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

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\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,305	97.47
1 = Yes	317	2.32
Missing	29	0.21
Total	13,651	100

This variable has 13,622 valid cases out of 13,651 total cases

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

#### UM\_W1\_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 respondents<sup>1</sup>

Mean: 0.56
Median: 0.00
Mode: 0
Minimum: 0
Maximum: 30

• Standard deviation: 3.57

Never smoked or did not smoked in the past 30 days: 12,998

Missing: 48

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	12,998	95.22
1 = Yes	605	4.43
Missing	48	0.35
Total	13,651	100

This variable has 13,603 valid cases out of 13,651 total cases.

#### UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,315	97.54
1 = Yes	288	2.11
Missing	48	0.35
Total	13,651	100

This variable has 13,603 valid cases out of 13,651 total cases.

## UM\_W1\_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

Value	Unweighted frequency	%
0 = No	13,437	98.43
1 = Yes	166	1.22
Missing	48	0.35
Total	13,651	100

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

#### UM\_W1\_Y\_cigs1\_past30\_ESTD: Youth established smoker - smoked at least 1 day in the past 30 days

**Description:** Established smokers (smoked  $\geq$  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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,349	97.79
1 = Yes	264	1.93
Missing	38	0.28
Total	13,651	100

This variable has 13,613 valid cases out of 13,651 total cases.

## UM\_W1\_Y\_cigs10\_past30\_ESTD: Youth established smoker - smoked at least 10 days in the past 30 days

**Description:** Established smokers (smoked  $\geq$  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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,395	98.12
1 = Yes	218	1.60
Missing	38	0.28
Total	13,651	100

This variable has 13,613 valid cases out of 13,651 total cases.

## UM\_W1\_Y\_cigs25\_past30\_ESTD: Youth established smoker - smoked at least 25 days in the past 30 days

**Description:** Established smokers (smoked  $\geq$  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

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

Value	Unweighted frequency	%
0 = No	13,465	98.64
1 = Yes	148	1.08
Missing	38	0.28
Total	13,651	100

This variable has 13,613 valid cases out of 13,651 total cases.

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = Not past 30 day smoker	12,988	95.14
1 = <1 cig/day	167	1.22
2 = 1 cig/day	106	0.78
3 = 2-5 cigs/day	219	1.60
4 = 6-10 cigs/day	96	0.70
5 = 11-20 cigs/day	40	0.29
6 = >20 cigs/day	2	0.01
Missing	33	0.24
Total	13,651	100

This variable has 13,618 valid cases out of 13,651 total cases.

## UM\_W1\_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.

Value	Unweighted frequency	%
0 = No	250	1.83
1 = Yes	383	2.81
Missing	13,018	95.36
Total	13,651	100

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."



## 2. E-cigarette Use Variables for PATH Youth Data (Wave 1)

**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\_W1\_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 respondents<sup>1</sup>

Mean: 0.18
Median: 0.00
Mode: 0
Minimum: 0
Maximum: 30

• Standard deviation: 1.73

Never smoked or did not smoked in the past 30 days: 13,205

• Missing: 53

This variable has 13,598 valid cases out of 13,651 total cases.

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

#### UM\_W1\_Y\_ecigs1\_past30: Youth e-cigarette user - used at least 1 day in the past 30 days

**Description:** Current users who have used e-cigarettes on at least 1 day in the past 30 days.

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

**Denominator:** Total number of respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,205	96.73
1 = Yes	393	2.88
Missing	53	0.39
Total	13,651	100

This variable has 13,598 valid cases out of 13,651 total cases.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,515	99.00
1 = Yes	83	0.61
Missing	53	0.39
Total	13,651	100

This variable has 13,598 valid cases out of 13,651 total cases.

### UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,568	99.39
1 = Yes	30	0.22
Missing	53	0.39
Total	13,651	100

This variable has 13,598 valid cases out of 13,651 total cases.

#### UM\_W1\_Y\_ecig\_anyflvr: Used flavored e-cigarette(s) in the past 30 days

**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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	64	0.47
1 = Yes	354	2.59
Missing	13,233	96.94
Total	13,651	100

This variable has 418 valid cases out of 13,651 total cases.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."



