



Rapid Mortality Mobile Phone Surveys (RaMMPS) during COVID-19 : Insights from Burkina Faso



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Background and objectives

Objectives: use RAMMPS for estimating (excess) mortality during the COVID-19 pandemic in five LLMICs

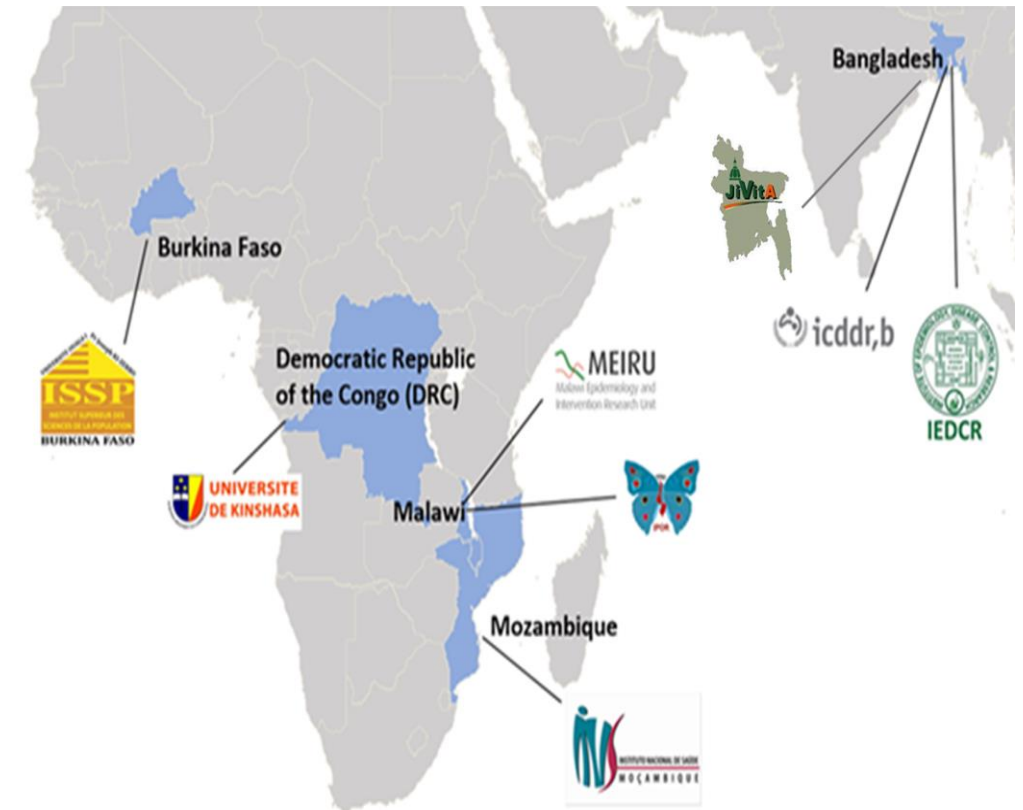
Specific objectives:

- Develop and validate RAMMPS instruments and methods
- Generate mortality estimates by age, sex and locality (and compare them to a pre-COVID-19 baseline).
- Nested validation studies

RaMMPS studies differ in terms of:

- Sampling approaches
- QQN instruments used

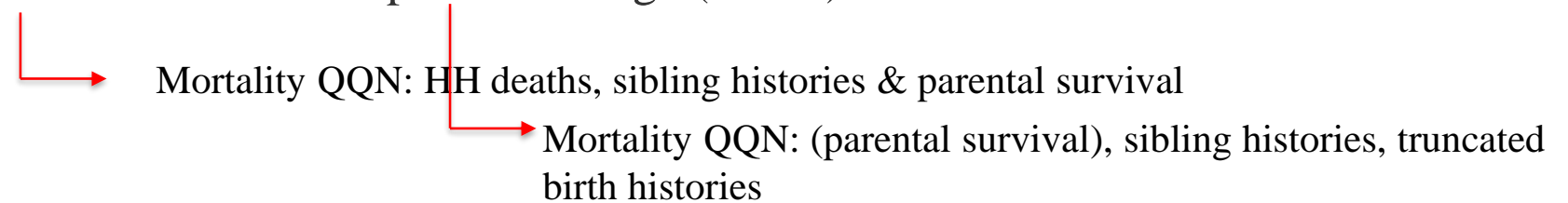
Figure 1: RaMMPS sites



Burkina Faso RAMMPS- Sampling design

Sampling (two arms):

