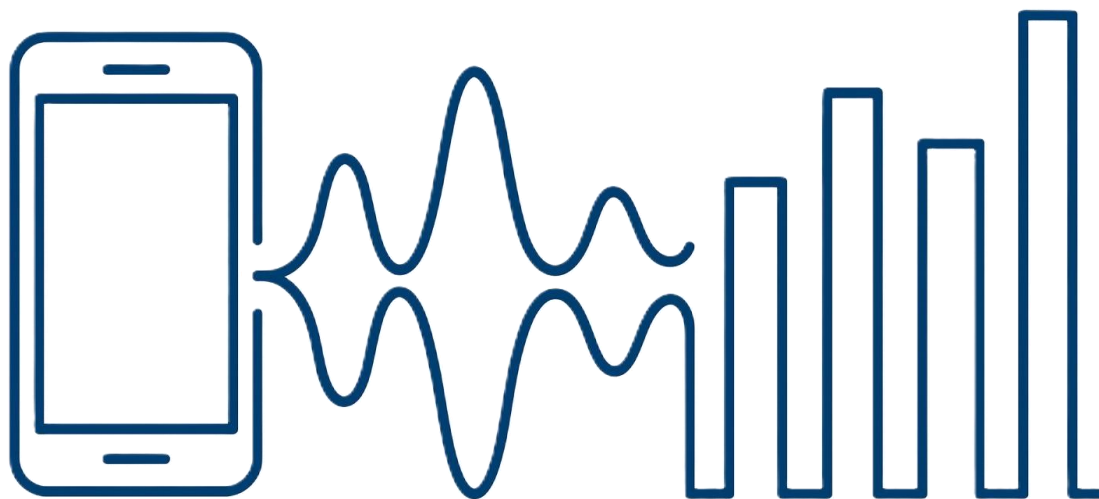


Collecting Sensitive Data by Phone: Experimental Evidence on Child Disability

Juan Baron & Lauren Dahlin,
The World Bank



Conference Presentation

*Better Data for Better Jobs and Lives:
Innovations in Survey Measurement in the Age of AI*

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Motivation

Key Problem: Data on disabilities in children is under-collected.

Face-to-Face Surveys



- Standard for sensitive topics
- Build trust and rapport
- Non-verbal cues
- Expensive

