

Tobacco Free Broome and Tioga

Community Tobacco Assessment Survey of Adult Residents

Broome County (New York)



Prepared on behalf of the
Tobacco Free Broome and Tioga
Binghamton, New York
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Table of Contents

Section 1 – Executive Summary of Study Findings.....	4
1.1 – Rules About Smoking in Your Home and Vehicles – Executive Summary.....	5
Figure 1 – Rules About Smoking in Your Home and Car.....	5
1.2 – Tobacco Point of Sale – Executive Summary	5
Figure 2 – Favor Potential Tobacco Point of Sale Policies - % that "Favor.....	5
1.3 – Tobacco Marketing – <i>Protecting Youth from Tobacco on Screen</i> – Executive Summary...	7
Figure 3 – Tobacco Images on the Internet, in Social Media, in Movies, and on TV.....	7
1.4 – Outdoor Tobacco Policies – Executive Summary.....	8
Figure 4 – Favor a Policy Prohibiting Smoking at _____.....	8
Table 1 – SUMMARY – Opinions About Prohibiting Smoking at Public Outdoor Locations – <i>Among All Participants</i> ...	8
Table 2 – SUMMARY – Opinions About Prohibiting Smoking at Public Outdoor Locations – <i>Among Smokers</i>	9
1.5 – Smoke-Free Housing – Executive Summary.....	9
Figure 5 – Smoke-Free Housing (Multiple-unit Dwellings).....	9
1.6 – Tobacco Use – Executive Summary.....	10
Figure 6 – Tobacco Use.....	10
1.7 – Electronic Cigarettes – Executive Summary.....	11
Figure 7 – E-Cigarette Use.....	11
Section 2 – Introduction and Description of the Study.....	12
2.1 – Purpose and Goals for this Study.....	13
2.2 – Methodology – How These Data Were Collected.....	15
Table 3 – Years of Study and Sample Sizes Utilized.....	16
Table 4 – Response Rates for the 2015 Broome County Community Tobacco Survey.....	16
2.3 – Demographics of the Sample – Who was Interviewed?.....	17
Table 5 – Demographics of the Sample Compared to U.S. Census Estimates for Broome County.....	17
2.4 – Technical Comments to Assist Interpretation of the Data.....	21
Margin of Error – More Detail for Those Interested in Maximizing Precision and Accuracy of Estimates.....	21
Table 6 – Margins of Error for Varying Sample Sizes and Varying Sample Proportions.....	23
Significance Testing –Testing for Statistically Significant Differences, Trends, and Relationships.....	24
Table 7 – Sample Sizes and Approximate Margins of Error within Demographic Subgroups.....	27
Section 3 – Detailed Statistical Results	30
3.0 – “Framing a Statistic” – <i>Providing Perspective to Better Understand, Interpret, and Use Survey Data</i>	33
3.1 – Rules About Smoking in Your Home and Vehicles – Detailed Findings.....	34
Table 8 – Which statement best describes the rules about smoking in your home?.....	35
Table 9 – Which statement best describes the rules about smoking in your vehicles?.....	36
3.2 – Tobacco Point of Sale – Detailed Findings.....	37
Table 10 – Opinion about policy that would prohibit the sale of tobacco products (such as cigarettes, cigars and chewing tobacco) in pharmacies?.....	38
Table 11 – Opinion about policy that would prohibit the display of tobacco products such as packs of cigarettes or cigars from stores?.....	39
Table 12 – Opinion about policy that would prohibit the sale of tobacco products in stores that are located near schools?.....	40
Table 13 – Opinion about policy that would limit the number of stores that could sell tobacco in your community?...	41

Table 14 – Opinion about policy that would prevent retailers from accepting coupons that reduce the price of cigarettes?.....	42
Table 15 – Opinion about policy that would prevent retailers from offering multi-pack discounts on cigarettes, such as 2 packs for the price of 1?.....	43
Table 16 – How much effect do you think seeing tobacco products displayed and advertised in retail stores has on whether or not a child becomes a smoker?.....	44
Table 17 – Opinion about a policy that would require people to be 21 years old before they could purchase cigarettes and other tobacco products?.....	45
3.3 – Tobacco Marketing – Detailed Findings – <i>Protecting Youth from Tobacco on Screen...</i>	46
Table 18 – “Internet sites that are intended for youth should not include tobacco use or images.”.....	47
Table 19 – “Social media that are intended for youth should not include tobacco use or images.”.....	48
Table 20 – “Movies that are intended for youth should not include tobacco use or images.”.....	49
Table 21 – “TV shows that are intended for youth should not include tobacco use or images.”.....	50
3.4 – Outdoor Tobacco Policies – Detailed Findings.....	51
Table 22 – Opinion about policy that would prohibit smoking: on a college campus?.....	52
Table 23 – Opinion about policy that would prohibit smoking: at public outdoor community events such as a fair, festival, or sporting event?.....	53
3.5 – Smoke-Free Housing – Detailed Findings.....	54
Table 24 – Rules about smoking inside residential units in your building?.....	55
Table 25 – Opinion about policies that prohibit smoking in apartment buildings, condominiums, and other multi-unit complexes, including indoor areas, private balconies and patios.....	56
3.6 – Tobacco Use – Detailed Findings.....	57
Table 26 – Smoked at Least 100 Cigarettes in entire life?.....	58
Table 27 – Smoke Cigarettes Every Day, Some Days, or Not at All?.....	59
Table 28 – Cigarette Use Status – Current, Former, Never Smokers?.....	60
Table 29 – Currently use cigars, cigarillos, or little cigars?.....	61
3.7 – Electronic Cigarettes – Detailed Findings – <i>Attitudes and Prevalence of Use</i>.....	62
Table 30 – Which of the following best describes your use of e-cigarettes?.....	63
Table 31 – Opinion about a policy that bans the use of electronic cigarettes, or e-cigarettes, in all public places, including bars and restaurants?.....	65
Table 32 – Do you smoke e-cigarettes to help quit smoking conventional cigarettes?.....	66
Table 33 – Do you feel that e-cigarettes are more harmful than conventional tobacco cigarettes, less harmful, or about the same?.....	67
Table 34 – Do you think breathing the aerosol from someone else’s e-cigarettes is harmful?.....	68

Section 4 – Concluding Comments 121

Appendix 1 – NYS Adult Tobacco Survey 2014 Results..... 70

Appendix 2 – The 2015 Broome County Survey Instrument... 73

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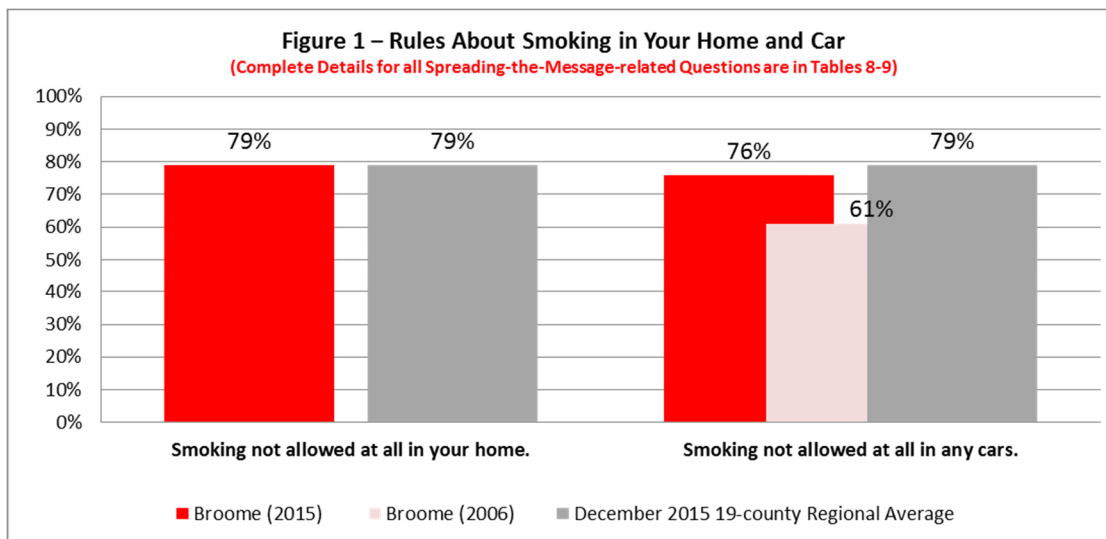
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Section 1 Executive Summary of Study Findings

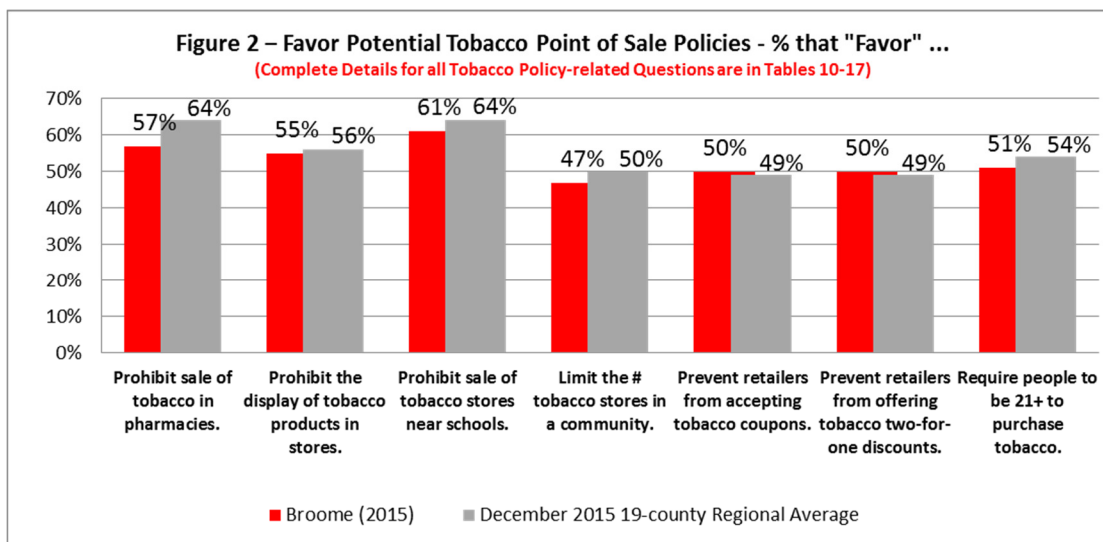
A survey using both landline and cellular phone random sampling of adult residents of Broome County, New York is completed approximately once every two years with a goal of collecting tobacco-related information on behalf of *Tobacco Free Broome and Tioga*. The data are intended to be used by *Tobacco Free Broome and Tioga* to plan and advocate for future initiatives, as well as used to evaluate and assess impact and effectiveness of past initiatives. In 2015 the study included interviews of 403 adults. The survey instrument was constructed with approximately 25 survey questions, organized in seven separate sections of tobacco-related attitude, opinion, and behavior survey items. This executive summary provides brief noteworthy highlighted findings in 2015 for each of the seven areas of study. Note that in this executive summary the phrase “current regional average” is intended to indicate the average among nineteen Western, Central, and Northern New York counties studied between December 2014 and December 2015.

