

Who takes care of grandma?

Insights from a survey using RDS on the living and working conditions of 24-hour Polish care workers

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Structure

Background

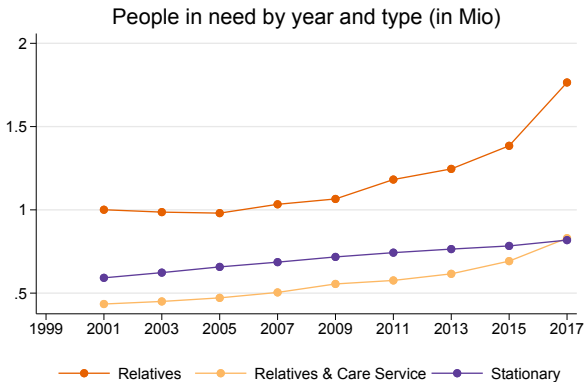
Implementing RDS

Preliminary Findings

Discussion

Motivation

- Increasing demand for paid care work
- “Estimations” of 100.000–800.000 informal care workers in private households (ZQP: 2016)
- But: de facto no reliable knowledge about those workers



Data: Statistisches Bundesamt (2019)

Motivation

ZEIT  ONLINE

Pflegekräfte

Sklavinnen, die uns pflegen

Beleidigt, geschlagen, keine Freizeit: Hunderttausende Osteuropäerinnen versorgen in deutschen Haushalten Menschen. Das ist meist verboten, wird aber selten verfolgt.

Von **Daniel Drepper**

18. August 2016 / Quelle: correctiv.org [<https://correctiv.org/recherchen/pflege/>] / 152 Kommentare

AUS DER ZEIT NR. 34/2016



Zu Hause gepflegt werden? Für viele ist diese Vorstellung angenehmer

Project Goals

- Standardized survey of 24h-care workers in Berlin
 - Demographics
 - Working conditions
 - Prevalence of illicit employment
 - ...
- A *valid* (in a statistical sense) description of target population (“representativeness”)
- Implementing “Respondent-Driven Sampling” (RDS)

Respondent-Driven Sampling

- Chain referrals/snowball sampling:
 - Purposive selection of 'seeds'
 - 'Seeds' then recruit respondents from the target population
 - Respondents recruit further respondents
 - [Details](#)
- Preconditions for success
 - Incentives (primary and secondary)
 - Reciprocity/trust
 - Monitoring fieldwork
 - Collection of data on the network size
- Weighting procedures

Statistical requirements for RDS

Assumptions

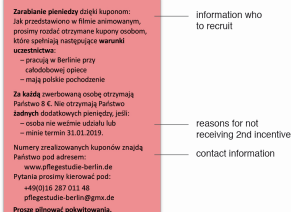
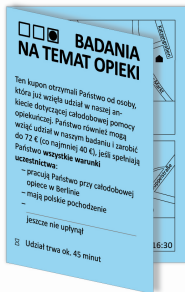
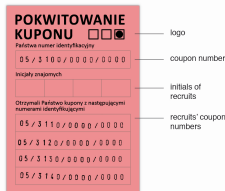
- „Small-world“-characteristics in the target population
- Accurate reporting of network size
- Random peer recruiting
- Recruitment via „1st-Order-Markov-Chain“

- selection probability as a function of individuals' network size
- estimation of unbiased parameters in target population

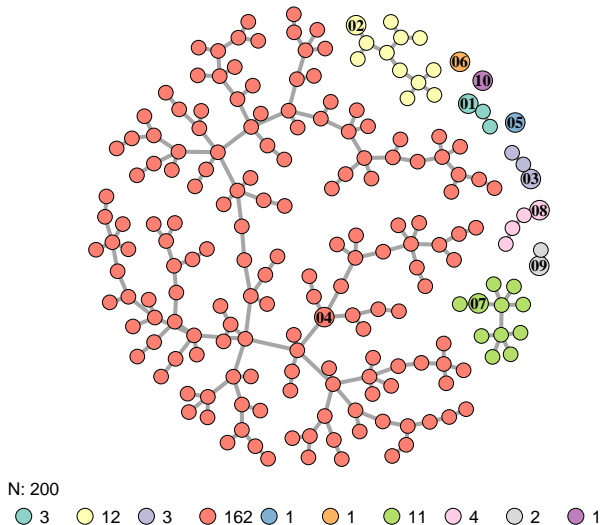
Formative assessment

- Identifying target population
 - “live-ins” (originally: any type of care work)
 - currently working in Berlin (originally: Berlin & Brandenburg)
 - Polish origin (originally: any nationality/migration background)
- Designing the questionnaire
- Pretesting
- Selecting the interview site
- Setting up logistics, e.g.,
<https://www.pflegestudie-berlin.de/>
- Sample size calculations (# of coupons & # seeds)

