

# **SUPPLEMENTAL MATERIAL**

**Table S1. Myocardial Infarctions, tobacco use, clinical, and demographic variables.**

Variables (at Wave 1)	E-cigarette Use at Wave 1 (Weighted percent)				P-value*
	Never	Former	Some Day	Every Day	
<b>Myocardial Infarction</b>					
Yes	2.4	1.9	2.6	3.4	0.073
No	97.6	98.1	97.4	96.6	
<b>Cigarette smoker</b>					
Never	40.7	3.6	1.9	0.5	<0.001
Former	50.3	34.7	16.2	51.2	
Some day	2.0	11.4	14.2	19.9	
Every day	7.0	50.3	67.7	28.4	
<b>Demographics</b>					
<b>Age in years, mean (±SD)</b>	48.6 (±17.9)	36.8 (±14.4)	35.7 (±13.5)	41.0 (±15.2)	<0.001
<b>Body Mass Index (±SD) kg/m<sup>2</sup></b>	28.1 (±7.5)	27.7 (±7.0)	27.7 (±7.0)	27.9 (±6.6)	<0.001
<b>Sex</b>					
Male	46.8	54.3	54.2	54.4	<0.001
Female	53.2	45.7	45.8	45.6	
<b>Poverty level/income</b>					
Below poverty	22.9	33.1	27.4	35.1	<0.001
At or above poverty	77.1	66.9	72.6	64.9	
<b>Race/ethnicity</b>					
White	77.6	78.6	79.1	84.8	<0.001
Black	12.5	12.0	10.3	6.6	
Asian	5.9	3.6	3.1	2.7	
Other	3.9	5.7	7.5	5.9	
<b>Education</b>					
Less than high school	35.1	13.2	39.6	39.9	<0.001
High school or equivalent	4.7	3.5	3.9	3.4	
Some college and associate	29.5	37.8	41.8	42.9	
Bachelor and advanced degree	30.8	15.5	14.7	13.7	
<b>Clinical status</b>					
<b>High blood pressure</b>					
Yes	29.2	21.1	22.6	23.1	<0.001
No	70.8	78.9	77.4	76.9	
<b>High cholesterol</b>					
Yes	24.5	15.5	14.4	18.6	<0.001
No	75.5	84.5	85.6	81.4	
<b>Diabetes mellitus</b>					
Yes	14.8	9.9	11.8	11.3	<0.001
No	85.2	90.1	88.2	88.7	

\*Chi-square for counts, t-test for continuous variables.

Wave 1 data were collected from September 2013 to December 2014

**Table S2. Adjusted odds ratios for myocardial infarction (MI) at Wave 2, excluding respondents who had a MI at Wave 1.**

<b>Variables</b>	<b>AOR (95% CI)</b>	<b>P-value</b>
<b>E-cigarette user at wave 1</b>		
Never	Reference	
Former	1.10 (0.56, 2.18)	0.775
Some day	2.12 (0.64, 7.08)	0.225
Every day	-	-
<b>Cigarette smoker at wave 1</b>		
Never	Reference	
Former	3.40 (0.66, 17.50)	0.147
Some day	6.66 (1.30, 34.00)	0.025
Every day	3.05 (0.57, 16.49)	0.198
<b>High blood pressure</b>		
Yes	1.74 (0.80, 3.79)	0.165
<b>High cholesterol</b>		
Yes	0.82 (0.37, 1.85)	0.642
<b>Diabetes mellitus</b>		
Yes	1.64 (0.56, 4.82)	0.372
<b>Age</b>	1.06 (1.03, 1.08)	<0.001
<b>Body Mass Index</b>	1.01 (0.99, 1.04)	0.289
<b>Sex</b>		
Female	0.47 (0.22, 1.03)	0.062
<b>Poverty level/income</b>		
At or above poverty	1.23 (0.54, 2.81)	0.616
<b>Race/ethnicity</b>		
White	Reference	
Black	1.07 (0.50, 2.26)	0.870
Asian	-	-
Other	1.46 (0.40, 5.37)	0.568
<b>Education</b>		
Less than high school	2.20 (0.51, 9.53)	0.299
High school or equivalent	Reference	
Some college and associate	0.93 (0.43, 2.01)	0.864
Bachelor and advanced degree	0.10 (0.02, 0.59)	0.012
<b>Sample size</b>	25,820	
<b>VIF</b>	<1.2	

Adjusted Odds Ratio adjusts for cigarette smoking (former, some day and every day), age, BMI, sex, poverty level, race/ethnicity, education, and clinical variables.

