# What makes a minimal HCAP? Key issues in cross-cultural adaptation of HCAP
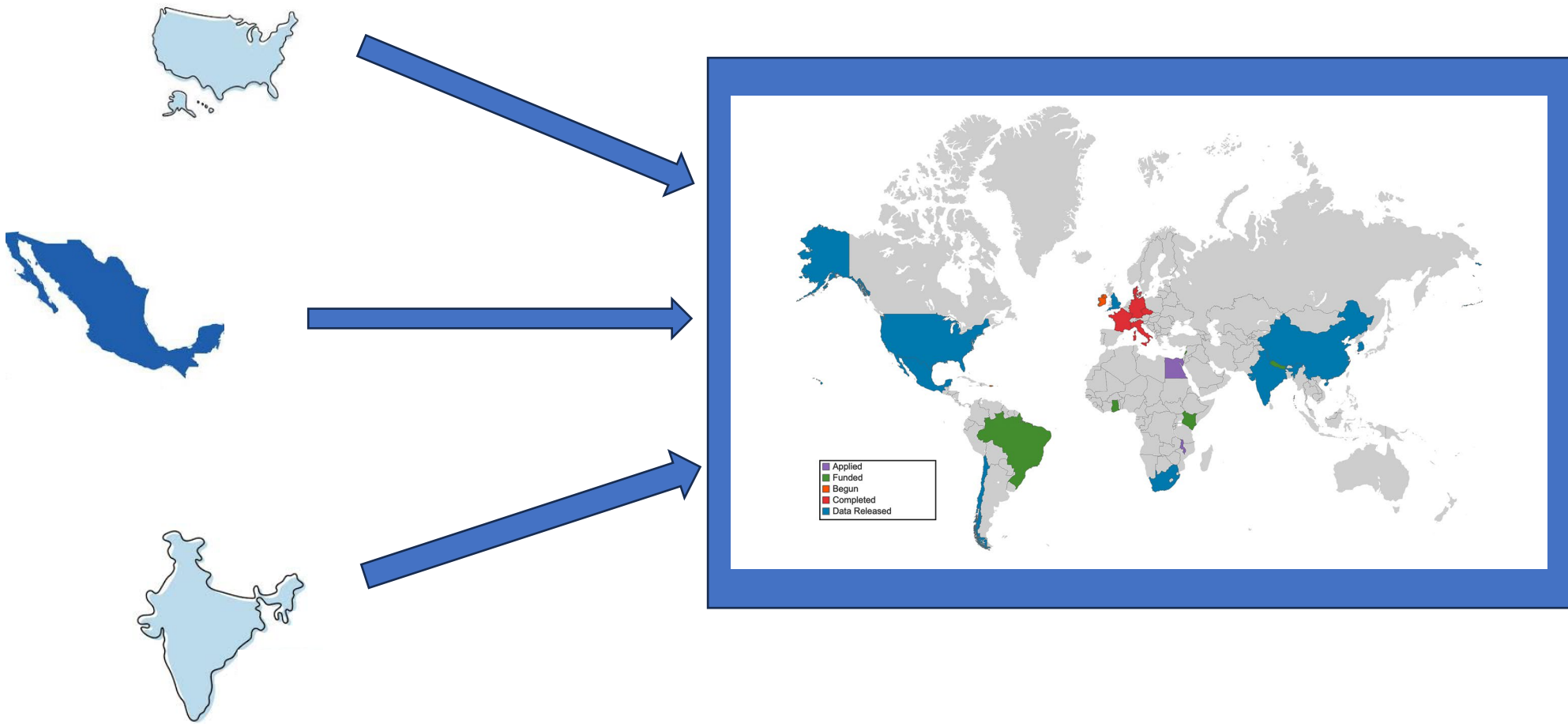
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# Balancing the needs of local measurement and cross-national harmonization

# How should we manage these competing priorities?

How do we know whether there is a competing priority?

