



Web participation in a mixed-mode survey design

Results from a methodological study

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- ➔ Regular cross-sectional telephone surveys (German Health Update) at Robert Koch Institute (2008, 2010, 2012 – each approx. 20.000 respondents)
- ➔ Problems (declining response rates, growing coverage and selection bias, increasing costs)



We implemented **Mixed-mode** survey design for the first time: GEDA 2.0

- compare response rates and sample structure of two different mixed-mode designs (including Web, SAQ and CATI modes)
- evaluate the most appropriate design including aspects of costs, timeliness and data-quality

GEDA 2.0 – Study design

Sample size
N = 10.080

Randomization 50/50
Cross-section only / Cross-section plus Access Panel

Sequential
Mixed-Mode Design

Parallel
Mixed-Mode Design

CATI (Single-Mode) Design

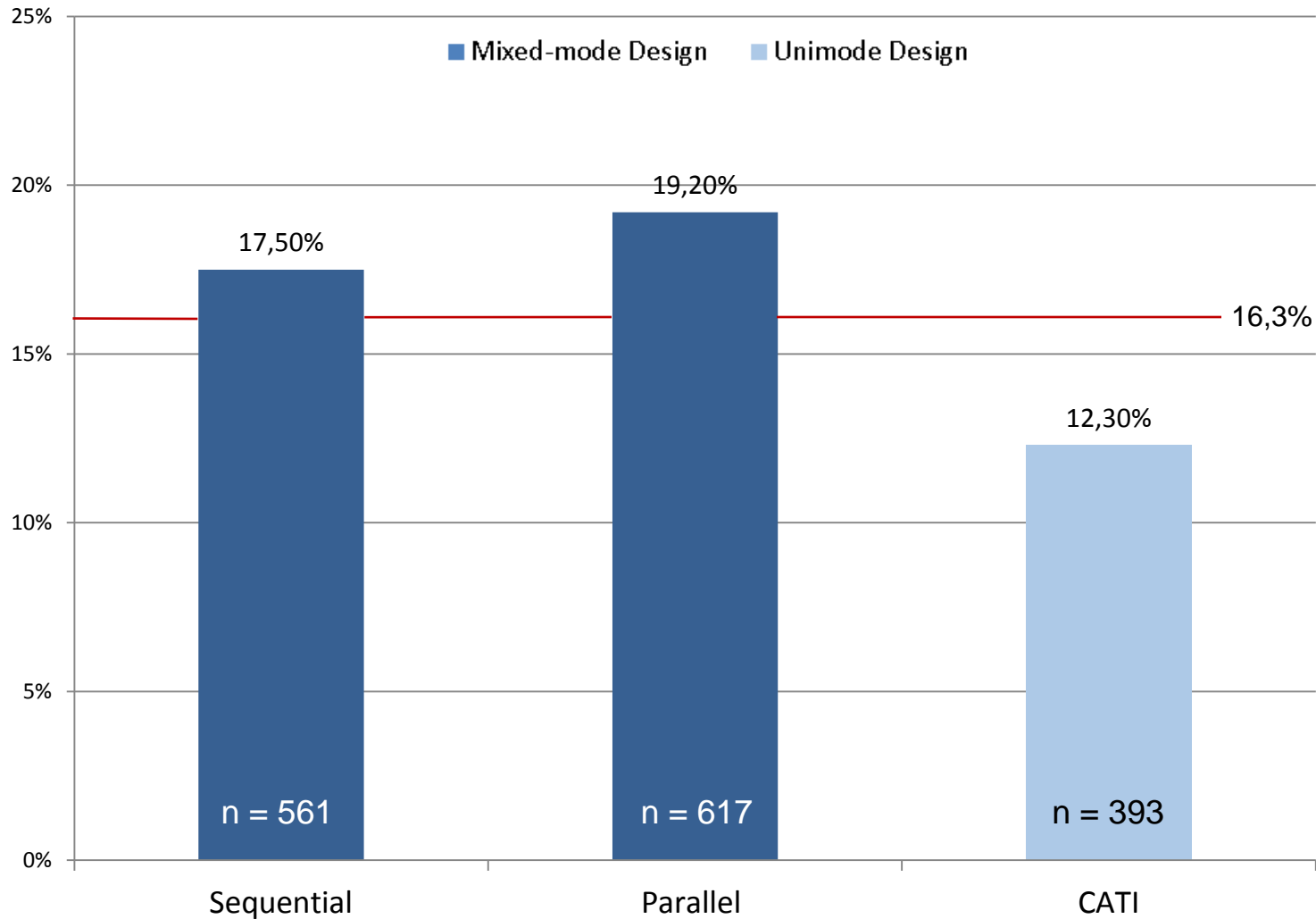
Web
1st Reminder: Web, SAQ
2nd Reminder: Web, SAQ, CATI

