

1. Cigarette Use Variables for PATH Youth Data (Wave 2)

This dictionary includes variables of cigarette, e-cigarettes (e-products), traditional cigars, pipes, hookahs, filtered cigars, cigarillos and smokeless tobacco product use that can be used in multiproduct analysis; for example: transition analysis and LCA/LTA analysis.

Note about missing values for all indicators: In PATH, many of the questions depend on the ability to classify individuals by their tobacco product use status. Sometimes we are unable to make this classification due to the skip pattern of the instrument for one or more component variables, or because a “refused”, “I don’t know” or “improbable” response was provided or because the individual requested their data to be removed; therefore these cases were excluded from the calculation of the indicators below.

UM_W2_Y_100cigs: Youth established cigarette smoker

Description: Youth who have smoked at least 100 or more cigarettes (5 packs or more) in their lifetimes.

Numerator: Number of respondents who have smoked ≥ 100 cigarettes in their lifetimes

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	11,895	97.72
1 = Yes	250	2.05
Missing	27	0.22
Total	12,172	100

This variable has 12,145 valid cases out of 12,172 total cases.

Missing values: See note about missing values for all indicators.

UM_W2_Y_cigs_30day: In the past 30 days, number of days smoked cigarettes

Description: Number of days a respondent smoked cigarettes in the past 30 days.

Numerator: Respondents who have smoked cigarettes in the past 30 days

Denominator: Total number of respondents¹

- Mean: 0.45
- Median: 0.00
- Mode: 0
- Minimum: 0
- Maximum: 30
- Standard deviation: 3.20
- Never smoked or did not smoked in the past 30 days: 11,675
- Missing: 27

¹Those responses that are “not valid” are described for each indicator under “missing values.”

This variable has 12,145 valid cases out of 12,172 total cases.

UM_W2_Y_cigs1_past30: Youth smoker - smoked at least 1 day in the past 30 days

Description: Respondents who smoked cigarettes at least 1 day in the past 30 days.

Numerator: Number of respondents who smoked cigarettes at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	11,675	95.92
1 = Yes	470	3.86
Missing	27	0.22
Total	12,172	100

This variable has 12,145 valid cases out of 12,172 total cases.

UM_W2_Y_cigs10_past30: Youth smoker - smoked at least 10 days in the past 30 days

Description: Respondents who smoked cigarettes at least 10 days in the past 30 days.

Numerator: Number of respondents who smoked cigarettes at least 10 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	11,952	98.19
1 = Yes	193	1.59
Missing	27	0.22
Total	12,172	100

This variable has 12,145 valid cases out of 12,172 total cases.

UM_W2_Y_cigs25_past30: Youth smoker - smoked at least 25 days in the past 30 days

Description: Respondents who smoked cigarettes at least 25 days in the past 30 days.

Numerator: Number of respondents who smoked cigarettes at least 25 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,023	98.78
1 = Yes	122	1.00
Missing	27	0.22
Total	12,172	100

¹Those responses that are “not valid” are described for each indicator under “missing values.”

This variable has 12,145 valid cases out of 12,172 total cases.

UM_W2_Y_cigs1_past30_ESTD: Youth established smoker - smoked at least 1 day in the past 30 days

Description: Established smokers (smoked ≥ 100 cigarettes in their lifetimes) who smoked cigarettes at least 1 day in the past 30 days.

Numerator: Number of established smokers who smoked cigarettes at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	11,945	98.14
1 = Yes	195	1.60
Missing	32	0.26
Total	12,172	100

This variable has 12,140 valid cases out of 12,172 total cases.

UM_W2_Y_cigs10_past30_ESTD: Youth established smoker - smoked at least 10 days in the past 30 days

Description: Established smokers (smoked ≥ 100 cigarettes in their lifetimes) who smoked cigarettes at least 10 days in the past 30 days.

Numerator: Number of established smokers who smoked cigarettes at least 10 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	11,987	98.48
1 = Yes	153	1.26
Missing	32	0.26
Total	12,172	100

This variable has 12,140 valid cases out of 12,172 total cases.

UM_W2_Y_cigs25_past30_ESTD: Youth established smoker - smoked at least 25 days in the past 30 days

Description: Established smokers (smoked ≥ 100 cigarettes in their lifetimes) who smoked cigarettes at least 25 days in the past 30 days.

Numerator: Number of established smokers who smoked cigarettes at least 25 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
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¹Those responses that are “not valid” are described for each indicator under “missing values.”

0 = No	12,033	98.86
1 = Yes	107	0.88
Missing	32	0.26
Total	12,172	100

This variable has 12,140 valid cases out of 12,172 total cases.

UM_W2_Y_cigs_perday_cat: In past 30 days, average number of cigarettes smoked per day on days smoked

Description: Number of cigarettes a respondent usually smokes each day.

Numerator: Number of cigarettes smoked per day

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = Not past 30 day smoker	11,675	95.92
1 = <1 cig/day	152	1.25
2 = 1 cig/day	77	0.63
3 = 2-5 cigs/day	153	1.26
4 = 6-10 cigs/day	59	0.48
5 = 11-20 cigs/day	24	0.20
6 = >20 cigs/day	8	0.07
Missing	24	0.20
Total	12,172	100

This variable has 12,148 valid cases out of 12,172 total cases.