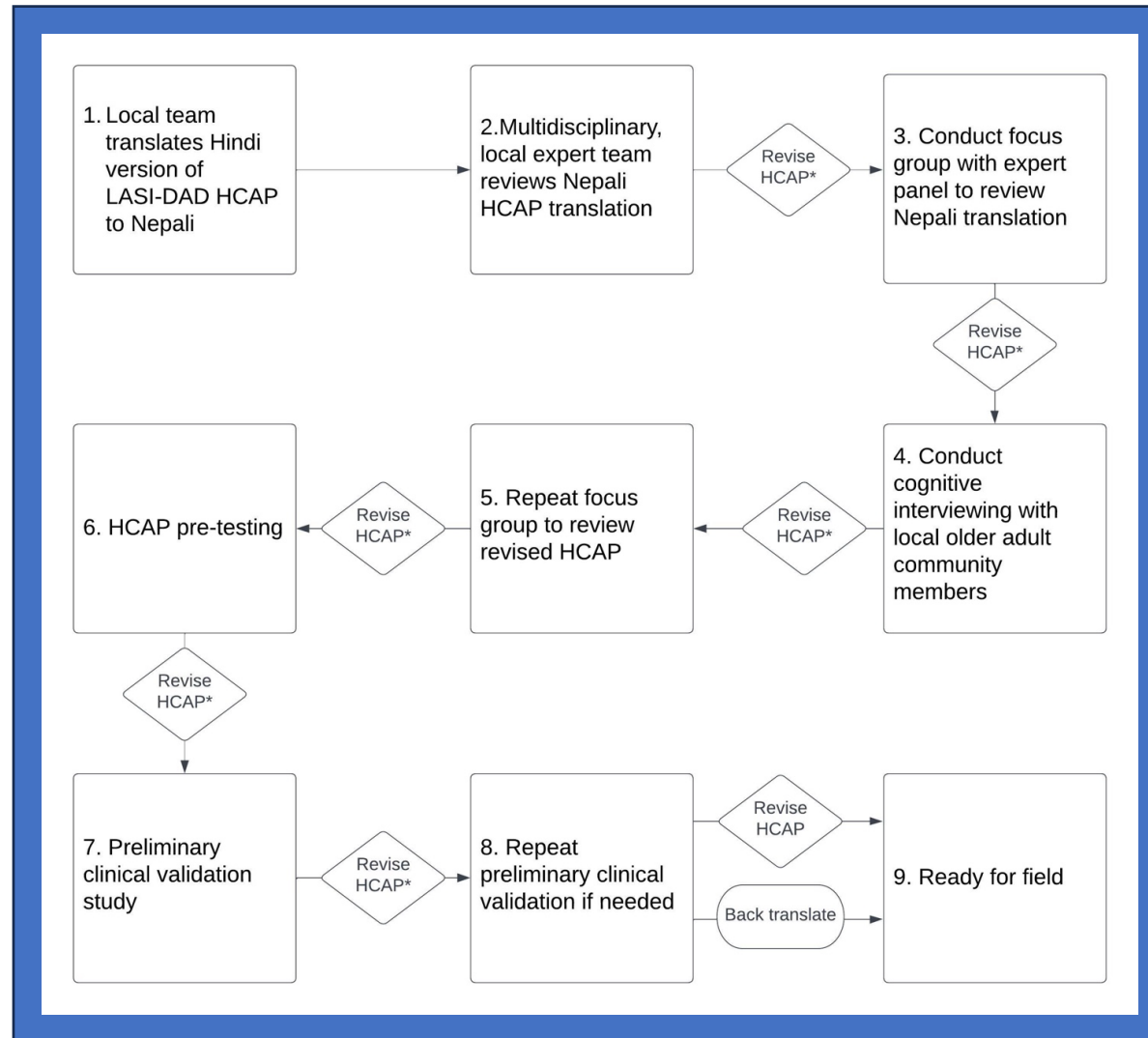- HCAP pre-testing and adaptation procedures with local expert guidance

When there is a competing priority, what to prioritize and how to manage?