Web, SAQ, CATI
1st Reminder
2nd Reminder

Telephone (CATI)
1st Reminder
2nd Reminder

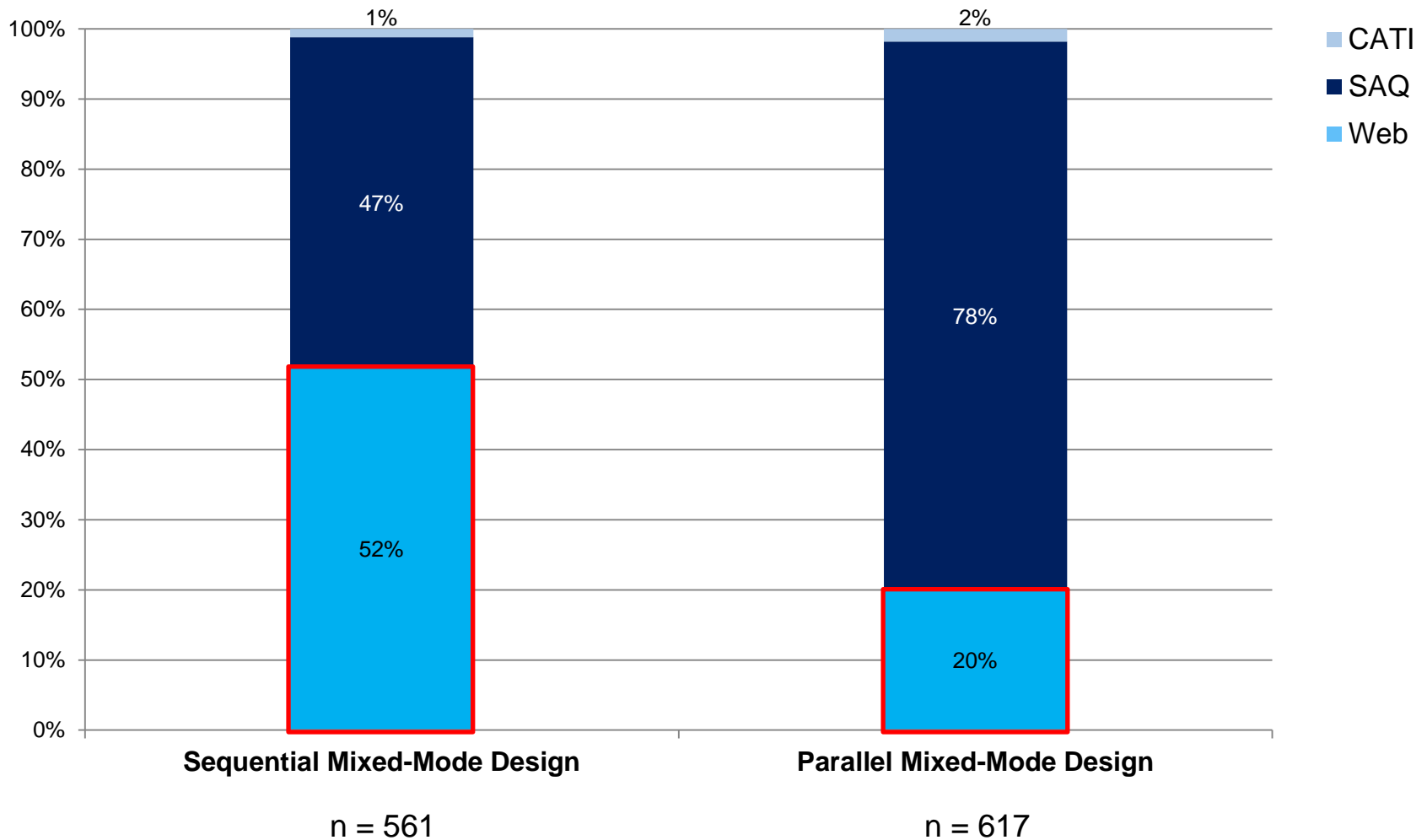
Results

Response Rates by Design




Results

Response Rate by Design and Response Mode



Advantages of Web interviews

- ⇒ Reduced costs
 - Printing
 - Postage
 - Administration
 - Storage
- ⇒ Elimination of data entry
- ⇒ Improved timeliness
- ⇒ Improved data quality
- ⇒ Error reduction because of automated filters
- ⇒ Additional data available (Paradata)  such as...

