Did you sleep here last night?

The impact of the household definition in sample surveys: a Tanzanian case study

Tiziana Leone, Ernestina Coast (LSE)
Sara Randall (UCL)

Outline

- Rationale

- Data and methods

- Fieldwork experience

  - Scenarios

- Thinking creatively with the DHS

- Possibly how to fix it

- Discussion and a few thoughts

Do household definitions matter?

- More variables being added in 'household section'

    - Way of measuring wealth / poverty / access to facilities which influence health

    - New level of analysis / explanation

- More use (researchers & policy makers) made of publicly available data

- Recognition of importance of society's basic unit as influence upon members' well-being

- Increasing use of 'indicators' based on household data (e.g. MDGs, asset indicators)

- Increasing importance of poverty mapping which uses household level data

How could the definition influence the outcome?

- – Household size

- – Gender imbalance

- – Sex of head of household

- – All other characteristics of head of hh

  - • Education

  - • Occupation etc

- – Age structure

- – Undercount of "special" populations

- – Measures of poverty

  - • assets

Household definition in developing countries' surveys

- Much more standardised (still some local variations)

  - WFS left more space for interpretation

- Little variation between core questionnaires and those used by countries

- Little development over time

- Emphasis on comparability across time and space

Aims and objectives

- Understand the impact of the household definition on:
  - Key demographic indicators
  - Policy making/interventions
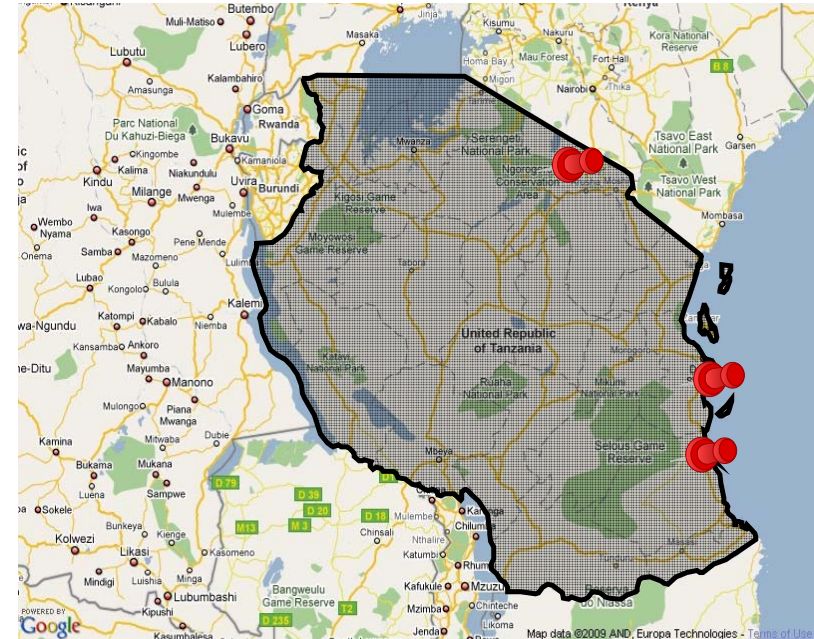- Investigate flexible data collection and analysis

Definitions

- **DHS:** *"for the purpose of the 2004-5 TDHS a household is defined as a person or group of persons, related or unrelated who live together and share a common source of food"*

- **2002 census** *"For the purpose of the 2002 population and housing census a "private household" was a group of persons who lived together and shared living expenses. Usually these were husband, wife, and children. Other relatives, boarders, visitors and servants were included as members of the household, if they were present in the household on census night. If one person lived and ate by himself/herself, then he/she was a one-person household even if he/she stayed in the same house with other people (these cases were more prevalent in the urban areas). Household members staying in more than one house were enumerated as one household if they ate together."*

Data and Methods

1. **Primary in-depth (n=52) case study interviews with Tanzanians in four different settings.**

   - Mix of cognitive interviewing and in depth Household grid sheet-flexible data collection-573 individuals

