

Moving Away from RDD: Shifting to ABS While in the Field



AAPOR

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Many states conduct general population surveys to understand the health needs and access to health care

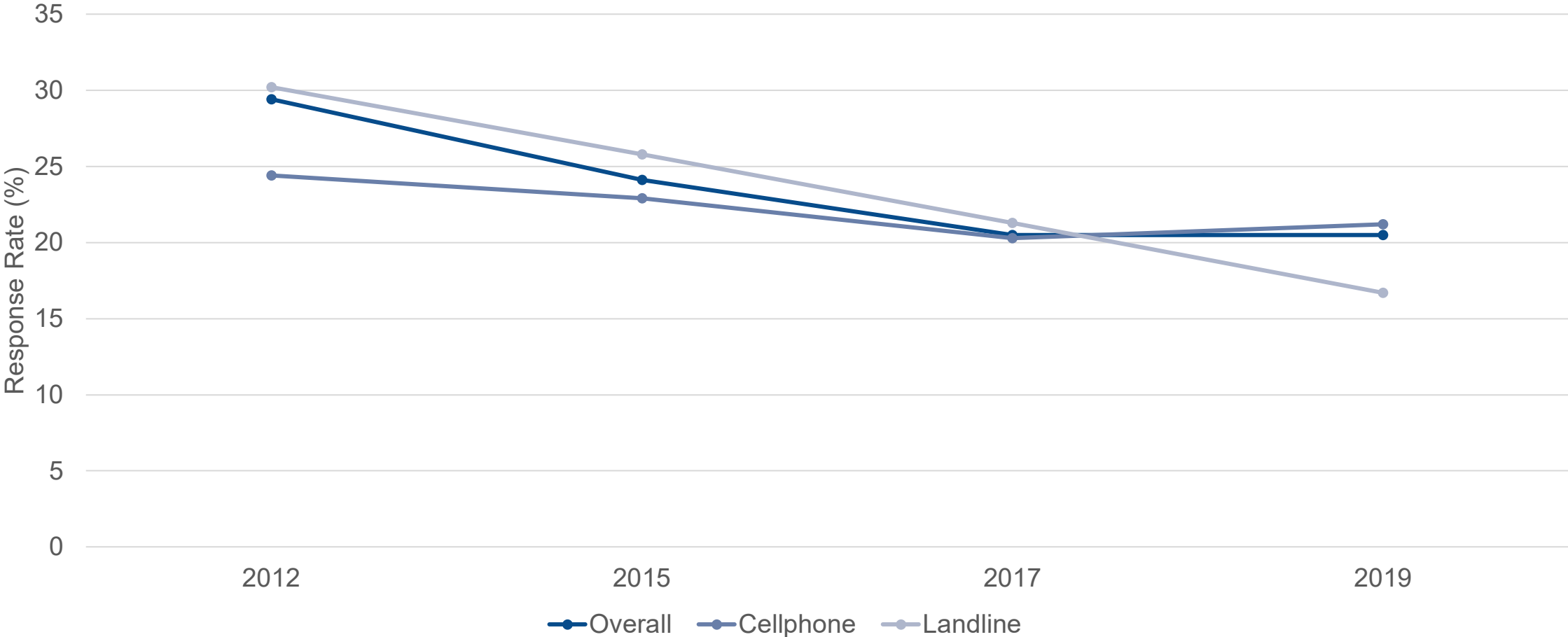
Examples include Ohio Medicaid Assessment Survey, California Health Interview Survey, and Minnesota Health Access Survey

These surveys have traditionally been collected via an RDD frame with CATI

- Relatively cheap frame from which to sample
- Live interviewer thought to collect better survey data than self-administered survey

Response rates – which had been stable for a long time – quickly began to drop which raised questions about the benefits of the current design

On the OMAS, RDD response rates have steadily dropped since 2012; especially on the landline frame.



