

### Appendix 3.2-1: ALCS Analyses of PATH Data for Section 3.2 – Description of Conditions for and Actual Use of the Product

- **Statement of Purpose/ Objective:** To substantiate PATH analyses in Section 3.2
- **Source and data set up:** PATH Wave 1 Adult Public Use File, 2013-2014

Analysis weight (R01\_A\_PWGT) was used to account for selection probabilities, differential nonresponse rates, and possible deficiencies in the sampling frame (e.g., under coverage of certain population groups). Variance estimation was implemented to account for multi-stage complex sampling using balanced repeated replication weight method, as recommended by the PATH survey team. Data were set up using the following command in Stata 15.0.

```
svyset [pweight= R01_A_PWGT], brr(R01_A_PWGT1 - R01_A_PWGT100)
vce(brr) mse fay(.3)
```

- **Summary of outcomes assessed:**

We conducted analysis for five outcomes using PATH Wave 1 adult public use file for Section 3.2. These outcomes are listed in the table below along with the survey questions and the variables used to derive the outcome variables.

Outcome Measure	Corresponding Variables & Questions	
	Variable	Question
1 Average # of days used MST during past 30-days	R01_AS1022SM	On how many of the past 30-days did you use [SMKLSSFILL]?
	R01R_A_EDY_SMKLS	Do you now use [SMKLSSFILL] every day?
2 Number of use occasions on days used	R01_AS1021SM	On average, about how many times do you now use smokeless tobacco each day? (R01_AS1021SM for everyday users and R01_AS1023SM for someday users)
	R01_AS1023SM	
3 Past 30-day use of other tobacco products	R01R_A_P30D_CIGS R01R_A_P30D_ECIG R01R_A_P30D_GTRAD R01R_A_P30D_GRILLO R01R_A_P30D_GFILTR R01R_A_P30D_PIPE R01R_A_P30D_DISSBL R01R_A_P30D_SNUS	PATH derived variables to identify individuals who have ever used a certain tobacco product and have used at least once in the past 30-days. Tobacco products include cigarettes, e-cigarettes, traditional cigars, cigarillos, filtered cigars, pipe, dissolvable tobacco, and snus pouches. The three cigar products were grouped together.
4 Average # of days smoked cigarettes during past 30-days	R01_AC1022	On how many of the past 30-days did you smoke cigarettes?
	R01R_A_EDY_CIG	Do you now smoke cigarettes every day?
5 Past 30-day amount of cigarette use on days used	R01_AC1021_NN	On average, about how many cigarettes do you now smoke each day? A pack usually has 20 cigarettes in it. (R01_AC1021_NN for everyday users and R01_AC1023_NN for someday users) NOTES: The value "1" refers to R01_AC1021_UN = Cigarettes per day, the value "2" refers to R01_AC1021_UN = Packs per day.
	R01_AC1021_UN	
	R01_AC1023_NN	
	R01_AC1023_UN	

- **User Groups**

This section describes the definition of the six user groups and variables used to identify these groups, as presented in Section 3.2.

User Groups	Definitions	Variables / Syntax
Total MST	Used smokeless tobacco in past 30-days	R01R_A_P30D_SMKLS=1
Total MST-Copenhagen Snuff	Used smokeless tobacco in past 30-days and identified Copenhagen Snuff as their usual brand	R01R_A_P30D_SMKLS=1 & R01_AS1070SM_PRODUCT=10409
Exclusive MST*	Used MST in past 30-days, did <u>NOT</u> use cigarettes in past 30-days	R01R_A_P30D_SMKLS=1 & R01R_A_P30D_CIGS=2
Exclusive MST*-Copenhagen Snuff	Used MST in past 30-days, did <u>NOT</u> use cigarettes in past 30-days and identified Copenhagen Snuff as their usual brand	R01R_A_P30D_SMKLS=1 & R01R_A_P30D_CIGS=2 & R01_AS1070SM_PRODUCT=10409
MST & Cigarettes	Used MST and cigarettes in past 30-days	R01R_A_P30D_SMKLS=1 & R01R_A_P30D_CIGS=1
MST & Cigarettes - Copenhagen Snuff	Used MST and cigarettes in past 30-days and identified Copenhagen Snuff as their usual brand	R01R_A_P30D_SMKLS=1 & R01R_A_P30D_CIGS=1 & R01_AS1070SM_PRODUCT=10409

\*MST exclusive of cigarette smoking.