     1. Longido in prevalently Maasai area (9 'households')

     2. Urban Dar es Salaam (23 'households')

     3. South Tanzania Rufiji (20 'households')

2. **2004 Tanzanian Demographic and Health Survey (DHS) (n=9735 households)- Household and individual level recodes**
   - Scenario analysis-key demographic indicators

1. Summary of fieldwork experience

- Complex cultural traditions around eating meals and sleeping arrangements
- **Maasai** have interdependent groups that are split up in surveys but considered by themselves to be one economic unit of production and consumption
- **Dar es Salaam urban**: very high mobility between households of children and young people
- **Rufiji** Straightforward livelihoods with extremely complex ways of living: subsistence economy with several members contributing to household finances
  - No local word for a household – which suggests not an easy concept

Modelling definition differences

- 'Translated' the household grid interviews into SPSS dataset
- We allowed for extra columns to include variables such as:
  - Would this person make it into DHS
  - Would this person make it into Census
- Created simple demographic indicators such as
  - Dependency ratio
  - % female headed household
  - Household size
  - Head of Household education level

Fieldwork scenarios:

	Number of households	Number of individuals	mean size	Percentage female Headed Household	Single person HH	HHH mean years education	Dependency ratio
Fieldwork	52	573	11.23	27.5%	2%	6.67	1.11
DHS definition	104	490	5.86	41.9%	23.1%	7.17	1.20
Census definition	133	421*	5.64	46.3%	27%	7.18	1.27

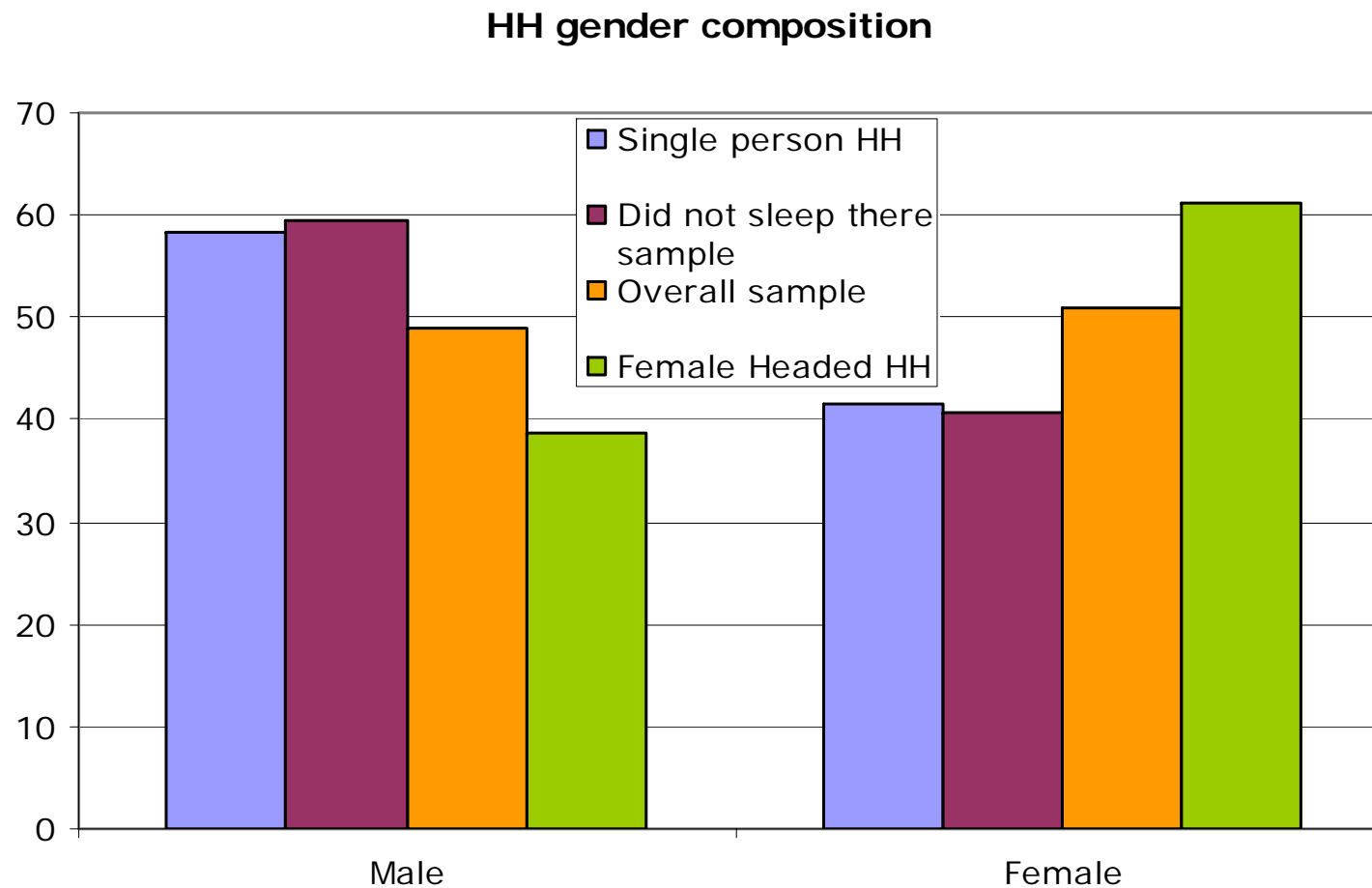*152 would have been captured in other households