1.1 – Rules About Smoking in Your Home and Vehicles – Executive Summary



1. An **overwhelming majority of Broome County adults do not allow smoking inside their homes** (79.1%), while only 7.7% indicate that smoking is allowed anywhere inside their home. These rates are not significantly different from the current regional average rates of 79.4% not allowing at all and 8.0% allowing anywhere. Notably, a majority of *current smokers* in Broome County (54.9% among *current smokers*) do not allow smoking in their homes. (Table 8)
2. An **overwhelming majority of Broome County adults do not allow smoking inside their car or cars** (75.6%), while only 9.3% indicate that smoking is allowed in all of their cars. These rates are not significantly different from the current regional average rates of 79.2% not allowing at all and 8.1% allowing in all cars. The rate of not allowing smoking at all in cars has increased from 60.7% in the county in 2006 to the current rate of 75.6%. Notably, 35.7% of *current smokers* in Broome County do not allow smoking in their cars. (Table 9)

1.2 – Tobacco Point of Sale – Executive Summary



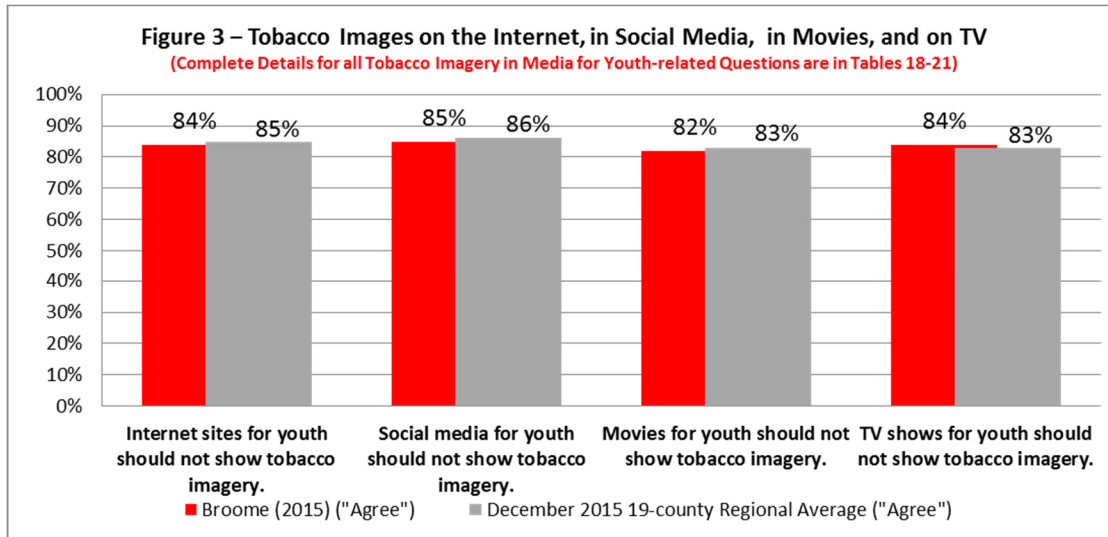
3. **A large majority of Broome County adults, by almost a two-to-one ratio, support a policy that would prohibit the sale of tobacco products in pharmacies** (57.3% indicate “Favor” in Broome County, while only 29.3% among this group indicate “Against”). Level of support for a policy that would prohibit the sale of tobacco products at pharmacies in Broome County in 2015, however, is significantly lower than the current nineteen county regional average (where 63.8% respond “Favor”). Support for a policy prohibiting tobacco sales in

pharmacies is even somewhat evident among *current cigarette smokers* in Broome County in 2015 with 33.6% of *current smokers* in the county responding “Favor”. (Table 10)

4. When asked their opinion about **a policy that would prohibit the display of tobacco products tobacco products such as packs of cigarettes or cigars from stores** Broome County adults are more likely to support than oppose this type of policy (support rate is 55.2%, while the opposition rate is only 31.9%). Level of support in Broome County is not significantly different from the current regional average rate of 56.0% in favor of this potential tobacco display prohibition policy. Support for this type of policy has increased significantly in Broome County from 46.2% in 2011 to the current rate of 55.2%. Among *current smokers* in Broome County in 2015 there is evidence of some support for this potential policy that would prohibit the display of tobacco products tobacco products such as packs of cigarettes or cigars from stores (33.0% of *current smokers* respond with “Favor”). (Table 11)
5. When asked their opinion about **a policy that would prohibit the sale of tobacco products in stores that are located near schools** a majority of Broome County adults (61.2% in the county) are in favor – while only 29.6% of these adults are against the potential policy – a more than two-to-one ratio of favor-to-against. Level of support in Broome County is not significantly different from the current regional average rate of 63.9%, and has not changed significantly in the county from 57.0% found in the 2013 Broome County study. Even among *current smokers* in Broome County there is some evidence of support for a policy that would prohibit the sale of tobacco products in stores that are located near schools – 49.7% “Favor”, while only 30.7% are “Against”. (Table 12)
6. When asked whether one is **in favor of a policy that would limit the number of stores that could sell tobacco in one’s community**, Broome County adults are more in support than in opposition (46.6% in Broome County are in favor, while only 41.8% are against). Level of support in Broome County (46.6%) is not significantly different from the current regional average rate of 49.7% in favor of a policy that would impose this type of limit. Level of support in Broome County has not changed significantly from 51.1% when last measured in 2011. Among *current smokers* in Broome County in 2015 approximately one-in-four (22.8%) favors this limit on the number of stores that could sell tobacco in one’s community. (Table 13)
7. When asked their opinion about **a policy that would prevent retailers from accepting coupons that reduce the price of cigarettes** Broome County adults are more likely to support than oppose this type of policy (support rate is 50.0%, with opposition at 39.1%). Level of support in Broome County is not significantly different from the current regional average rate of 49.4% in favor of this potential tobacco discount policy. Among *current smokers* in Broome County in 2015 there is evidence of some support for this potential policy that would prevent retailers from accepting coupons that reduce the price of cigarettes with approximately one-in-five (20.6%) of *smokers* in favor. (Table 14)
8. When asked their opinion about **a policy that would prevent retailers from offering multi-pack discounts on cigarettes, such as two packs for the price of one** Broome County adults are more likely to support than oppose this type of policy (support rate is 50.1%, with opposition at 38.4%). Level of support in Broome County is not significantly different from the current regional average rate of 49.4% in favor of this potential tobacco discount policy. Among *current smokers* in Broome County in 2015 there is evidence of some support for this potential policy that would prohibit multi-pack discounts for cigarettes with approximately one-in-six (16.7%) of *smokers* in favor. (Table 15)
9. Broome County adults strongly feel that **seeing tobacco products displayed and advertised in retail stores increases the likelihood that a child becomes a smoker**, with 57.8% of participants indicating that they believe that this exposure to displays and advertisements causes the child to be more likely to become a smoker (14.6% responding “much more likely”), and only 38.8% indicating that they believe that the displays and advertisements have “no effect”. The rate of responding “no effect” in Broome County, however, is significantly higher than the current regional average of 32.9%. Among *current smokers* in Broome County in 2015 a majority believe that this exposure to displays and advertisements causes the child to be more likely to become a smoker (55.3% responding “much or somewhat more likely”). (Table 16)
10. When asked their opinion about **a policy that would require people to be 21 years old before they could purchase cigarettes or other tobacco products** Broome County adults are more likely to support than oppose this type of policy (support rate is 51.1% in the county, with opposition at 44.0%). Level of support in Broome County is not significantly different from the current regional average rate of 53.6% in favor of this potential tobacco-purchase-minimum-age policy. Among *current smokers* in Broome County in 2015 there is evidence

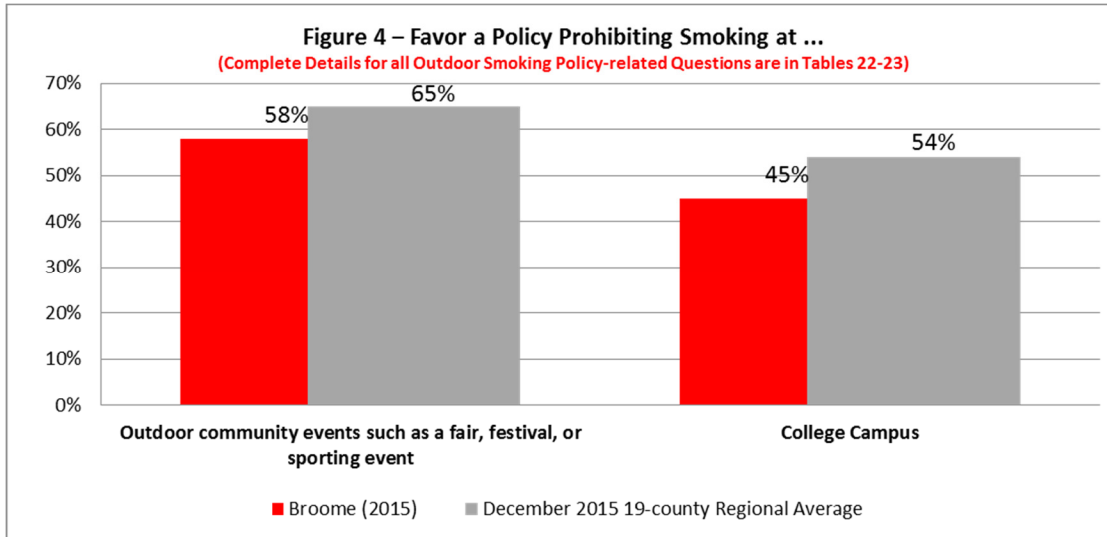
of some support for this potential policy that would require people to be 21 years old before they could purchase cigarettes or other tobacco products (44.7% among *smokers* are in favor, and 44.7% are against). (Table 17)