Response Process

➔ Response Time

Ø duration of Web interview	26 min.
Ø duration of Telephone interview	35 min.

➔ Response behavior

Web interviews	414
• without interruption	325 (85%)
• with interruption	62 (15%)
→ one	50
→ two and more	12
Drop-outs	11 (2%)

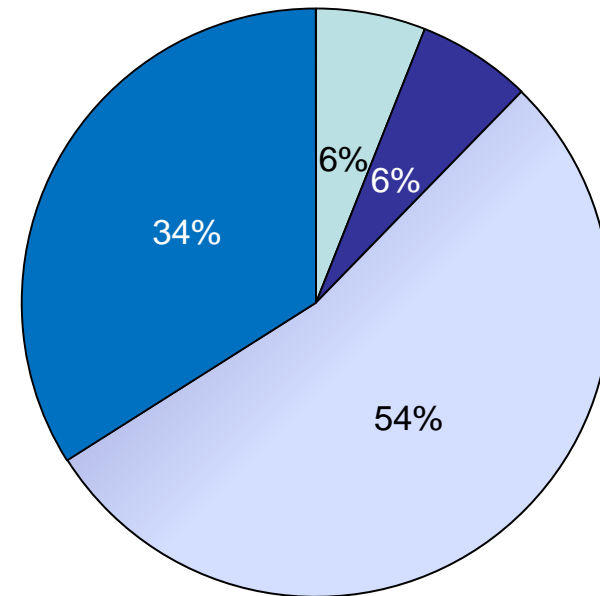
Response Process

Dates and Times

→ Day of Week

No significant differences between weekdays and weekends

→ Time of Day



- night (10 pm - 6 am)
- morning (6 am - 9 am)
- daytime (9 am - 5 pm)
- evening (5 pm - 10 pm)