1. Re-contact ~6,000 households from the 2018-'19 living conditions surveys (EHCVM): → RAMMPS interview with HH head + 1 woman of reproductive age (15-49)



2. 9,000 completed interviews with numbers generated through RDD :
 - Pre-screening of functional phone numbers (<https://viamo.io/>)
 - Quota per trimester with oversampling in women of reproductive age

Place of residence	18-49		50-64	Total
	Men	Women	Men + Women	
Ouagadougou	87	174	29	290
Bobo-Dioulasso	30	60	17	107
Other cities	70	140	31	241
Rural areas	448	896	268	1612
Total	635	1270	345	2250

- Mortality QQN modules: HH deaths, parental survival, sibling histories, truncated birth histories

Burkina Faso RAMMPS - Validation studies

1. Validation against secondary data sources

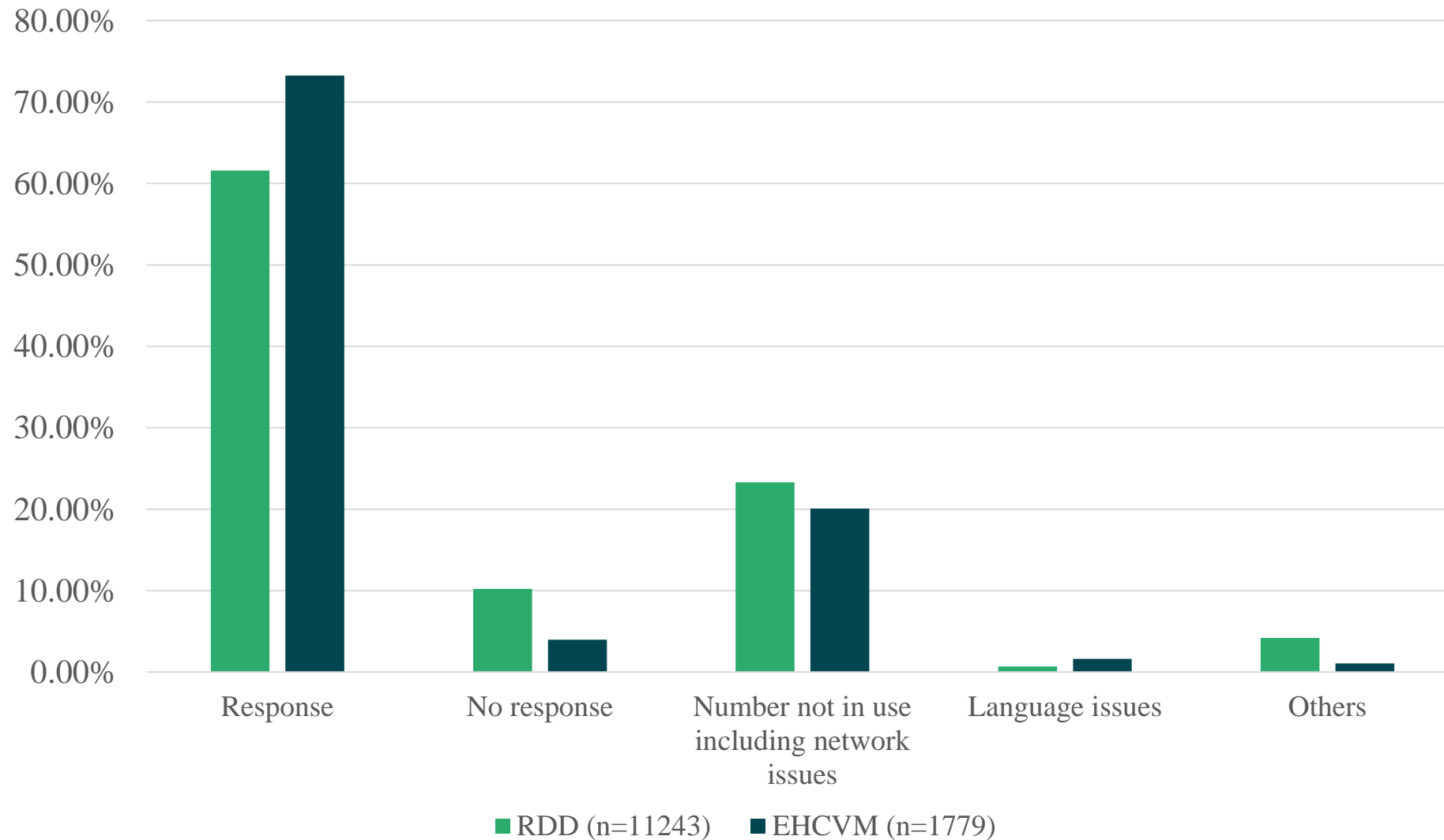
- Comparison of RaMMPS mortality estimates against those from the DHS (2021), Census (2019);
- Record linkage with census for individual level comparison of age and death reporting.