1.3 – Tobacco Marketing – *Protecting Youth from Tobacco on Screen – Executive Summary*



11. When asked their opinion about whether one agrees with the following statement, **“Internet sites that are intended for youth should not include tobacco use or images”** over 84% of Broome County adults (84.4%) agree, while only 8.4% of participants disagree. The likelihood that Broome County adults agree with this statement is not significantly different from the current regional average of 85.0%. Among *current smokers* in Broome County in 2015, a large majority agree that “Internet sites that are intended for youth should not include tobacco use or images” (agreement rate among *smokers* is 74.8%; while only 9.4% of *smokers* disagree). (Table 18)
12. When asked their opinion about whether one agrees with the following statement, **“Social media that are intended for youth should not include tobacco use or images”** over 84% of Broome County adults (84.6%) agree, while only 8.2% of participants disagree. The likelihood that Broome County adults agree with this statement is not significantly different from the current regional average of 85.5%. Among *current smokers* in Broome County in 2015, a large majority agree that “Social media that are intended for youth should not include tobacco use or images” (agreement rate among *smokers* is 78.3%; while only 5.8% of *smokers* disagree). (Table 19)
13. When asked their opinion about whether one agrees with the following statement, **“Movies that are intended for youth should not include tobacco use or images”** over 82% of Broome County adults (82.4%) agree, while only 10.6% of participants disagree. The likelihood that Broome County adults agree with this statement is not significantly different from the current regional average of 82.5%. Among *current smokers* in Broome County in 2015, a large majority agree that “Movies that are intended for youth should not include tobacco use or images” (agreement rate among *smokers* is 74.4%; while only 8.9% of *smokers* disagree). (Table 20)
14. When asked their opinion about whether one agrees with the following statement, **“TV shows that are intended for youth should not include tobacco use or images”** over 83% of Broome County adults (83.8%) agree, while only 10.1% of participants disagree. The likelihood that Broome County adults agree with this statement is not significantly different from the current regional average of 82.7%. Among *current smokers* in Broome County in 2015, a large majority agree that “TV shows that are intended for youth should not include tobacco use or images” (agreement rate among *smokers* is 74.8%; while only 8.5% of *smokers* disagree). (Table 21)

1.4 – Outdoor Tobacco Policies – *Executive Summary*



15. There is a high level of **support among Broome County residents for policies that would prohibit smoking at public outdoor locations**, with residents more in support of than opposed to these types of policies at each of the two types of outdoor locations studied (outdoor community events such as a fair, festival, or sporting events; and on college campuses). Most notably, at outdoor community events such as a fair, festival, or sporting events a large majority of the interviewed adults in Broome County in 2015 support a *policy that would prohibit smoking* (58.3% support, while only 34.4% oppose). In general, current levels of support for policies that would prohibit smoking at public outdoor locations in Broome County are significantly lower than the current regional average levels. Results for *all participants* for the two studied outdoor public locations are summarized in the following Table 1. (Tables 22-23)

Table 1 SUMMARY – Opinions About Prohibiting Smoking at Public Outdoor Locations – *Among All Participants*

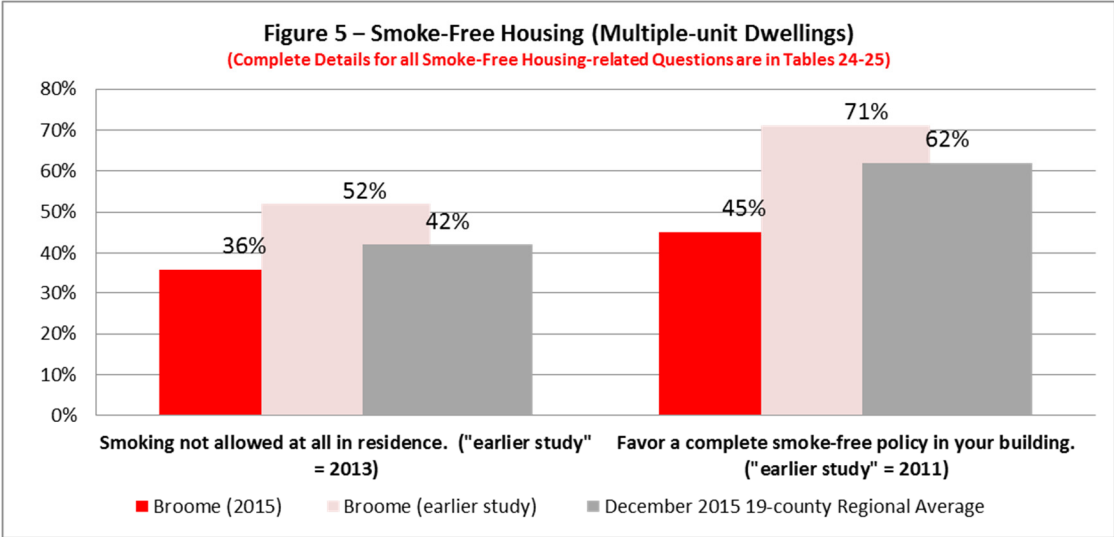
Broome County	Among <i>all</i> surveyed residents, % who support a policy prohibiting smoking at...	
	Favor	Against
Outdoor community events such as a fair, festival, or sporting event	58%	34%
College Campus	45%	44%

16. **Among current cigarette smokers in Broome County, there is limited support for the notion of policies that prohibit cigarette smoking at public outdoor locations.** At each of the two studied public outdoor locations in 2015, at least 16% of *Broome County current cigarette smokers* support policies that would prohibit smoking. Results for *current cigarette smokers* for the two studied outdoor public locations are summarized in the following Table 2. (Tables 22-23)

Table 2 SUMMARY – Opinions About Prohibiting Smoking at Public Outdoor Locations – *Among Current Smokers*

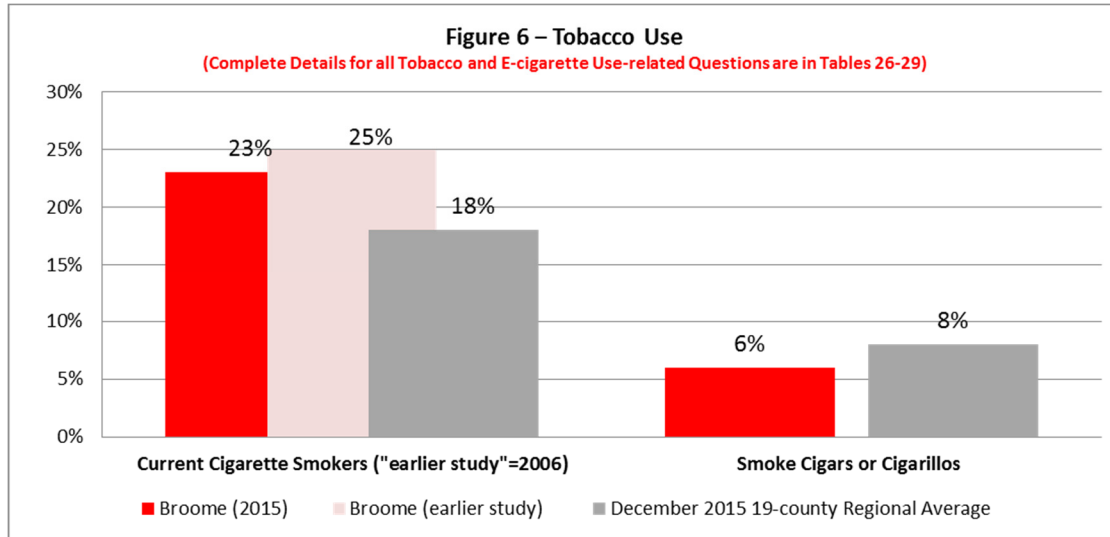
Broome County	Among <i>current smokers</i> surveyed, % who support either restricting or entirely eliminating smoking at...	
	Favor	Against
Outdoor community events such as a fair, festival, or sporting event	28%	54%
College Campus	16%	70%

1.5 – Smoke-Free Housing – Executive Summary



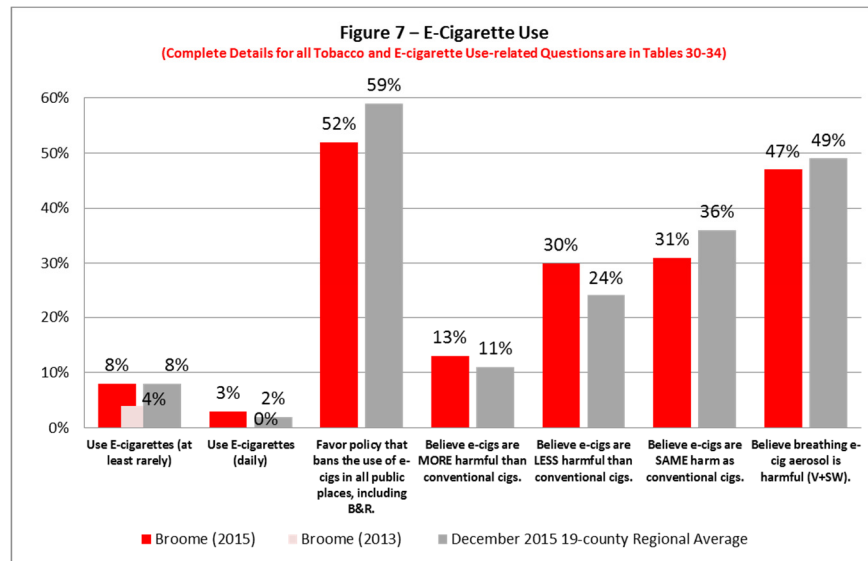
- Among residents in Broome County who live in multiple-unit dwellings (apartments) 36.0% indicate that **there is a rule set by their landlord in their building that prohibits indoor smoking and that smoking is not allowed inside any residential units**, while 35.2% indicate that smoking is allowed in all residential units. The 35.2% smoking-allowed-in-all-residential-units rate in Broome County in 2015 is significantly higher than the nineteen county current regional average rate of 28.2% of MUD-dwellers living in smoking-allowed-everywhere housing. However, the 2015 smoking-allowed-in-all-residential-units rate in Broome County has decreased significantly and dramatically from an earlier finding in the county – with 69.8% of renters residing in smoking-allowed-everywhere MUD’s found in 2009. Not surprisingly, in 2015 MUD-dwellers who are *current smokers* are far more likely to indicate that smoking is allowed everywhere in their building than are non-smokers – 58.5% vs. 21.9%, respectively. (Table 24)
- Residents of Broome County who live in multiple-unit dwellings (apartments) are approximately equally-divided in their support versus opposition for **policies that prohibit indoor smoking in apartment buildings, condominiums, and other multi-unit complexes, including indoor areas, private balconies and patios** – 44.7% are in favor of these policies and 48.9% are against. Current (2015) level of support for prohibiting smoking in MUDs among residents in Broome County is significantly lower than the current regional average support level (nineteen county average=62.3% “prohibit indoors”). About one-third of the *MUD-dwelling current smokers* in Broome County in 2015 favor smoking prohibition in apartment buildings, condominiums, and other multi-unit complexes, including indoor areas, private balconies and patios (support rate of 33.8% in Broome County among *current smokers*). (Table 25)

