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What does the evidence say about mode effects on data quality?

Comparing Phone Surveying to Face-to-Face Interviewing

We reviewed evidence on whether asking the same questions via different survey modes – over the phone versus face to face – produces different answers in low and middle income countries (LMICs). While there is limited evidence from LMIC settings on these differences, known as mode effects, those studies are summarized here, which turned up examples of meaningful mode effects. In particular, there is evidence suggesting that respondents may be more likely to give socially desirable responses over the phone than in person.

Motivation

A key concern across all modes of data collection is that survey data accurately reflects the world. This is especially relevant for remote data collection modes, as the COVID-19 pandemic has forced many researchers to pivot from established modes of data collection, such as face-to-face surveys, to remote surveys where there are open questions about the accuracy of data collected. For surveys to accurately measure the intended information, researchers need to understand if and how mode effects impact survey responses.

Existing Evidence

Evidence on validity of remote data collection in LMICs is limited but does exist for a variety of modes, sampling techniques and populations. Gibson et al. (2017) aimed to review and synthesize studies from LMICs to identify mode effects but were unwilling to draw general conclusions due to the limited number of studies. Instead, one can point to a few individual studies which did find meaningful differences in responses to the phone survey mode (known as Computer-Administered Telephone Interviews, or CATI) compared to responses from face-to-face interviewing, abbreviated here as F2F.¹ These examples suggest that survey mode may affect respondents' tendency to give exaggerated, socially desirable answers, but it was not always the same mode that produced this bias. At the same time, it should be noted that there were survey questions in these studies for which mode effects were not found, and one study where no evidence of mode effects was found.

Figure 1, on the next page, shows six survey responses from three studies with the F2F average compared to the CATI average for each. Differences in the heights of adjacent bars suggest mode effects, with all six being statistically significant. The first study, conducted in Burkina Faso, used a national sample of women of reproductive age surveyed F2F about contraceptive use (Goretschak et al., 2020). For the CATI survey, random digit dialing was used to generate another representative sample of women. The CATI sample reported higher contraceptive use, 40% versus 26% in F2F, a statistically significant difference of 14 percentage points.

¹ There is some evidence comparing other modes (F2F and SMS) but we have focused on CATI in this brief. This evidence briefs are part of a series reviewing existing evidence on implementing surveys using computer-assisted telephone interviewing (CATI) and other remote survey modes. These briefs are made possible with the generous support from and collaboration with Northwestern University's Global Poverty Research Lab (GPRL). It was prepared by Savanna Henderson with helpful input from Steven Glazman and Michael Rosenbaum.

Evidence Brief: Mode Effects of CATI Surveys

This brief summarizes existing research on how different survey modes may affect the accuracy of responses to the same questions. The potential mechanisms for these differences, known as mode effects, are outlined in the brief along with suggestions for future research.

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