Data Quality

Item Non-Response

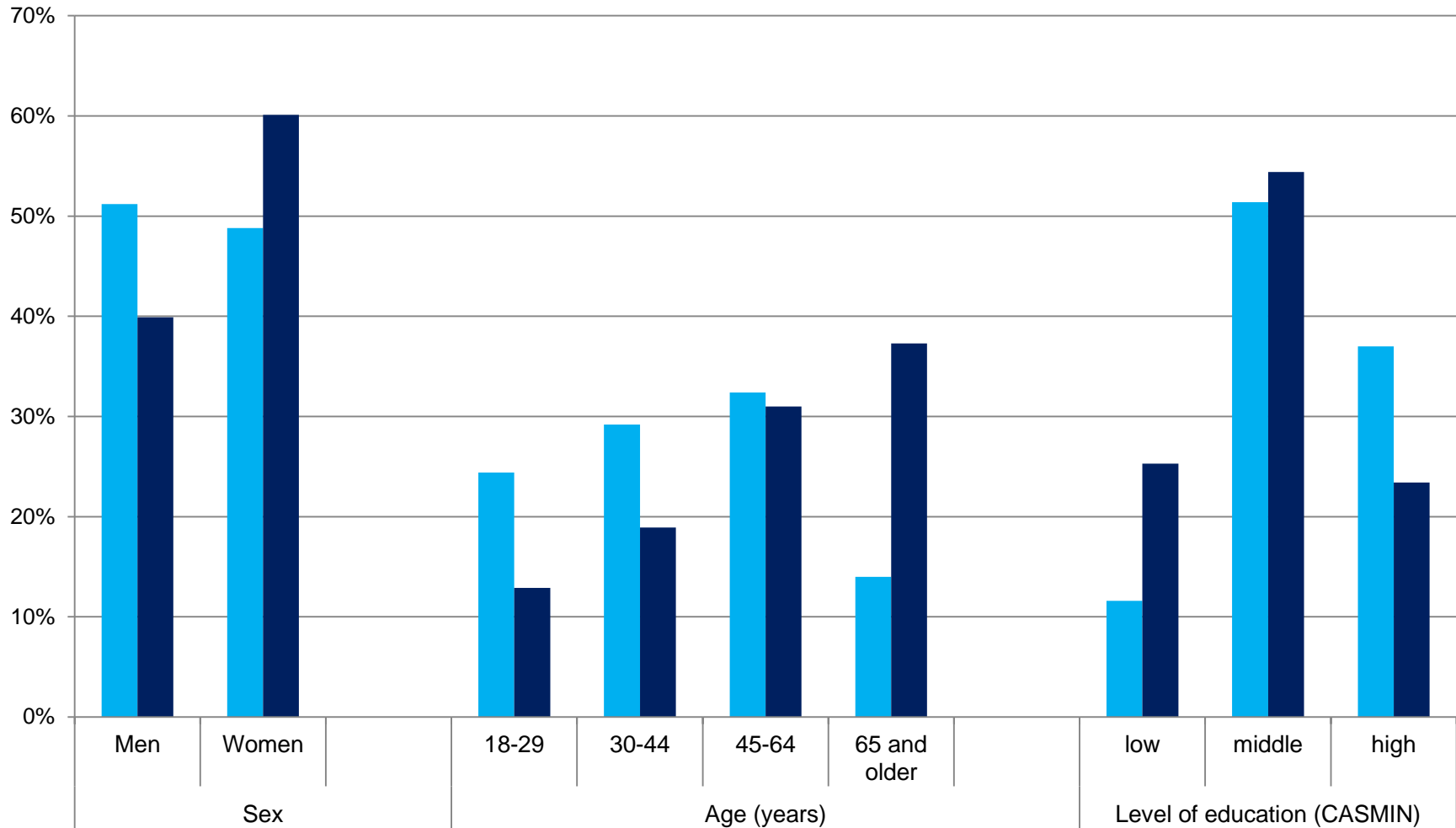
	SAQ	Web
Labour status	5,4%	0%
Income	5,3%	5,3%
Prevalences of diseases		
Diabetes (lifetime)	6,8%	0%
Dyslipidemia (12 months)	7,8%	0%
Obesity (BMI \geq 30)	3%	1,5%
Chronic Bronchitis (lifetime)	7%	0,2%
Bronchial asthma (Lifetime)	7,4%	0%
Health behaviour		
Smoking	3,2%	0%
AUDIT-C: Alcohol consumption	2,8%	0%
AUDIT-C: Binge drinking	4%	0%
Sporting activity in the past 3 months	2,1%	0%

Who are „the Onliners“ in GEDA 2.0?