The question about usual brand was only asked to users who had ever used smokeless tobacco and had used 'fairly regularly'.

Footnote: n=1825 for Total MST group, n=1013 for Exclusive MST group, and n=810 for MST & Cigarettes group, n=110 for Total MST-Copenhagen Snuff group, n=86 for Exclusive MST-Copenhagen Snuff group, and n=24 for MST & Cigarettes-Copenhagen Snuff group. Six individuals have missing values for smokeless tobacco use. Sample sizes may vary from one analysis to another due to missing values ("don't know" and "refused" answers as well as improbably responses removed by PATH team) on the outcome variables. Actual sample size for each analysis is shown in the size of the subgroup population (i.e., "Subpop. no. obs" in the output).

- **Results: Syntax and Output**

In this section, we present Stata syntax and original output tables to generate results shown in Section 3.2.

**Outcome 1: Average number of days of MST use during past 30-days**

\*Syntax used to generate the outcome variable

```
gen smkl30day=30 if R01R_A_EDY_SMKLS==1
```

```
replace smkl30day=R01_AS1022SM if R01_AS1022SM>=0 & R01R_A_P30D_SMKLS==1 & smkl30day==.
```

\* **Means of the outcome**

\* **Table 1a. Syntax and output for average number of days of MST use during past 30-days among Total MST group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1): mean smkl30day, cformat(%2.1f)
```

(running mean on estimation sample)

```
Survey: Mean estimation      Number of obs   =      32,120
                             Population size =  235,991,651
                             Subpop. no. obs  =       1,625
                             Subpop. size     =  6,350,740.97
                             Replications     =          100
                             Design df        =           99
```

	BRR *			
	Mean	Std. Err.	[95% Conf. Interval]	
smkl30day	22.7	0.3	22.2	23.3

**\* Table 1b. Syntax and output for average number of days of MST use during past 30-days among Total MST-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409): mean smkl30day,
cformat(%2.1f)
(running mean on estimation sample)
```

```
Survey: Mean estimation      Number of obs   =      32,314
                             Population size =  236,667,370
                             Subpop. no. obs  =       104
                             Subpop. size     =  450,976.6995
                             Replications     =        100
                             Design df        =         99
```

	Mean	BRR * Std. Err.	[95% Conf. Interval]	
smkl30day	28.0	0.6	26.9	29.1

**\* Table 2a. Syntax and output for average number of days of MST use during past 30 -days among MST & Cigarettes group and Exclusive MST group**

**The 1623 observations include 941 in the Exclusive MST group and 682 in the MST & Cigarettes group.**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1): mean smkl30day, over(R01R_A_P30D_CIGS)
cformat(%2.1f)
(running mean on estimation sample)
```

Over	Mean	BRR * Std. Err.	[95% Conf. Interval]	
smkl30day				
_subpop_1	17.8	0.4	17.0	18.6
_subpop_2	25.8	0.3	25.2	26.4

Footnote: subpop\_1 includes past 30-day smokeless tobacco users with past 30-day cigarette smoking, and subpop\_2 includes past 30-day smokeless tobacco users without past 30-day cigarette smoking.

**\* Table 2b. Syntax and output for average number of days of MST use during past 30-days among MST & Cigarettes-Copenhagen Snuff group and Exclusive MST-Copenhagen Snuff group**

**The 104 observations include 84 in the Exclusive MST group and 20 in the MST & Cigarettes group.**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409): mean smkl30day,
over(R01R_A_P30D_CIGS) cformat(%2.1f)
(running mean on estimation sample)
```

```
Survey: Mean estimation      Number of obs   =      32,314
                             Population size =  236,667,370
                             Replications   =           100
                             Design df      =           99

      _subpop_1: R01R_A_P30D_CIGS = 1 = Yes
      _subpop_2: R01R_A_P30D_CIGS = 2 = No
```

-----				
Over	BRR * Mean    Std. Err.    [95% Conf. Interval]			
-----				
smkl30day				
_subpop_1	24.9	1.7	21.5	28.4
_subpop_2	28.7	0.5	27.6	29.8
-----				

Footnote: subpop\_1 includes past 30-day smokeless tobacco users with past 30-day cigarette smoking, and subpop\_2 includes past 30-day smokeless tobacco users without past 30-day cigarette smoking. Both groups indicated Copenhagen Snuff as their usual brand.

