *Canadian Journal of Behavioral Science*, 39(1), 1-22.
- Janus, M. (2011). Impact of impairment on children with special needs at school entry: Comparison of school readiness outcomes in Canada, Australia, and Mexico. *Exceptionality Education International*, 21(2), 29-44.

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For inquiries about the use of the Early Development Instrument please visit: <https://edi.offordcentre.com/contact/interested-in-using-the-edi/>