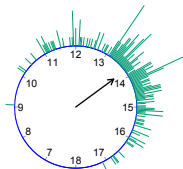
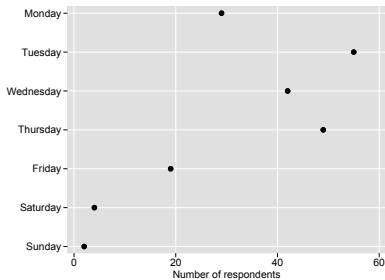
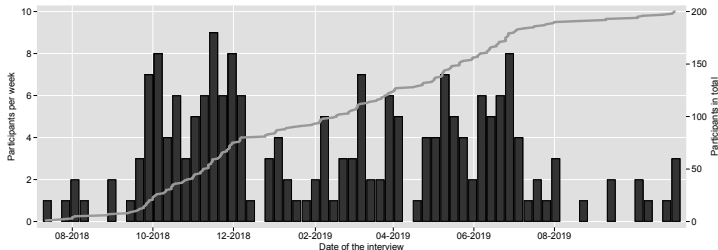
Designing coupons



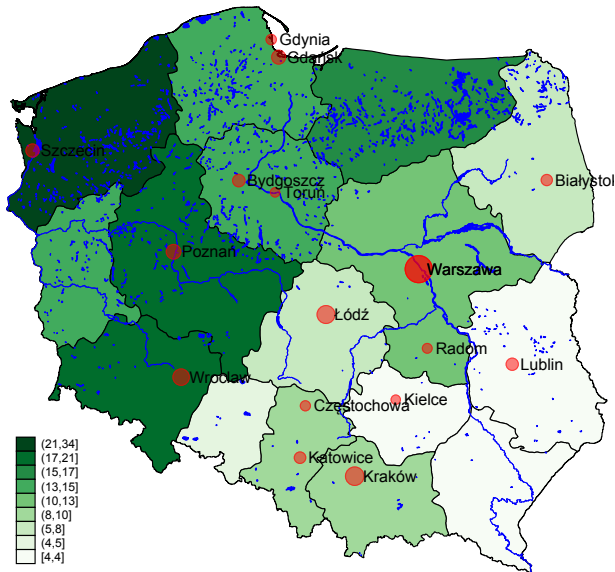
Description of the sample



Date, day of the week, and time of the survey

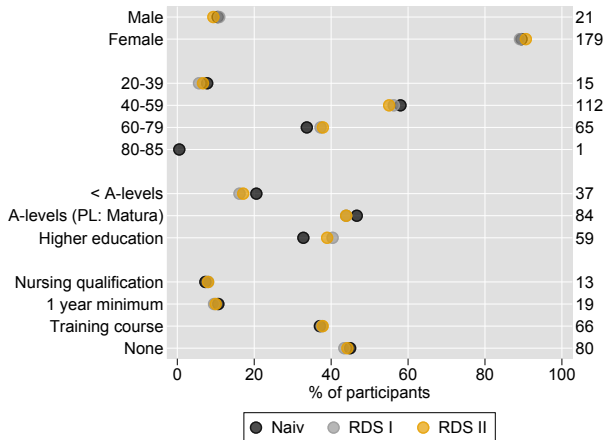


Where do our respondents come from?