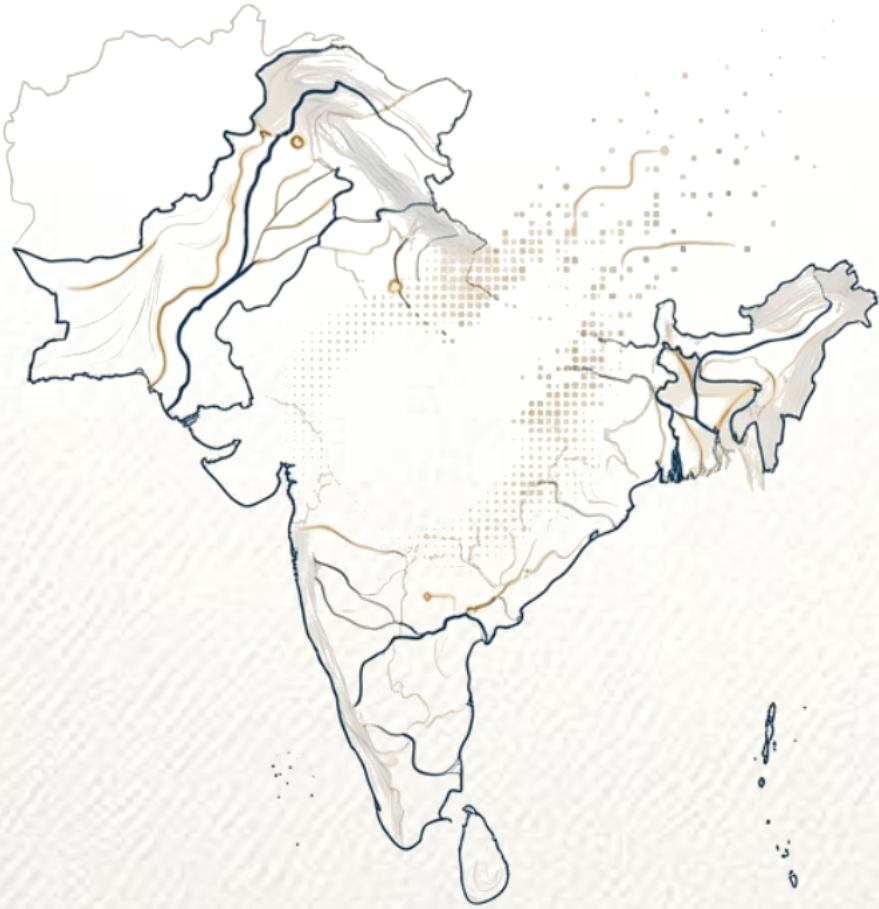
Phone Surveys



- Cost-effective, highly scalable
- Rapid data collection, especially where phone penetration is high
- Risk of break offs (hang ups)

Key Question Do the advantages of phone surveys outweigh potential risks for sensitive measures like childhood disability?

Context and Literature



Over 64 million children with disabilities in South Asia (UNICEF 2021)

- Child Functioning Module (CFM) was developed to measure childhood functional disability at a population level (Loeb et al. 2018)

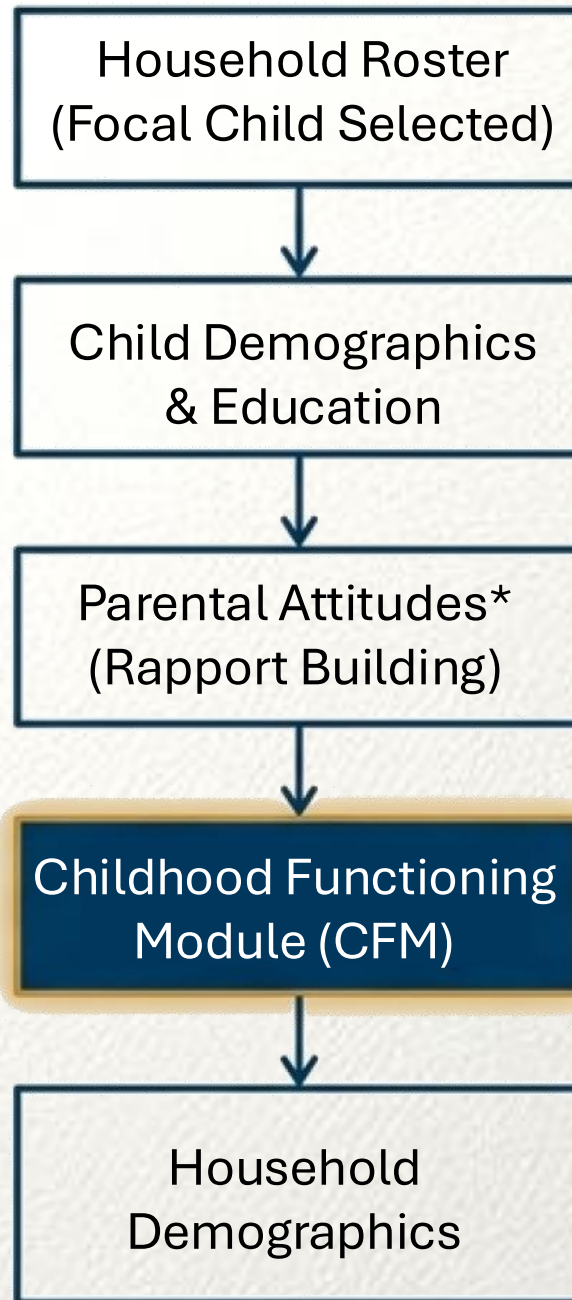
80% cell phone penetration rate in Pakistan (Asian Development Bank 2025)

- Mobile phone data collection in low- and middle-income countries is practical for population-level estimates (Gibson et al. 2017)
- Survey respondents are very sensitive to framing and design choices, especially for sensitive items (See review by Stantcheva 2022, NBER)

Research Gap First study to test the sensitivity of responses to the CFM to administration by phone and to design choices.