**\*\*Categories of the outcome**

**We also ran tabulations for a categorical past 30-day smokeless tobacco use variable for the three groups.**

**\*Syntax used to generate the categorical outcome variable**

```
recode smkl30day (0=0) (1/2=1) (3/5=3) (6/9=4) (10/14=5) (15/19=6) (20/24=7) (25/29=8)
(30=9)
```

**\* Table 3a. Syntax and output for categorical number of days of MST use during past 30-days among Total MST group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1): tab smkl30day , per ci format(%2.0f)
```

```
Number of obs      =      32,120
Population size     = 235,991,651
Subpop. no. obs     =      1,625
Subpop. size        = 6,350,740.97
Replications        =      100
Design df           =      99
```

smkl30day	percentage	lb	ub
0 days	1	0	2
1-2 days	8	7	10
3-5 days	7	6	9
6-9 days	2	2	3
10-14 da	5	4	6
15-19 da	5	4	6
20-24 da	5	4	7
25-29 da	2	2	4
30 days	64	62	66
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**\* Table 3b. Syntax and output for categorical number of days of MST use during past 30-days among Total MST-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409): tab smkl30day , per
ci format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,314
Population size     =   236,667,370
Subpop. no. obs     =         104
Subpop. size        =  450,976.6995
Replications        =          100
Design df           =           99
```

smkl30day	percentage	lb	ub
0 days	0		
1-2 days	1	0	6
3-5 days	1	0	9
6-9 days	1	0	4
10-14 da	3	1	9
15-19 da	2	0	7
20-24 da	4	2	10
25-29 da	2	0	7
30 days	87	79	92
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**\* Table 4a. Syntax and output for categorical number of days of MST use during past 30-days among MST & Cigarettes group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_CIGS==1): tab smkl30day, per ci
format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,192
Population size     =  236,279,887
Subpop. no. obs     =      682
Subpop. size        =  2,424,335.36
Replications        =      100
Design df           =      99
```

smkl30day	percentage	lb	ub
0 days	1	1	3
1-2 days	15	12	18
3-5 days	13	11	16
6-9 days	4	2	6
10-14 da	7	6	10
15-19 da	6	5	8
20-24 da	8	5	11
25-29 da	3	2	5
30 days	42	38	46
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```



**\* Table 4b. Syntax and output for categorical number of days of MST use during past 30-days among MST & Cigarettes-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_CIGS==1 &
R01_AS1070SM_PRODUCT==10409): tab smkl30day, per ci format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,316
Population size     = 236,676,054
Subpop. no. obs     =          20
Subpop. size        = 80,466.87616
Replications        =          100
Design df           =          99
```

smkl30day	percentage	lb	ub
0 days	0		
1-2 days	5	1	34
3-5 days	0		
6-9 days	3	0	21
10-14 da	0		
15-19 da	9	2	34
20-24 da	16	6	38
25-29 da	0		
30 days	66	47	81
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**\* Table 5a. Syntax and output for categorical number of days of MST use during past 30-days among MST & No Cigarette group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_CIGS==2): tab smkl30day, per ci
format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,248
Population size     =  236,403,350
Subpop. no. obs     =      941
Subpop. size        =  3,917,435.26
Replications        =      100
Design df           =      99
```

smkl30day	percentage	lb	ub
0 days	1	0	1
1-2 days	4	3	6
3-5 days	3	2	5
6-9 days	1	1	3
10-14 da	4	3	5
15-19 da	4	3	5
20-24 da	3	2	5
25-29 da	2	1	4
30 days	77	74	80
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**\* Table 5b. Syntax and output for categorical number of days of MST use during past 30-days among MST & No Cigarette-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_CIGS==2 &
R01_AS1070SM_PRODUCT==10409): tab smkl30day, per ci format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,318
Population size    =   236,682,901
Subpop. no. obs    =           84
Subpop. size       =   370,509.8233
Replications       =           100
Design df          =           99
```

smkl30day	percentage	lb	ub
0 days	0		
1-2 days	0		
3-5 days	2	0	11
6-9 days	0		
10-14 da	4	1	11
15-19 da	0		
20-24 da	2	0	7
25-29 da	2	1	9
30 days	91	83	95
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**Outcome 2: number of use occasions on days used**