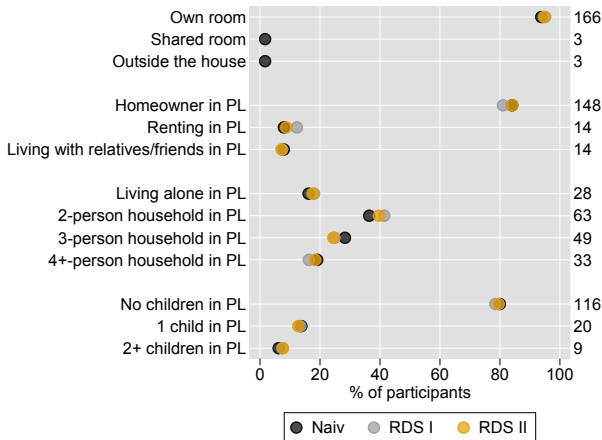
Who are the 24-h live-ins?

Gender, age, education, and qualifications



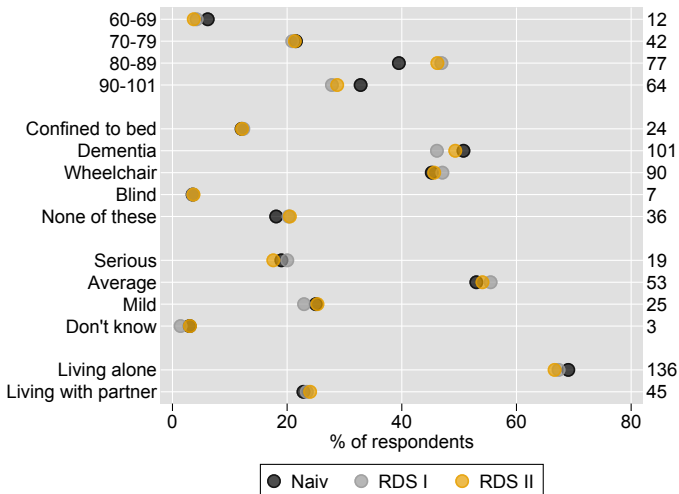
How and with whom do they live?

Living situation (Berlin/Poland) and family situation

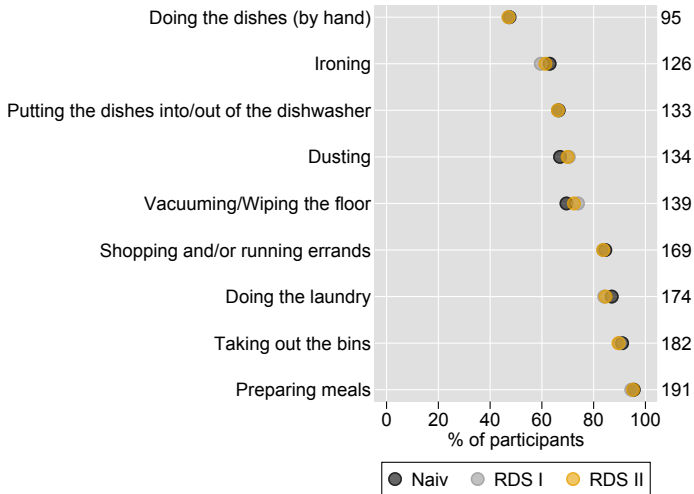


Who are their “clients”?

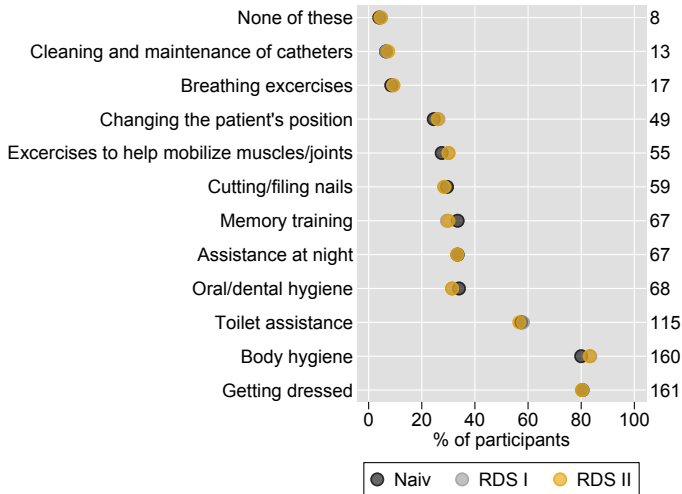
Age, care needs, and family situation of carees