Instrument

Unlike the version for adults, there is no official short form for the CFM. Under the guidance of members of the Washington Group, the WG/UNICEF CFM was shortened from 24 items to 18.



The survey was designed to mimic a large-scale household questionnaire and to take less than 25 minutes.

*Parental attitudes about the importance of education and the challenges of sending their children to school.

Instrument – Child Functioning Module

- Functional domains: Seeing, Hearing, Walking, Self Care, Speaking, Learning, Remembering, Concentrating, Accepting Change, Controlling Behavior, Making Friends, Anxiety, and Depression

Does [name] have difficulty seeing, even if wearing glasses? Would you say...	1 No difficulty 2 Some difficulty 3 A lot of difficulty 4 Cannot do at all 98 Don't know (do not read) 99 Refused (do not read)
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How often does [name] seem very anxious, nervous or worried? Would you say...	1 Daily 2 Weekly 3 Monthly 4 A few times a year 5 Never 98 Don't know (do not read) 99 Refused (do not read)
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In Experiment 2, items/domains hypothesized to be more sensitive based on Experiment 1 were moved to the end for the experimental group....

Experimental Design



Experiment 1: F2F vs Phone

Research Question	Does survey mode itself affect the data?
Sample	Caregivers recruited in public marketplaces
Design	Caregivers randomly assigned to complete the survey face-to-face (F2F) or callback via phone



Experiment 2: Random Digit Dialing (RDD) + Order Effects

Research Question	Does strategic question ordering reduce break-offs and non-response?
Sample	Nationally representative via RDD
Design	Experimental group received change in question ordering – sensitive items appeared second

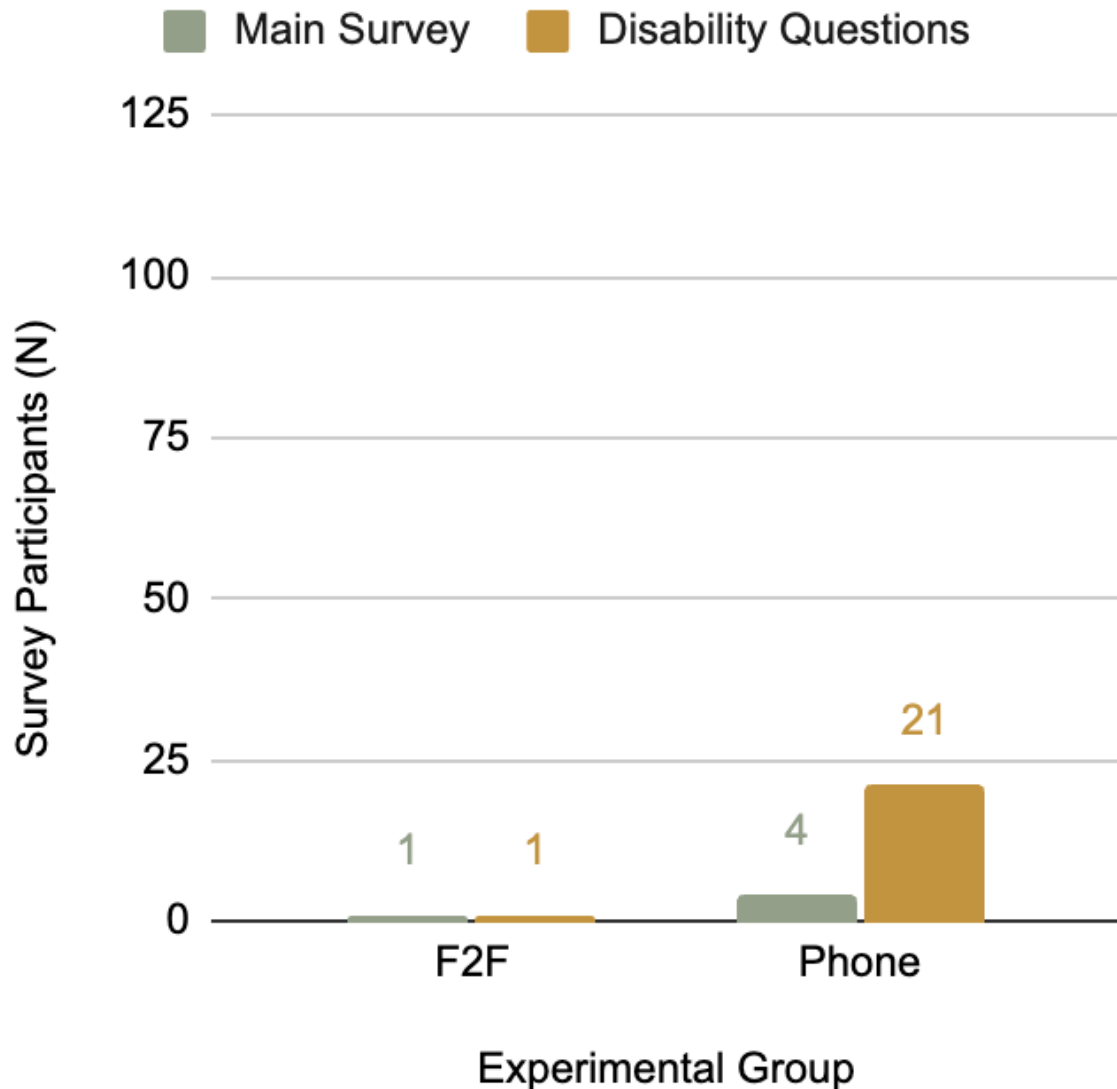
Parents were more likely to report functional difficulty (disability) on the phone (RDD) compared to other national surveys.



