

Video 3 of 21: Coverage error

Coverage considerations for phone surveys

Sampling

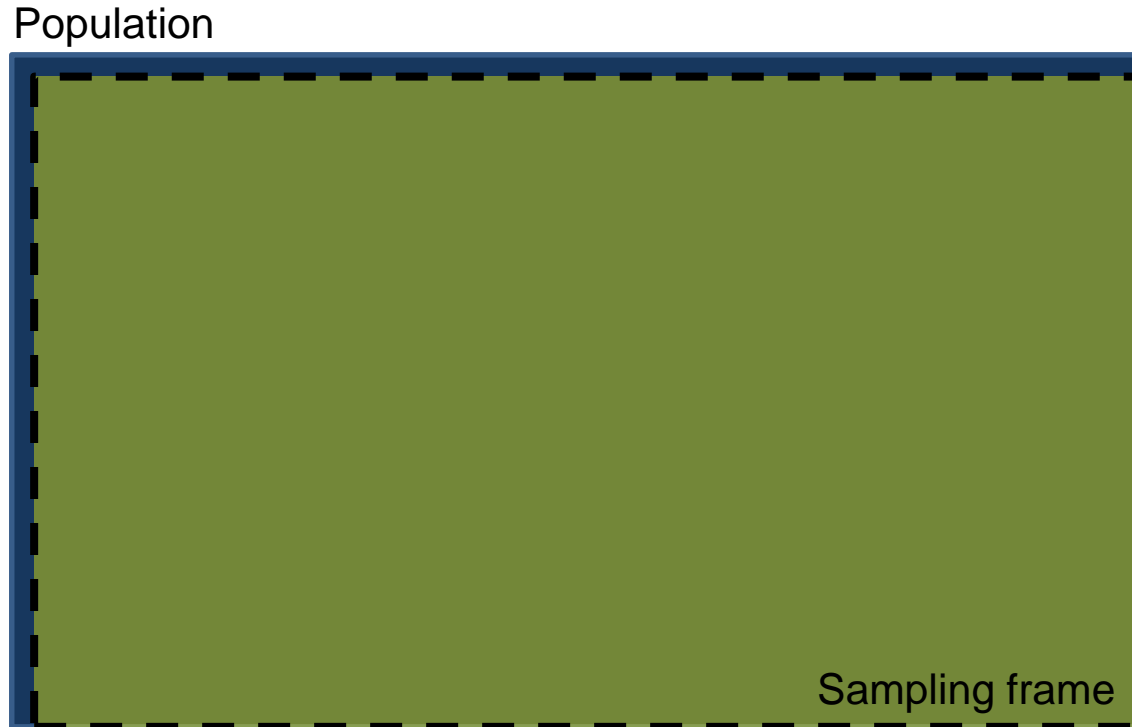


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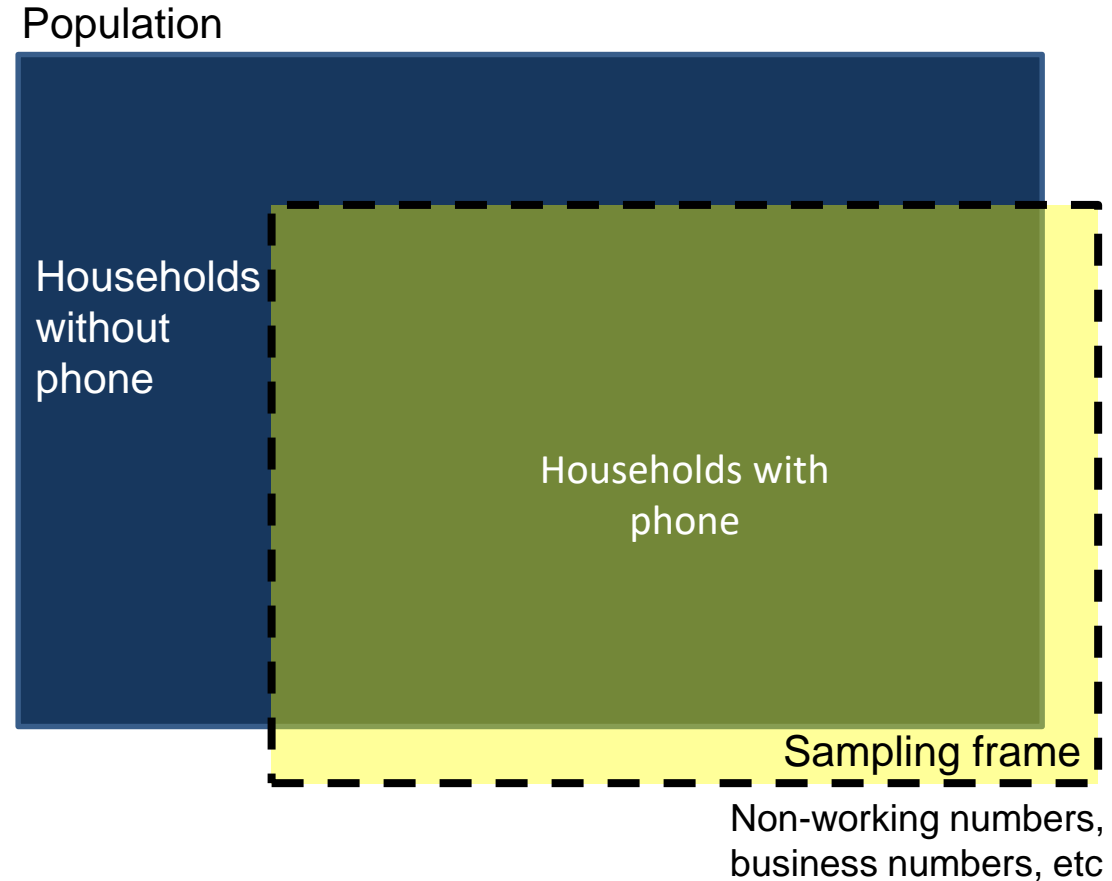
Coverage considerations between Area and Phone frames