VIF: Variance Inflation Factor

**Table S3. Adjusted odds ratio for myocardial infarction at Wave 1 baseline including experimental e-cigarette users and smokers as some day users.**

<b>Variables</b>	<b>AOR (95% CI)</b>	<b>P-value</b>
<b>E-cigarette user</b>		
Never	Reference	
Former	1.27 (0.95, 1.69)	0.113
Some day	1.62 (1.04, 2.54)	0.037
Every day	2.20 (1.20, 4.05)	0.013
<b>Cigarette smoker</b>		
Never	Reference	
Former	1.47 (1.01, 2.14)	0.047
Some day	2.22 (1.37, 3.60)	0.002
Every day	2.94 (1.91, 4.51)	<0.001
<b>High blood pressure</b>		
Yes	2.09 (1.60, 2.72)	<0.001
<b>High cholesterol</b>		
Yes	3.10 (2.40, 3.99)	<0.001
<b>Diabetes mellitus</b>		
Yes	1.46 (1.09, 1.97)	0.013
<b>Age in years</b>	1.07 (1.06, 1.08)	<0.001
<b>Body Mass Index</b>	1.02 (1.00, 1.03)	0.026
<b>Sex</b>		
Female	0.28 (0.20, 0.40)	<0.001
<b>Poverty level/income</b>		
At or above poverty	0.73 (0.52, 1.02)	0.069
<b>Race/ethnicity</b>		
White	Reference	
Black	0.83 (0.63, 1.09)	0.186
Asian	0.32 (0.08, 1.23)	0.101
Other	1.34 (0.84, 2.12)	0.217
<b>Education</b>		
Less than high school	1.52 (1.08, 2.14)	0.020
High school or equivalent	Reference	
Some college and associate	1.01 (0.77, 1.33)	0.923
Bachelor and advanced degree	0.64 (0.45, 0.89)	0.011
<b>Sample size</b>	32,320	
<b>VIF</b>	<1.1	

Adjusted Odds Ratio adjusts for cigarette smoking (former, some day and every day), age, BMI, sex, poverty level, race/ethnicity, education, and clinical variables.

VIF: Variance Inflation Factor

**Table S4. Adjusted odds ratios for current (every day or some day) e-cigarette use at Wave 2.\***

Variables at Wave 1	Among overall follow up sample		Among every day cigarette smoker at wave 1‡		Among current cigarette smoker at wave 1‡	
	AOR (95% CI)	P-value	AOR (95% CI)	P-value	AOR (95% CI)	P-value
<b>MI</b>						
No	Reference		Reference		Reference	
Yes	1.45 (0.94, 2.25)	0.099	1.52 (0.90, 2.56)	0.121	1.40 (0.86, 2.28)	0.173
<b>High blood pressure</b>						
Yes	1.32 (1.12, 1.55)	0.001	1.16 (0.96, 1.41)	0.125	1.16 (0.97, 1.38)	0.114
<b>High cholesterol</b>						
Yes	0.91 (0.74, 1.12)	0.384	1.08 (0.83, 1.42)	0.567	1.13 (0.89, 1.44)	0.303
<b>Diabetes mellitus</b>						
Yes	0.93 (0.72, 1.18)	0.543	1.03 (0.81, 1.32)	0.789	1.05 (0.83, 1.31)	0.697
<b>Age</b>	0.97 (0.96, 0.98)	<0.001	0.97 (0.96, 0.97)	<0.001	0.97 (0.96, 0.98)	<0.001
<b>Body Mass Index</b>	1.00 (0.99, 1.00)	0.359	1.00 (0.99, 1.01)	0.806	1.00 (0.99, 1.01)	0.981
<b>Sex</b>						
Female	0.83 (0.73, 0.94)	0.006	1.10 (0.91, 1.33)	0.317	1.06 (0.90, 1.25)	0.482
<b>Poverty level/income</b>						
At or above poverty	0.91 (0.78, 1.05)	0.202	1.29 (1.09, 1.53)	0.004	1.19 (1.02, 1.39)	0.032
<b>Race/ethnicity</b>						
White	Reference		Reference		Reference	
Black	0.38 (0.30, 0.48)	<0.001	0.35 (0.24, 0.51)	<0.001	0.39 (0.27, 0.55)	<0.001
Asian	0.55 (0.39, 0.78)	0.001	0.69 (0.51, 1.52)	0.363	0.69 (0.36, 1.33)	0.279
Other	1.05 (0.84, 1.31)	0.659	1.07 (0.75, 1.51)	0.721	1.12 (0.84, 1.49)	0.451
<b>Education</b>						
Less than high school	0.89 (0.65, 1.21)	0.449	1.13 (0.77, 1.67)	0.532	1.07 (0.75, 1.53)	0.705
High school or equivalent	Reference		Reference		Reference	
Some college and associate	1.06 (0.90, 1.24)	0.475	1.42 (1.18, 1.69)	<0.001	1.31 (1.09, 1.56)	0.004
Bachelor and advanced degree	0.38 (0.31, 0.47)	<0.001	1.52 (1.08, 2.13)	0.018	1.18 (0.90, 1.54)	0.234
<b>Number of new e-cigarette users between Waves 1 and 2</b>	1,990		776		946	
<b>Sample size</b>	26,447		7,378		9,284	
<b>VIF</b>	<1.2		<1.1		<1.1	

\*Former e-cigarette users excluded from the analysis.

‡ Excluding e-cigarette users

Adjusted Odds Ratio adjusts for age, BMI, sex, poverty level, race/ethnicity, education, and clinical variables.

