Appendix A: Sample Design and Selection

The target population for the main PATH Study was the civilian household population 12 years of age or older in the U.S. (the 50 states and the District of Columbia). College students were sampled at their permanent residences rather than at a dormitory. Active-duty members of the military and persons living in group quarters (such as correctional facilities or nursing homes) were excluded. The PATH-RV Study sample was designed to represent this same population.

The main PATH Study sample was selected in four stages, beginning with 156 primary sampling units (PSUs), consisting of individual counties or groups of adjoining counties; then second-stage sampling units (SSUs), consisting of individual Census blocks or groups of adjoining blocks; then individual addresses; and, finally, persons living at the sample addresses. The PATH-RV sample was selected in a one-in-four subsample of the 156 PATH PSUs, or a total of 39 PSUs. The subsampling of PSUs was done in a way that preserved the stratification in the original sample, ensuring a mix of areas across the four Census regions and across urban and rural areas.

For the main PATH Study sample, the PSUs were divided into second-stage units (SSUs) consisting of one or more blocks; each SSU included at least 100 occupied housing units, according to census data. Prior to the selection of second-stage units, the SSUs within each PSU were sorted to ensure a representative sample along three dimensions — percent Black, percent Hispanic, and percent of occupied housing units that were owner-occupied. The sorting grouped together segments that were similar to each other on these three dimensions. Areas with a higher percentage of owner-occupied units (as opposed to units occupied by renters) generally have higher response rates than those with fewer owner-occupied units. A systematic sample of 746

PATH-RV study second-stage units was drawn from the approximately 1,500 PATH Study sample second-stage units within the 39 PATH-RV PSUs.

From these 746 sample segments, we selected a total of 9,782 addresses, or about 13 addresses per segment. The addresses came from U.S. Postal Service's Computerized Delivery Sequence File (CDSF). In addition, the CDSF was supplemented in a subsample of the SSUs, with field staff canvassing those areas and adding any addresses omitted from the CDSF to the final list for sampling. The addresses selected for the PATH-RV sample were addresses that had been held in reserve for the main PATH Study, assuring that none of the addresses selected for the PATH-RV sample had already been selected for the main PATH Study sample.

The PATH-RV sample addresses were sent a short screening questionnaire. Sample adults and youths were selected within the 2,296 households that completed the screening questionnaire. In households with one or more eligible youths, we randomly selected a youth and one of the adults. In households with an adult tobacco user, we randomly selected an adult; in a subsample of households with no youths and no adult users, we randomly selected an adult non-user.

Weights are available for the PATH-RV data. The weights compensate for the different selection probabilities for different cases and also bring the sample composition into line with population figures for various demographic groups (defined by age, race, and sex). The results in the paper, since we are not presenting population estimates.

Details on the PATH Study survey interview procedures, questionnaires, sampling, and weighting, and information about accessing the data are available at

https://doi.org/10.3886/Series606. See also the earlier paper by Hyland and his colleagues.[1]

1   Hyland A, Ambrose BK, Conway KP, *et al.* Design and methods of the Population Assessment of Tobacco and Health (PATH) Study *Tobacco Control* 2017;26:371-378.

Appendix B: Construction of Current Use Variables

	Adult (everyday+some days=current use)	**Youth** (earlier today, not today but sometime in the past 7 days, not in the past 7 days but sometime in the past 30 days=current use)
Current use of cigarettes	Do you now smoke cigarettes…Every day, some days, or not at all? (AC1003)	When was the last time you smoked a cigarette, even one or two puffs? (YC1112)
Current use electronic nicotine products	Do you now use electronic nicotine products…(AV1003)	When was the last time you used an electronic nicotine product, even one or two times? (YV1112)
Current use of traditional cigars	Do you now smoke traditional cigars… (AG1003TC)	When was the last time you smoked a [CIGARFILL], even one or two puffs? (YG1112TC)
Current use of cigarillos	Do you now smoke cigarillos… (AG1003CG)	When was the last time you smoked a [CIGARFILL], even one or two puffs? (YG1112CG)
Current use of filtered cigars	Do you now smoke filtered cigars… (AG1003FC)	When was the last time you smoked a [CIGARFILL], even one or two puffs? (YG1112FC)
Current use of pipes	Do you now smoke a pipe filled with tobacco.. (AP1003)	When was the last time you smoked a pipe, even one or two puffs? (YP1112)
Current use of snus	Do you now use snus… (AU1003)	When did you last use snus even one or two times? (YU1112)
Current use of a hookah	Do you now smoke tobacco in a hookah… (AH1003)	When was the last time you smoked tobacco in a hookah, even one or two puffs? (YH1112)
Current use of smokeless tobacco	Do you now use smokeless tobacco… (AS1003)	When did you last use smokeless tobacco, even one or two times? (YS1112)