Plan for ABS Frame and Self-Administered Survey

In 2019, the OMAS included an ABS pilot study

- Study was conducted in 5 counties
- Study include web and paper response options
- Choice+ design offered higher incentive to web respondents

Key findings from pilot

- Self-administration did work for OMAS
- Differences between RDD and ABS respondents were due to selection bias that could be controlled for – to some degree – through weighting
- Paper form was needed to maximize respondents – especially in rural counties

The 2021 OMAS expanded the use of the ABS frame to all Ohio counties

- 50% of cases targeted through ABS frame; 50% through RDD
- Of RDD cases, 90% through cellphone frame; 10% through landline frame

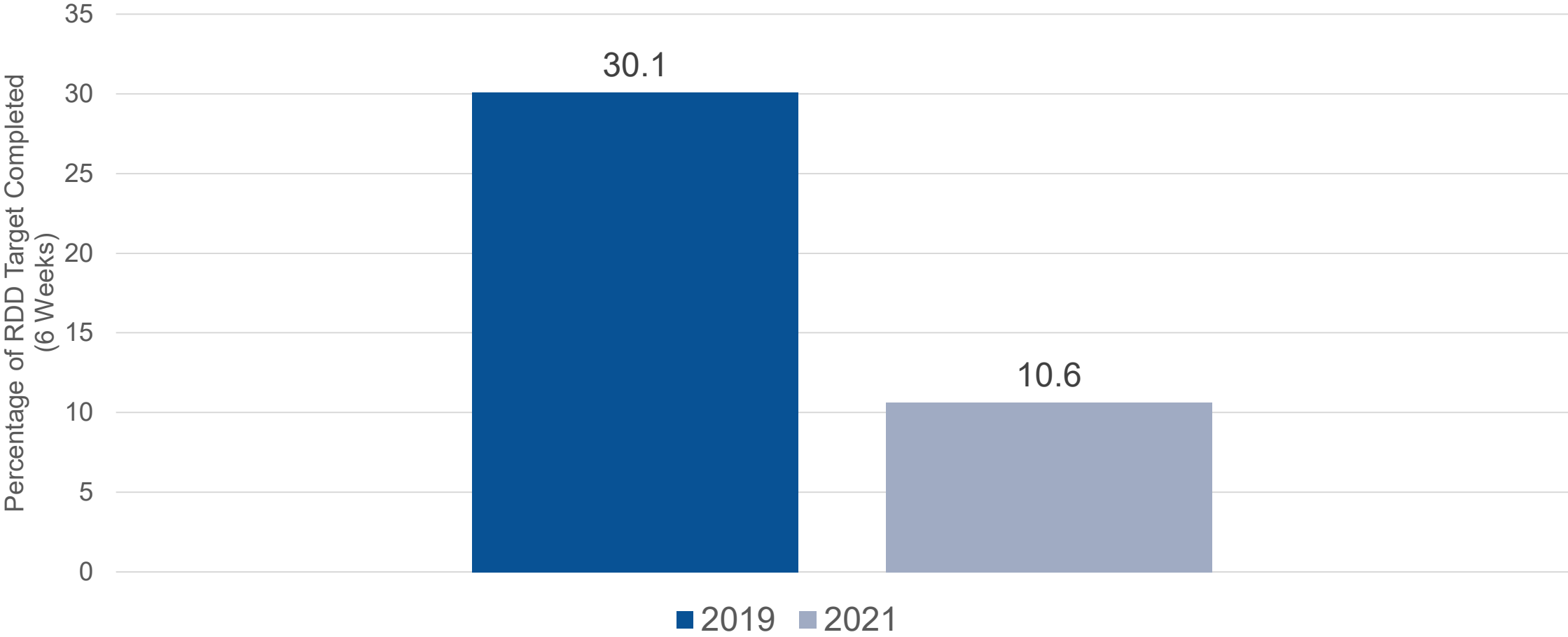
A 50/50 frame split was chosen for two reasons

- As of 2019, the RDD response rate in Ohio had not fully tanked yet
- Needed a bridge design to maintain the timeseries trend estimates

Because RDD was still a prominent part of the design a couple modifications to ABS design were made

- No paper option was offered – complicated instrument; long data collection needed to collect surveys
- Same incentive offered to all respondents

Initial Field Results: Percentage of RDD Target Completed After 6 Weeks in Field



Mid-Fielding Correction: Four Major Changes

Change 1: Reduce RDD proportion of target allocated to RDD frame

- Target allocation reduced to 20% of total sample
- Complete reduction of RDD was not considered because we needed some bridge to past collections

