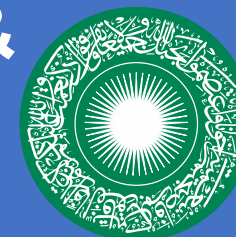


LONGITUDINAL STUDY OF HEALTH AND AGEING IN KENYA (LOSHAK)

Proposed National LOSHAK-Core & Regional LOSHAK-HCAP Surveys



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Outline

1. LOSHAK exploratory (R21) phase - update
2. Scope of LOSHAK Core & LOSHAK HCAP surveys
3. Specific Aims
4. Sampling
5. LOSHAK Core vs. LOSHAK HCAP modules
6. Planned timeline

LOSHAK: Exploratory phase (R21) findings

- Easily adapted tools to local language & context
- Excellent internal consistency of each scale (≥ 0.75)
- Robust models with moderate to very good fit statistics
- Strong correlations of items to underlying constructs across the 4 main domains of cognition
 - Orientation (T&P), Memory, Executive function, Language fluency
- Manuscripts at various stages
 - Published (1), Submitted (1), Finalizing (1), Analyses (1)
- Data Shared

Scope: Wave 1 LOSHAK Core & LOSHAK HCAP

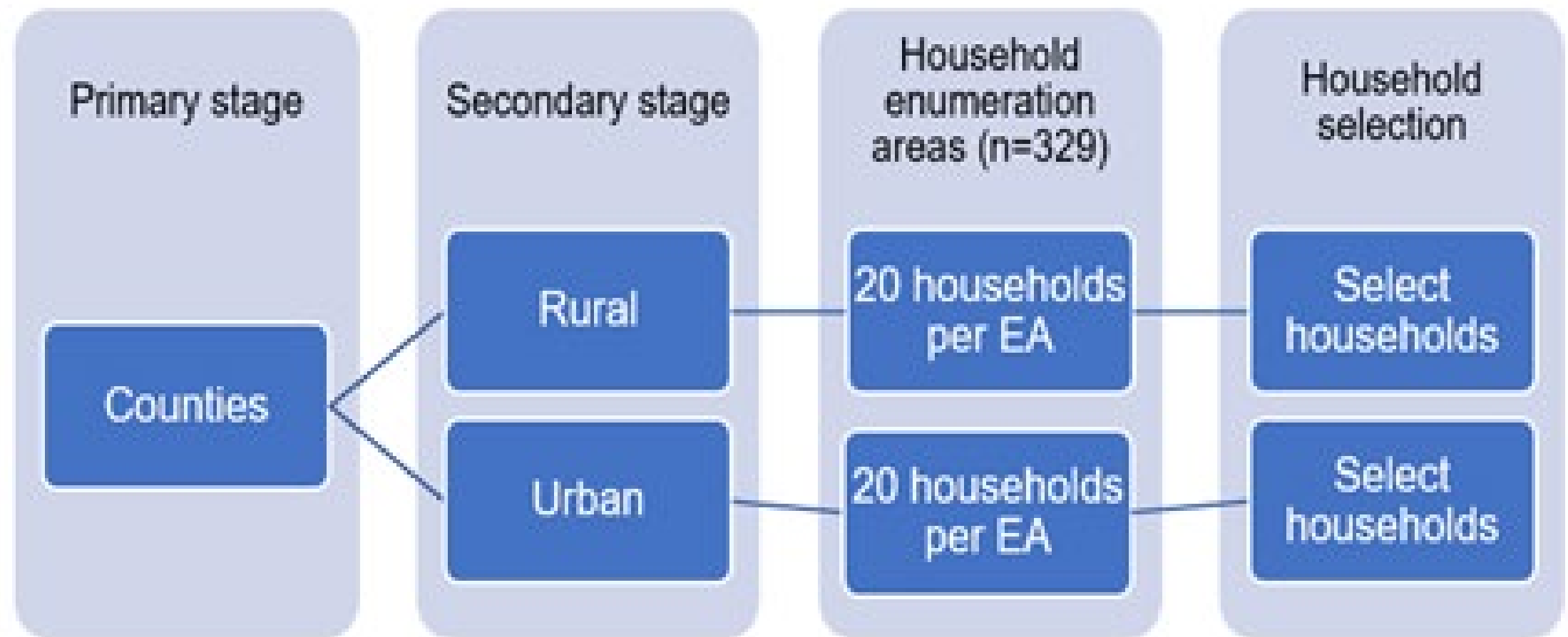
- Nationally representative LOSHAK-Core (n=6580)
 - Sample from all 47 counties in Kenya
- Regional (6 coastal counties) LOSHAK-HCAP (n=2375)
- Strong partnership with KNBS, MOH & KEMRI
- Submitted to NIA in July 2024
 - Review feedback expected in November