2. Validation study in the Ouagadougou HDSS

- Oversampling residents with deceased relatives (n=2500);
- Comparison of aggregated mortality estimates from RAMMPS & HDSS;
- Individual and household-level comparisons: death reporting, ages at death reporting, displacement of events in time and household composition.

Burkina Faso RAMMPS - Call outcomes

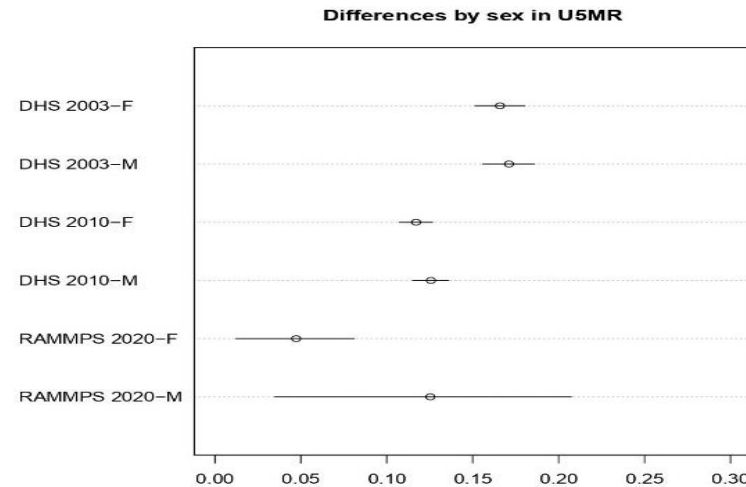
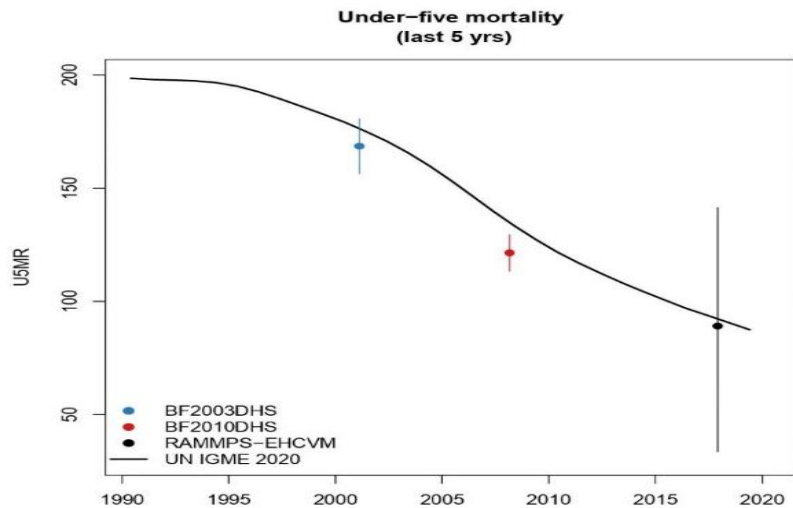
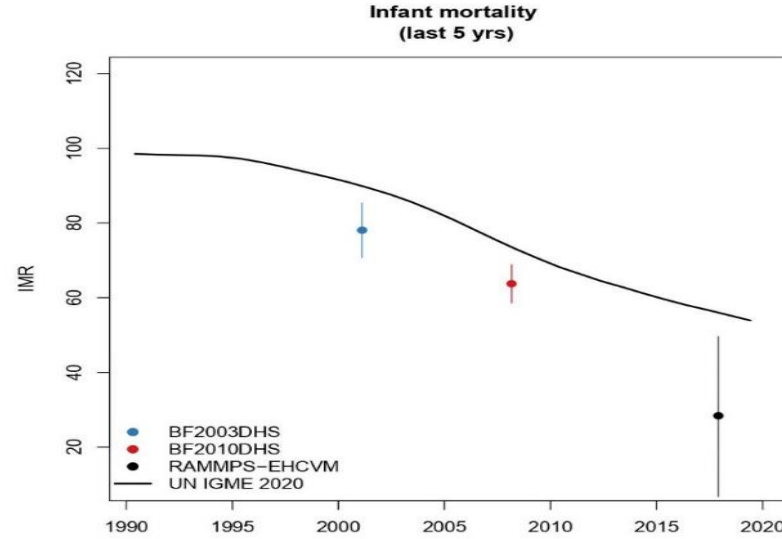
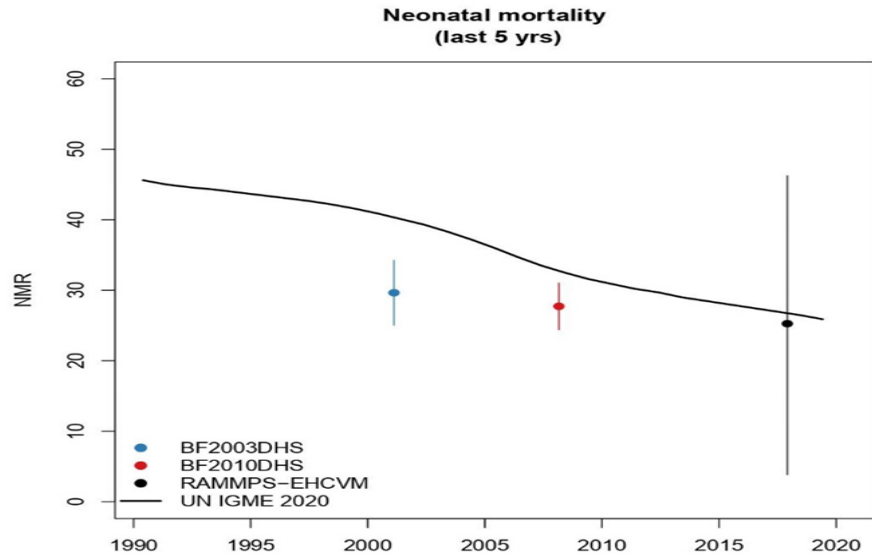
CATI outcomes in RAMMPS-BF