1.6 – Tobacco Use – *Executive Summary*



19. Approximately one-half of the adults in Broome County (49.5%) have **smoked at least 100 cigarettes in their lifetime**. This rate has not changed significantly in Broome County between 2006-2015. The current rate in Broome County is significantly higher than the current regional average rate of 43.6% having smoked at least 100 cigarettes in one's lifetime. (Table 26)
20. The **current cigarette smoking rate found in Broome County is: a total estimate of 22.6% current smokers**, with 17.0% smoking every day and 5.5% smoking on only some days. The current cigarette smoking rate ("current" is defined as "on at least some days", meaning every day or some days, and having smoked at least 100 cigarettes in one's entire life) in Broome County has not changed significantly from the rates found in Broome County tobacco studies completed between 2006-2013. Further, the current smoking rate in Broome County is significantly higher than the current regional average rate of 18.1% current cigarette smokers found among nineteen Northern, Central, and Western New York counties studied between December 2014 and December 2015. The New York State Department of Health and the Center for Disease Control published the county-specific results for the Behavioral Risk Factor Surveillance System (BRFSS) in 2014, the results were described as a year 2012 prevalence estimate. This overall health study includes an estimate of adult current cigarette smoking prevalence. The adult smoking prevalence rate reported for Broome County in the 2012 County-specific BRFSS was 20.2%. The smoking rate found in Broome County in this December 2015 Broome County adult tobacco community assessment is not significantly different from the findings in the 2012 County-specific BRFSS Report by the CDC. (Tables 27 and 28)
21. Significant **correlations with cigarette smoking – potential explanatory factors that are related with the likelihood that a Broome County adult resident will be a current cigarette smoker** – that were discovered include that males ($\approx 26\%$ of males in Broome County are smokers), residents between the ages of 35-44 ($\approx 37\%$ of those in this age group in Broome County are smokers), residents with lower educational backgrounds ($\approx 31\%$ of those with no college coursework and $\approx 27\%$ of those with some coursework but no four-year college degree in Broome County are smokers), and residents from lower income households ($\approx 29\%$ of those from households with annual incomes between \$25,000-\$50,000 in Broome County are smokers) are most likely to be current cigarette smokers. (Table 28)
22. **Use of cigars, cigarillos, or little cigars among Broome County residents is less common than use of cigarettes**, with a current rate of use of 5.8% smoking cigars "at least rarely" (0.2% indicate that they use these products "daily"), rates that are not significantly different from current regional average rates. A strong link is apparent between cigarette smoking and cigar smoking – 9.5% of *current cigarette smokers* also use cigars, while only 4.7% of *non-cigarette-smokers* report to do so. (Table 29)

1.7 – Electronic Cigarettes – *Attitudes and Prevalence of Use – Executive Summary*



23. **Use of electronic-cigarettes** (or, e-cigarettes or vapor cigarettes) among Broome County residents has increased between 2013 (when first studied in the county) and 2015. The e-cigarette use rate in 2015 (defined as *use at least rarely*) is 7.7%, an increase from 3.8% found in 2013. The rate of using e-cigarettes *daily* has increased from 0.0% to 2.5% during those two years, as well. (Table 30)
24. **A high level of support for a policy that bans the use of electronic cigarettes in all public places, including bars and restaurants** has been found in Broome County – more than one-half of the adults in Broome County (52.4%) are in favor of this type of policy, while only 31.3% are against. Level of support for prohibiting the use of electronic cigarettes in all public places, including bars and restaurants in Broome County is significantly lower than the current regional average support level of 58.6%. More than one-half of *current smokers* in Broome County in 2015 favor a policy that bans the use of electronic cigarettes in all public places, including bars and restaurants (support rate of 52.2% in Broome County among *current smokers*). (Table 31)
25. Among those who are current cigarette smokers in Broome County who also use e-cigarettes “at least rarely”, 80.4% **cite “help in quitting smoking conventional cigarettes” as a reason for e-cigarette use** (however, caution should be exercised since there are only seven individuals who meet these cigarette and e-cigarette use criteria who were further asked this question in this study of 403 adults). (Table 32)
26. All participants were asked **“Do you think that e-cigarettes are more harmful than conventional tobacco cigarettes, less harmful, or about the same?”** Broome County adults are much more likely to think that e-cigarettes are *less harmful* than conventional cigarettes (30.3%) than they are to indicate that they believe that e-cigarettes are *more harmful* (12.8%), however, the most common response is to indicate belief that they are *about the same* (30.5%), with a sizable 26.4% suggesting that they are “not sure”. *Current smokers* in Broome County are more likely to believe that e-cigarettes are *more harmful* than conventional cigarettes than are the non-smokers (*smokers*: 19.8%, non-smokers:10.8%). (Table 33)
27. Approximately one-half of Broome County adults **consider breathing the aerosol from someone else’s e-cigarettes to be harmful** (47.2%), of which 15.7% indicate that they believe it is *very harmful*. These rates are not significantly different from the current regional average rate of 48.7% agreeing that breathing the aerosol from someone else’s e-cigarettes is somewhat or very harmful. A small percentage of adults believe that breathing the aerosol from someone else’s e-cigarettes is “not harmful at all” (10.1%). Notably, a quite large percentage of adults indicate that they “do not know” whether breathing the aerosol from someone else’s e-cigarettes is harmful (26.6%). Finally, *current cigarette smokers* and non-smokers in Broome County have very similar opinions about the effect of breathing the aerosol from e-cigarettes. (Table 34)

Section 2

Introduction and Description of the Study

2.1

PURPOSE AND GOALS FOR THIS STUDY

The *Prevention Agenda 2013-17: New York State's Health Improvement Plan* is the blueprint for state and local action to improve the health of New Yorkers in five priority areas and to reduce health disparities for racial, ethnic, disability, socioeconomic and other groups who experience them. One of the five priority areas included in the Prevention Agenda is: “Focus Area 2: Reduce Illness, Disability and Death Related to Tobacco Use and Secondhand Smoke Exposure.” The goals that have been identified in the Prevention Agenda associated with this focus area are:

Goal #2.1: Prevent initiation of tobacco use by New York youth and young adults, especially among low socioeconomic status (SES) populations.

Goal #2.2: Promote tobacco use cessation, especially among low SES populations and those with poor mental health.

Goal #2.3: Eliminate exposure to secondhand smoke.

Tobacco Free Broome and Tioga (TFBT) is a tobacco coalition that is affiliated with the New York Tobacco Control Program, a program of the New York State Department of Health. The NYSDOH Tobacco Control grant for TFBT is held by the Broome County Health Department, located in Binghamton, New York. The goals of TFBT include advocating, initiating, funding, and supporting activities and interventions that promote the prevention and cessation of tobacco use, and elimination of exposure to secondhand smoke, among residents of Broome and Tioga Counties (New York). (Source: www.health.ny.gov/prevention/prevention_agenda/2013-2017/index.htm)

To attain these goals in Central New York State, TFBT has a need for current and accurate information regarding tobacco-related behaviors and attitudes among adult residents of these counties. To measure the necessary attitudes and behaviors regarding tobacco issues in these counties, TFBT contracted with *Joel LaLone Consulting*, Watertown, New York, to complete a community adult tobacco study in Broome County. The study involved completion of a random telephone survey of a sample of 403 adult residents of the county, with surveying completed in December 2015.

This study was designed with the following three primary goals, essentially these goals are reasons why a coalition would need to collect this type of survey data.

Community Tobacco Assessment Study Goal #1

Planning – There is a goal to collect current tobacco-related attitude and behavior information via surveying local adult residents to provide data that will be useful to health professionals to best make data-driven decisions about future health-related goals, objectives, programs, services, initiatives, interventions, promotions, and/or potential policies in Broome County. In summary, the collected data will provide current measurements of public opinion and behavior to help *support and plan future activities* for TFBT.

Community Tobacco Assessment Study Goal #2

Advocacy – There is a goal to collect current tobacco-related attitude and behavior information via surveying local adult residents to provide data that will be useful to Central New York health professionals to best demonstrate and explain local residents’ opinions regarding potential future tobacco-related policy and/or law changes in the region. In summary, the collected data will provide current measurements of public opinion and behavior to help local leaders, decision-makers, and elected officials *make data-driven tobacco-related policy decisions in the future*. The data assists Tobacco Control experts in shedding light upon local decision-maker questions such as “What does the public think about this possible tobacco-related change in policy or law in their community?”

Community Tobacco Assessment Study Goal #3

Evaluation – There is a goal that involves using the adult survey data to allow for evaluation of the impact of past initiatives and activities provided by TFBT. Previous similar tobacco-related surveys have been completed in Broome County between 2006 and 2013. Comparison of the current (2015) survey

results to these earlier survey results with identification of any statistically significant trends is useful to health professionals to attempt to *identify which initiatives have been most effective, most successful*. Essentially this goal is to answer the questions: “Has TFBT been successful in attaining their goals as outlined in its workplan?” and “Has there been any impact among the local population?”