UM_W2_Y_cig_anyflvr: Smoked flavored cigarette(s) in the past 30 days

Description: Indicator for respondents who smoked flavored cigarettes in the past 30 days.

Numerator: Number of current smokers who smoked flavored cigarettes in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	177	1.45
1 = Yes	254	2.09
Missing	11,741	96.46
Total	12,172	100

This variable has 431 valid cases out of 12,172 total cases.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

UM_W2_Y_cig_menthol: Smoked cigarette(s) flavored to taste like menthol or mint in the past 30 days

Description: Indicator for respondents who smoked cigarettes flavored to taste like menthol or mint in the past 30 days.

Numerator: Number of current smokers who smoked cigarettes flavored to taste like menthol or mint in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	31	0.25
1 = Yes	222	1.82
Missing	11,919	97.92
Total	12,172	100

This variable has 253 valid cases out of 12,172 total cases.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

2. E-cigarette Use Variables for PATH Youth Data (Wave 2)

Note about missing values for all indicators: In PATH, many of the questions depend on the ability to classify individuals by their tobacco product use status. Sometimes we are unable to make this classification due to the skip pattern of the instrument for one or more component variables, or because a “refused”, “I don’t know” or “improbable” response was provided or because the individual requested their data to be removed; therefore these cases were excluded from the calculation of the indicators below.

UM_W2_Y_ecigs_reg: Youth regular e-cigarette user

Description: Respondents who have used e-cigarettes fairly regularly.

Numerator: Number of respondents who have used e-cigarettes fairly regularly

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	11,822	97.12
1 = Yes	303	2.49
Missing	47	0.39
Total	12,172	100

This variable has 12,125 valid cases out of 12,172 total cases.

Missing values: See note about missing values for all indicators.

UM_W2_Y_ecigs_30day: In the past 30 days, number of days used e-cigarettes

Description: Number of days a respondent used e-cigarettes in the past 30 days.

Numerator: Respondents who have used e-cigarettes in the past 30 days

Denominator: Total number of respondents¹

- Mean: 0.26
- Median: 0.00
- Mode: 0
- Minimum: 0
- Maximum: 30
- Standard deviation: 2.17
- Never smoked or did not smoked in the past 30 days: 11,724
- Missing: 65

This variable has 12,107 valid cases out of 12,172 total cases.

UM_W2_Y_ecigs1_past30: Youth e-cigarette user - used at least 1 day in the past 30 days

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Description: Respondents who used e-cigarettes at least 1 day in the past 30 days.

Numerator: Number of respondents who used e-cigarettes at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	11,724	96.32
1 = Yes	383	3.15
Missing	65	0.53
Total	12,172	100

This variable has 12,107 valid cases out of 12,172 total cases.

UM_W2_Y_ecigs10_past30: Youth e-cigarette user - used at least 10 days in the past 30 days

Description: Respondents who used e-cigarettes at least 10 days in the past 30 days.

Numerator: Number of respondents who used e-cigarettes at least 10 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	11,979	98.41
1 = Yes	128	1.05
Missing	65	0.53
Total	12,172	100

This variable has 12,107 valid cases out of 12,172 total cases.

UM_W2_Y_ecigs25_past30: Youth e-cigarette user - used at least 25 days in the past 30 days

Description: Respondents who used e-cigarettes at least 25 days in the past 30 days.

Numerator: Number of respondents who used e-cigarettes at least 25 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,064	99.11
1 = Yes	43	0.35
Missing	65	0.53
Total	12,172	100

This variable has 12,107 valid cases out of 12,172 total cases.

UM_W2_Y_ecig_anyflvr: Used flavored e-cigarette(s) in the past 30 days

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Description: Indicator for respondents who used e-cigarettes flavored to taste like menthol, mint, clove, spice, candy, fruit, chocolate, alcohol, or other sweets in the past 30 days.

Numerator: Number of current e-cigarette users who used e-cigarettes flavored to taste like menthol, mint, clove, spice, candy, fruit, chocolate, alcohol, or other sweets in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	42	0.35
1 = Yes	329	2.70
Missing	11,801	96.95
Total	12,172	100

This variable has 371 valid cases out of 12,172 total cases.

UM_W2_Y_ecig_menthol: Used e-cigarette(s) flavored to taste like menthol or mint in the past 30 days

Description: Indicator for respondents who used e-cigarettes flavored to taste like menthol or mint in the past 30 days.

Numerator: Number of current e-cigarette users who used e-cigarettes flavored to taste like menthol or mint in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	263	2.16
1 = Yes	66	0.54
Missing	11,843	97.30
Total	12,172	100

This variable has 329 valid cases out of 12,172 total cases.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

3. Other Combustible Product Use Variables for PATH Youth Data (Wave 2)

Note about missing values for all indicators: In PATH, many of the questions depend on the ability to classify individuals by their tobacco product use status. Sometimes we are unable to make this classification due to the skip pattern of the instrument for one or more component variables, or because a “refused”, “I don’t know” or “improbable” response was provided or because the individual requested their data to be removed; therefore these cases were excluded from the calculation of the indicators below.

UM_W2_Y_cigar_reg: Regular traditional cigar user

Description: Respondents who have smoked traditional cigars fairly regularly.

Numerator: Number of respondents who have smoked traditional cigars fairly regularly

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,113	99.52
1 = Yes	28	0.23
Missing	31	0.25
Total	12,172	100.00

This variable has 12,141 valid cases out of 12,172 total cases.