What work do they do? Housework duties

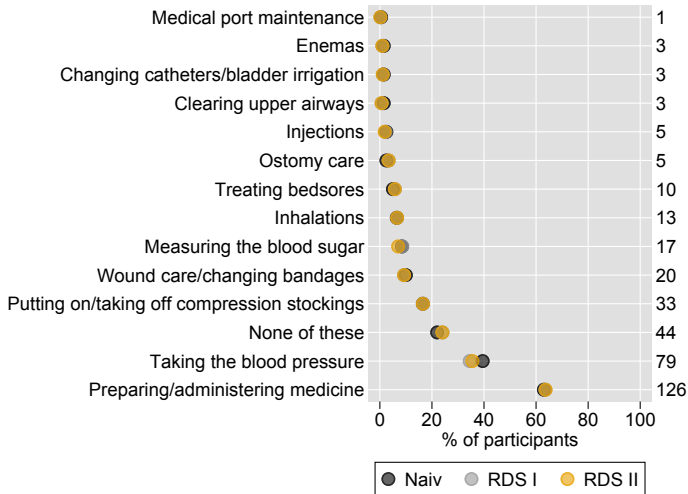


What work do they do? Care-related duties

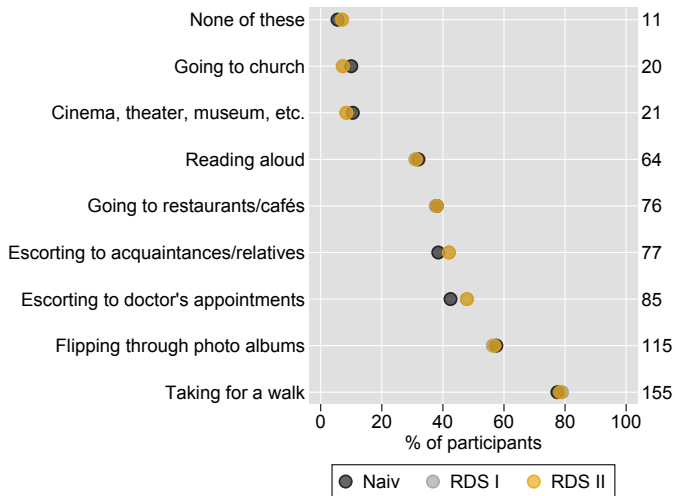


What work do they do?

Medical care

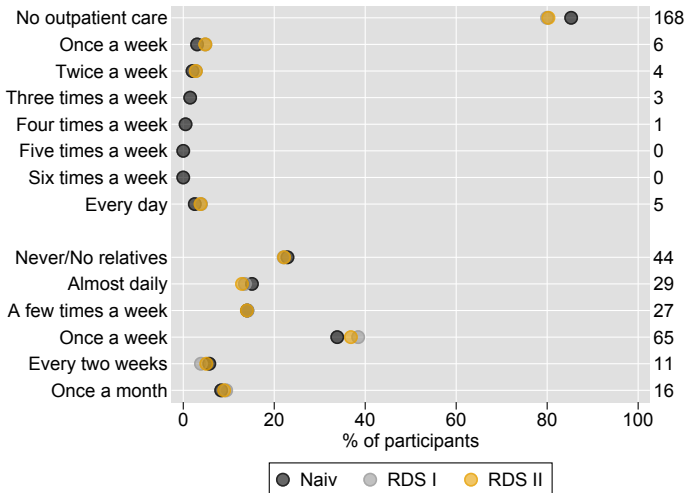


Other duties



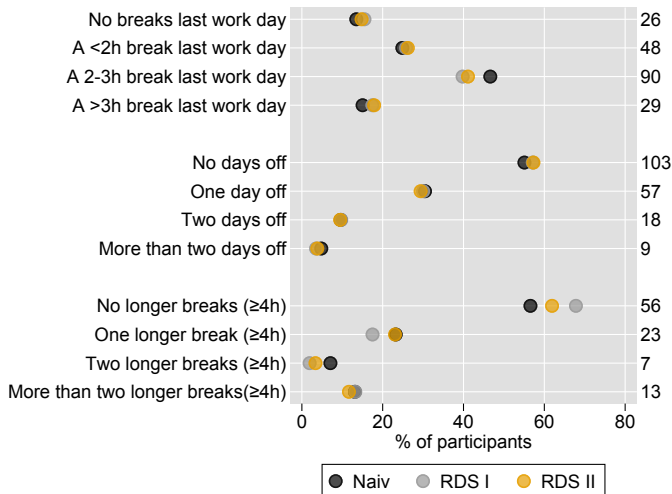
How does their work supplement care by others?