Change 2: Eliminate landline sample

- Landline (even listed landline) was becoming completely inefficient
- Median age of a listed landline person was approaching 60

Change 3: Added paper response option

- With smaller phone sample, paper survey was needed to ensure coverage; especially in rural counties
- Needed to quickly develop paper instrument and get into field for initial wave

Change 4: Introduce web option to cellphone sample

- All cellphone sample members were called to verify number belongs to person
- Survey invitation sent via SMS with link to web survey

Sample respondents, by frame

- ABS: 25,580 respondents (81.7%)
- RDD: 5,742 respondents (18.7%)

RDD respondents, by mode

- CATI (cell): 3,538 (61.6%)
- CAWI (cell): 1,986 (34.6%)
- CATI (landline): 218 (3.8%)

ABS respondents, by mode

- CAWI: 18,902 (73.9%)
- PAPI: 6,671 (26.1%)

Impact of Mid-Fielding Design Shift

Response Rates

- RDD response rate 5.0%
- ABS response rate 23.9%

Inclusion of PAPI

- Increased ABS response rate
- If no PAPI, lower bound CAWI only response rate is 19.5%

Inclusion of texting RDD cell sample

- Accounted for a third of RDD cell responses
- Likely would not have even hit 20% of total sample without this option

Cost

- Unexpected additional cost to develop PAPI instrument
- Remaining costs neutral to slight savings (interview costs reduced; mailing costs increased)

