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Monitoring requires repeated measurements but RHOMIS is typically one off

There is a need to collect more data, from more people, more often and for less money to robustly tell the story of progress, adaptively manage the program, and monitor investments in rural development. Currently, RHOMIS relies on household surveys, typically conducted in person by trained enumerators. However, reliance on physical visits to sites limits the spatial scale and temporal frequency of data collection because of the costs, logistics and in some cases risks to project staff. With increased ownership and use, even in rural and conflict areas, mobile phones offer an opportunity to contact beneficiaries and the population *writ large*. Therefore, unsurprisingly, mobile phone-based surveys using VOX, SMS and IVR are rapidly emerging monitoring and evaluation (M&E) tools. Which tools will work with which indicators to help move RHOMIS to monitoring system.



Phones owned by women in Kitui, Kenya where nearly **80%** of women own phones

Most common options

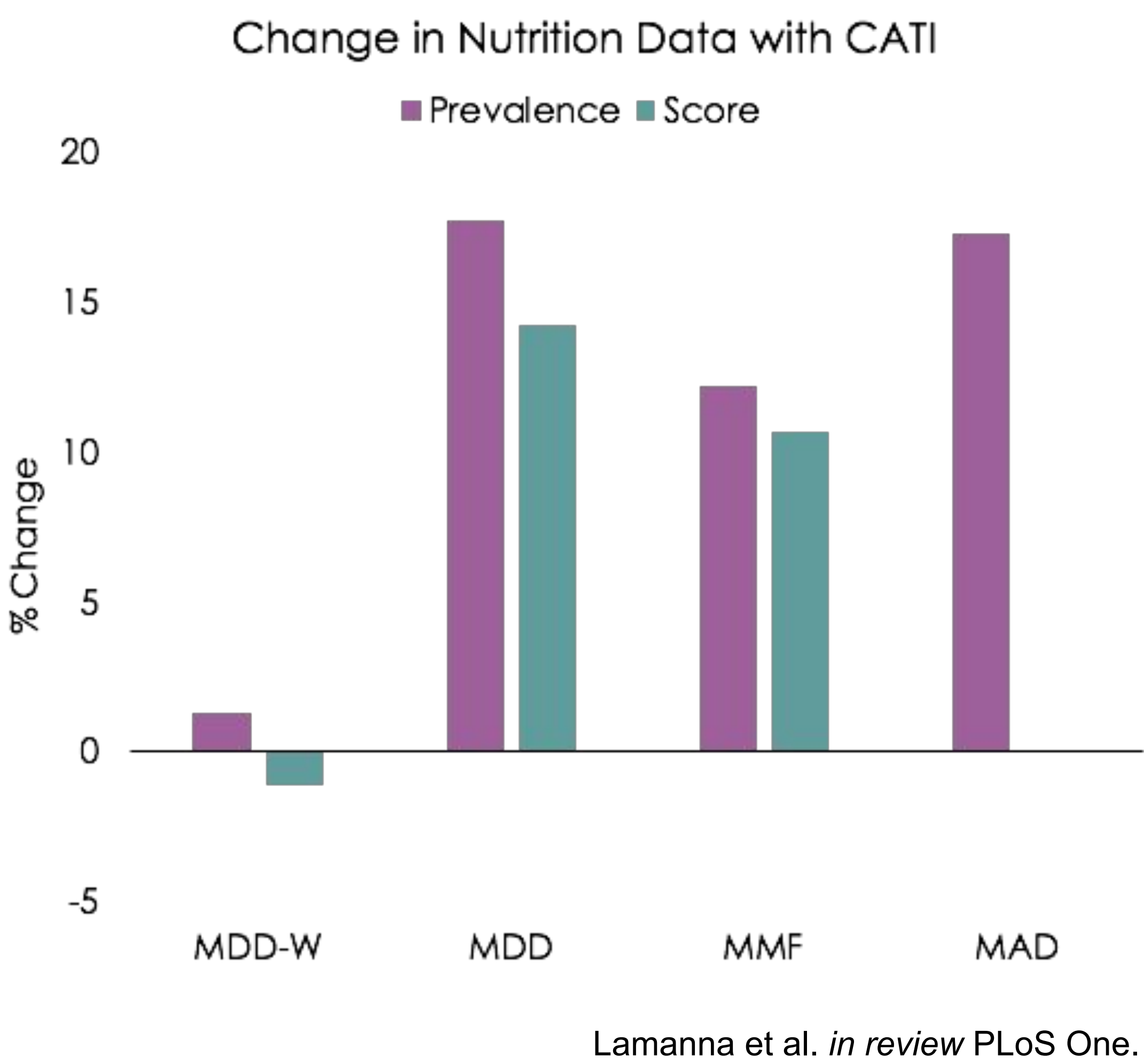
Abr.	Definition
CATI	Computer Assisted Telephone Interview - live voice calls usually administered from a call centre to respondents' mobile phone or landlines
IVR	Interactive Voice Response - during a voice call computers detect voice and touch tones completed by the respondent during a phone call, and a response is made with a pre-recorded or dynamically generated audio
SMS	Short Messaging Service - text of up to 160 characters in length, suitable for any phone type
VOX	Live Voice Calls - usually conducted from a call centre to respondents' mobile phones

Constraints with options

Constraints	SMS	VOX	IVR
Literacy required	+	-	+/-
Supports multiple response options	-	+	+/-
Limited number of questions (< 15)	+	-	+
Self administered	+	-	+
Suitable on all types of phones	+	+	+
Verification of respondent	-	+	-

Will asking questions over the phone affect the answers?

There are two main ways that use of mobile phones and the underlying human-technology interaction may impact data quality. The first is due to sampling bias. Sampling bias arises from questioning only those with access to a mobile phones and network connectivity. If mobile phone access is correlated with indicator status within a population, then there will be a sampling bias. The second issue is related to culture and social norms. Respondents may answer questions one way face-to-face but another way via mobile phone. For example, ICRAF and WFP asked nearly 2,000 women of child bearing age in two Kenyan counties about their own dietary diversity (i.e., Minimum Dietary Diversity for Women indicator (MDD-W)) and the dietary diversity of their child (Minimum Acceptable Diet (MAD)) using face-to-face interviews and VOX. We found that asking about children's dietary diversity via VOX calls produced significantly higher estimates of dietary diversity and meal frequency for children (nearly 15%) compared to face-to-face interviews. Contrastingly, mobile monitoring produced no bias in MDD-W. These differences in indicator status with mode could be due to anonymity when speaking to an enumerator over the phone, sensitivity of asking caregivers about feeding habits of children, or distraction during the interview, etc. These types of results suggest **significant interactions among indicator, mode of data collection and context**.



Mind the mode

Mobile phones present an opportunity to collect data at higher resolution to complement RHOMIS baselines. However, consideration must be given to the nature of the indicator, the target population and their interaction when selecting the technology.

Next steps

1. Match indicators collected in RHOMIS to possible mobile-based technologies.
2. Conduct large scale validation studies evaluating the modes by comparison to face-to-face surveys.
3. Pilot the technologies under field conditions and design database structure to link with RHOMIS core data collection.