Cooperation with care services and relatives



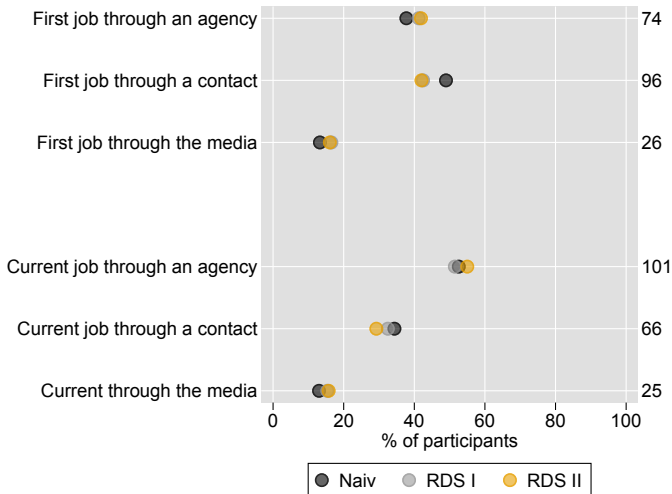
What are their working hours?

Free time during the work assignment



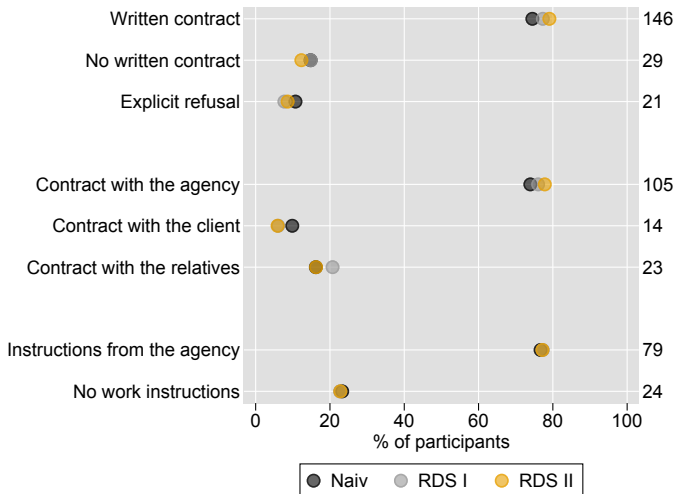
How do they find their jobs?

Means of finding work



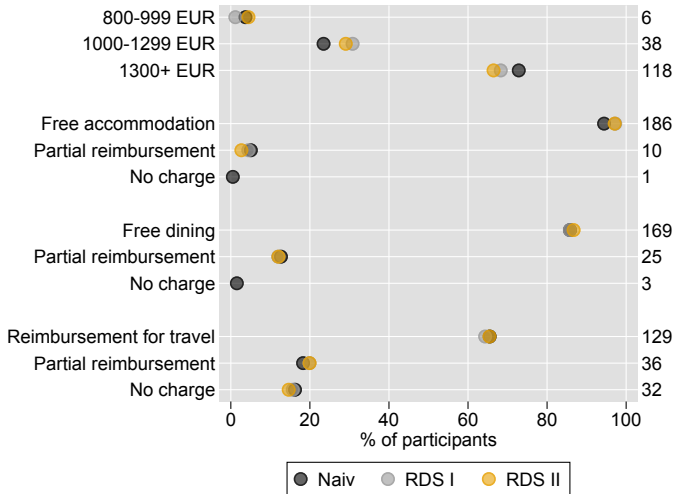
How are they employed?