Impact of Shift on Post Collection Processing

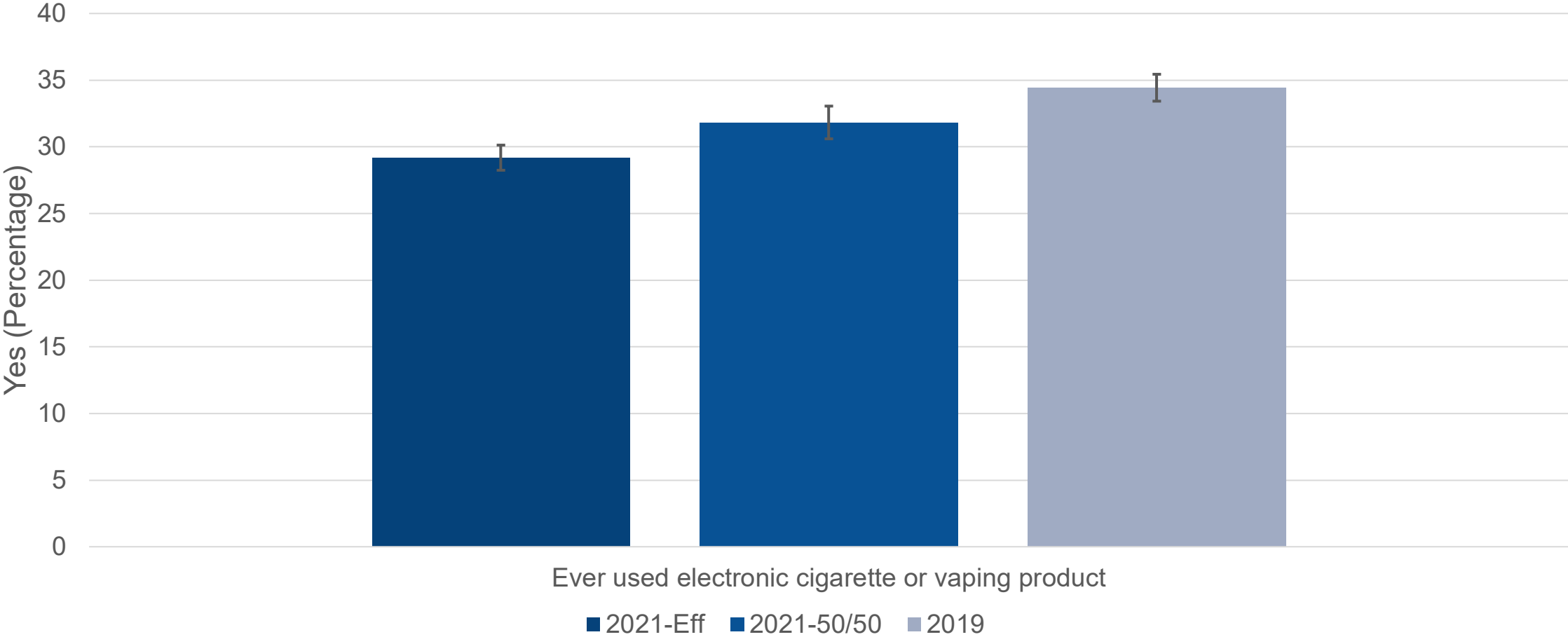
Creation of Weights on timeseries

- Will reduced RDD sample further prevent ability for timeseries to continue?
- Does the change impact some outcomes differently from others?

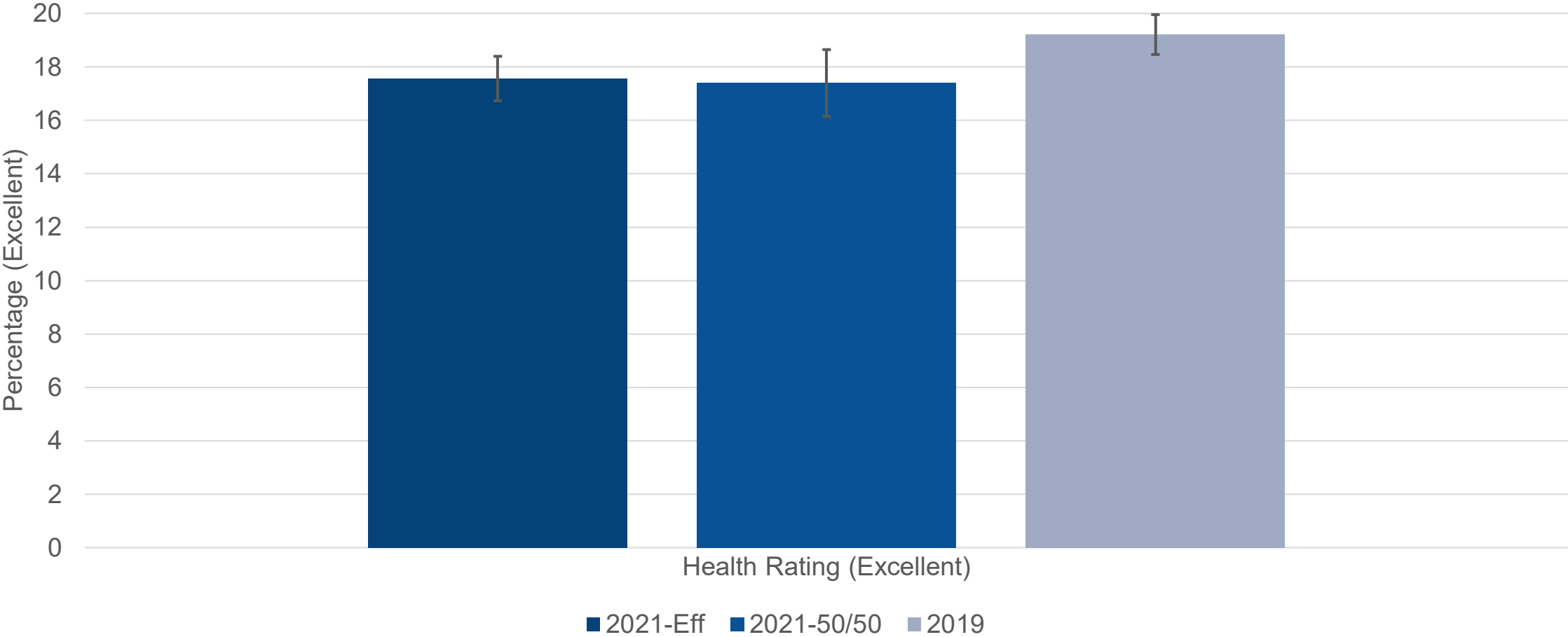
Considered two general options

- Blending based on actual sample distribution (taking into account design effects)
- Blending based on original design (50/50)

