Denmark 2023 Technical Document - CATI

Sampling
A mobile only sample was used to complete 800 telephone surveys. 80% of the interviews were completed using a mobile sample generated using pure Random Digit Dial (RDD) procedure, while the remaining 20% utilizes a stratified random sample from a list of mobile numbers with known region information in order to target respondents from certain regions to form a more balanced sample.

Target Population/Coverage: Adult population (15 years of age or older) who have mobile phones for personal calls. It excludes business phone numbers. The coverage error (percentage of target population not accessible for sampling) is expected to be less than 4%.

Stratification: For the RDD mobile sample, the sampling frame was explicitly stratified by the 5 mobile service providers in the market, and allocation across the strata was proportional to their market shares. For the listed mobile sample, the sampling frame was explicitly stratified by five regions, the allocation is based on the expected number of completes that can be achieved from the RDD mobile sample.

Sample Selection: In the case of mobile RDD mobile, sample of specified size was drawn using pure Random Digit Dial (RDD) procedures within each stratum. All sampled mobile phone numbers were pre-screened for working status. In the case of listed mobile sample, sample of specified size was drawn using simple random sampling method within each stratum.

For respondents reached on mobile, there was no random selection, just confirmation that they were 15 or older to participate in the survey.

For the purpose of data collection, the total initial sample was split into random subsamples (replicate samples) and released sequentially based on the progress of interviewing in different strata. The goal was to release an optimum amount of sample each time to achieve a high response rate while completing the targeted number of interviews within the field period.

Data Collection: June 27, 2023 – August 3, 2023

AAPOR3 response rate: 9%

Weighting: The sample data were weighted to minimize bias in survey-based estimates. The weighting procedure was formulated based on the sample design and was carried out in multiple stages. A probability weight factor (base weight) was constructed to account for unequal selection probabilities. At the next step, the base weights were post-stratified to adjust for non-response and to match the weighted sample totals to known target population totals obtained from country-level census data. The standard demographic variables used for post-stratification are: age, gender, education, and region.

Design Effect: 1.77

Margin of error: ± 4.6% (95% confidence level)

Population sources used for constructing weights were based on the following:
Age, Gender, Region: Statistic Denmark's population register, 2023
Education: Statistics Denmark, 2019 Population estimates

Age	SAMPLE_UNWTD	SAMPLE_WTD	TARGET
15-24	10.3	13.7	14.5
25-34	15.8	16.4	16.1
35-44	16.1	14.4	13.9
45-54	20.4	16.0	15.5
55-64	18.0	16.1	15.6
65+	19.5	23.6	24.3
Education	**SAMPLE_UNWTD**	**SAMPLE_WTD**	**TARGET**
Primary and secondary education or less	8.9	26.0	28.1
Upper Secondary	29.6	40.9	40.4
Post-secondary education	61.5	33.1	31.5
Gender	**SAMPLE_UNWTD**	**SAMPLE_WTD**	**TARGET**
Male	50.8	50.2	49.4
Female	49.3	49.8	50.6
Region	**SAMPLE_UNWTD**	**SAMPLE_WTD**	**TARGET**
Hovedstaden (Capital Region of Denmark)	31.1	32.5	31.8
Sjaelland (Region Zealand)	15.6	14.1	14.4
Syddanmark (Southern Denmark Region)	21.9	21.5	20.9
Midtjylland (Central Denmark Region)	21.4	22.7	22.8
Nordjylland (North Denmark Region)	10.0	9.2	10.1