## 3. Other Combustible Product Use Variables for PATH Youth Data (Wave 1)

**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\_W1\_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 respondents<sup>1</sup>

Mean: 0.02Median: 0.00Mode: 0.00Minimum: 0.00Maximum: 19

• Standard deviation: 0.43

Never smoked or did not smoked in the past 30 days: 13,553 (99.28%)

Missing: 24 (0.18%)

This variable has 13,627 valid cases out of 13,651 total cases.

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

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,553	99.28
1 = Yes	74	0.54
Missing	24	0.18
Total	13,651	100.00

This variable has 13,627 valid cases out of 13,651 total cases.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,617	99.75
1 = Yes	10	0.07
Missing	24	0.18
Total	13,651	100.00

This variable has 13,627 valid cases out of 13,651 total cases.

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,627	99.82
1 = Yes	0	0.00
Missing	24	0.18
Total	13,651	100.00

This variable has 13,627 valid cases out of 13,651 total cases.

#### UM\_W1\_Y\_cigarillo\_30day: In the 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 respondents<sup>1</sup>

Mean: 0.07Median: 0.00Mode: 0.00Minimum: 0.00Maximum: 30.00

Standard deviation: 0.92

Never smoked or did not smoked in the past 30 days: 13,409 (98.23%)

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

• Missing: 49 (0.36%)

This variable has 13,602 valid cases out of 13,651 total cases.

#### UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,409	98.23
1 = Yes	193	1.41
Missing	49	0.36
Total	13,651	100.00

This variable has 13,602 valid cases out of 13,651 total cases.

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,565	99.37
1 = Yes	37	0.27
Missing	49	0.36
Total	13,651	100.00

This variable has 13,602 valid cases out of 13,651 total cases.

## UM\_W1\_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

Value	Unweighted frequency	%
0 = No	13,598	99.61
1 = Yes	4	0.03
Missing	49	0.36

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

Total	13,651	100.00
Total	13,031	100.00

This variable has 13,602 valid cases out of 13,651 total cases.

#### UM W1 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 respondents<sup>1</sup>

Mean: 0.02
Median: 0.00
Mode: 0.00
Minimum: 0.00
Maximum: 30.00

Standard deviation: 0.51

Never smoked or did not smoked in the past 30 days: 13,556 (99.30%)

Missing: 42 (0.31%)

This variable has 13,609 valid cases out of 13,651 total cases.

### UM W1 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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,556	99.30
1 = Yes	53	0.39
Missing	42	0.31
Total	13,651	100.00

This variable has 13,609 valid cases out of 13,651 total cases.

## UM\_W1\_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

Value	Unweighted frequency	%	
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<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

0 = No	13,598	99.61
1 = Yes	11	0.08
Missing	42	0.31
Total	13,651	100.00

This variable has 13,609 valid cases out of 13,651 total cases.

### UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,608	99.69
1 = Yes	1	0.01
Missing	42	0.31
Total	13,651	100.00

This variable has 13,609 valid cases out of 13,651 total cases.

#### UM\_W1\_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 respondents<sup>1</sup>

Mean: 0.02Median: 0.00Mode: 0.00Minimum: 0.00Maximum: 30.00

• Standard deviation: 0.58

Never smoked or did not smoked in the past 30 days: 13,590 (99.55%)

• Missing: 23 (0.17%)

This variable has 13,628 valid cases out of 13,651 total cases.

### UM W1 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.

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

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

**Denominator:** Total number of respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,590	99.55
1 = Yes	38	0.28
Missing	23	0.17
Total	13,651	100.00

This variable has 13,628 valid cases out of 13,651 total cases.

#### UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,617	99.75
1 = Yes	11	0.08
Missing	23	0.17
Total	13,651	100.00

This variable has 13,628 valid cases out of 13,651 total cases.

#### UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,625	99.81
1 = Yes	3	0.02
Missing	23	0.17
Total	13,651	100.00

This variable has 13,628 valid cases out of 13,651 total cases.

## UM\_W1\_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

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

**Denominator:** Total number of respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,407	98.21
1 = Yes	226	1.66
Missing	18	0.13
Total	13,651	100.00

This variable has 13,633 valid cases out of 13,651 total cases.