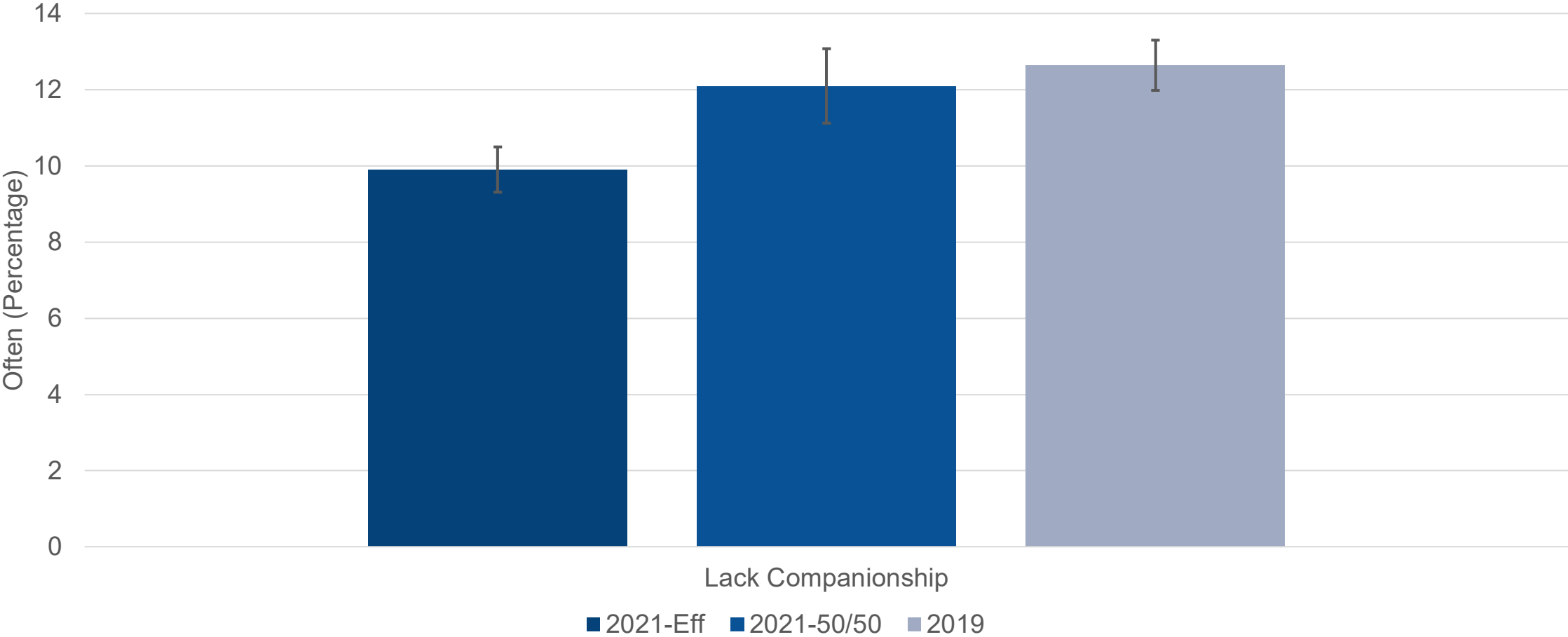
Use of e-cigarettes lower when more emphases given to ABS respondents; both 2021 estimates are lower than 2019



Those indicating their health was excellent is lower in 2021 regardless of weighting method compared to 2019



Lack of Companionship was statistically different when new design allocation used for weighting compared to original design split and 2019 design



Data Collection Summary/Decision

- In Ohio, since 2019, the efficiency of collection data from an RDD frame has greatly diminished
- The hardest part with RDD is getting potential respondents to answer the phone – number of call attempts per complete increased over 2019
- While challenging, shifting more sample mid-fielding to an ABS frame was possible
- PAPI surveys are critical to ensure full coverage – especially in rural counties

Post-Data Collection Summary/Decisions

- RDD responses rates have fallen dramatically in the past two years – rates were already decreasing, but COVID made them even worse
- The inclusion of a PAPI can increase response rates as much as 4-5% and especially among key subpopulations
- For developing weights, we chose to use a blending strategy based on the final design (rather than the original)
- Too many factors could influence the rates this year – COVID, shift in modes, general temporal change – to justify a larger standard error.



Thank you

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