\*Recode of outcome variable

```
gen smkl30time=R01_AS1021SM if R01_AS1021SM>=0
replace smkl30time=R01_AS1023SM if R01_AS1023SM>=0 & smkl30time==.
```

**\*\* Means of the outcome**

**\* Table 6a. Syntax and output for number of use occasions on days used during the past 30-days among Total MST group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1): mean smkl30time cformat(%2.1f)
(running mean on estimation sample)
```

```
Survey: Mean estimation      Number of obs   =      32,106
                             Population size =  235,936,469
                             Subpop. no. obs  =       1,611
                             Subpop. size    =  6,295,558.89
                             Replications     =        100
                             Design df       =         99
```

	BRR *			
	Mean	Std. Err.	[95% Conf. Interval]	
smkl30time	6.0	0.1	5.8	6.3

**\* Table 6b. Syntax and output for number of use occasions on days used during the past 30-days among Total MST-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409): mean smkl30time,
cformat(%2.1f)
```

(running mean on estimation sample)

```
Survey: Mean estimation      Number of obs   =      32,314
                             Population size = 236,667,370
                             Subpop. no. obs =      104
                             Subpop. size   = 450,976.6995
                             Replications   =      100
                             Design df      =       99
```

	BRR *			
	Mean	Std. Err.	[95% Conf. Interval]	
smkl30time	8.9	0.9	7.2	10.6

**\* Table 7a. Syntax and output for number of use occasions on days used during the past 30-days among MST & No Cigarette and MST & Cigarettes groups**

```
svy, subpop(if R01R_A_P30D_SMKLS==1): mean smkl30time, over(R01R_A_P30D_CIG)
cformat(%2.1f)
```

Over	BRR *			
	Mean	Std. Err.	[95% Conf. Interval]	
smkl30time				
_subpop_1	5.2	0.2	4.8	5.5
_subpop_2	6.6	0.2	6.2	6.9

Footnote: subpop\_1 includes 673 past 30-day smokeless tobacco users with past 30-day cigarette smoking, and subpop\_2 includes 936 past 30-day smokeless tobacco users without past 30-day cigarette smoking.

**\* Table 7b. Syntax and output for number of use occasions on days used during the past 30-days among MST & No Cigarette-Copenhagen Snuff and MST & Cigarettes-Copenhagen Snuff groups**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409): mean smkl30time,
over(R01R_A_P30D_CIG) cformat(%2.1f)
```

Over	BRR *			
	Mean	Std. Err.	[95% Conf. Interval]	
smkl30time				
_subpop_1	8.0	1.4	5.2	10.9
_subpop_2	9.1	0.9	7.3	10.9

Footnote: subpop\_1 includes 20 past 30-day smokeless tobacco users with past 30-day cigarette smoking, and subpop\_2 includes 84 past 30-day smokeless tobacco users without past 30-day cigarette smoking. Both groups indicated Copenhagen Snuff was their usual brand.

**\*\* Categories of the outcome**

We also ran tabulations for a categorical past 30-day number of use occasions variable.

```
recode smkl30time (0/5=1) (6/10=2) (11/1000=3)
```

**\* Table 8a. Syntax and output for categorical past 30-day number of use occasions among the Total MST group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1): tab smkl30time, per ci format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,106
Population size    = 235,936,469
Subpop. no. obs    =      1,611
Subpop. size       = 6,295,558.89
Replications       =      100
Design df          =      99
```

smkl30time	percentage	lb	ub
0-5 time	60	58	63
6-10 tim	29	26	32
11+ time	11	9	12
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**\* Table 8b. Syntax and output for categorical past 30-day number of use occasions among the Total MST-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409): tab smkl30time, per
ci format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,314
Population size     = 236,667,370
Subpop. no. obs     =      104
Subpop. size        = 450,976.6995
Replications        =      100
Design df           =       99
```

smkl30time	percentage	lb	ub
0-5 time	33	23	45
6-10 tim	46	37	56
11+ time	20	14	29
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```



**\* Table 9a. Syntax and output for categorical past 30-day number of use occasions among the Exclusive MST group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_CIGS==2): tab smkl30time, per ci
format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,243
Population size     =  236,382,110
Subpop. no. obs     =      936
Subpop. size        = 3,896,195.76
Replications        =      100
Design df           =      99
```