Missing values: See note about missing values for all indicators.

UM_W2_Y_cigar_30day: In the past 30 days, number of days smoked traditional cigars

Description: Number of days a respondent smoked traditional cigars in the past 30 days.

Numerator: Respondents who have smoked traditional cigars in the past 30 days

Denominator: Total number of respondents¹

- Mean: 0.03
- Median: 0.00
- Mode: 0.00
- Minimum: 0.00
- Maximum: 30.00
- Standard deviation: 0.70
- Never smoked or did not smoked in the past 30 days: 12,080 (99.24%)
- Missing: 22 (0.18%)

This variable has 12,150 valid cases out of 12,172 total cases.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

UM_W2_Y_cigar1_past30: Youth traditional cigar user - smoked at least 1 day in the past 30 days

Description: Respondents who have smoked traditional cigars at least 1 day in the past 30 days.

Numerator: Number of respondents who have smoked traditional cigars at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,080	99.24
1 = Yes	70	0.58
Missing	22	0.18
Total	12,172	100.00

This variable has 12,150 valid cases out of 12,172 total cases.

UM_W2_Y_cigar10_past30: Youth traditional cigar user – smoked at least 10 days in the past 30 days

Description: Respondents who have smoked traditional cigars at least 10 days in the past 30 days.

Numerator: Number of respondents who have smoked traditional cigars at least 10 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,135	99.70
1 = Yes	15	0.12
Missing	22	0.18
Total	12,172	100.00

This variable has 12,150 valid cases out of 12,172 total cases.

UM_W2_Y_cigar25_past30: Youth traditional cigar user – smoked at least 25 days in the past 30 days

Description: Respondents who have smoked traditional cigars at least 25 days in the past 30 days.

Numerator: Number of respondents who have smoked traditional cigars at least 25 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,146	99.79
1 = Yes	4	0.03
Missing	22	0.18
Total	12,172	100.00

¹Those responses that are “not valid” are described for each indicator under “missing values.”

This variable has 12,150 valid cases out of 12,172 total cases.

UM_W2_Y_cigarillo_reg: Regular cigarillo user

Description: Respondents who have smoked cigarillos fairly regularly.

Numerator: Number of respondents who have smoked cigarillos fairly regularly

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,070	99.16
1 = Yes	53	0.44
Missing	49	0.40
Total	12,172	100.00

This variable has 12,123 valid cases out of 12,172 total cases.

UM_W2_Y_cigarillo_30day: In past 30 days, number of days smoked cigarillos

Description: Number of days a respondent smoked cigarillos in the past 30 days.

Numerator: Respondents who have smoked cigarillos in the past 30 days

Denominator: Total number of respondents¹

- Mean: 0.04
- Median: 0.00
- Mode: 0.00
- Minimum: 0.00
- Maximum: 30.00
- Standard deviation: 0.68
- Never smoked or did not smoked in the past 30 days: 12,036 (98.88%)
- Missing: 25 (0.21%)

This variable has 12,147 valid cases out of 12,172 total cases.

UM_W2_Y_cigarillo1_past30: Youth cigarillo user - smoked at least 1 day in the past 30 days

Description: Respondents who have smoked cigarillos at least 1 day in the past 30 days.

Numerator: Number of respondents who have smoked cigarillos at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,036	98.88
1 = Yes	111	0.91

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Missing	25	0.21
Total	12,172	100.00

This variable has 12,147 valid cases out of 12,172 total cases.

UM_W2_Y_cigarillo10_past30: Youth cigarillo user – smoked at least 10 days in the past 30 days

Description: Respondents who have smoked cigarillos at least 10 days in the past 30 days.

Numerator: Number of respondents who have smoked cigarillos at least 10 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,132	99.67
1 = Yes	15	0.12
Missing	25	0.21
Total	12,172	100.00

This variable has 12,147 valid cases out of 12,172 total cases.

UM_W2_Y_cigarillo25_past30: Youth cigarillo user – smoked at least 25 days in the past 30 days

Description: Respondents who have smoked cigarillos at least 25 days in the past 30 days.

Numerator: Number of respondents who have smoked cigarillos at least 25 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,144	99.77
1 = Yes	3	0.02
Missing	25	0.21
Total	12,172	100.00

This variable has 12,147 valid cases out of 12,172 total cases.

UM_W2_Y_filtcigar_reg: Regular filtered cigar user

Description: Respondents who have smoked filtered cigars fairly regularly.

Numerator: Number of respondents who have smoked filtered cigars fairly regularly

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,090	99.33
1 = Yes	29	0.24

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Missing	53	0.44
Total	12,172	100.00

This variable has 12,119 valid cases out of 12,172 total cases.

UM_W2_Y_filtcigar_30day: In the past 30 days, number of days smoked filtered cigars

Description: Number of days a respondent smoked filtered cigars in the past 30 days.

Numerator: Respondents who have smoked filtered cigars in the past 30 days

Denominator: Total number of respondents¹

- Mean: 0.03
- Median: 0.00
- Mode: 0.00
- Minimum: 0.00
- Maximum: 30.00
- Standard deviation: 0.63
- Never smoked or did not smoked in the past 30 days: 12,099 (99.40%)
- Missing: 26 (0.21%)

This variable has 12,146 valid cases out of 12,172 total cases.