Results

Socio-demographic characteristics

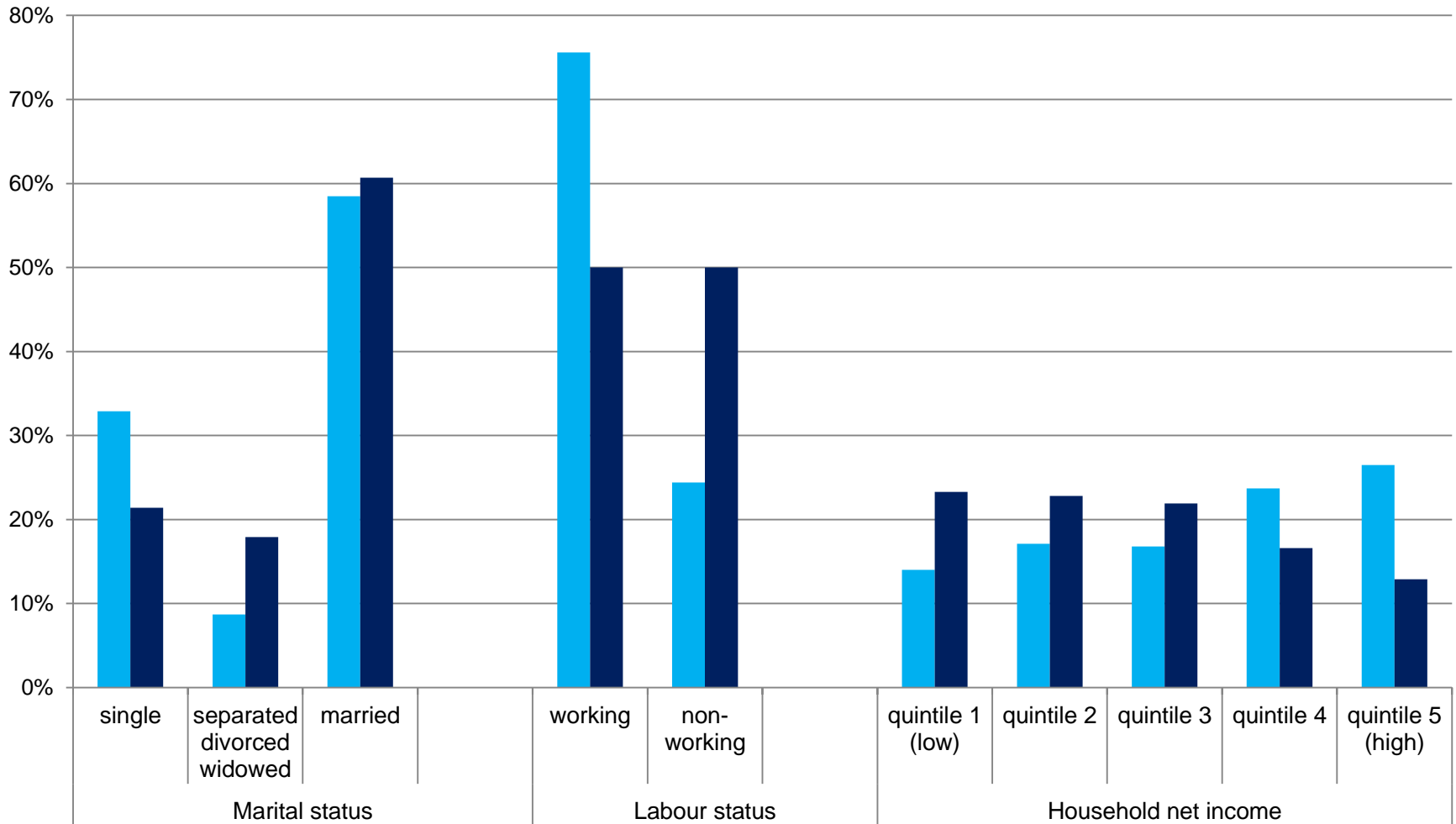
■ Web ■ SAQ



Results

Socio-demographic characteristics

■ Web ■ SAQ



Conclusion I – Web mode within GEDA 2.0

- ➔ Remarkably more people reply via Web if this mode is offered first.
- ➔ Increase in Web respondents goes along with cost reduction, decrease in item non-response, improved timeliness
- ➔ Compared to SAQ mode significantly more men and younger people are reached by web
- ➔ **Note!**
 - Bias in education level is evident: participants with degrees in higher education are clearly over-represented
 - The Elderly are less well represented
 - People with lower income are less well represented

➔ Paper Questionnaire can compensate for sample distortion

Conclusion II – Prospects for GEDA 2014

- ➔ Participation in CATI mode was extremely low.
- ➔ Looking at the two mixed-mode designs only minor differences in response and sample structure were found. ➔ Presentation E. v.d. Lippe
- ➔ Considering costs and timeliness the sequential mixed-mode design with its high number of Online respondents appears to be the more efficient design to apply in the future.

GEDA 2014:





Thank you!

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Design of the web questionnaire

www.befragung.rki.de/geda

- ➔ Wording identical to SAQ
- ➔ Layout as close as possible to the SAQ with using mode-specific advantages

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**GEDA -
Gesundheit in Deutschland aktuell**

Allgemeiner Gesundheitszustand >> Gesundheitsverhalten >> Gesundheitsvorsorge >> Lebensführung >> Soziodemographie

< Zurück Unterbrechen Weiter >

Haben Sie ein Hörgerät?

Ja
 Nein

Können Sie hören bzw. verstehen, was in einem Gespräch mit mehreren Personen gesagt wird?
Gegebenenfalls mit Hörgerät.

Ja, ohne Schwierigkeiten
 Ja, mit leichten Schwierigkeiten
 Ja, mit großen Schwierigkeiten
 Nein, gar nicht

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< Zurück

Unterbrechen

Weiter >

Sie haben die Frage "Können Sie hören bzw. verstehen, was in einem Gespräch mit mehreren Personen gesagt wird?" nicht beantwortet. Sind Sie sicher, dass Sie diese Frage nicht beantworten wollen?

- Ja
- Nein; zurück zur letzten Frage