-----			
smkl30time	percentage	lb	ub
-----			
0-5 time	52	49	56
6-10 tim	36	32	39
11+ time	12	10	14
Total	100		
-----			

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**\* Table 9b. Syntax and output for categorical past 30-day number of use occasions among the Exclusive MST-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409 &
R01R_A_P30D_CIGS==2): tab smkl30time, per ci format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,318
Population size     = 236,682,901
Subpop. no. obs     =         84
Subpop. size        = 370,509.8233
Replications        =         100
Design df           =          99
```

-----			
smkl30time	percentage	lb	ub
-----			
0-5 time	29	18	43
6-10 tim	53	41	65
11+ time	18	12	27
Total	100		
-----			

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**\* Table 10a. Syntax and output for categorical past 30-day number of use occasions among the MST & Cigarettes group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_CIGS==1): tab smkl30time, per ci
format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,183
Population size     = 236,245,944
Subpop. no. obs     =      673
Subpop. size        = 2,390,392.78
Replications        =      100
Design df           =      99
```

smkl30time	percentage	lb	ub
0-5 time	73	70	76
6-10 tim	18	16	21
11+ time	9	7	11
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**\* Table 10b. Syntax and output for categorical past 30-day number of use occasions among the MST & Cigarettes-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409 &
R01R_A_P30D_CIGS==1): tab smkl30time, per ci format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,316
Population size     = 236,676,054
Subpop. no. obs     =         20
Subpop. size        = 80,466.87616
Replications        =         100
Design df           =          99
```

smkl30time	percentage	lb	ub
0-5 time	55	33	76
6-10 tim	16	4	47
11+ time	29	13	52
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**Outcome 3: Past 30-day use of other tobacco products**

\*Syntax used to generate the variable of past 30-day cigar use

```
egen R01R_A_P30D_CIGAR=anycount(R01R_A_P30D_GTRAD R01R_A_P30D_GRILLO R01R_A_P30D_GFILTR), v(1)
recode R01R_A_P30D_CIGAR (1/3=1) (else=0)
```

**\* Table 11a. Syntax and output for average number of days of MST use during past 30-days among Total MST group**

**Syntax**