- Non-negotiable: Construct validity
- May be negotiable: Degree of precision; deviations from equivalence

# How to identify whether an HCAP item is locally appropriate? HCAP pre-testing and adaptation procedures

Drawn from:
- ITC Test Guidelines for Translating and Adapting Tests (2017)
- Cross Cultural Survey Guidelines



Briceño et al., 2023, *JAD*

# How to identify whether an HCAP item is locally appropriate? HCAP pre-testing and adaptation procedures

Output of HCAP pre-testing and adaptation process:

- Whether an HCAP item is culturally and linguistically familiar and accessible across the spectrum of the intended study population
- How the HCAP item may be adapted if needed
- Generation of a novel item if adaptation is not feasible

# How do we manage competing demands?
## Focus on construct measurement vs. tests

| Domain | Construct | HCAP core items |
| --- | --- | --- |
| Memory | Verbal Learning (repeated content exposure) | CERAD WLL |
| | Immediate Verbal Recall | WMS-IV Logical Memory<br>Brave Man |
| | Delayed Verbal Recall | CERAD WLL, Logical Memory, Brave Man |
| | Recognition of Verbally presented information | CERAD WLL, Logical Memory |
| | Recall of visually–presented material | CERAD Constructional Praxis |

# HCAP Adaptation: From construct to item


Construct

# Example: Core HCAP Memory Items in Nepal HCAP (CVFS-SCAN)

| Construct | → | Core HCAP Item | → | Local Team Review | → | Pre-test outcome |
|---|---|---|---|---|---|---|
| Verbal Learning + Recall | | CERAD WLL (LASI-DAD) | | OK to pretest | | Ready |
| Story Recall | | Brave Man Logical Memory | | Adapt LM to local context | | Ready |
| Recognition | | CERAD WLL Logical Memory | | Adapt LM; OK to pretest | | Ready |
| Visual recall | | CERAD Constructional Praxis | | Concern about paper/pencil | | New item needed (Matchstick recall; HAALSI) |

# HCAP core item selection: Licensing considerations

# Licensing: Additional costs and restrictions

- Administrative burden: License procurement is very time-consuming
  - Restricted purchasing: Required professional qualification levels
- Restricted translation/adaptation: Publisher must approve translated content
- Publisher owns product of study team translations/adaptations
- Restricted access to training materials and item content (impact on harmonization)
- Product cannot be shared with local researchers or clinicians

# Moving away from licensed HCAP items:
# Nepal Cognitive Screening Test (CFVS-SCAN)

**Goal:**

- Create a cognitive screening test as a component of HCAP that is freely available to local clinicians and researchers

**Development plans:**

- Development of items in collaboration with local experts
- Nimble pretesting
- Preliminary clinical validation with local geriatrician
- Development of local, robust normative sample to allow for clinical interpretation/cognitive impairment classification

**Anticipated Deliverables:**

- Freely available screening test and accompanying administration and scoring guide
- Normative data to allow for clinical interpretation/impairment classification
- Potential for alignment with HCAP-derived dementia classifications

# Summary and Implications

- HCAP core content may be best centered on the core cognitive constructs that should be measured, with existing HCAP items as recommended starting points

- Time and resources are needed to evaluate the suitability of HCAP items in new contexts, including core/minimal HCAP items

- Recommended guidelines/methods for HCAP pre-testing and adaptation are needed (in process)

# Future directions for HCAP development

- Further development of innovative, harmonizable core items, particularly in the domains of executive functioning, processing speed, visuospatial, and language domains
  - Core items: Not reliant on literacy/numeracy

- Further refinement of standardized administration and scoring guidelines, especially for core HCAP items (e.g., story recall)

- Evolving from licensed tests to freely available content would remove barriers to access, dissemination, and optimal harmonization

# Acknowledgments

- Funding:
  - K23AG080035
  - R01AG074079 (CVFS-SCAN)

- Collaborators:
  - CVFS-SCAN team
    - Dirgha Ghimire (MPI), Carlos F. Mendes de Leon (MPI), Usha Dhakal, Uttam Sharma, Hardik Sapkota, Nabin Adhikari, Meeta S. Pradhan, Lochana Shrestha, Pankaj Jalan, Janak Rai, Kenneth M. Langa, Jinkook Lee,

# Thank you

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