UM_W2_Y_filtcigar1_past30: Youth filtered cigar user – smoked at least 1 day in the past 30 days

Description: Respondents who have smoked filtered cigars at least 1 day in the past 30 days.

Numerator: Number of respondents who have smoked filtered cigars at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,099	99.40
1 = Yes	47	0.39
Missing	26	0.21
Total	12,172	100.00

This variable has 12,146 valid cases out of 12,172 total cases.

UM_W2_Y_filtcigar10_past30: Youth filtered cigar user – smoked at least 10 days in the past 30 days

Description: Respondents who have smoked filtered cigars at least 10 days in the past 30 days.

Numerator: Number of respondents who have smoked filtered cigars at least 10 days in the past 30 days

Denominator: Total number of respondents¹

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Value	Unweighted frequency	%
0 = No	12,133	99.68
1 = Yes	13	0.11
Missing	26	0.21
Total	12,172	100.00

This variable has 12,146 valid cases out of 12,172 total cases.

UM_W2_Y_filtcigar25_past30: Youth filtered cigar user – smoked at least 25 days in the past 30 days

Description: Respondents who have smoked filtered cigars at least 25 days in the past 30 days.

Numerator: Number of respondents who have smoked filtered cigars at least 25 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,143	99.76
1 = Yes	3	0.02
Missing	26	0.21
Total	12,172	100.00

This variable has 12,146 valid cases out of 12,172 total cases.

UM_W2_Y_pipe_30day: In the past 30 days, number of days smoked pipes

Description: Number of days a respondent smoked pipes in the past 30 days.

Numerator: Respondents who have smoked pipes in the past 30 days

Denominator: Total number of respondents¹

- Mean: 0.02
- Median: 0.00
- Mode: 0.00
- Minimum: 0.00
- Maximum: 30.00
- Standard deviation: 0.67
- Never smoked or did not smoked in the past 30 days: 12,125 (99.61%)
- Missing: 22 (0.18%)

This variable has 12,150 valid cases out of 12,172 total cases.

UM_W2_Y_pipe1_past30: Youth pipe user - smoked at least 1 day in the past 30 days

Description: Respondents who have smoked pipes at least 1 day in the past 30 days.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Numerator: Number of respondents who have smoked pipes at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,125	99.61
1 = Yes	25	0.21
Missing	22	0.18
Total	12,172	100.00

This variable has 12,150 valid cases out of 12,172 total cases.

UM_W2_Y_pipe10_past30: Youth pipe user - smoked at least 10 days in the past 30 days

Description: Respondents who have smoked pipes at least 10 days in the past 30 days.

Numerator: Number of respondents who have smoked pipes at least 10 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,139	99.73
1 = Yes	11	0.09
Missing	22	0.18
Total	12,172	100.00

This variable has 12,150 valid cases out of 12,172 total cases.

UM_W2_Y_pipe25_past30: Youth pipe user - smoked at least 25 days in the past 30 days

Description: Respondents who have smoked pipes at least 25 days in the past 30 days.

Numerator: Number of respondents who have smoked pipes at least 25 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,146	99.79
1 = Yes	4	0.03
Missing	22	0.18
Total	12,172	100.00

This variable has 12,150 valid cases out of 12,172 total cases.

UM_W2_Y_hook_reg: Regular hookah user

Description: Respondents who have smoked hookah fairly regularly.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Numerator: Number of respondents who have smoked hookah fairly regularly

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,044	98.95
1 = Yes	106	0.87
Missing	22	0.18
Total	12,172	100.00

This variable has 12,150 valid cases out of 12,172 total cases.

UM_W2_Y_hook_past30day: Smoked hookah in the past 30 days

Description: Respondents who last smoked tobacco in a hookah, even one or two puffs, during the past 30 days.

Numerator: Number of respondents who smoked tobacco in a hookah during the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	11,997	98.56
1 = Yes	153	1.26
Missing	22	0.18
Total	12,172	100.00

This variable has 12,150 valid cases out of 12,172 total cases.

UM_W2_Y_hook_month: Average number of times smoked hookah in a month

Description: On average, how many times a respondent smoked hookah in the past month.

Numerator: Average number of times a respondent smoked hookah in the past month

Denominator: Total number of respondents¹

- Mean: 0.60
- Median: 0.00
- Mode: 0.00
- Minimum: 0.00
- Maximum: 2640
- Standard deviation: 29.25
- Missing: 43 (0.35%)

This variable has 12,129 valid cases out of 12,172 total cases.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

UM_W2_Y_hook1_month: Youth hookah user - smoked at least 1 time in the past month

Description: Respondents who have smoked hookahs at least 1 time in the past month.

Numerator: Number of respondents who have smoked hookahs at least 1 time in the past month

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,030	98.83
1 = Yes	99	0.81
Missing	43	0.35
Total	12,172	100.00

This variable has 12,129 valid cases out of 12,172 total cases.

UM_W2_Y_hook10_month: Youth hookah user - smoked at least 10 times in the past month

Description: Respondents who have smoked hookahs at least 10 times in the past month.

Numerator: Number of respondents who have smoked hookahs at least 10 times in the past month

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,088	99.31
1 = Yes	41	0.34
Missing	43	0.35
Total	12,172	100.00

This variable has 12,129 valid cases out of 12,172 total cases.