Could parents be more open on the phone? Could phone surveys be a more truthful representation of childhood disability?

Our survey is more recent and could reflect actual changes in anxiety and depression in children.

Experiment 1 (F2F) Break Offs

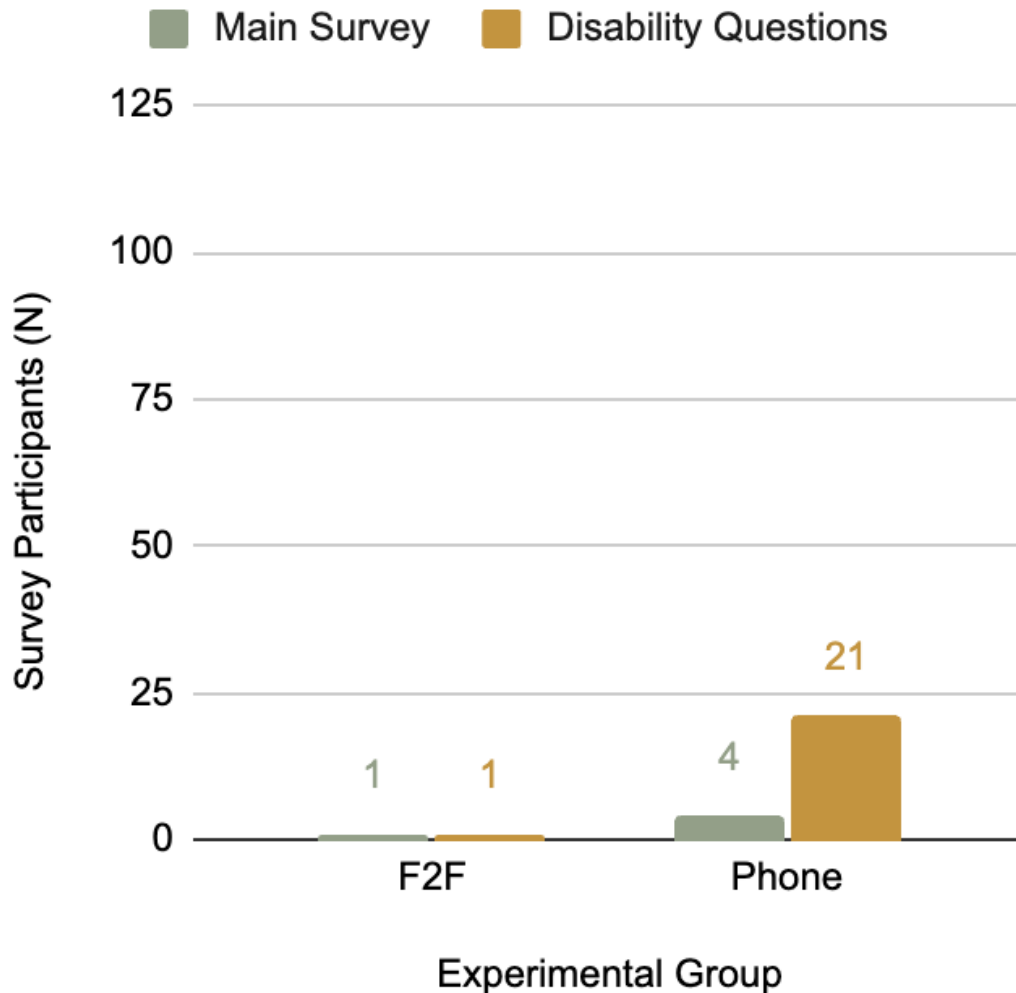


In Experiment 1, breakoffs were low overall, contrary to what we expected from the literature and previous survey experience.

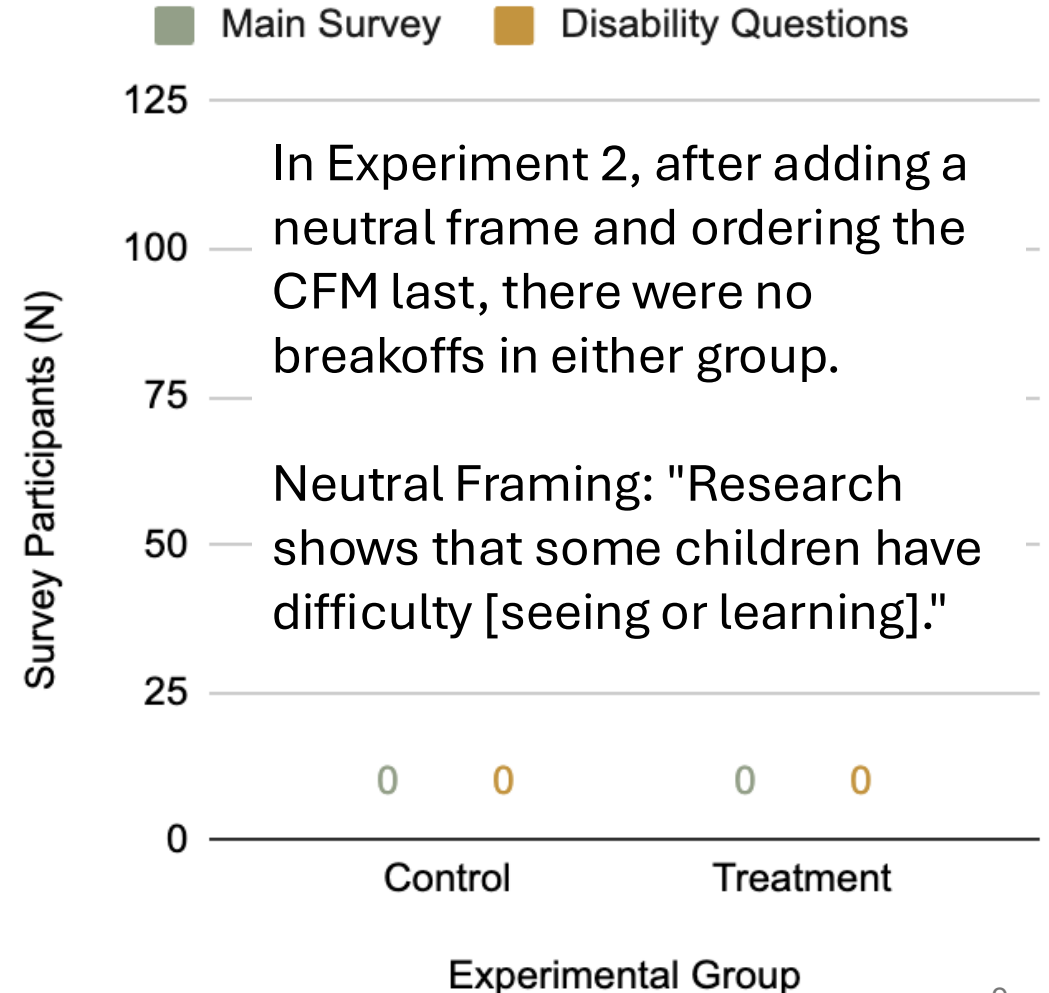
2% of Phone participants broke off (N=879), compared to 0.2% of F2F (N=904).