VIF: Variance Inflation Factor

**Table S5. Cross-sectional associations between conventional cigarette smoker and myocardial infarction at Wave 1 baseline among daily cigarette only users and daily dual users.**

<b>Variables</b>	<b>AOR (95% CI)</b>	<b>P-value</b>
<b>Cigarette smoker</b>		
Never cigarette and e-cigarette user	Reference	
Every day cigarette smoker and never e-cigarette user	2.86 (1.70, 4.79)	<0.001
Every day cigarette and every day e-cigarette user	5.06 (1.99, 12.83)	<0.001
<b>High blood pressure</b>		
Yes	1.80 (0.95, 3.42)	0.073
<b>High cholesterol</b>		
Yes	3.11 (2.03, 4.77)	<0.001
<b>Diabetes mellitus</b>		
Yes	1.54 (0.93, 2.55)	0.095
<b>Age in years</b>	1.06 (1.04, 1.08)	<0.001
<b>Body Mass Index</b>	1.02 (0.99, 1.04)	0.260
<b>Sex</b>		
Female	0.24 (0.12, 0.50)	<0.001
<b>Poverty level/income</b>		
At or above poverty	0.80 (0.45, 1.43)	0.457
<b>Race/ethnicity</b>		
White	Reference	
Black	0.81 (0.47, 1.41)	0.456
Asian	0.16 (0.02, 1.14)	0.071
Other	0.64 (0.24, 1.74)	0.387
<b>Education</b>		
Less than high school	0.83 (0.44, 1.55)	0.557
High school or equivalent	Reference	
Some college and associate	0.90 (0.51, 1.61)	0.734
Bachelor and advanced degree	0.45 (0.18, 1.09)	0.082
<b>Sample size</b>	10,230	
<b>VIF</b>	<1.6	

VIF: Variance Inflation Factor

**Table S6. Adjusted odds ratios for myocardial infarction at Wave 1.**

Variables	MI 2007 or later		Entire sample	
	AOR (95% CI)	P-value	AOR (95% CI)	P-value
<b>E-cigarette use</b>				
Never	Reference		Reference	
Former	1.27 (0.85, 1.88)	0.250	1.25 (0.93, 1.69)	0.147
Some day	1.52 (0.43, 5.30)	0.515	1.99 (1.11, 3.58)	0.024
Every day	1.90 (0.69, 5.22)	0.216	2.25 (1.23, 4.11)	0.010
<b>Cigarette use</b>				
Never	Reference		Reference	
Former	1.62 (0.97, 2.68)	0.066	1.48 (1.01, 2.15)	0.047
Some day	2.34 (1.16, 4.75)	0.020	2.38 (1.40, 4.06)	0.002
Every day	3.22 (1.91, 5.42)	<0.001	2.95 (1.91, 4.56)	<0.001
<b>High blood pressure</b>				
Yes	2.24 (1.35, 3.72)	0.002	2.08 (1.56, 2.77)	<0.001
<b>High cholesterol</b>				
Yes	2.32 (1.54, 3.51)	<0.001	3.01 (2.31, 3.92)	<0.001
<b>Diabetes mellitus</b>				
Yes	1.24 (0.76, 2.03)	0.384	1.49 (1.09, 2.03)	0.013
<b>Age in years</b>	1.06 (1.04, 1.07)	<0.001	1.07 (1.06, 1.08)	<0.001
<b>Body Mass Index</b>	1.02 (1.01, 1.03)	<0.001	1.02 (1.00, 1.03)	0.016
<b>Sex</b>				
Female	0.33 (0.21, 0.53)	<0.001	0.27 (0.18, 0.39)	<0.001
<b>Poverty level/income</b>				
At or above poverty	0.76 (0.45, 1.28)	0.307	0.72 (0.49, 1.04)	0.086
<b>Race/ethnicity</b>				
White	Reference		Reference	
Black	1.03 (0.65, 1.64)	0.903	0.86 (0.63, 1.16)	0.324
Asian	0.18 (0.03, 1.24)	0.086	0.31 (0.07, 1.38)	0.127
Other	1.67 (0.78, 3.56)	0.189	1.37 (0.83, 2.25)	0.226
<b>Education</b>				
Less than high school	1.63 (0.80, 3.33)	0.185	1.49 (1.05, 2.13)	0.030
High school or equivalent	Reference		Reference	
Some college and associate	1.21 (0.74, 1.95)	0.447	0.97 (0.72, 1.29)	0.814
Bachelor and advanced degree	0.65 (0.37, 1.13)	0.131	0.62 (0.44, 0.87)	0.007
<b>Sample size</b>	31,815		32,320	
<b>Number of MI's (total)</b>	284		699	
<b>Number of MI's (among ecig users)</b>	Never =181 Former= 61 Some day =10 Every day =6		Never =433 Former= 128 Some day =19 Every day =19	
<b>VIF</b>	<1.2		<1.1	

Adjusted Odds Ratio adjusts for cigarette smoking (former, some day and every day), age, body mass index, sex, poverty level, race/ethnicity, education, and clinical variables.

VIF: Variance Inflation Factor

**Figure S1. Flow diagram for sample.**