This study, as with almost any other survey study, also has additional potential outcomes for the *participants* that could be effective and beneficial. The process of participating in an interview or survey could result with either or both of the following two outcomes, essentially these outcomes are also reasons why a coalition would benefit from collecting this type of survey data.

Community Tobacco Assessment Study Participant Outcome #1

Education – The conversation that transpires when an interview occurs, a conversation that is focused on tobacco-related topics, very likely provides information to participants that they were not already aware of – the survey process educates the participants regarding tobacco issues.

Community Tobacco Assessment Study Participant Outcome #2

Engagement – By virtue of the consideration of their views and behaviors regarding tobacco issues via completing an interview, participants have at a minimum cerebrally engaged in the health-related topic, and potentially, could become more likely to actually become further actively engaged in TFBT activities, initiatives, and goals.

The variables recorded in this study (survey questions) were developed with a focus of accomplishing these three study goals and two potential participant outcomes. The survey instrument included approximately 30 survey questions relating to the following seven primary sections of questions/information regarding attitudes and behaviors related to tobacco. The specific tobacco-related topics that are studied and reported in the remainder of this document are:

1. **Rules About Smoking in Your Home and Vehicles**
2. **Tobacco Point of Sale**
3. **Tobacco Marketing – *Protecting Youth From Tobacco On Screen***
4. **Outdoor Tobacco Policies**
5. **Smoke-Free Housing**
6. **Tobacco Use**
7. **Electronic Cigarettes – *Attitudes and Prevalence of Use***

This report is a summary and explanation of the findings of the Broome County community tobacco study completed for Tobacco Free Broome and Tioga in December 2015. When possible, comparisons of the current results are made to the results of previous community tobacco surveys completed in the county between 2006 and 2013. Additionally, the current Broome County results are compared to current regional average results. The current regional average results are derived using the findings from nineteen separate Central, Northern, and Western New York county-wide tobacco-related studies that were completed by tobacco community partnerships during the period of December 2014 through December 2015 (including this Broome County study). Each of these nineteen studies is similar to the current Broome County study in methodology, sample size, goals, and scope. Finally, the current Broome County results are cross-tabulated by the possible explanatory factors of Gender, Age, Education Level, Household Income Level, and Current Cigarette Smoking Status. It is standard methodology with professional surveys to provide this more detailed information to the reader – information that may assist in explaining the overall findings – by reporting the results for all subgroups within these key demographic variables. The results provide important current information about contemporary thinking and behaviors of citizens; and, over time, will continue to provide important baseline and comparative information as well for healthcare leadership.

2.2

METHODOLOGY – HOW THESE DATA WERE COLLECTED

The Survey Instrument

The survey instrument used in this study was developed through the collective efforts of the evaluation specialists at the New York State Department of Health Tobacco Control Program, together with the local tobacco coalition coordinator and professional staff at TFBT. The instrument, the introductory script used by interviewers on the telephone, and the required methodology to collect the data (complete interviews) were each approved by the Institutional Review Board of the New York State Department of Health and TSERT in December of 2015. The survey included approximately twenty-five tobacco-related items (questions) regarding the seven sets of tobacco issues outlined in the preceding introductory section of this report, along with approximately five-to-ten demographic variables. Copies of the script and survey instrument are attached as an appendix.

Interview Methodology

The study included completing interviews of 403 adult residents of Broome County. All interviews were completed via telephone. To be eligible to complete the survey, the resident was required to be at least 18 years of age. To complete the landline portion of the sampling, personal residence telephone numbers were randomly selected from the population of approximately 40,000 household landline telephone numbers in service in Broome County. These landline telephone numbers were obtained from *Accudata America*, a subsidiary of Primis, Inc. *Accudata America* is a firm that specializes in providing contact information for residents of the United States. The telephone numbers were obtained from an unscrubbed list, ensuring that individuals whose households are included in the “telemarketing do-not-call list” would be represented in this study. After receiving the randomly selected landline telephone numbers, the list was randomly sorted a second time and a group of residential landline numbers was attempted for interviews. To complete the cellular phone portion of the sampling, a random-digit generation process with manual dialing was utilized where common area codes and three-digit prefixes for cellular phones in use in the Broome County region were identified, and random sets of four-digit telephone number endings after these common prefixes were generated to be attempted. Before a survey was completed with a participant who was speaking on their cellular phone it was queried and established that the participant was not driving a motor vehicle at that time, and that he or she was in a safe and private location at that time. Interviews that were completed on the landline home phone of the participants represent 44% of all completed interviews (177 of the 403 completed interviews are represented by landline interviews), and interviews that were completed on the cellular phone of the participants represent 56% of all completed interviews (226 of the 403 completed interviews are represented by cellular phone interviews).

All telephone calls were made between 3:30 p.m. and 9:00 p.m. on evenings between December 21, 2015 and December 30, 2015, from a call center in Watertown, New York. The staff of *Joel LaLone Consulting*, who completed the interviews, has extensive experience and training in human subject research methodology and effective interviewing techniques. It was necessary to attempt to contact 3,809 household landlines and cellular phones before completing the contracted 400+ interviews (cellular phones and landline telephone results combined). When each of the 3,809 telephone numbers was attempted, one of four results occurred: Completion of an interview; a Decline to be interviewed; No Answer/Busy; or an Invalid Number (includes those cellular phone numbers contacted for which the persons lived outside of Broome County). As required within the research protocol provided by the New York State Department of Health, voluntary informed consent was obtained from each resident before the interview was completed. This protocol included informing each resident that it was his or her right to decline to answer any and all individual questions within the interview. To be categorized as a completed interview, at least one-half (50%) of the questions in the survey were required to be

completed. The resident's refusal to answer more than one-half of the questions was considered a decline to be interviewed. The typical length of a completed survey was approximately ten minutes. Declines to be interviewed (refusals) were not called back with an attempt to convince the resident to reconsider the interview. If no contact was made at a telephone number (No Answer/Busy), callbacks were made to the phone number. Telephone numbers that were not successfully contacted and, as a result, were ultimately categorized as No Answer/Busy, were attempted a minimum of four times (three callbacks). When no person answered the telephone no messages were left by interviewers, neither on answering machines at homes nor as voicemail to cellular phones. No rewards or gifts were offered to contacted adults to encourage their participation. Response rates for this December 2015 study are summarized in Table 4.

Sample Sizes

The sample sizes (# participants who completed the survey) in each year that a community tobacco adult assessment study has been completed are summarized in the following Table 3.

Table 3		Years of Study and Sample Sizes Utilized					
		Year of Study:	2006	2009	2011	2013	2015
Broome County (n=)			402	400	406	400	403

Response Rates in 2015

The response rate results for this study in 2015 are summarized below.

Table 4		Response Rates for the 2015 Broome County Community Tobacco Survey				
Broome County <small>(44% landlines, 56% cells; 40% "cell-only")</small>		Complete Interview	Decline to be Interviewed	Not Valid Telephone Number	No Answer/ Busy	TOTALS
Frequency		403	710	317	2,379	3,809
% of Numbers Attempted		10.6%	18.6%	8.3%	62.4%	100%
% of Valid Numbers		11.5%	20.3%		68.1%	100%
% of Contacted Residents		36.2%	63.8%			100%

Within the fields of social science and community-based research, when using a hybrid sampling design including both landline telephone interview and cellular phone interview methodology, a response rate of over 35% of all successful contacts where a potential participant is actually talking on the phone is considered very successful.

2.3 DEMOGRAPHICS OF THE SAMPLE – WHO WAS INTERVIEWED?

This section of the final report of study findings includes a description of the results for the demographic variables included in the survey sample. The demographic characteristics of the sampled adult residents can be used to attain the following three separate objectives. Initially, this information adds to the knowledge and awareness about the true characteristics of the population of adult residents in a sampled county (i.e. What is the current typical household size, educational profile, and/or annual household income level in Broome County?). Secondly, this demographic information facilitates the ability for the data to be sorted or partitioned to investigate for significant relationships – relationships between demographic characteristics of people and their attitudes and behaviors regarding tobacco. Identification of significant relationships allows tobacco community partnerships to use the data more effectively to identify specific subgroups of a county population for programming and interventions, and ultimately, measure impact and change within these subgroups. Finally, the demographic information also serves an important purpose when compared to established facts regarding the population demographics among adults in Broome County – to analyze the representativeness of the sample that was randomly selected in this study. The results for the demographic questions in the survey are summarized in the following table. The most current available estimated demographic characteristics of the entire adult population residing in the county that were reported by the U.S. Census Bureau are also summarized for each demographic variable and provided for comparison.

Table 5 Demographics of the Sample Compared to U.S. Census Estimates
(sample results weighted for Gender, Age, Education Level, Residence Type, Phone Ownership)

<i>Demographic Characteristics:</i>	Broome County (2015 Sample)	Broome County (U.S. Census)
Gender		
Male	49%	49%
Female	51%	51%
Age		
18-24	16%	16%
25-34	15%	15%
35-44	14%	14%
45-54	19%	19%
55-64	16%	16%
65+	21%	21%
Children in the Household		
None	68%	27% "at least one member of household under 18 years of age"
1	14%	
2	12%	
3	4%	
4	1%	
5+	1%	
Education Level		
HS Graduate or less	44%	44%
Some College	30%	30%
College Graduate (4+ years)	26%	26%

Table 5
(cont.)**Demographics of the Sample Compared to U.S. Census Estimates**

(sample results weighted for Gender, Age, Education Level, Residence Type, Phone Ownership)

<i>Demographic Characteristics:</i>	Broome County (2015 Sample)	Broome County (U.S. Census)
Annual Household Income		
Less than \$25,000	30%	28%
\$25,000-\$50,000	25%	26%
\$50,000-\$75,000	23%	19%
More than \$75,000	23%	28%
Type of Residence		
Multi-unit Dwelling	32%	32%
Single-family home	67%	68%
Don't know/Not sure	1%	–
Public Housing (among MUD-dwellers)		
Live in Public Housing.	48%	No comparable statistics available.
Do not.	51%	
Don't know/Not sure	1%	

Post-stratification Weighting of Data

All survey results presented in this study have been weighted for age, gender, education level, phone ownership, and residence status to statistically adjust for under and over representation of demographic subgroups captured in the raw unweighted sample. Targets for the weighting algorithms were generated from the most recent U.S. Census and Center for Disease Control estimates available in any year.