Careful framing and time to build rapport *likely* reduce risk of break offs on the phone.

Experiment 1 (F2F) Break Offs

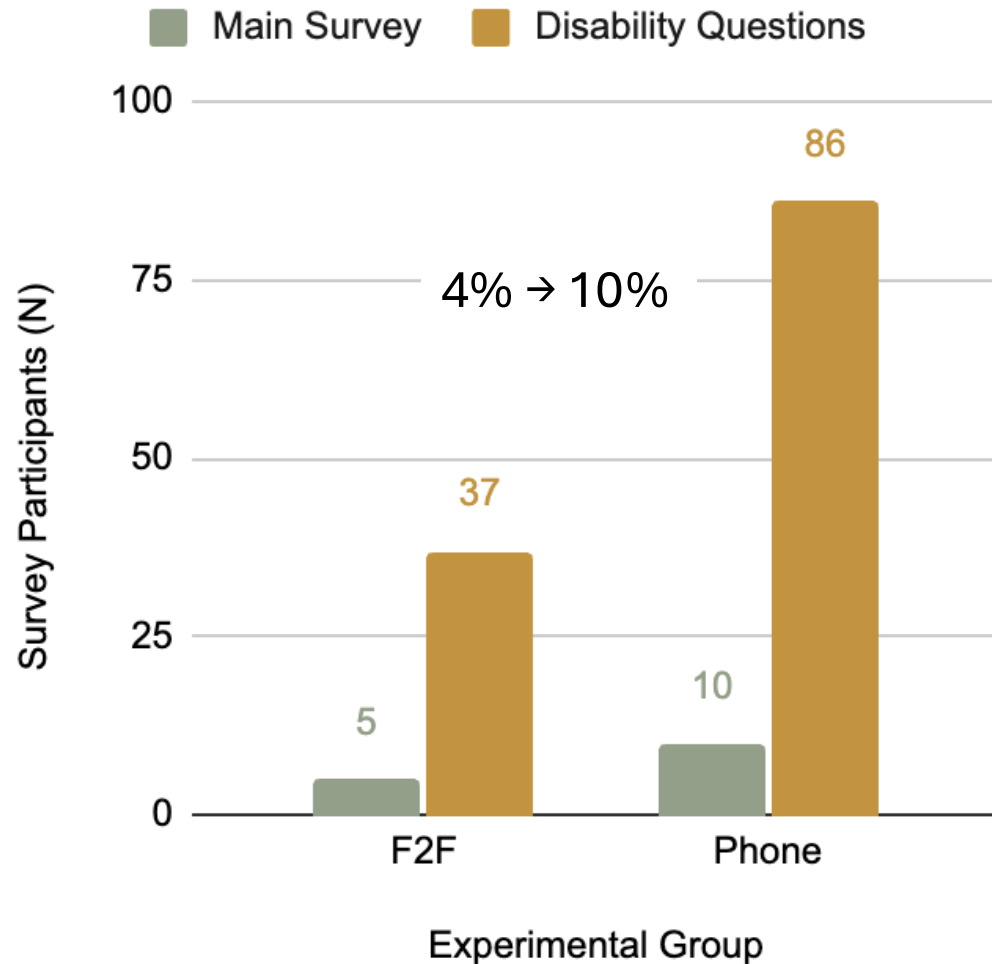