Modelling scenarios

- The Tanzanian statistical definition of household reduces the average household size
- Increases the proportion of female headed HHs
- Distorts the characteristics of household heads
- Disassociates people from resources to which they have access
- Often single person's household linked to bigger more complex structure

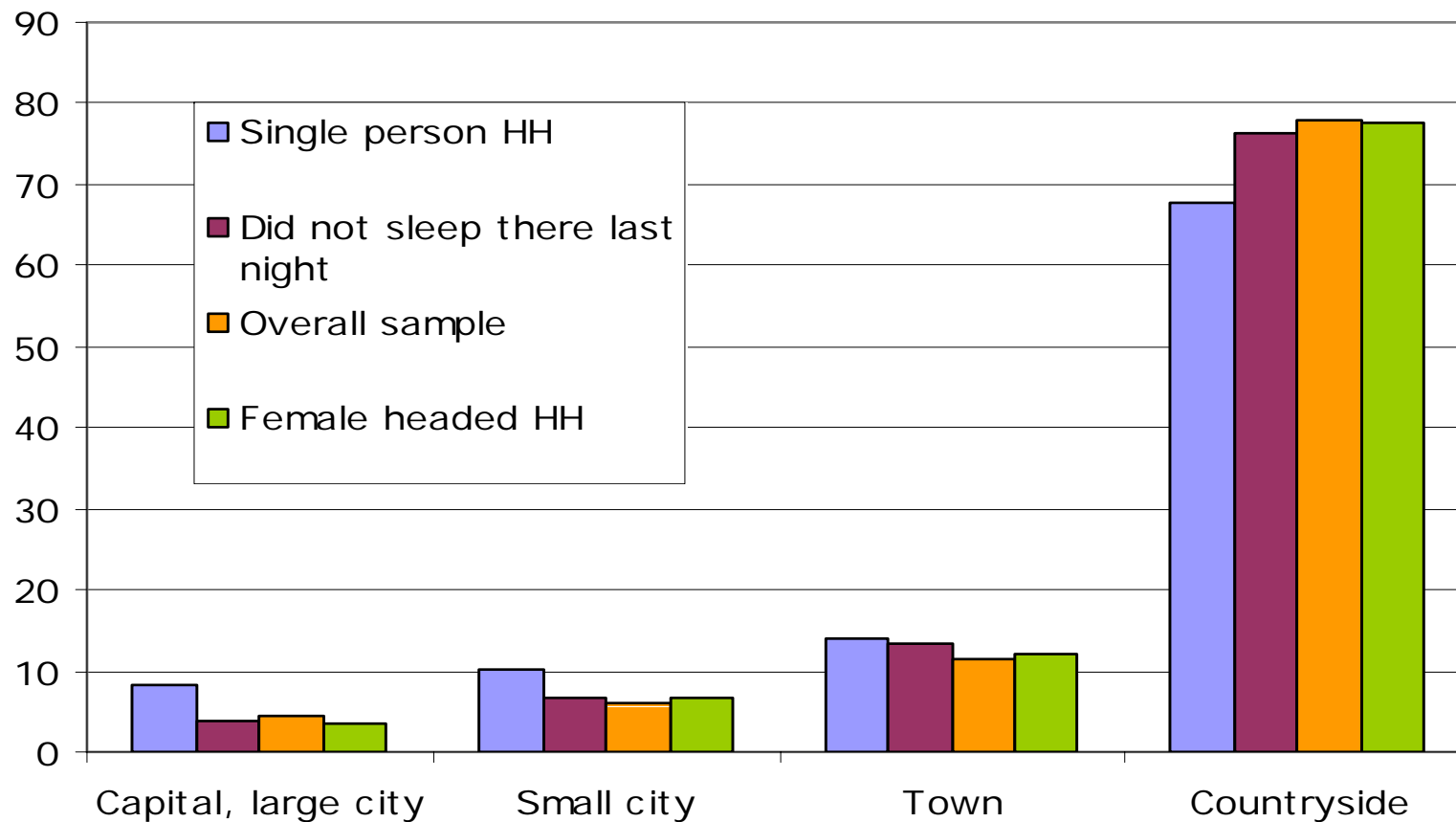# 2. DHS data: Thinking creatively

- Compare and contrast indicators at de jure and de facto level: how do they impact the outcome?

- Analyse specific subgroups:
  - Single persons households
  - Polygamous unions
  - De jure members that did not sleep in the household the night before
  - Female headed households

- Objective twofold: exploit existing data and understand how subsamples characteristics might bias the outcome