```
. foreach name in CIGS CIGAR PIPE ECIG SNUS DISSBL {
  2. display "`name'"
  3. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_`name'>=0): tab
    R01R_A_P30D_`name', per ci format(%2.0f)
  4. }
```

**Output**

**CIGS**

(running tabulate on estimation sample)

Number of obs = 32,320  
 Population size = 236,691,585  
 Subpop. no. obs = 1,823  
 Subpop. size = 7,041,704.27  
 Replications = 100  
 Design df = 99

R01R_A_P3			
0D_CIGS:			
DERIVED -			
Wave 1			
Adult			
Past			
30-day			
Cigarette			
User	percentage	lb	ub
1 = Yes	40	38	43
2 = No	60	57	62
Total	100		

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage  
 ub = upper 95% confidence bound for cell percentage

**CIGAR**

(running tabulate on estimation sample)

Number of obs = 32,320  
 Population size = 236,691,585  
 Subpop. no. obs = 1,825  
 Subpop. size = 7,050,674.62  
 Replications = 100  
 Design df = 99

R01R_A_P3			
0D_GTRAD			
R01R_A_P3			
0D_GRILLO			
R01R_A_P3			
0D_GFILTR			
== 1	percentage	lb	ub
1 = Yes	22	20	25
2 = No	78	75	80
Total	100		

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage  
 ub = upper 95% confidence bound for cell percentage

**PIPE**

(running tabulate on estimation sample)

Number of obs = 32,320  
 Population size = 236,691,585  
 Subpop. no. obs = 1,821  
 Subpop. size = 7,035,322.68  
 Replications = 100  
 Design df = 99

-----			
R01R_A_P3			
0D_PIPE:			
DERIVED -			
Wave 1			
Adult			
Past			
30-day			
Pipe User	percentage	lb	ub
-----			
1 = Yes	4	3	5
2 = No	96	95	97
Total	100		
-----			

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage  
 ub = upper 95% confidence bound for cell percentage



**ECIG**

(running tabulate on estimation sample)

Number of obs = 32,320  
 Population size = 236,691,585  
 Subpop. no. obs = 1,823  
 Subpop. size = 7,041,336.69  
 Replications = 100  
 Design df = 99

-----			
R01R_A_P3			
OD_ECIG:			
DERIVED -			
Wave 1			
Adult			
Past			
30-day			
E-Cigarette User	percentage	lb	ub
-----			
1 = Yes	16	14	17
2 = No	84	83	86
Total	100		
-----			

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage  
 ub = upper 95% confidence bound for cell percentage

**SNUS**

(running tabulate on estimation sample)

Number of obs = 32,320  
 Population size = 236,691,585  
 Subpop. no. obs = 1,818  
 Subpop. size = 7,029,656.2  
 Replications = 100  
 Design df = 99

R01R_A_P3			
0D_SNUS:			
DERIVED -			
Wave 1			
Adult			
Past			
30-day			
Snus User	percentage	lb	ub
1 = Yes	10	8	12
2 = No	90	88	92
Total	100		

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage  
 ub = upper 95% confidence bound for cell percentage

**DISSBL**

(running tabulate on estimation sample)

Number of obs = 32,320  
 Population size = 236,691,585  
 Subpop. no. obs = 1,821  
 Subpop. size = 7,035,538.26  
 Replications = 100  
 Design df = 99

-----			
R01R_A_P3			
0D_DISSBL			
: DERIVED			
- Wave 1			
Adult			
Past			
30-day			
Dissolvab			
le			
Tobacco			
User	percentage	lb	ub
-----			
1 = Yes	1	1	1
2 = No	99	99	99
Total	100		
-----			

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage  
 ub = upper 95% confidence bound for cell percentage

**\* Table 11b. Syntax and output for average number of days of MST use during past 30-days among Total MST-Copenhagen Snuff group**

**Syntax**

```
. foreach name in CIGS PIPE ECIG SNUS DISSBL HOOK CIGAR{
  2. recode R01R_A_P30D_`name' (min/0=.)
  3. display "`name'"
  4. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409 &
R01R_A_P30D_`name'>=0): tab R01R_A_P30D_`name', per ci format(%2.0f)
  5. }
```

**Output**

**CIGS**

(running tabulate on estimation sample)

