HBM4EU project

Selecting a representative subset of samples

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Representative subset of samples

Aligned studies: some data collections sample size > 300

300 samples should be selected
for measurement of the selected substances

subset should be representative of target population

HOW?

Proposal

Apply exclusion criteria:

- Occupationally exposed?
- Living in the same catching area < 5 years

Stratification by relevant variables

Random selection

Important stratifying variables

Which variables are important?

- Sex of the participant

  → equal number of males-females

- Age of the participant

  → age groups are already defined

- Educational level of the (household/mother of) the participant

  → at least 10% of each category of education (low-medium-high education based on ISCED)

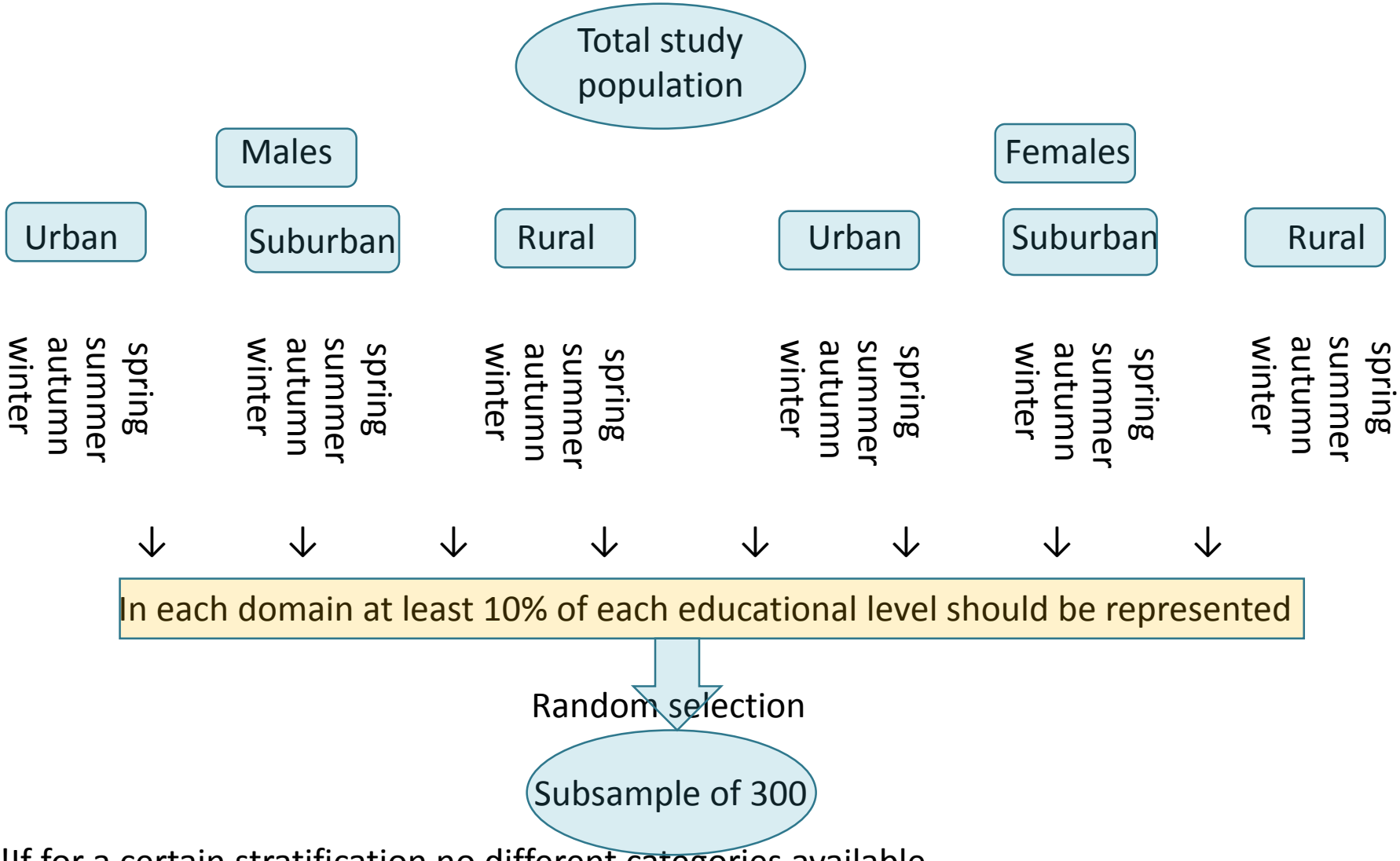
- Level of urbanization

  → proportionate distribution from urban, suburban, rural area? For country? For data collection?

- Seasonal variation

  → samples spread over all seasons (if available)

Stratification scheme



!If for a certain stratification no different categories available
→ this level should be discarded

Quota sampling?

→ method for selecting survey participants that is a non-probabilistic version of stratified sampling

1. Study population is first segmented into mutually exclusive subgroups (~stratified sampling)
2. Subjects are selected based on a specified proportion (non-probability sampling)

Quota sampling

Steps to follow:

1. Divide the sample population into subgroups
2. Figure out the weightages of the subgroups
3. Select an appropriate sample size
4. Survey while adhering to the subgroup population proportions

These steps should be automatically programmed!

Support by statistical working group!

Thank you for your attention

Any questions?

Contacts

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Speaker's information

Eva Govarts works as researcher – biostatistician at the Flemish Institute for Technological Research (VITO), Mol, Belgium. She received training in biomedical sciences, applied and biostatistics. In HBM4EU she is task leader of task 10.4 on the data analysis and generation of European reference values (RVs) and together with Greet Schoeters she is co-leading WP10.

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