Area frame



Coverage rate \approx 100%

Phone frame

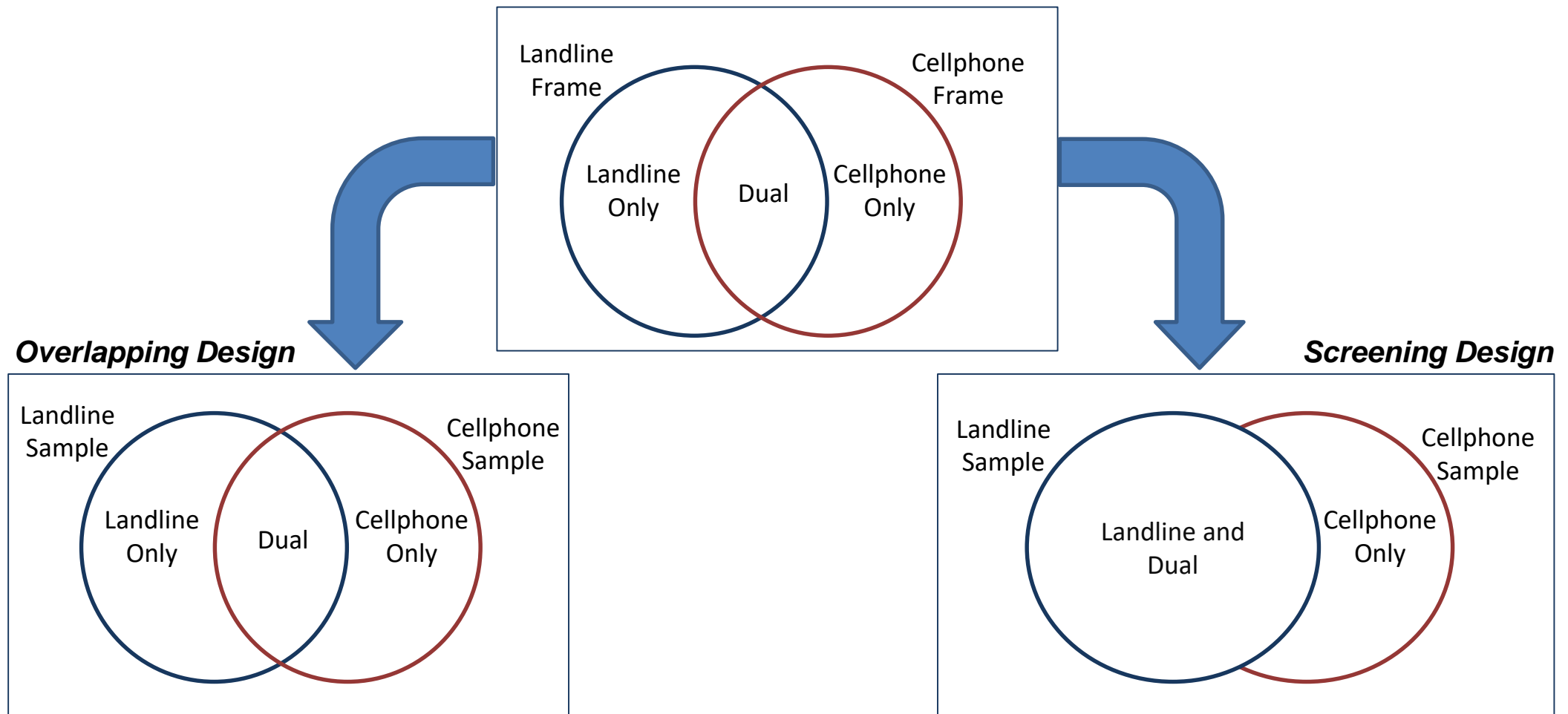


Coverage rate \approx Telephone penetration

Coverage considerations for phone surveys

- Coverage factors to consider when transitioning from face-to-face to phone:
 - Phone penetration in terms of households and/or individuals
 - Differences between with and without phone population:
 - Urbanicity, wealth, age, gender, etc
 - Overcoverage: large proportion non-working/inactive phone numbers
 - Screening out ineligible phone numbers
 - Inefficiencies for data collection
 - If using lists or directories:
 - What is the coverage properties of such lists/directories?
 - Listed households tend to be different from non-listed households → Potential undercoverage biases

Coverage considerations accounting for Landline and Cellphone frames (I)



Coverage considerations accounting for Landline and Cellphone frames (II)

- Dual-frame design
 - Better coverage
 - Needs to address dual users
 - Overlapping design: Needs to account differential selection probabilities through weighting
 - Screening design: less efficient as it can screen out a large portion of eligible respondents
- If high cellphone coverage: consider cell-only design
 - Avoids inefficiencies in screening design and complications in weighting dual users in overlapping designs
 - Potential coverage bias

Coverage considerations accounting for Landline and Cell phone frames (III)

- Landlines are considered household devices: conduct within-household listing and selection
 - In some surveys, respondent is whoever answers the phone
 - May lead to selection bias
 - Consider instead other pseudo-random within household selection procedures such as next/last birthday → May increase nonresponse
- Cell-phones are generally assumed to be individual device
 - No within-household listing and selection is done
 - If shared cellphone is widespread, consider within-household selection
 - Multiplicity: individuals with more than one phone have higher chance of being selected than those with only one phone
 - Needs to be addressed through weighting
 - Multiplicity information needs to be collected

END OF VIDEO 3