#### UM\_W1\_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 respondents<sup>1</sup>

Mean: 0.22Median: 0.00Mode: 0.00Minimum: 0.00Maximum: 600

Standard deviation: 7.48Missing: 66 (0.48%)

This variable has 13,585 valid cases out of 13,651 total cases.

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,407	98.21
1 = Yes	178	1.30
Missing	66	0.48
Total	13,651	100.00

This variable has 13,585 valid cases out of 13,651 total cases.

#### UM\_W1\_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.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

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

**Denominator:** Total number of respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,535	99.15
1 = Yes	50	0.37
Missing	66	0.48
Total	13,651	100.00

This variable has 13,585 valid cases out of 13,651 total cases.

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,566	99.38
1 = Yes	19	0.14
Missing	66	0.48
Total	13,651	100.00

This variable has 13,585 valid cases out of 13,651 total cases.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

## 4. Smokeless Tobacco Use Variables for PATH Youth Data (Wave 1)

**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\_W1\_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 respondents<sup>1</sup>

Mean: 0.04Median: 0.00Mode: 0.00Minimum: 0.00Maximum: 30.00

• Standard deviation: 0.93

Never smoked or did not smoked in the past 30 days: 13,544 (99.22%)

Missing: 43 (0.31%)

This variable has 13,608 valid cases out of 13,651 total cases.

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

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,544	99.22
1 = Yes	64	0.47
Missing	43	0.31
Total	13,651	100.00

This variable has 13,608 valid cases out of 13,651 total cases.

#### UM\_W1\_Y\_snus10\_past30: Youth snus pouch user - used at least 10 days in the past 30 days

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

**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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,586	99.52
1 = Yes	22	0.16
Missing	43	0.31
Total	13,651	100.00

This variable has 13,608 valid cases out of 13,651 total cases.

#### UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,598	99.61
1 = Yes	10	0.07
Missing	43	0.31
Total	13,651	100.00

This variable has 13,608 valid cases out of 13,651 total cases.

#### UM W1 Y slt 30day: In the past 30 days, number of days used 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 respondents<sup>1</sup>

Mean: 0.19
Median: 0.00
Mode: 0.00
Minimum: 0.00
Maximum: 30.00

• Standard deviation: 2.16

• Never smoked or did not smoked in the past 30 days: 13,417 (98.29%)

Missing: 57 (0.42%)

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

## UM\_W1\_Y\_slt1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,417	98.29
1 = Yes	177	1.30
Missing	57	0.42
Total	13,651	100.00

This variable has 13,594 valid cases out of 13,651 total cases.

## UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,499	98.89
1 = Yes	95	0.70
Missing	57	0.42
Total	13,651	100.00

This variable has 13,594 valid cases out of 13,651 total cases.

# UM\_W1\_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.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

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

**Denominator:** Total number of respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,532	99.13
1 = Yes	62	0.45
Missing	57	0.42
Total	13,651	100.00

This variable has 13,594 valid cases out of 13,651 total cases.

### UM\_W1\_Y\_dissolve\_30day: In the past 30 days, number of days used dissolvable tobacco products

**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 respondents<sup>1</sup>

Mean: 0.00
Median: 0.00
Mode: 0.00
Minimum: 0.00
Maximum: 20.00

• Standard deviation: 0.19

Never smoked or did not smoked in the past 30 days: 13,640 (99.92%)

• Missing: 8 (0.06%)

This variable has 13,643 valid cases out of 13,651 total cases.

## UM\_W1\_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

Value	Unweighted frequency	%
0 = No	13,640	99.92
1 = Yes	3	0.02

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

Missing	8	0.06
Total	13,651	100.00

This variable has 13,643 valid cases out of 13,651 total cases.

# UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,641	99.93
1 = Yes	2	0.01
Missing	8	0.06
Total	13,651	100.00

This variable has 13,643 valid cases out of 13,651 total cases.

# UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No	13,643	99.94
1 = Yes	0	0.00
Missing	8	0.06
Total	13,651	100.00

This variable has 13,643 valid cases out of 13,651 total cases.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

## 5. Single, Dual, Poly Use Variables for PATH Youth Data (Wave 1)

**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\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = No*	13,211	96.78
1 = Yes	439	3.22
Missing	1	0.01
Total	13,651	100.00

This variable has 13,650 valid cases out of 13,651 total cases.