Experiment 2 (RDD) Break Offs



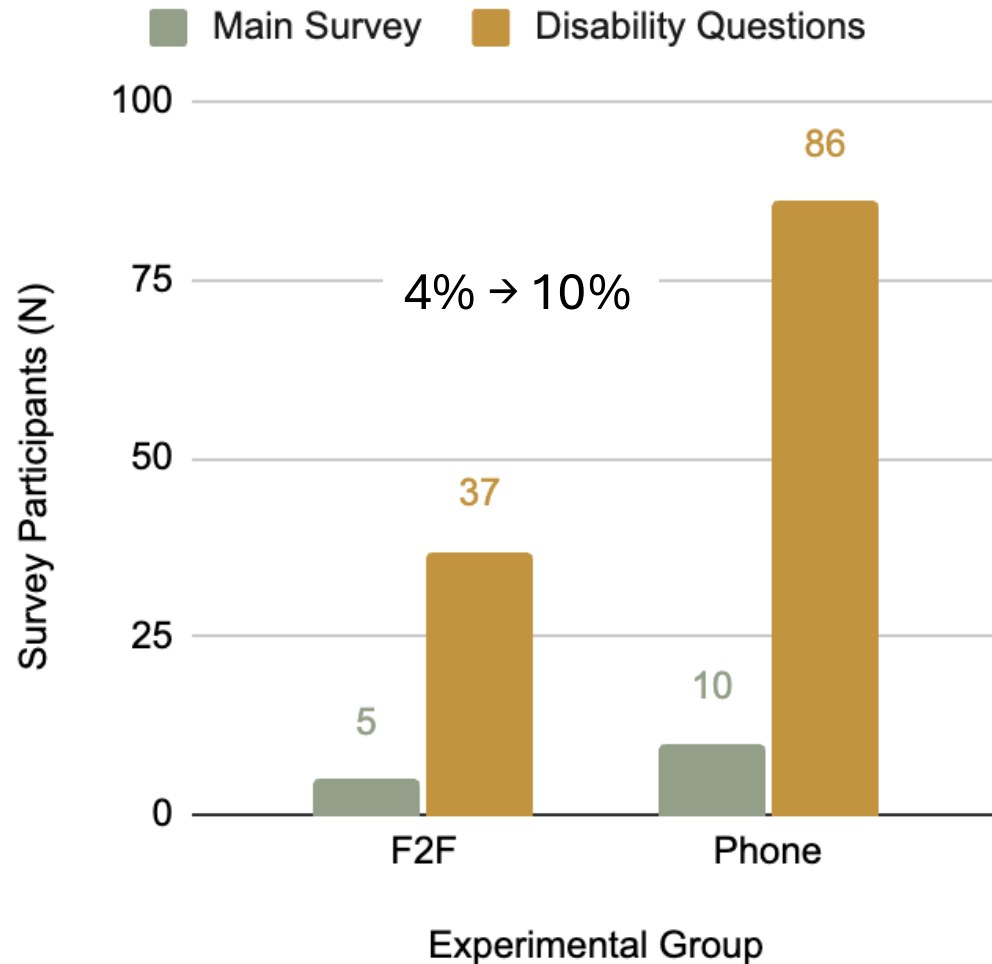
"Don't know" or "Refused" responses were higher by phone.