In general, Table 5 demonstrates that after weighting the data collected in this study for Gender, Age, Education, Residence Type, and Phone Ownership, the responses to the demographic questions for the Broome County residents who are included in the survey (those who actually answered the telephone and completed the survey) appear to closely parallel that which is true for the entire adult population of the county. The postal zip code for each participant was recorded, and the geographic distribution of this sample represents Broome County accurately, as well. The targets for demographic characteristics were drawn from the most recent U.S. Census updates for Broome County.

The primary exceptions when comparing the raw (unweighted) demographics of this Broome County sample to U.S. Census estimates for the entire adult populations are that women are overrepresented in the unweighted sample (women are more likely than men to answer the telephone and/or agree to a survey, whereas the distribution of men and women in the Broome County adult population is essentially equal), older residents are also overrepresented in the unweighted sample (again, older residents are more likely than younger adult residents to participate in a telephone survey), those adult residents with lower formal education levels are underrepresented in the unweighted sample (less likely to participate in a survey than those with higher formal education levels), adult residents of multiple-unit dwellings are underrepresented in the unweighted sample (likely due to a lower chance that renters purchase a landline in their unit), and residents who are only accessible via cell phone (they have no landline in their home) are slightly underrepresented in the unweighted sample. These types of sampling error are inherent in telephone methodology: females, older persons, those with higher formal education levels, those who live in single-family homes, and those who are not “cell-phone only” are typically overrepresented – regardless of the subject of the survey, not just in the instance when the survey relates to tobacco issues. To compensate for this overrepresentation in the unweighted sample of females, older residents, the highly-educated, homeowners, and those who have no cell phone, post-stratification weightings by gender, age, education level, residence type, and telephone ownership have been applied in any further analysis of the tobacco issues included in this report. All subsequent statistics that will be reported in this document are weighted by gender, age, education level, residence type, and telephone ownership. Again, the gender, age, education level, and residence type targets that are used for these weighting algorithms are derived from the most current U.S. Census updates for the TFBT region adult population (<http://quickfacts.census.gov/qfd/states/36000.html>), and the telephone ownership population estimates are derived from a combination of participant phone ownership responses along with recent estimates for U.S. households published by the Center for Disease Control (www.cdc.gov/nchs/data/nhsr/nhsr039.pdf).

Given the emphasis placed on scientific sampling design and protocol utilized in this study, and the high response rates; after application of post-stratification weightings by gender, age, education level, residence type, and phone ownership, it is felt that this weighted sample of Broome County adults does accurately represent the population of all Broome County adults. Therefore, the findings of this study may be generalized to the population of all adults of at least 18 years of age living in Broome County.

Generalizability and Margin of Error

With a **sample of approximately 400 completed surveys the average margin of error for a survey is approximately $\pm 3.9\%$** . Much greater detail regarding the margin of error that should be used when generalizing the results of any of the reported statistics in this study to the appropriate entire populations of interest that those statistics describe or represent is explained thoroughly in the Technical Comments in Section 2.4 of this report.

In survey research, the exact margin of error when estimating for an entire population is question-specific, with the margin of error for each survey question depending upon the sample size for each question and sample statistics that result for each question. Sample sizes tend to vary for each question on the survey, since some questions are only appropriate for certain subgroups (i.e. only *current cigarette smokers* might then be further asked if they most commonly purchase their cigarettes at a pharmacy) and/or as a result of persons refusing to answer survey questions (which is their right to do so, of course, according to human subject research law). In general, the results of this survey for any questions that were answered by the entire sample of 403 interviewed Broome County adults may be generalized to the population of all adults at least 18 years of age residing in the county with a 95% confidence level to within a **margin of error of approximately ± 3.9 percentage points** (there is an *average* margin of error of $\pm 3.9\%$ with a sample size of $n=403$). For results that are investigated for certain specific subgroups in Broome County, such as results specifically for only adult residents who are current cigarette smokers, the resulting smaller sample sizes allow generalization to the specific subpopulation of all adults at least 18 years of age residing in Broome County (i.e. generalization of some specific characteristics of *the sampled current cigarette smokers* in Broome County to *all current smokers* in the county) with a 95% confidence level to within a margin of error that will be *larger* than ± 3.9 percentage points.

A bit more of an explanation regarding the meaning of a margin of error may be helpful at this point. The utility of a margin of error is: one can be 95% confident that any sample statistic presented in the remainder of this report for the entire sample of $n=403$ adults from the county would/could only deviate from the true value that would be found if all 160,000 adults (approximately) in the county were in fact interviewed, by at most 3.9 percentage points. Note that the preceding statement regarding 95% confidence that the statistics in this study are at the most only 3.9 percentage points away from the true population values if all 160,000 adults in the county were interviewed is based upon the fundamental proven mathematical, probability, and sampling theory facts and theorems that are proven in any first-semester college statistics course. Often-times to the non-statistician these statements could appear counter-intuitive, and one might assume that the reliability of a survey would somehow be related to the small portion of the entire population that is actually sampled ... in other words, those who have not studied statistics coursework and/or theory at times pose some question such as “why would I ever believe the results from only surveying approximately 400 adults from Broome County, when that means that approximately 159,600 of the approximately 160,000 Broome County adult residents have not been interviewed?” While this observation of such a small proportional sample size is absolutely true (400 out of 160,000 is only 0.0025, or 0.25%, which is one-quarter of one percent, and is approximately one out of every 400 adult residents in the county) the suggestion that it is too small, or that the 159,600 not sampled is even relevant, is incorrect, no less incorrect than it would be to state that $2+2=5$.

In summary, the size of the margin of error when sampling (surveying) is essentially independent of the size of the population from which one is sampling. The size of the margin of error is directly a function of sample size (the ≈ 400 in Broome County) not population size (the $\approx 160,000$ in Broome County). These same folks who question whether $n \approx 400$ in Broome County is “large enough” might question why the sample size in Broome County is $n \approx 400$, while in a much larger county in New York State which might have an adult population size of almost 1,000,000 (such as Westchester County, New York), the same sample size of $n \approx 400$ would be appropriate to use. Again, the reader is reminded that the size of the sampled population rarely, if ever, is related to the size of the sample actually selected from that population. If *Joel LaLone Consulting* were to survey the adult residents of Broome County ($N \approx 160,000$ in the population) a sample size of $n \approx 400$ would be recommended/implemented. Likewise, if *Joel LaLone Consulting* were to survey the adult residents of the entirety of New York State ($N \approx 15,000,000$ in the population) a sample size of $n \approx 400$ would also be recommended/implemented. And, these two studies, one study of the smaller Broome County and one of the larger New York State, using the same sample sizes of $n \approx 400$, would have the same resulting margins of error of approximately ± 4 percentage points.

Enough with all of that statistical theory – now an example illustrating the appropriate use of the margin of error for this study will be shown. If one has a goal to use this survey data to estimate the percentage of the entire adult population of Broome County who “favors a policy that would prohibit the sale of tobacco products in stores that are located near schools”, then reference to Table 12 later in this report shows that 61.2% of the 403 sampled adults respond with “*Favor*”. Using a margin of error of *approximately* ± 3.9 percentage points, the result is that we are 95% confident that if all $\approx 160,000$ adults in the county were interviewed and asked their opinion about a policy that would prohibit tobacco sales in stores that are located near schools, the resulting percentage who would respond with “*Favor*” will be contained in the interval **$61.2\% \pm 3.9\%$** , somewhere **between 57.3% and 65.1%**. This resulting interval is called a **confidence interval** (much more explanation of confidence intervals is provided in Section 2.4 of this report for interested readers).

Throughout this report the key participant demographic characteristics of Gender, Age, Education Level, Household Income Level, and Cigarette Smoking Status are investigated as potential explanatory variables that may be correlated with tobacco-related attitudes and behaviors for residents of the county. It is standard methodology with professional surveys

to provide this further rich information to the reader – information that may assist in explaining the overall findings – by reporting the cross-tabulated results for all subgroups within key demographic variables. For more specific detail regarding the margin of error for this survey and the elements of statistical tests of significance, please continue to Section 2.4 – Technical Comments and/or contact the professional staff at *Joel LaLone Consulting*. All data compilation and statistical analyses within this study have been completed using *SPSS, Release 23*.

2.4

TECHNICAL COMMENTS TO ASSIST INTERPRETATION OF THE DATA

The results of this study will be disseminated to, and utilized in decision-making by, a very wide array of readers – who, no doubt, have a very wide array of statistical backgrounds. The following comments are provided to give guidance for interpretation of the presented findings so that readers with less-than-current statistical training might maximize the use of the information contained in this community tobacco assessment survey.