UM_W2_Y_hook25_month: Youth hookah user - smoked at least 25 times in the past month

Description: Respondents who have smoked hookahs at least 25 times in the past month.

Numerator: Number of respondents who have smoked hookahs at least 25 times in the past month

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,106	99.46
1 = Yes	23	0.19
Missing	43	0.35
Total	12,172	100.00

This variable has 12,129 valid cases out of 12,172 total cases.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

4. Smokeless Tobacco Use Variables for PATH Youth Data (Wave 2)

Note about missing values for all indicators: In PATH, many of the questions depend on the ability to classify individuals by their tobacco product use status. Sometimes we are unable to make this classification due to the skip pattern of the instrument for one or more component variables, or because a “refused”, “I don’t know” or “improbable” response was provided or because the individual requested their data to be removed; therefore these cases were excluded from the calculation of the indicators below.

UM_W2_Y_snus_reg: Regular snus pouch user

Description: Respondents who have used snus pouches fairly regularly.

Numerator: Number of respondents who have used snus pouches fairly regularly

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,027	98.81
1 = Yes	44	0.36
Missing	98	0.81
Total	12,172	100.00

This variable has 12,074 valid cases out of 12,172 total cases.

Missing values: See note about missing values for all indicators.

UM_W2_Y_snus_30day: In the past 30 days, number of days used snus pouches

Description: Number of days a respondent used snus pouches in the past 30 days.

Numerator: Respondents who have used snus pouches in the past 30 days

Denominator: Total number of respondents¹

- Mean: 0.03
- Median: 0.00
- Mode: 0.00
- Minimum: 0.00
- Maximum: 30.00
- Standard deviation: 0.73
- Never smoked or did not smoked in the past 30 days: 12,080 (99.24%)
- Missing: 53 (0.44%)

This variable has 12,119 valid cases out of 12,172 total cases.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

UM_W2_Y_snus1_past30: Youth snus pouch user - used at least 1 day in the past 30 days

Description: Respondents who have used snus pouches at least 1 day in the past 30 days.

Numerator: Number of respondents who have used snus pouches at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,080	99.24
1 = Yes	39	0.32
Missing	53	0.44
Total	12,172	100.00

This variable has 12,119 valid cases out of 12,172 total cases.

UM_W2_Y_snus10_past30: Youth snus pouch user - used at least 10 days in the past 30 days

Description: Respondents who have used snus pouches at least 10 days in the past 30 days.

Numerator: Number of respondents who have used snus pouches at least 10 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,105	99.45
1 = Yes	14	0.12
Missing	53	0.44
Total	12,172	100.00

This variable has 12,119 valid cases out of 12,172 total cases.

UM_W2_Y_snus25_past30: Youth snus pouch user - used at least 25 days in the past 30 days

Description: Respondents who have used snus pouches at least 25 days in the past 30 days.

Numerator: Number of respondents who have used snus pouches at least 25 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,114	99.52
1 = Yes	5	0.04
Missing	53	0.44
Total	12,172	100.00

This variable has 12,119 valid cases out of 12,172 total cases.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

UM_W2_Y_slr_reg: Other smokeless tobacco product user

Description: Respondents who have used other smokeless tobacco products fairly regularly.

Numerator: Number of respondents who have used other smokeless tobacco products fairly regularly

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	11,981	98.43
1 = Yes	111	0.91
Missing	80	0.66
Total	12,172	100.00

This variable has 12,092 valid cases out of 12,172 total cases.

UM_W2_Y_slr_30day: In past 30 days, number of days used other smokeless tobacco products

Description: Number of days a respondent used smokeless tobacco products such as loose snus, moist snuff, dip, spit or chewing tobacco in the past 30 days.

Numerator: Respondents who have used smokeless tobacco products in the past 30 days

Denominator: Total number of respondents¹

- Mean: 0.13
- Median: 0.00
- Mode: 0.00
- Minimum: 0.00
- Maximum: 30.00
- Standard deviation: 1.79
- Never smoked or did not smoked in the past 30 days: 11,995 (98.55%)
- Missing: 58 (0.48%)

This variable has 12,114 valid cases out of 12,172 total cases.

UM_W2_Y_slr1_past30: Youth smokeless tobacco product user - used at least 1 day in the past 30 days

Description: Respondents who have used smokeless tobacco products such as loose snus, moist snuff, dip, spit or chewing tobacco at least 1 day in the past 30 days.

Numerator: Number of respondents who have used smokeless tobacco products at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
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¹Those responses that are “not valid” are described for each indicator under “missing values.”

0 = No	11,995	98.55
1 = Yes	119	0.98
Missing	58	0.48
Total	12,172	100.00

This variable has 12,114 valid cases out of 12,172 total cases.

UM_W2_Y_slt10_past30: Youth smokeless tobacco product user - used at least 10 days in the past 30 days

Description: Respondents who have used smokeless tobacco products such as loose snus, moist snuff, dip, spit or chewing tobacco at least 10 days in the past 30 days.

Numerator: Number of respondents who have used smokeless tobacco products at least 10 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,056	99.05
1 = Yes	58	0.48
Missing	58	0.48
Total	12,172	100.00

This variable has 12,114 valid cases out of 12,172 total cases.