```
Number of obs      =      32,320
Population size     =   236,691,585
Subpop. no. obs    =         110
Subpop. size       =   475,191.651
Replications       =         100
Design df          =          99
```

R01R_A_P30D_CIGS:			
DERIVED -			
Wave 1			
Adult			
Past			
30-day			
Cigarette			
User	percentage	lb	ub
1 = Yes	20	12	31
2 = No	80	69	88
Total	100		

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage

ub = upper 95% confidence bound for cell percentage

**CIGAR**

(running tabulate on estimation sample)

Number of obs = 32,320  
 Population size = 236,691,585  
 Subpop. no. obs = 110  
 Subpop. size = 475,191.651  
 Replications = 100  
 Design df = 99

R01R_A_P3			
0D_GTRAD			
R01R_A_P3			
0D_GRILLO			
R01R_A_P3			
0D_GFILTR			
== 1	percentage	lb	ub
1 = YES	14	8	23
2 = NO	86	77	92
Total	100		

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage  
 ub = upper 95% confidence bound for cell percentage

**PIPE**

(running tabulate on estimation sample)

Number of obs = 32,320  
 Population size = 236,691,585  
 Subpop. no. obs = 110  
 Subpop. size = 475,191.651  
 Replications = 100  
 Design df = 99

-----			
R01R_A_P3			
OD_PIPE:			
DERIVED -			
Wave 1			
Adult			
Past			
30-day			
Pipe User	percentage	lb	ub
-----			
1 = Yes	1	0	8
2 = No	99	92	100
Total	100		
-----			

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage  
 ub = upper 95% confidence bound for cell percentage

**ECIG**

(running tabulate on estimation sample)

Number of obs = 32,320  
Population size = 236,691,585  
Subpop. no. obs = 110  
Subpop. size = 475,191.651  
Replications = 100  
Design df = 99

-----			
R01R_A_P3			
OD_ECIG:			
DERIVED -			
Wave 1			
Adult			
Past			
30-day			
E-Cigarette User	percentage	lb	ub
-----			
1 = Yes	3	1	8
2 = No	97	92	99
Total	100		
-----			

Key: percentage = cell percentage  
lb = lower 95% confidence bound for cell percentage  
ub = upper 95% confidence bound for cell percentage

**SNUS**

(running tabulate on estimation sample)

Number of obs = 32,320  
 Population size = 236,691,585  
 Subpop. no. obs = 110  
 Subpop. size = 475,191.651  
 Replications = 100  
 Design df = 99

R01R_A_P3			
0D_SNUS:			
DERIVED -			
Wave 1			
Adult			
Past			
30-day			
Snus User	percentage	lb	ub
1 = Yes	3	1	9
2 = No	97	91	99
Total	100		

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage  
 ub = upper 95% confidence bound for cell percentage



**DISSBL**

(running tabulate on estimation sample)

Number of obs = 32,320  
 Population size = 236,691,585  
 Subpop. no. obs = 110  
 Subpop. size = 475,191.651  
 Replications = 100  
 Design df = 99

-----			
R01R_A_P3			
0D_DISSBL			
: DERIVED			
- Wave 1			
Adult			
Past			
30-day			
Dissolvab			
le			
Tobacco			
User	percentage	lb	ub
-----			
1 = Yes	0	0	2
2 = No	100	98	100
Total	100		
-----			

Key: percentage = cell percentage  
 lb = lower 95% confidence bound for cell percentage  
 ub = upper 95% confidence bound for cell percentage

**Outcome 4: Average number of days of cigarette smoking during past 30-days**

\*Syntax used to generate the outcome variable

```
gen cig30day=30 if R01R_A_EDY_CIG==1 & R01R_A_P30D_SMKLS==1
replace cig30day=R01_AC1022 if R01_AC1022>=0 & R01R_A_P30D_SMKLS==1 & cig30day==.
```

**\* \*\*Means of the outcome**

**\* Table 12a. Syntax and output for average number of days of cigarette smoking during past 30-days among MST & Cigarettes group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_CIGS==1): mean cig30day,
cformat(%2.1f)
```

(running mean on estimation sample)

```
Survey: Mean estimation      Number of obs   =      32,223
                             Population size =  236,380,491
                             Subpop. no. obs  =       713
                             Subpop. size    =  2,524,939.67
                             Replications    =       100
                             Design df       =        99
```

	Mean	BRR * Std. Err.	[95% Conf. Interval]	
cig30day	24.6	0.3	23.9	25.2

**\* Table 12b. Syntax and output for average number of days of cigarette smoking during past 30-days among MST & Cigarettes-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409 &
R01R_A_P30D_CIGS==1): mean cig30day, cformat(%2.1f)
(running mean on estimation sample)
```

```
Survey: Mean estimation      Number of obs   =      32,316
                             Population size =  236,677,785
                             Subpop. no. obs  =           20
                             Subpop. size     =  82,197.96605
                             Replications     =           100
                             Design df        =           99
```

	BRR *			
	Mean	Std. Err.	[95% Conf. Interval]	
cig30day	24.6	2.8	19.0	30.2

**\*\*Categories of the outcome**

**We also ran tabulations for a categorical past 30-day cigarette smoking variable for the MST & Cigarettes group.**

\*Syntax used to generate the categorical outcome variable

```
recode cig30day (0=0) (1/2=1) (3/5=3) (6/9=4) (10/14=5) (15/19=6) (20/24=7) (25/29=8)
(30=9)
```

**\* Table 13a. Syntax and output for categorical number of days of MST use during past 30-days among Total MST group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_CIGS==1): tab cig30day, per ci
format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,223
Population size     =   236,380,491
Subpop. no. obs    =           713
Subpop. size       =  2,524,939.67
Replications       =           100
Design df          =           99
```