Margin of Error – More Detail for Those Interested in Maximizing Precision and Accuracy of Estimates

When data is collected, of course, it is only possible for the researcher to analyze the results of the *sample* data, the data from the group of individuals actually sampled, or in this case, actually interviewed. However, it is typically the goal of the researcher to use this *sample* data to draw a conclusion, or estimate that which they believe is true, for the entire *population* from which the sample was selected. To complete this estimation the standard statistical technique is to construct a **confidence interval** – an interval of values between which one can be 95% certain, or confident, that the true population value will fall. For example, if a researcher interviews $n=500$ randomly selected participants from some population of size $N=100,000$ individuals, and the researcher finds that $x=200$ of the 500 sampled participants indicate that they “agree” with some posed statement (200 out of 500 would be 40%), then the researcher can never be 100% certain that if all 100,000 population members were, in fact, interviewed then the result for this entire population investigation would be that 40% (that would be 40,000 out of the 100,000) would “agree.” In general, one can never guarantee with 100% certainty that a statistic for some random sample will perfectly, exactly, result the same as the population value that describes the entire population (this value is called a “parameter”). Fortunately, considering the types of variables and resulting data that typically are generated in survey research, use of the statistical tools of probability distributions and sampling distributions allows the determination of a very important distance – the distance within which one would expect 95% of the samples of size n to fall either above or below the true population value. This distance is commonly referred to as the **margin of error**. Once this distance (margin of error) is measured, there is a 95% probability that the sample result (the result of the $n=500$ sampled participants in the illustration above) will fall within that distance of the true population value. Therefore, to construct the very useful and easily-interpreted statistical estimation tool known as a **confidence interval**, all one must do is calculate the margin of error and add-and-subtract it to-and-from the sample result (statistic) and the outcome is that there is a 95% chance that the resulting interval does, in fact, include the true population value within the interval. **The margin of error for questions that are answered by the entire sample of 403 participants in this study is approximately $\pm 3.9\%$, therefore one may conclude that the statistics reported in the following sections of detailed statistical results fall within $\pm 3.9\%$ of the true value that would be found if all adult residents in the county did, in fact, complete the survey.**

Once again, to illustrate the above-described concepts of margin of error and confidence intervals, note that in Table 22 it can be observed that 44.6% of the sample of 402 adults surveyed in Broome County in 2015 (one participant had abandoned the survey by the time he or she reached this survey question) responded to “What is your opinion about a policy that would prohibit smoking on a college campus?” with an answer of “*Favor*”. With this sample result, one could infer with 95% confidence that if all Broome County adults were asked – somewhere between 40.7% and 48.5% of the population of approximately 160,000 adults in the county would respond to “What is your opinion about a policy that would prohibit smoking on a college campus?” with an answer of “*Favor*” (started with the 44.6% that was found in the sample and added-and-subtracted a margin of error of $\pm 3.9\%$). This resulting interval (40.7%–48.5%) is known as a **95% Confidence Interval**. The consumer of this report should use this pattern when attempting to generalize any of these survey findings

for survey questions *that were answered by all ≈400 participants* to the entire adult population of the county. When attempting to generalize results for survey questions which had smaller sample sizes (the result of either screening questions such as smoker-only questions, or participants refusing to answer certain questions, or years when the within-county sample size was only n=300), the resulting margin of error will be *larger* than ±3.9 percentage points.

Margin of Error – More Detail for Maximizing Precision and Reliability of Estimates

The preceding introductory example used a margin of error of ±3.9%, as a result of an illustration that used all ≈400 sampled participants in the 2015 Broome County study. However, again, the margin of error when using the sample results in this study to construct a confidence interval to estimate a population percentage will not always be ±3.9%. There is not one universal value of a margin of error that can be precisely calculated and used for the results for every question included in this survey, or for that matter, any multiple-question survey. Calculation methods used in this study for generating the margin of error depend upon the following three factors, which include two factors in addition to the sample-size factor that has just been addressed:

1. The **sample size** is the number of adults who validly answered the survey question. The sample size will not always be n=403 since individuals have a right to omit any question. Additionally, some survey questions were only posed after screening questions. Further, if one investigates a certain subgroup, such as only current smokers, obviously the sample size will be smaller than n=403 in the county. In general, the smaller the sample size then the larger the margin of error, and conversely, the larger the sample size then the smaller the margin of error.
2. The **sample proportion or percentage** is the calculated percentage of the sample who responded with the answer or category of interest (i.e. responded “Favor”). This percentage can vary from 0%-100%, and, of course, will change from question to question throughout the survey. In general, the further that a sample percentage varies from 50%, in either direction (approaching either 0% or 100%), the smaller the margin of error, and conversely, the closer that the actual sample percentage is to 50% then the larger the resulting margin of error. As an example, if 160 out of 400 sampled residents “Agree” with some posed statement, then the sample proportion would be (160÷400=0.4=40%)
3. The **confidence level** used in generalizing the results of the sample to the population that the sample represented. In this study, the standard confidence level used in survey research, 95% confidence level, will be used for all survey questions.

In mathematical notation, the margin of error for each sample result for this study would be represented as:

$$ME = 1.96 \cdot \sqrt{\frac{p(100 - p)}{n}}$$

Where n=sample size = # valid responses to the survey question

p=sample percentage for the survey question (between 0%-100%)

1.96 = the standard normal score associated with the 95% confidence level

Since the sample size varies (in fact, could conceivably be different for every question included in a survey) and the sample percentage varies (also, could conceivably be different for every question included in a survey) the following table (Table 6) has been provided for the reader to determine the correct margin of error to use whenever constructing a confidence interval using the sample data presented in this study. This table was generated using the ME formula shown above.

Note that the top portion of Table 6 includes the average margin of error for selected sample sizes that could result for specific investigations of the survey data. It is the bottom (larger) table in Table 6 referencing both the sample size and the sample proportion that provides the margins of error with the greatest degree of precision.

Table 6

Margins of Error for Varying Sample Sizes and Varying Sample Proportions

Sample Size (n=)	30	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400
Approximate Margin of Error (%)	14.3	11.1	9.0	7.8	7.0	6.4	5.9	5.5	5.2	5.0	4.7	4.5	4.3	4.2	4.0	3.9
Varying Sample Sizes (n=___)																
Varying Sample %'s:	30	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400
2%	5.0%	3.9%	3.2%	2.7%	2.5%	2.2%	2.1%	1.9%	1.8%	1.7%	1.7%	1.6%	1.5%	1.5%	1.4%	1.4%
4%	7.0%	5.4%	4.4%	3.8%	3.4%	3.1%	2.9%	2.7%	2.6%	2.4%	2.3%	2.2%	2.1%	2.1%	2.0%	1.9%
6%	8.5%	6.6%	5.4%	4.7%	4.2%	3.8%	3.5%	3.3%	3.1%	2.9%	2.8%	2.7%	2.6%	2.5%	2.4%	2.3%
8%	9.7%	7.5%	6.1%	5.3%	4.8%	4.3%	4.0%	3.8%	3.5%	3.4%	3.2%	3.1%	2.9%	2.8%	2.7%	2.7%
10%	10.7%	8.3%	6.8%	5.9%	5.3%	4.8%	4.4%	4.2%	3.9%	3.7%	3.5%	3.4%	3.3%	3.1%	3.0%	2.9%
12%	11.6%	9.0%	7.4%	6.4%	5.7%	5.2%	4.8%	4.5%	4.2%	4.0%	3.8%	3.7%	3.5%	3.4%	3.3%	3.2%
14%	12.4%	9.6%	7.9%	6.8%	6.1%	5.6%	5.1%	4.8%	4.5%	4.3%	4.1%	3.9%	3.8%	3.6%	3.5%	3.4%
16%	13.1%	10.2%	8.3%	7.2%	6.4%	5.9%	5.4%	5.1%	4.8%	4.5%	4.3%	4.1%	4.0%	3.8%	3.7%	3.6%
18%	13.7%	10.6%	8.7%	7.5%	6.7%	6.1%	5.7%	5.3%	5.0%	4.8%	4.5%	4.3%	4.2%	4.0%	3.9%	3.8%
20%	14.3%	11.1%	9.1%	7.8%	7.0%	6.4%	5.9%	5.5%	5.2%	5.0%	4.7%	4.5%	4.3%	4.2%	4.0%	3.9%
22%	14.8%	11.5%	9.4%	8.1%	7.3%	6.6%	6.1%	5.7%	5.4%	5.1%	4.9%	4.7%	4.5%	4.3%	4.2%	4.1%
24%	15.3%	11.8%	9.7%	8.4%	7.5%	6.8%	6.3%	5.9%	5.6%	5.3%	5.0%	4.8%	4.6%	4.5%	4.3%	4.2%
26%	15.7%	12.2%	9.9%	8.6%	7.7%	7.0%	6.5%	6.1%	5.7%	5.4%	5.2%	5.0%	4.8%	4.6%	4.4%	4.3%
28%	16.1%	12.4%	10.2%	8.8%	7.9%	7.2%	6.7%	6.2%	5.9%	5.6%	5.3%	5.1%	4.9%	4.7%	4.5%	4.4%
30%	16.4%	12.7%	10.4%	9.0%	8.0%	7.3%	6.8%	6.4%	6.0%	5.7%	5.4%	5.2%	5.0%	4.8%	4.6%	4.5%
32%	16.7%	12.9%	10.6%	9.1%	8.2%	7.5%	6.9%	6.5%	6.1%	5.8%	5.5%	5.3%	5.1%	4.9%	4.7%	4.6%
34%	17.0%	13.1%	10.7%	9.3%	8.3%	7.6%	7.0%	6.6%	6.2%	5.9%	5.6%	5.4%	5.2%	5.0%	4.8%	4.6%
36%	17.2%	13.3%	10.9%	9.4%	8.4%	7.7%	7.1%	6.7%	6.3%	6.0%	5.7%	5.4%	5.2%	5.0%	4.9%	4.7%
38%	17.4%	13.5%	11.0%	9.5%	8.5%	7.8%	7.2%	6.7%	6.3%	6.0%	5.7%	5.5%	5.3%	5.1%	4.9%	4.8%
40%	17.5%	13.6%	11.1%	9.6%	8.6%	7.8%	7.3%	6.8%	6.4%	6.1%	5.8%	5.5%	5.3%	5.1%	5.0%	4.8%
42%	17.7%	13.7%	11.2%	9.7%	8.7%	7.9%	7.3%	6.8%	6.4%	6.1%	5.8%	5.6%	5.4%	5.2%	5.0%	4.8%
44%	17.8%	13.8%	11.2%	9.7%	8.7%	7.9%	7.4%	6.9%	6.5%	6.2%	5.9%	5.6%	5.4%	5.2%	5.0%	4.9%
46%	17.8%	13.8%	11.3%	9.8%	8.7%	8.0%	7.4%	6.9%	6.5%	6.2%	5.9%	5.6%	5.4%	5.2%	5.0%	4.9%
48%	17.9%	13.8%	11.3%	9.8%	8.8%	8.0%	7.4%	6.9%	6.5%	6.2%	5.9%	5.7%	5.4%	5.2%	5.1%	4.9%
50%	17.9%	13.9%	11.3%	9.8%	8.8%	8.0%	7.4%	6.9%	6.5%	6.2%	5.9%	5.7%	5.4%	5.2%	5.1%	4.9%
52%	17.9%	13.8%	11.3%	9.8%	8.8%	8.0%	7.4%	6.9%	6.5%	6.2%	5.9%	5.7%	5.4%	5.2%	5.1%	4.9%
54%	17.8%	13.8%	11.3%	9.8%	8.7%	8.0%	7.4%	6.9%	6.5%	6.2%	5.9%	5.6%	5.4%	5.2%	5.0%	4.9%
56%	17.8%	13.8%	11.2%	9.7%	8.7%	7.9%	7.4%	6.9%	6.5%	6.2%	5.9%	5.6%	5.4%	5.2%	5.0%	4.9%
58%	17.7%	13.7%	11.2%	9.7%	8.7%	7.9%	7.3%	6.8%	6.4%	6.1%	5.8%	5.6%	5.4%	5.2%	5.0%	4.8%
60%	17.5%	13.6%	11.1%	9.6%	8.6%	7.8%	7.3%	6.8%	6.4%	6.1%	5.8%	5.5%	5.3%	5.1%	5.0%	4.8%
62%	17.4%	13.5%	11.0%	9.5%	8.5%	7.8%	7.2%	6.7%	6.3%	6.0%	5.7%	5.5%	5.3%	5.1%	4.9%	4.8%
64%	17.2%	13.3%	10.9%	9.4%	8.4%	7.7%	7.1%	6.7%	6.3%	6.0%	5.7%	5.4%	5.2%	5.0%	4.9%	4.7%
66%	17.0%	13.1%	10.7%	9.3%	8.3%	7.6%	7.0%	6.6%	6.2%	5.9%	5.6%	5.4%	5.2%	5.0%	4.8%	4.6%
68%	16.7%	12.9%	10.6%	9.1%	8.2%	7.5%	6.9%	6.5%	6.1%	5.8%	5.5%	5.3%	5.1%	4.9%	4.7%	4.6%
70%	16.4%	12.7%	10.4%	9.0%	8.0%	7.3%	6.8%	6.4%	6.0%	5.7%	5.4%	5.2%	5.0%	4.8%	4.6%	4.5%
72%	16.1%	12.4%	10.2%	8.8%	7.9%	7.2%	6.7%	6.2%	5.9%	5.6%	5.3%	5.1%	4.9%	4.7%	4.5%	4.4%
74%	15.7%	12.2%	9.9%	8.6%	7.7%	7.0%	6.5%	6.1%	5.7%	5.4%	5.2%	5.0%	4.8%	4.6%	4.4%	4.3%
76%	15.3%	11.8%	9.7%	8.4%	7.5%	6.8%	6.3%	5.9%	5.6%	5.3%	5.0%	4.8%	4.6%	4.5%	4.3%	4.2%
78%	14.8%	11.5%	9.4%	8.1%	7.3%	6.6%	6.1%	5.7%	5.4%	5.1%	4.9%	4.7%	4.5%	4.3%	4.2%	4.1%
80%	14.3%	11.1%	9.1%	7.8%	7.0%	6.4%	5.9%	5.5%	5.2%	5.0%	4.7%	4.5%	4.3%	4.2%	4.0%	3.9%
82%	13.7%	10.6%	8.7%	7.5%	6.7%	6.1%	5.7%	5.3%	5.0%	4.8%	4.5%	4.3%	4.2%	4.0%	3.9%	3.8%
84%	13.1%	10.2%	8.3%	7.2%	6.4%	5.9%	5.4%	5.1%	4.8%	4.5%	4.3%	4.1%	4.0%	3.8%	3.7%	3.6%
86%	12.4%	9.6%	7.9%	6.8%	6.1%	5.6%	5.1%	4.8%	4.5%	4.3%	4.1%	3.9%	3.8%	3.6%	3.5%	3.4%
88%	11.6%	9.0%	7.4%	6.4%	5.7%	5.2%	4.8%	4.5%	4.2%	4.0%	3.8%	3.7%	3.5%	3.4%	3.3%	3.2%
90%	10.7%	8.3%	6.8%	5.9%	5.3%	4.8%	4.4%	4.2%	3.9%	3.7%	3.5%	3.4%	3.3%	3.1%	3.0%	2.9%
92%	9.7%	7.5%	6.1%	5.3%	4.8%	4.3%	4.0%	3.8%	3.5%	3.4%	3.2%	3.1%	2.9%	2.8%	2.7%	2.7%
94%	8.5%	6.6%	5.4%	4.7%	4.2%	3.8%	3.5%	3.3%	3.1%	2.9%	2.8%	2.7%	2.6%	2.5%	2.4%	2.3%
96%	7.0%	5.4%	4.4%	3.8%	3.4%	3.1%	2.9%	2.7%	2.6%	2.4%	2.3%	2.2%	2.1%	2.1%	2.0%	1.9%
98%	5.0%	3.9%	3.2%	2.7%	2.5%	2.2%	2.1%	1.9%	1.8%	1.7%	1.7%	1.6%	1.5%	1.5%	1.4%	1.4%
Average	14.3%	11.1%	9.0%	7.8%	7.0%	6.4%	5.9%	5.5%	5.2%	5.0%	4.7%	4.5%	4.3%	4.2%	4.0%	3.9%