Form of contract and contractual parties



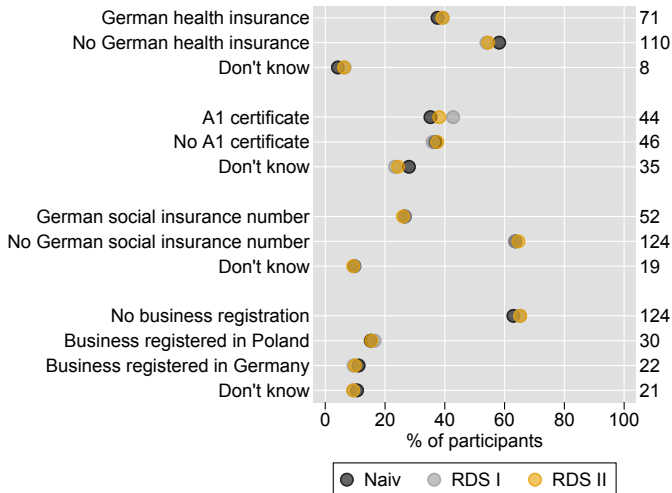
How much do they earn?

Income situation



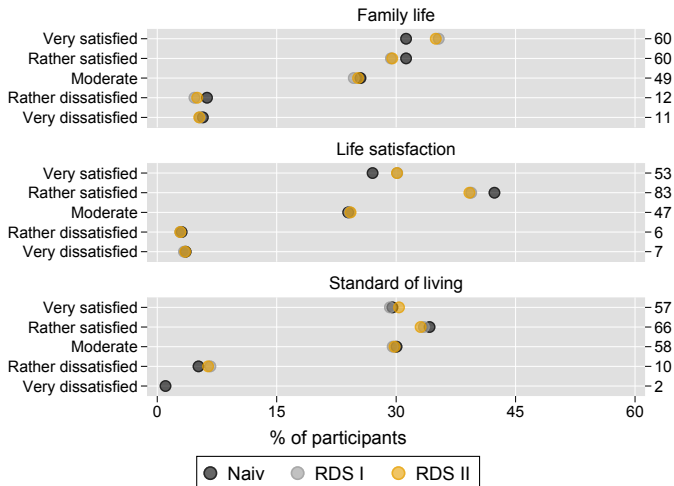
Are their indications of illicit employment?

Social security



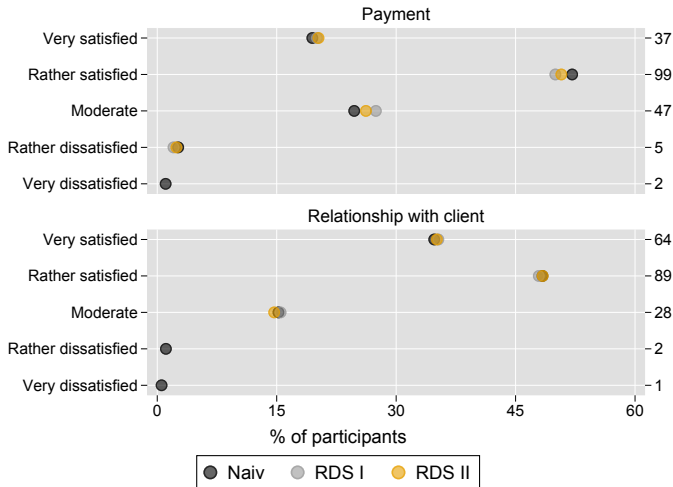
How happy are they?

Life satisfaction in general



How happy are they?

Satisfaction with the work situation



Implications of preliminary findings based on RDS survey

- Substantial findings (Important: Polish live-ins in Berlin!)
 - Live-ins as an alternative to care services?
 - Attractive for the clients?
 - Attractive for the workers?
 - Social inequalities in care work & old age?
 - Social security?
- Implementation of RDS
 - Considerable time restrictions of the respondents
 - Large primary incentives necessary
 - Unresolved problem of non-monetary incentives
 - Unresolved problem of verifying whether the respondents belong to the target population
 - High time flexibility in organization of fieldwork (staff!)
 - Financial flexibility essential
 - Patience<