Specific Aims: LOSHAK Core & LOSHAK HCAP

1. Prepare for and collect Wave 1 data (LOSHAK-core)
 - Coverage of key HRS domains
 - Establish a national cohort for tracking in future waves
 - Collect & assay biomarkers from VBS
 - Translate tools to 16 languages
2. Estimate prevalence of MCI & AD/ADRD (regional)
 - Full LOSHAK-HCAP
3. Prepare and share data publicly
4. Capacity building across all components of LOSHAK

Figure 3: LOSHAK-Core sampling approach



LOSHAK Core vs. LOSHAK HCAP modules

Summary of LOSHAK-Core and LOSHAK-HCAP Household Characteristics Survey Modules

Domain	LOSHAK-Core	LOSHAK-HCAP
Housing and environment	GPS coordinates, physical home & neighborhood characteristics, residential history, climate shocks, energy/water access, fuel sources	Physical home characteristics, climate shocks, fuel sources
Income	All household sources/remittances from those living elsewhere	Not in HCAP
Assets and debts	Adapted to Kenyan context	Not in HCAP
Household consumption/expenditures	Adapted to Kenyan context	Not in HCAP
Other informant reports	Caregiver burden (financial, physical and psychosocial impacts)	Caregiver burden, IQ-CODE (informant report of cognitive function)

Summary of LOSHAK-Core and LOSHAK-HCAP Individual Information Survey Module

Domain	LOSHAK-Core	LOSHAK-HCAP
Demographics	Birth date (or questions to approximate age), sex/gender, religion, language(s), marital status, literacy, education	Same as Core
Work, employment, retirement	Including formal/informal employment	Not in HCAP
Pensions and cash transfers	Impact of recent economic interventions/stimuli	Not in HCAP
Family & social networks	Data on all immediate family members, social activity, and connectedness	Social activity
Psychosocial health	Depression, anxiety, subjective well-being, loneliness, life satisfaction, ill treatment, social status, perceived stress	Depression, subjective well-being, social status, perceived stress
Physical health	self-rated health, report of specific diseases (e.g., CVD, diabetes, hypertension, etc.), ADL/IADL/mobility limitations, sensory and oral health, health events, health behaviors (using anchoring vignettes)	Same as Core
Cognitive function, AD/ADRD	IQCODE (informant reported cognitive health) and core set of cognitive measures including: Swahili Mental State Exam [SMSE], 10-word recall (immediate/delayed), animal naming, logical memory recognition, arithmetic, go/no-go test	IQCODE Full HCAP instrument (next slide)
Health insurance and healthcare utilization	Access/use of healthcare modalities, treatment(s) for specific conditions, including full herbalism/alternative medicine instrument	Access and use of healthcare modalities
Other	Exercise and physical activity, smoking, alcohol and rec. drug use, food/water insecurity	Same as Core

Cognitive tests in LOSHAK HCAP (Full HCAP)

Domain	Tests
Orientation	SMSE orientation to time, place
Memory (immediate)	10-word recall immediate, story recall immediate #1, story recall immediate #2, SMSE word recall immediate
Memory (delayed)	10-word recall delayed, logical memory delayed #1 and #2, constructional praxis delayed, SMSE word recall delayed
Recognition	10-word recognition, logical memory recognition
Language/fluency	animal naming, token test, SMSE object naming, SMSE phrase repetition, SMSE 3-stage task, SMSE write/say a sentence
Attention/speed	SMSE serial 7s, SMSE backward day naming, symbol cancellation, forward and backward digit span, hand movement sequence test, trail making test
Abstract reasoning/executive function	Raven's test, go/no-go trials 1 and 2, similarities and differences, reasoning (lost child scenario)
Visuospatial	constructional praxis immediate, SMSE interlocking pentagons
Arithmetic	making change

Timetable and Milestones

Year	1	2	3	4	5
Start-up tasks (hiring, survey development, translations, IRB, train the trainer, interviewer training)	█				
	█				
Pretesting		█			
		█			
Pilot, adaptation of instruments		█			
			█		
Wave 1 data collection (surveys, anthropometrics, biomarkers, wearable devices)			█		
				█	
Data cleaning, imputation, analysis and weighting				█	
				█	
Wave 1 data dissemination / Wave 2 planning					█
					█

Core Activities
 HCAP Activities

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THANK YOU!