UM_W2_Y_slt25_past30: Youth smokeless tobacco product user - used at least 25 days in the past 30 days

Description: Respondents who have used smokeless tobacco products such as loose snus, moist snuff, dip, spit or chewing tobacco at least 25 days in the past 30 days.

Numerator: Number of respondents who have used smokeless tobacco products at least 25 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,075	99.20
1 = Yes	39	0.32
Missing	58	0.48
Total	12,172	100.00

This variable has 12,114 valid cases out of 12,172 total cases.

UM_W2_Y_dissolve_30day: In the past 30 days, number of days used dissolvable tobacco products

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Description: Number of days a respondent used dissolvable tobacco products such as Ariva, Stonewall, or Camel Orbs, Sticks or Strips in the past 30 days.

Numerator: Respondents who have used dissolvable tobacco products in the past 30 days

Denominator: Total number of respondents¹

- Mean: 0.01
- Median: 0.00
- Mode: 0.00
- Minimum: 0.00
- Maximum: 30.00
- Standard deviation: 0.40
- Never smoked or did not smoked in the past 30 days: 12,154 (99.85%)
- Missing: 10 (0.08%)

This variable has 12,162 valid cases out of 12,172 total cases.

UM_W2_Y_dissolve1_past30: Youth dissolvable tobacco product user - used at least 1 day in the past 30 days

Description: Respondents who have used dissolvable tobacco products such as Ariva, Stonewall, or Camel Orbs, Sticks or Strips at least 1 day in the past 30 days.

Numerator: Number of respondents who have used dissolvable tobacco products at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,154	99.85
1 = Yes	8	0.07
Missing	10	0.08
Total	12,172	100.00

This variable has 12,162 valid cases out of 12,172 total cases.

UM_W2_Y_dissolve10_past30: Youth dissolvable tobacco product user - used at least 10 days in the past 30 days

Description: Respondents who have used dissolvable tobacco products such as Ariva, Stonewall, or Camel Orbs, Sticks or Strips at least 10 days in the past 30 days.

Numerator: Number of respondents who have used dissolvable tobacco products at least 10 days in the past 30 days

Denominator: Total number of respondents¹

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Value	Unweighted frequency	%
0 = No	12,159	99.89
1 = Yes	3	0.02
Missing	10	0.08
Total	12,172	100.00

This variable has 12,162 valid cases out of 12,172 total cases.

UM_W2_Y_dissolve25_past30: Youth dissolvable tobacco product user - used at least 25 days in the past 30 days

Description: Respondents who have used dissolvable tobacco products such as Ariva, Stonewall, or Camel Orbs, Sticks or Strips at least 25 days in the past 30 days.

Numerator: Number of respondents who have used dissolvable tobacco products at least 25 days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No	12,160	99.90
1 = Yes	2	0.02
Missing	10	0.08
Total	12,172	100.00

This variable has 12,162 valid cases out of 12,172 total cases.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

5. Single, Dual, Poly Use Variables for PATH Youth Data (Wave 2)

Note about missing values for all indicators: In PATH, many of the questions depend on the ability to classify individuals by their tobacco product use status. Sometimes we are unable to make this classification due to the skip pattern of the instrument for one or more component variables, or because a “refused”, “I don’t know” or “improbable” response was provided or because the individual requested their data to be removed; therefore these cases were excluded from the calculation of the indicators below.

5.1 16 Category Variable for Tobacco Use Pattern (1+ Day Definition)

UM_W2_Y_combust1_past30: Youth other combustible tobacco products user – used at least 1 day in the past 30 days

Description: Respondents who reported using traditional cigars, cigarillos, filtered cigars, pipes or hookahs at least 1 day in the past 30 days.

Numerator: Number of respondents who used traditional cigars, cigarillos, filtered cigars, pipes, or hookahs at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No*	11,857	97.41
1 = Yes	315	2.59
Missing	0	0.00
Total	12,172	100.00

This variable has 12,172 valid cases out of 12,172 total cases.

** Including people with missing values, as long as they responded ‘NO’ to at least one product.*

UM_W2_Y_slgroup1_past30: Youth multiple smokeless tobacco products user – used at least 1 day in the past 30 days

Description: Respondents who reported using snus pouches or other smokeless tobacco products at least 1 day in the past 30 days.

Numerator: Number of respondents who used snus pouches or other smokeless tobacco products at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = No*	12,031	98.84
1 = Yes	138	1.13
Missing	3	0.02

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Total	13,169	100.00
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This variable has 13,169 valid cases out of 12,172 total cases.

** Including people with missing values, as long as they responded 'NO' to at least one product.*

UM_W2_Y_pop_poly_1_past30: Youth tobacco product user – used at least 1 day in the past 30 days (all cigarette smokers / any use of other tobacco products)

Description: Population patterns of single, dual and poly-use among cigarette users and users of e-cigarettes, other combustible tobacco products and multiple smokeless tobacco products who used at least 1 day in the past 30 days.