Thank you for your attention



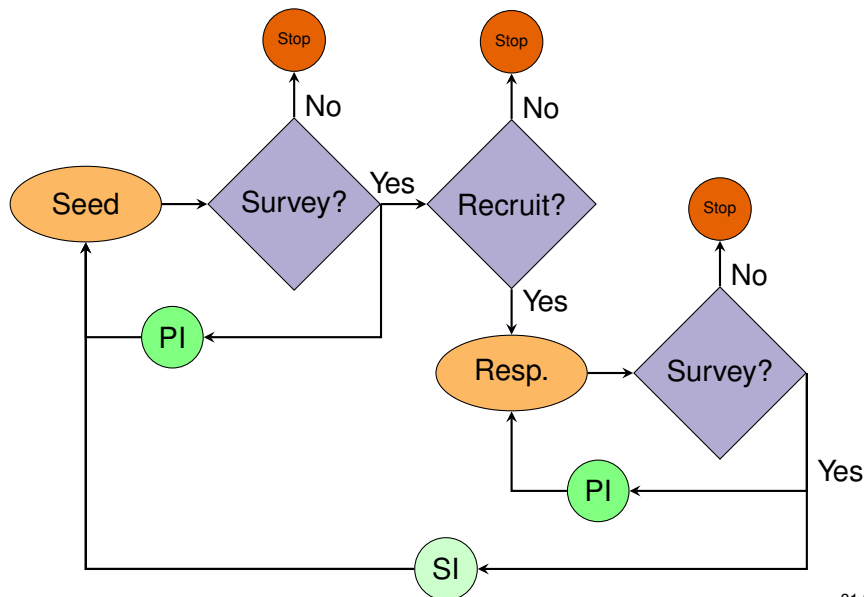
Hipp, Lena, Ulrich Kohler und Sandra Leumann (2019)

How to Implement Respondent-Driven Sampling in Practice: Insights from Surveying 24-Hour Migrant Home Care Workers. *Survey Methods: Insights from the Fields*, 1–13. DOI: 10.13094/SMIF-2019-00009

Appendix

1. RDS design Design
2. Derivation of the number of cases Case numbers
3. Simulation of the expected sample size Simulation
4. Further reading Literature

Sample design



Desired number of cases

Number of cases is chosen in a way that the estimator $\hat{\pi}$ does not deviate (with probability of 95%) more than d from the population parameter.

$$n = \text{Deff.} \cdot \frac{Z_{1-\alpha}^2 \cdot \pi(1 - \pi)}{d^2} \quad (1)$$

with $Z_{1-\alpha}^2 \approx 1.96$ and $\text{Deff} \approx 2$ (Design effect).

at $\pi = 0.5$ (worst-case scenario) and precision of $d = 0.05$,

$$n = 2 \cdot \frac{1.96^2 \cdot 0.5^2}{0.05^2} = 768 \quad (2)$$

With 768 cases, the estimates are *likely* less than 5 percentage points off.

Expected realized sample size

With s seeds, c coupons issued, and a recruitment success rate of r , the number of cases after W recruitment waves is:

$$n_{W,s,c,r} = \sum_{w=1}^W (s - 1.6) \cdot (c \cdot r)^{w-1} \quad (3)$$

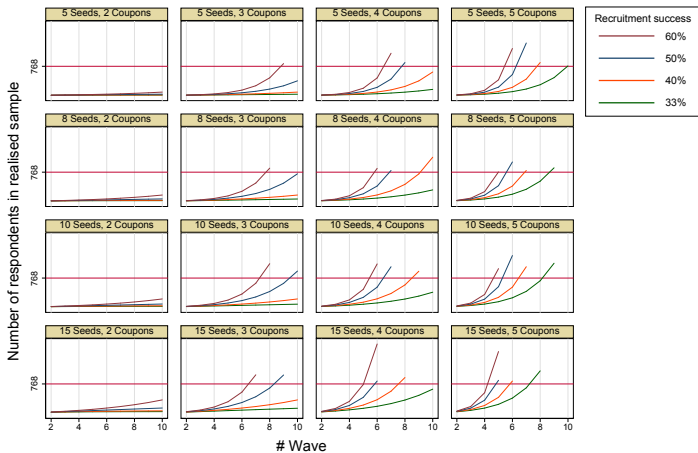
where the number of unsuccessful seeds has been set to 1.6 (average of RDS samples performed so far; WHO 2013: 70)

[go back](#)

→ Simulation results on the next slide

Simulation

Respondents after ... waves



In case of acceptance of 1.6 unsuccessful Seeds