cig30day	percentage	lb	ub
0 days	0	0	1
1-2 days	6	4	8
3-5 days	5	4	8
6-9 days	4	2	5
10-14 da	3	2	4
15-19 da	4	3	5
20-24 da	4	3	6
25-29 da	2	1	3
30 days	73	70	76
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**\* Table 13b. Syntax and output for categorical number of days of MST use during past 30-days among Total MST-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409 &
R01R_A_P30D_CIGS==1): tab cig30day, per ci format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,316
Population size     =   236,677,785
Subpop. no. obs     =           20
Subpop. size        =   82,197.96605
Replications        =           100
Design df           =           99
```

cig30day	percentage	lb	ub
0 days	0		
1-2 days	14	3	48
3-5 days	0		
6-9 days	0		
10-14 da	7	1	35
15-19 da	0		
20-24 da	0		
25-29 da	0		
30 days	79	52	93
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```

**Outcome 5: Past 30-day amount of cigarette use on days used among MST & Cigarettes group**

\*Syntax used to generate the outcome variable

```
gen cigcon=R01_AC1021_NN if R01_AC1021_UN==1
replace cigcon=R01_AC1021_NN*20 if R01_AC1021_UN==2
replace cigcon=R01_AC1023_NN if R01_AC1023_UN==1 & cigcon==.
replace cigcon=R01_AC1023_NN*20 if R01_AC1023_UN==2 & cigcon==.
```

**\* \*Means of the outcome**

**\* Table 14a. Syntax and output for average number of cigarette during past 30-days among MST & Cigarettes group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_CIGS==1 & cigcon>=0): mean cigcon,
cformat(%2.1f)
```

(running mean on estimation sample)

```
Survey: Mean estimation      Number of obs   =      32,223
                             Population size =  236,379,545
                             Subpop. no. obs =        710
                             Subpop. size   =  2,514,087.86
                             Replications   =         100
                             Design df      =          99
```

	Mean	BRR * Std. Err.	[95% Conf. Interval]	
cigcon	16.2	1.2	13.7	18.7

**\* Table 14b. Syntax and output for average number of cigarette during past 30-days among MST & Cigarettes-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409 & R01R_A_P30D_CIGS==1
& cigcon>=0): mean cigcon, cformat(%2.1f)
(running mean on estimation sample)
```

```
Survey: Mean estimation      Number of obs   =      32,316
                             Population size =  236,677,785
                             Subpop. no. obs =         20
                             Subpop. size   =  82,197.96605
                             Replications   =         100
                             Design df      =          99
```

	BRR *			
	Mean	Std. Err.	[95% Conf. Interval]	
cigcon	11.0	2.7	5.6	16.3

**\*\*Categories of the outcome**

We also ran tabulations for a categorical past 30-day cigarette smoking variable for the MST & Cigarettes group.

**\* Table 15a. Syntax and output for categorical number of cigarette during past 30-days among MST & Cigarettes group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01R_A_P30D_CIGS==1): tab cigcon, per ci
format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,220
Population size     = 236,369,639
Subpop. no. obs    =         710
Subpop. size       = 2,514,087.86
Replications       =         100
Design df          =          99
```

cigcon	percentage	lb	ub
<1 per d	1	0	2
1/day	7	5	9
2-5/day	19	16	22
6-15/day	35	31	39
16-25/day	29	25	33
26-35/day	3	2	5
35+/day	7	5	9
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```



**\* Table 15b. Syntax and output for categorical number of cigarette during past 30-days among MST & Cigarettes-Copenhagen Snuff group**

```
. svy, subpop(if R01R_A_P30D_SMKLS==1 & R01_AS1070SM_PRODUCT==10409 &
R01R_A_P30D_CIGS==1): tab cigcon, per ci format(%2.0f)
(running tabulate on estimation sample)
```

```
Number of obs      =      32,316
Population size     =   236,677,785
Subpop. no. obs     =           20
Subpop. size        =   82,197.96605
Replications        =           100
Design df           =           99
```

cigcon	percentage	lb	ub
<1 per d	0		
1/day	9	1	49
2-5/day	24	7	58
6-15/day	41	20	66
16-25/day	20	8	40
26-35/day	0		
35+/day	6	1	27
Total	100		

```
Key:  percentage = cell percentage
      lb         = lower 95% confidence bound for cell percentage
      ub         = upper 95% confidence bound for cell percentage
```