Numerator: Number of respondents who used [VALUE] at least 1 day in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = Never user	11,204	92.05
1 = Cigarettes only user	199	1.63
2 = E-cigarettes only user	186	1.53
3 = Other combustibles (OC) only user	124	1.02
4 = Smokeless (SLT) only user	57	0.47
5 = Cigarettes and e-cigarettes user	87	0.71
6 = Cigarettes and OC user	71	0.58
7 = Cigarettes and SLT user	20	0.16
8 = E-cigarettes and OC user	28	0.23
9 = E-cigarettes and SLT user	9	0.07
10 = OC and SLT user	8	0.07
11 = Cigarettes, e-cigarettes and OC user	48	0.39
12 = Cigarettes, e-cigarettes and SLT user	14	0.12
13 = Cigarettes, OC and SLT user	17	0.14
14 = E-cigarettes, OC and SLT user	4	0.03
15 = Cigarettes, e-cigarettes, OC and SLT user	6	0.05
Missing	90	0.74
Total	12,172	100.00

This variable has 12,082 valid cases out of 12,172 total cases.

UM_W2_Y_pop_poly_1_past30_ESTC: Youth tobacco product user – used at least 1 day in the past 30 days (established cigarette smokers / any use of other tobacco products)

Description: Population patterns of single, dual and poly-use among established cigarette users and any users of e-cigarettes, other combustible tobacco products and multiple smokeless tobacco products who used at least 1 day in the past 30 days.

Numerator: Number of respondents who used [VALUE] at least 1 day in the past 30 days

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = Never user*	11,322	93.02
1 = Cigarettes only user	76	0.62
2 = E-cigarettes only user	234	1.92
3 = Other combustibles (OC) only user	173	1.42
4 = Smokeless (SLT) only user	65	0.53
5 = Cigarettes and e-cigarettes user	38	0.31
6 = Cigarettes and OC user	23	0.19
7 = Cigarettes and SLT user	12	0.10
8 = E-cigarettes and OC user	55	0.45
9 = E-cigarettes and SLT user	16	0.13
10 = OC and SLT user	17	0.14
11 = Cigarettes, e-cigarettes and OC user	21	0.17
12 = Cigarettes, e-cigarettes and SLT user	7	0.06
13 = Cigarettes, OC and SLT user	9	0.07
14 = E-cigarettes, OC and SLT user	6	0.05
15 = Cigarettes, e-cigarettes, OC and SLT user	4	0.03
Missing	94	0.77
Total	12,172	100.00

This variable has 12,078 valid cases out of 12,172 total cases.

** Never established cigarette users and never users of other tobacco products.*

5.2 States for Transition Analysis Based on Current Use

UM_W2_Y_states_1_past30: Youth tobacco product user – used at least 1 day in the past 30 days (all cigarette smokers / any use of other tobacco products)

Description: States for transition analysis based on current use among all cigarette smokers and all users of other tobacco products.

Numerator: Number of respondents who use [VALUE] 1+ days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = Never user	9,515	78.17
1 = Former user	1,689	13.88
2 = Cigarettes only user	199	1.63
3 = E-cigarettes only user	186	1.53
4 = Other combustibles (OC) only user	124	1.02
5 = Smokeless (SLT) only user	57	0.47
6 = Cigarettes and e-cigarettes user	87	0.71

¹Those responses that are “not valid” are described for each indicator under “missing values.”

7 = Cigarettes and OC user	71	0.58
8 = Cigarettes and SLT user	20	0.16
9 = Poly user with cigarettes (cigs, e-cigs and OC; cigs, e-cigs and SLT; cigs, OC and SLT; cigs, e-cigs, OC and SLT)	85	0.70
10 = Other dual/poly-user without cigarettes (e-cigs and OC; e-cigs and SLT; OC and SLT; e-cigs, OC and SLT)	49	0.40
Missing	90	0.74
Total	12,172	100.00

This variable has 12,092 valid cases out of 12,172 total cases

UM_W2_Y_states_1_past30_ESTC: States for transition analysis – established cigarette use / any use of other tobacco products

Description: States for transition analysis based on current use among established cigarette smokers and all users of other tobacco products.

Numerator: Number of respondents who use [VALUE] 1+ days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = Never user*	9,779	80.34
1 = Former user	1,543	12.68
2 = Cigarettes only user	76	0.62
3 = E-cigarettes only user	234	1.92
4 = Other combustibles (OC) only user	173	1.42
5 = Smokeless (SLT) only user	65	0.53
6 = Cigarettes and e-cigarettes user	38	0.31
7 = Cigarettes and OC user	23	0.19
8 = Cigarettes and SLT user	12	0.10
9 = Poly user with cigarettes (cigs, e-cigs and OC; cigs, e-cigs and SLT; cigs, OC and SLT; cigs, e-cigs, OC and SLT)	41	0.34
10 = Other dual/poly-user without cigarettes (e-cigs and OC; e-cigs and SLT; OC and SLT; e-cigs, OC and SLT)	94	0.77
Missing	94	0.77
Total	12,172	100.00

This variable has 12,078 valid cases out of 12,172 total cases

** Never established cigarette users and never users of other tobacco products.*

UM_W2_Y_states_EF_1_past30: Youth tobacco product user – used at least 1 day in the past 30 days (all cigarette smokers / any use of other tobacco products)

Description: States for transition analysis based on current use among all cigarette smokers and all users of other tobacco products. Dual and poly users grouped by current e-cigarette use.