How do different samples affect the gender composition of the household?
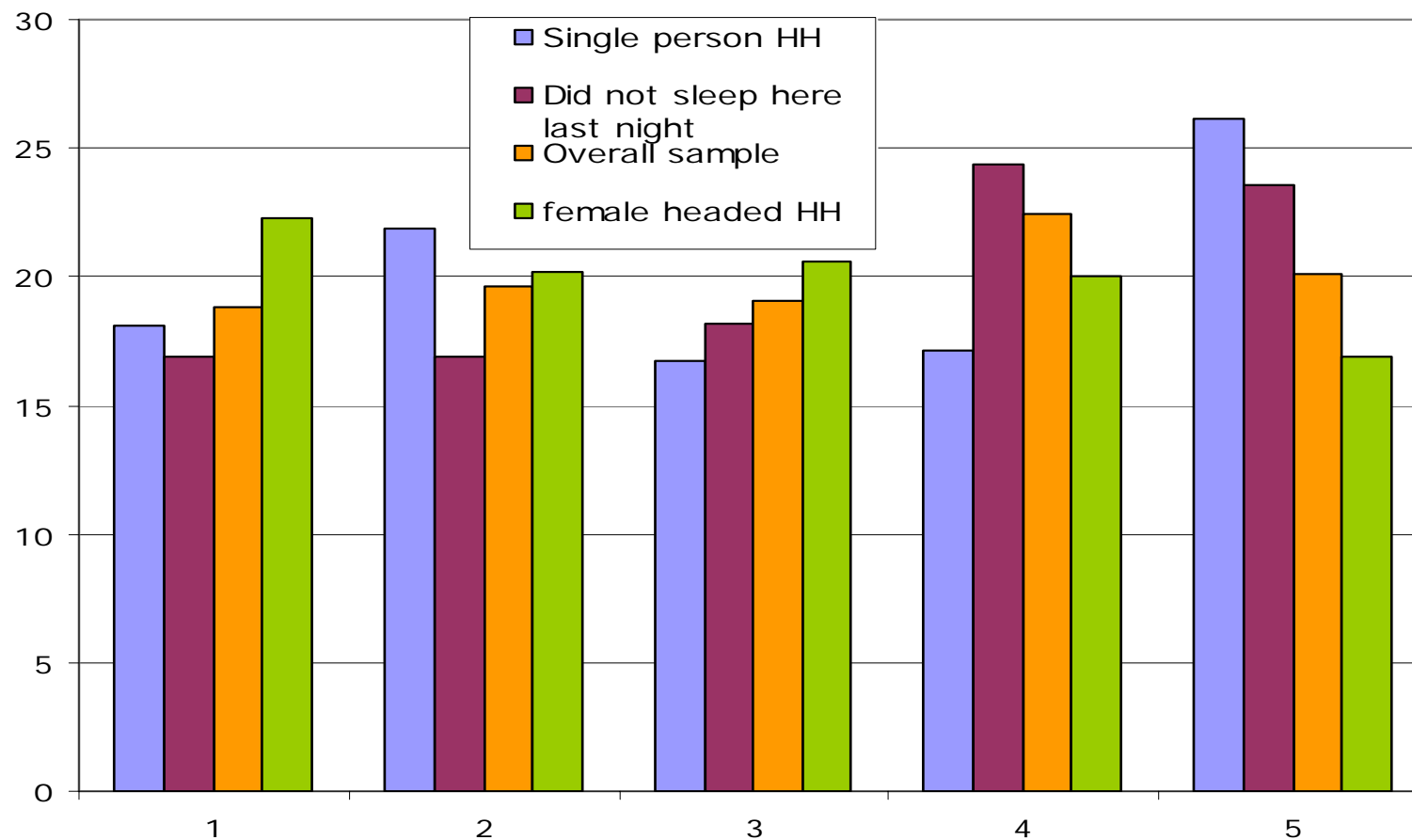

HH gender composition

Where do they live?

Place of residence

How wealthy are they?

Wealth quintile

Results DHS data analysis-scenarios

	% included	mean age sample	Dependency ratio	Mean years of HH education	% female population	Age head of HH	house hold size	# people per room
Total Sample		25.05	1.26	4.88	51	44.73	5.13	2.48
de jure	96.3	25.09	1.35	-	50.8	44.68	4.94	2.3
de facto	93.2	21.74	1.55	4.33	51.8	39.99	4.78	2.4
Female HHH	24.2	23.37	1.47	3.01	61.2	45.59	4.58	2.42

Light at the end of the tunnel?

Ways of dealing with 'fuzzy' household at the collection stage

- Collect information on who resides in the household as reported by the respondent before being selected for the main part of the questionnaire
    - The DHS, for example, uses the households to select the individuals. The first part could be expanded to include more information

Ways of dealing with 'fuzzy' household at the collection stage

- Collect data in more sensible way that allows better configurations
  - include information on who slept there the night before, who ate and possibly on contributions to the household economy
  - Relationship to hh head
  - Line numbers and relationship to each other
- Where possible and in particular for specialized surveys avoid assumptions of crisp boundaries – allow multiple membership of HHs and find ways to record it (e.g: Hosegood &Timaeus).

Ways of dealing with 'fuzzy' household at the <u>analysis</u> stage

- Education of users: more background material on the issues surrounding the impact of the household definition
  - Careful interpretation of the results
  - Non-technical language to educate policy makers on the interpretation of the data

Ways of dealing with 'fuzzy' household at the analysis stage

- Methodological material available to users
  - Warnings from users' manuals
  - Make better use of the household recode of the DHS survey when analysing individual files
  - More methodological research into the use of households needed
  - There is a limited literature on the impact of the definition on the possible outcomes. Especially poverty mapping
  - Future research needed into how different types of respondents can influence the household's composition structure (e.g.: example of man not reporting wife's son).