## UM\_W1\_Y\_sltgroup1\_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

<sup>\*</sup> Including people with missing values, as long as they responded 'NO' to at least one product.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

Value	Unweighted frequency	%
0 = No*	13,449	98.52
1 = Yes	198	1.45
Missing	4	0.03
Total	13,651	100.00

This variable has 13,647 valid cases out of 13,651 total cases.

# UM\_W1\_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 ecigarettes, 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 respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = Never user	12,492	91.51
1 = Cigarettes only user	275	2.01
2 = E-cigarettes only user	148	1.08
3 = Other combustibles (OC) only user	165	1.21
4 = Smokeless (SLT) only user	74	0.54
5 = Cigarettes and e-cigarettes user	81	0.59
6 = Cigarettes and OC user	91	0.67
7 = Cigarettes and SLT user	25	0.18
8 = E-cigarettes and OC user	36	0.26
9 = E-cigarettes and SLT user	10	0.07
10 = OC and SLT user	18	0.13
11 = Cigarettes, e-cigarettes and OC user	69	0.51
12 = Cigarettes, e-cigarettes and SLT user	18	0.13
13 = Cigarettes, OC and SLT user	23	0.17
14 = E-cigarettes, OC and SLT user	9	0.07
15 = Cigarettes, e-cigarettes, OC and SLT user	17	0.12
Missing	100	0.73
Total	13,651	100.00

This variable has 13,551 valid cases out of 13,651 total cases.

UM\_W1\_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)

<sup>\*</sup> Including people with missing values, as long as they responded 'NO' to at least one product.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

**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

**Denominator:** Total number of respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = Never user*	12,665	92.78
1 = Cigarettes only user	108	0.79
2 = E-cigarettes only user	189	1.38
3 = Other combustibles (OC) only user	221	1.62
4 = Smokeless (SLT) only user	88	0.64
5 = Cigarettes and e-cigarettes user	40	0.29
6 = Cigarettes and OC user	38	0.28
7 = Cigarettes and SLT user	11	0.08
8 = E-cigarettes and OC user	74	0.54
9 = E-cigarettes and SLT user	17	0.12
10 = OC and SLT user	29	0.21
11 = Cigarettes, e-cigarettes and OC user	31	0.23
12 = Cigarettes, e-cigarettes and SLT user	11	0.08
13 = Cigarettes, OC and SLT user	12	0.09
14 = E-cigarettes, OC and SLT user	15	0.11
15 = Cigarettes, e-cigarettes, OC and SLT user	11	0.08
Missing	91	0.67
Total	13,651	100.00

This variable has 13,560 valid cases out of 13,651 total cases.

## 5.2 States for Transition Analysis Based on Current Use

UM\_W1\_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

Value	Unweighted frequency	%
0 = Never user	10,791	79.05

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

<sup>\*</sup> Never established cigarette users and never users of other tobacco products.

1 = Former user	1,701	12.46
2 = Cigarettes only user	275	2.01
3 = E-cigarettes only user	148	1.08
4 = Other combustibles (OC) only user	165	1.21
5 = Smokeless (SLT) only user	74	0.54
6 = Cigarettes and e-cigarettes user	81	0.59
7 = Cigarettes and OC user	91	0.67
8 = Cigarettes and SLT user	25	0.18
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)	127	0.93
10 = Other dual/poly-user without cigarettes (e-cigs and OC; e-cigs and SLT; OC and SLT; e-cigs, OC and SLT)	73	0.53
Missing	100	0.73
Total	13,651	100.00

This variable has 13,551 valid cases out of 13,651 total cases

# UM\_W1\_Y\_states\_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.

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

**Denominator:** Total number of respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = Never user*	11,230	82.27
1 = Former user	1,435	10.51
2 = Cigarettes only user	108	0.79
3 = E-cigarettes only user	189	1.38
4 = Other combustibles (OC) only user	221	1.62
5 = Smokeless (SLT) only user	88	0.64
6 = Cigarettes and e-cigarettes user	40	0.29
7 = Cigarettes and OC user	38	0.28
8 = Cigarettes and SLT user	11	0.08
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)	65	0.48
10 = Other dual/poly-user without cigarettes (e-cigs and OC; e-cigs and SLT; OC and SLT; e-cigs, OC and SLT)	135	0.99
Missing	91	0.67
Total	13,651	100.00