➤ Overall high response rates

➤ Higher response rates in the EHCVM arm

Preliminary results of under5 mortality (Truncated BH) - EHCVM arm



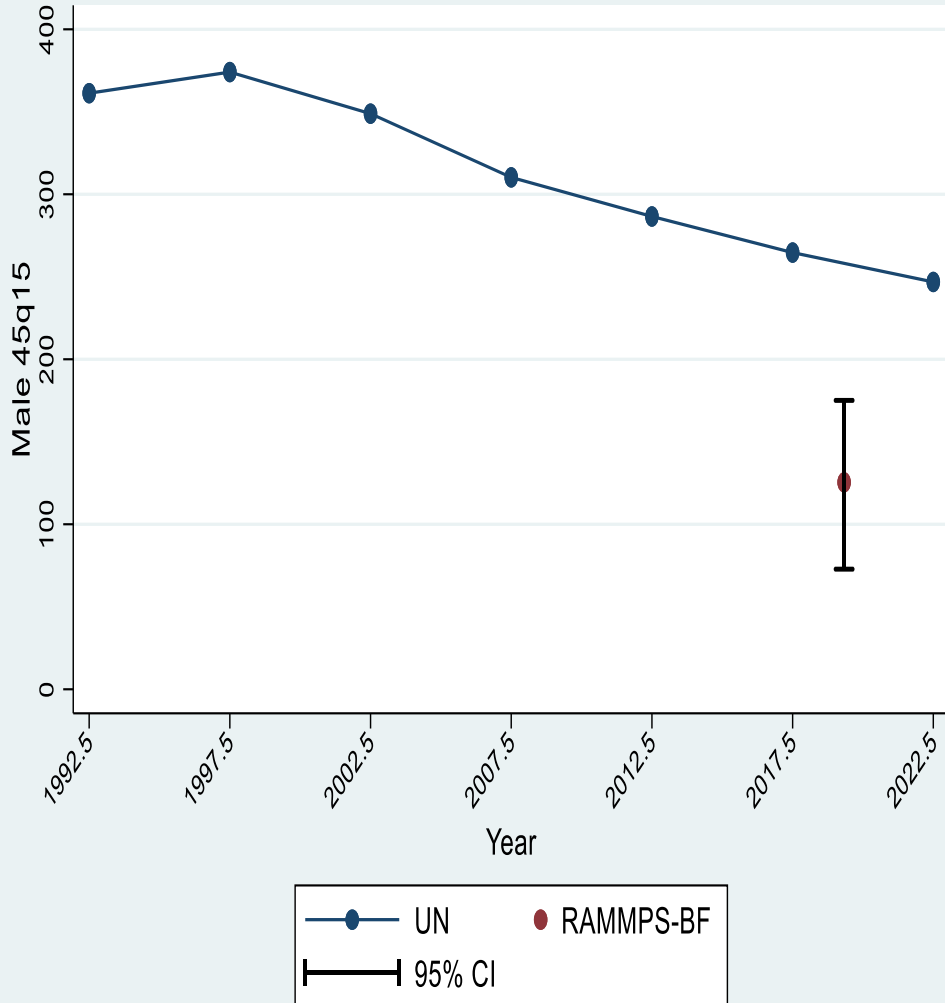
➤ Consistent NMR & U5M compared to UN IGME (but wide CIs)