Experiment 1 (F2F) DK/Refused

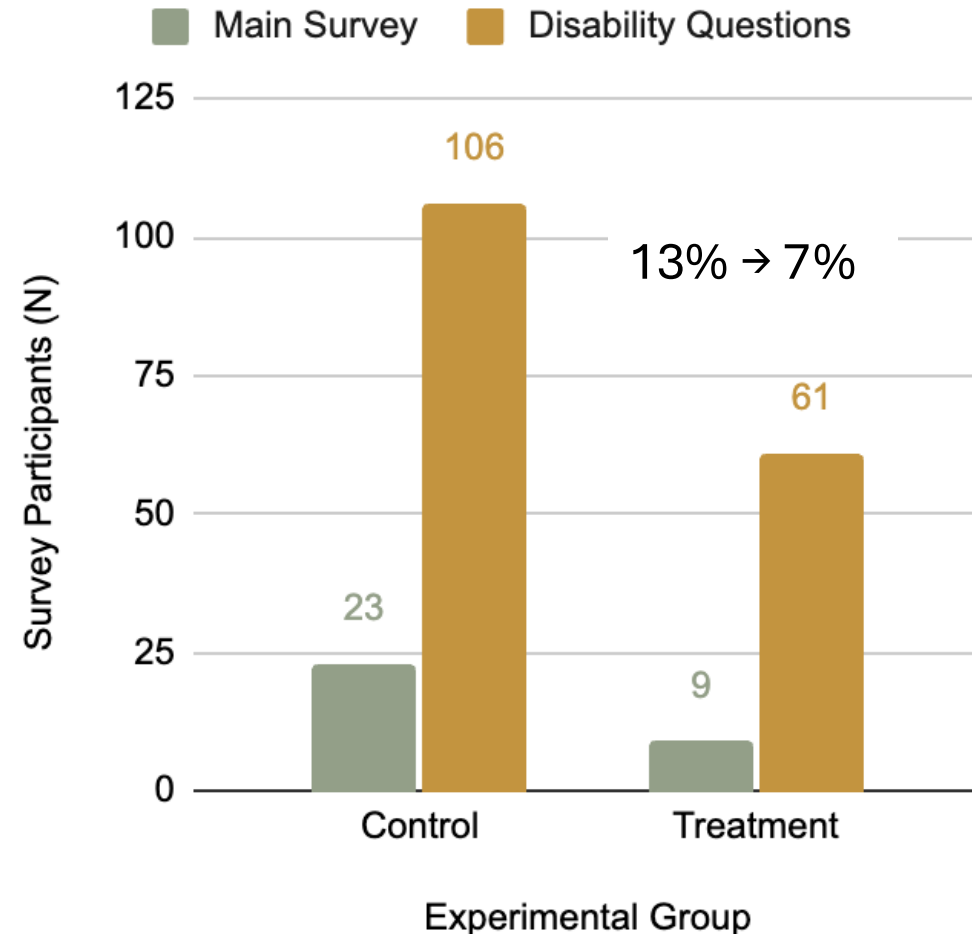


**"Don't know" or "Refused" responses were higher by phone.
Ordering sensitive questions last reduced this.**

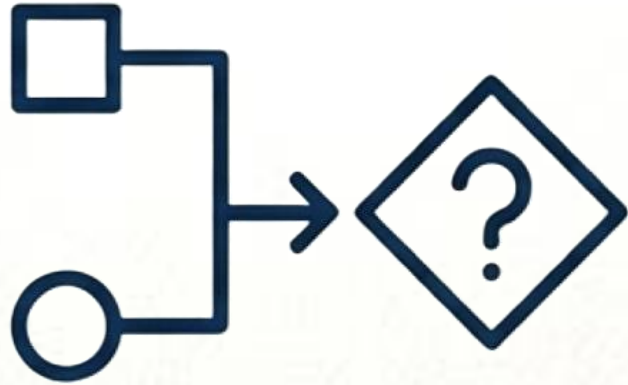
Experiment 1 (F2F) DK/Refused



Experiment 2 (RDD) DK/Refused



Practical Recommendations



Sequence Strategically

- Move sensitive modules to the end of the survey to give time to build rapport
- Within a module with sensitive questions, order the most sensitive questions at the end or experiment with randomization



Frame Neutrally

- Framing can help to make sensitive topics feel more neutral for respondents.

Discussion \ Q&A

1. Breakoff risk is low when collecting child functional disability data by phone, suggesting phone data collection is viable.
2. Phone surveys show higher rates of don't know/refusal, but careful design can substantially reduce nonresponse.
3. Question ordering and neutral framing play a key role in improving data quality.



Working Paper (ResearchGate)

Collecting Functional Disability Data in Children via Phone Surveys:
Overcoming Sensitive Data Challenges using Randomized Experiments

Juan Baron jbaron@worldbank.org

Lauren Dahlin ldahlin@worldbank.org