This variable has 13,560 valid cases out of 13,651 total cases

<sup>\*</sup> Never established cigarette users and never users of other tobacco products.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

# UM\_W1\_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.

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

**Denominator:** Total number of respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = Never user	10,791	79.05
1 = Former user	1,701	12.46
2 = Cigarettes only user	275	2.01
3 = E-cigarettes only user	148	1.08
4 = Other combustibles (OC) only user	165	1.21
5 = Smokeless (SLT) only user	74	0.54
6 = Cigarettes and e-cigarettes user	81	0.59
7 = E-cigarettes and OC user	36	0.26
8 = E-cigarettes and SLT user	10	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)	113	0.83
10 = Other dual/poly-user without cigarettes (cigs and OC; cigs and SLT; OC and SLT; cigs, OC and SLT)	157	1.15
Missing	100	0.73
Total	13,651	100.00

This variable has 13,551 valid cases out of 13,651 total cases

# UM\_W1\_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

Value	Unweighted frequency	%
0 = Never user*	11,230	82.27
1 = Former user	1,435	10.51
2 = Cigarettes only user	108	0.79
3 = E-cigarettes only user	189	1.38
4 = Other combustibles (OC) only user	221	1.62
5 = Smokeless (SLT) only user	88	0.64
6 = Cigarettes and e-cigarettes user	40	0.29

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

7 = E-cigarettes and OC user	74	0.54
8 = E-cigarettes and SLT user	17	0.12
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	68	0.50
SLT)		
10 = Other dual/poly-user without cigarettes (cigs and	90	0.66
OC; cigs and SLT; OC and SLT; cigs, OC and SLT)	90	0.66
Missing	91	0.67
Total	13,651	100.00

This variable has 13,560 valid cases out of 13,651 total cases

<sup>\*</sup> Never established cigarette users and never users of other tobacco products.

 $<sup>^{1}</sup>$ Those responses that are "not valid" are described for each indicator under "missing values."

## 6. Demographic Variables for PATH Youth Data (Wave 1)

**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\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
1 = 12 to 14	6,997	51.26
2 = 15 to 17	6,651	48.72
Missing	3	0.02
Total	13,651	100.00

This variable has 13,648 valid cases out of 13,651 total cases.

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

## UM\_W1\_Y\_male: Gender of youth respondents

**Description**: Gender of youth respondents.

Numerator: Number of respondents who are [VALUE].

**Denominator:** Total number of respondents<sup>1</sup>

Value	Unweighted frequency	%
0 = Female	6,641	48.65
1 = Male	6,970	51.06
Missing	40	0.29
Total	13,651	100.00

This variable has 13,611 valid cases out of 13,651 total cases.

## UM\_W1\_Y\_RE: Race/ethnicity of youth respondents

**Description**: Race/ethnicity of youth respondents.

Numerator: Number of respondents who are [VALUE].

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."

**Denominator:** Total number of respondents<sup>1</sup>

Value	Unweighted frequency	%
1 = Hispanic	3,880	28.42
2 = Non-Hispanic White	6,478	47.45
3 = Non-Hispanic Black	1,801	13.19
4 = Non-Hispanic Other	1,230	9.01
Missing	262	1.92
Total	13,651	100.00

This variable has 13,389 valid cases out of 13,651 total cases.

## **UM\_W1\_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 respondents<sup>1</sup>

Value	Unweighted frequency	%
1 = 6 <sup>th</sup> grade or below	805	5.90
2 = 7 <sup>th</sup> grade	2,141	15.68
3 = 8 <sup>th</sup> grade	2,270	16.63
4 = 9 <sup>th</sup> grade	2,332	17.08
5 = 10 <sup>th</sup> grade	2,239	16.40
6 = 11 <sup>th</sup> grade	2,037	14.92
7 = Other	1,783	13.06
Missing	44	0.32
Total	13,651	100.00

This variable has 13,607 valid cases out of 13,651 total cases.

<sup>&</sup>lt;sup>1</sup>Those responses that are "not valid" are described for each indicator under "missing values."