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Numerator: Number of respondents who use [VALUE] 1+ days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = Never user	9,515	78.17
1 = Former user	1,689	13.88
2 = Cigarettes only user	199	1.63
3 = E-cigarettes only user	186	1.53
4 = Other combustibles (OC) only user	124	1.02
5 = Smokeless (SLT) only user	57	0.47
6 = Cigarettes and e-cigarettes user	87	0.71
7 = E-cigarettes and OC user	28	0.23
8 = E-cigarettes and SLT user	9	0.07
9 = Poly user with e-cigarettes (cigs, e-cigs and OC; cigs, e-cigs and SLT; e-cigs, OC and SLT; cigs, e-cigs, OC and SLT)	72	0.59
10 = Other dual/poly-user without cigarettes (cigs and OC; cigs and SLT; OC and SLT; cigs, OC and SLT)	116	0.95
Missing	90	0.74
Total	12,172	100.00

This variable has 12,092 valid cases out of 12,172 total cases

UM_W2_Y_states_EF_1_past30_ESTC: Youth tobacco product user – used at least 1 day in the past 30 days (established cigarette smokers / any use of other tobacco products)

Description: States for transition analysis based on current use among established cigarette smokers and all users of other tobacco products. Dual and poly users grouped by current e-cigarette use.

Numerator: Number of respondents who use [VALUE] 1+ days in the past 30 days

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = Never user*	9,779	80.34
1 = Former user	1,543	12.68
2 = Cigarettes only user	76	0.62
3 = E-cigarettes only user	234	1.92
4 = Other combustibles (OC) only user	173	1.42
5 = Smokeless (SLT) only user	65	0.53
6 = Cigarettes and e-cigarettes user	38	0.31
7 = E-cigarettes and OC user	55	0.45
8 = E-cigarettes and SLT user	16	0.13
9 = Poly user with e-cigarettes (cigs, e-cigs and OC; cigs, e-cigs and SLT; e-cigs, OC and SLT; cigs, e-cigs, OC and SLT)	38	0.31

¹Those responses that are “not valid” are described for each indicator under “missing values.”

10 = Other dual/poly-user without cigarettes (cigs and OC; cigs and SLT; OC and SLT; cigs, OC and SLT)	61	0.50
Missing	94	0.77
Total	12,172	100.00

This variable has 12,078 valid cases out of 12,172 total cases

** Never established cigarette users and never users of other tobacco products.*

¹Those responses that are “not valid” are described for each indicator under “missing values.”

6. Demographic Variables for PATH Youth Data (Wave 2)

Note about missing values for all indicators: In PATH, many of the questions depend on the ability to classify individuals by their tobacco product use status. Sometimes we are unable to make this classification due to the skip pattern of the instrument for one or more component variables, or because a “refused”, “I don’t know” or “improbable” response was provided or because the individual requested their data to be removed; therefore these cases were excluded from the calculation of the indicators below.

UM_W2_Y_agegrp: Age range of youth respondents when interviewed

Description: The age (in years) of youth respondents at the time of interview.

Numerator: Number of respondents who were [VALUE] at the time of interview

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
1 = 12 to 14	6,266	51.48
2 = 15 to 17	5,906	48.52
Missing	0	0.00
Total	12,172	100.00

This variable has 12,172 valid cases out of 12,172 total cases.

Missing values: See note about missing values for all indicators.

UM_W2_Y_male: Gender of youth respondents

Description: Gender of youth respondents.

Numerator: Number of respondents who are [VALUE]

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
0 = Female	5,918	48.62
1 = Male	6,225	51.14
Missing	29	0.24
Total	12,172	100.00

This variable has 12,143 valid cases out of 12,172 total cases.

UM_W2_Y_RE: Race/ethnicity of youth respondents

Description: Race/ethnicity of youth respondents.

Numerator: Number of respondents who are [VALUE]

¹Those responses that are “not valid” are described for each indicator under “missing values.”

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
1 = Hispanic	3,502	28.77
2 = Non-Hispanic White	5,674	46.62
3 = Non-Hispanic Black	1,577	12.96
4 = Non-Hispanic Other	1,105	9.08
Missing	314	2.58
Total	12,172	100.00

This variable has 11,858 valid cases out of 12,172 total cases.

UM_W2_Y_educat: Grade level of youth respondents

Description: Grade level youth respondents are in or will be in when returning to school if on a holiday or break.

Numerator: Number of respondents who are or will be in [VALUE]

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
1 = 6 th grade or below	748	6.15
2 = 7 th grade	1,854	15.23
3 = 8 th grade	1,994	16.38
4 = 9 th grade	2,024	16.63
5 = 10 th grade	1,998	16.41
6 = 11 th grade	1,775	14.58
7 = Other	1,735	14.25
Missing	44	0.36
Total	12,172	100.00

This variable has 12,128 valid cases out of 12,172 total cases.

UM_W2_Y_incomecat: Total household income in past 12 months

Description: Total income in the past 12 months, before taxes, of all persons in the youth respondent's household.

Numerator: Number of respondents whose total household income was [VALUE] in the past 12 months

Denominator: Total number of respondents¹

Value	Unweighted frequency	%
1 = Less than \$50,000	5,575	45.80
2 = \$50,000 to \$99,999	2,794	22.95
3 = More than \$100,000	2,418	19.87
Missing	1,385	11.38

¹Those responses that are "not valid" are described for each indicator under "missing values."

Total	12,172	100.00
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This variable has 10,787 valid cases out of 12,172 total cases.

¹Those responses that are “not valid” are described for each indicator under “missing values.”