➤ Lower IMR compared to UN IGME estimates

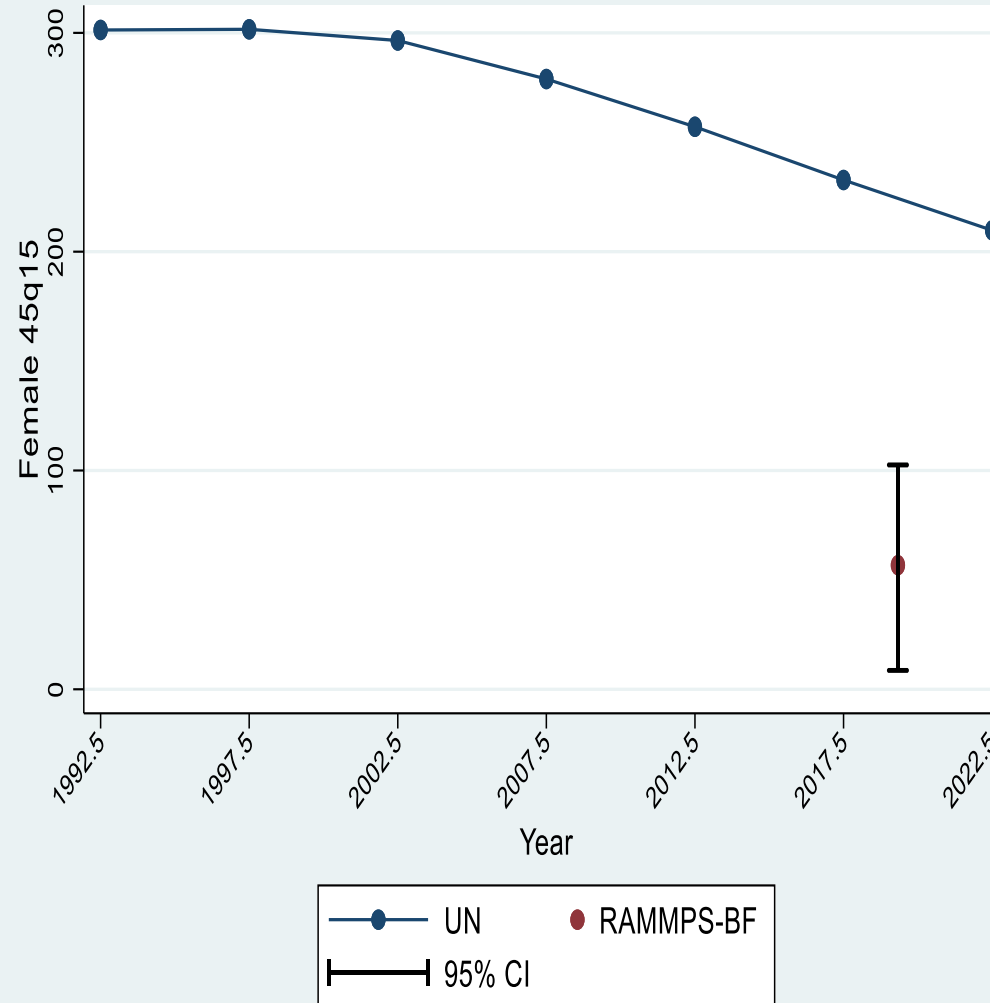
➤ Large sex differences in the RAMMPS → under reporting of female deaths?

Preliminary results of adult mortality 45q15- EHCVM arn

Males



Females



Discrepancies between the two sources

Underestimation of mortality in the RAMMPS?

- Underreporting of deaths?
- Displacement of deaths in time?
- Overreporting of surviving siblings (inclusion of other relatives that are not siblings)?

A pronounced underestimation of female mortality.

Similar results with the RDD sample

Conclusions

Keys points:

- High response rates in both arms;
- Encouraging estimates of under 5 mortality;
- Mixed results on adult mortality (to investigate more).

Next steps:

- Routine data collection (6 months);
- Validation studies;
- Estimation of (Covid excess) mortality;
- Dissemination.