Illustration of how to use Table 6 to determine the correct margin of error:

To estimate the percentage in the entire population of adults in Broome County who would respond “*Favor*” to the question “What is your opinion about policy that would limit the number of stores that could sell tobacco in your community?”, one must simply refer to Table 13 to determine the sample size and percentage of this sample of Broome County adults who respond with “*Favor*”. From Table 13 it is found that 46.6% of the sampled Broome County adults indicate that they are in favor of this type of policy, and the sample size is $n=402$. Reference to Table 6 on the preceding page indicates that the appropriate margin of error would be $\pm 4.9\%$ (used $n=400$, the closest entry to $n=402$ in the table; and used $p=46\%$, the closest entry to $p=46.6\%$ in the table). Therefore, we can be 95% confident that if all Broome County adults were asked, the resulting percentage who would indicate that they favor limiting the number of stores that could sell tobacco in a community among this population of adults would be within $\pm 4.9\%$ of the 46.6% found in our sample. The interpretation of this would be that we are 95% confident that among all Broome County adults the percentage who favor limiting the number of stores that could sell tobacco in a community would be somewhere between 41.7% and 51.5%. Note that this margin of error of 4.9 percentage points is larger than the earlier-cited “average” margin of error of 3.9 percentage points as a result of the sample proportion (46.6%) being close to 50%.

As a second example of using Table 6, consider if $n=63$ persons *who are age 18-24 in Broome County* validly answered a survey question (a question such as “What is your opinion about policy that would prohibit smoking on a college campus?”, later described in detail in Table 22), and $p=62.9\%$ of these younger adults responded with “*Favor*”, then the interpretation would be that the margin of error for estimating that which would be expected to be true for the entire *18-24 years of age* adult population in Broome County would be $\pm 11.0\%$ (used the margin of error from Table 6 for the sample proportion included in the table that was closest to our actual sample proportion – 62% in the table, and sample size closest to our actual sample size – $n=75$ in the table). Finally, one could then state with 95% confidence that among *all Broome County adults age 18-24*, somewhere in the interval $62.9\% \pm 11.0\%$, or in other words, between 51.9% and 73.9%, favor prohibiting smoking on college campuses. Note that this margin of error of $\pm 11.0\%$ is larger than the earlier-cited county-specific margin of error of approximately $\pm 3.9\%$, predominately a result of having a sample of only 63 adults age 18-24 from Broome County included in the sample. Again, this resulting interval (51.9%-73.9%) is known as a **95% Confidence Interval**.

It should be noted that the margin of error is a measurement of random error, error due to simply the random chance of sampling. For example, if one were to flip a fair coin $n=400$ times, the population percentage for the percentage of the time that the coin would result with a head is, of course, 50%. Use of Table 6 indicates that with a margin of error of $\pm 4.9\%$, one would determine that there is a 95% chance that a sample of $n=400$ flips would fall with $\pm 4.9\%$ of this real population value of 50%. In other words, there is a 95% chance that the sample result will be between $50\% \pm 4.9\%$, between 45.1% and 54.9%. Only 5% of the time would a sample of $n=400$ flips result with either less than 45.1% heads, or greater than 54.9% heads.

However, in survey research, it is not coins that are being flipped; it is humans who are being interviewed. When surveying humans there are other potential sources of error, sources of error in addition to random error (which is the only error encompassed by the margin of error). Response error, nonresponse error, process error, bias in sample selection, bias in question-phrasing, lack of clarity in question-phrasing, and undercoverage are common sources of other-than-random error. Methods that should be, and have been in this Broome County study, employed to minimize these other sources of error are: maximum effort to select the sample randomly, piloting and testing of utilized survey questions, extensive training of all data collectors (interviewers), and application of post-stratification algorithms. Hence, when using this study data to make estimates to the entire Broome County adult population, as is the case in standard survey research practices, the margin of error will be the only error measurement cited and interpreted.

Significance Testing – Testing for Statistically Significant Differences, Trends, and Relationships

The technical discussion of statistical techniques thus far has focused on the statistical inference referred to as *estimation* – construction of confidence intervals using the margins of error described in Table 6. To take full advantage of the data collected in this study, other statistical techniques are of value. Tests for significant trends over time, tests for compare to regional averages, and tests for significantly correlated factors with measured variables, are all presented as well.

A comment or two regarding “statistical significance” could help readers of varying quantitative backgrounds most appropriately interpret the results of what has been statistically analyzed. Again, because the data for this Broome County tobacco survey is based on a *sample* of 403 adult residents, as opposed to obtaining information from every single adult resident in the county, there must be a method of determining whether an observed relationship or difference in the *sample* survey data is likely to continue to hold true if *every* adult resident of the county were, in fact, interviewed. To make this determination, **tests of statistical significance** are standard practice in evaluating sample survey data.

For example, if the *sample* data shows that Broome County residents appear to *favor* a policy that would prohibit the sale of tobacco products in stores that are located near schools less commonly than those residents in neighboring counties (61.2% of Broome County adults *favor*, while the regional average rate is 63.9% among 19 upstate New York Counties surveyed in the past twelve months, please refer to Table 12), the researcher would want to know if this lower proportion would likely still be present if they interviewed *every* Broome County adult rather than just the sample of 403 adults who were actually interviewed in that county. To answer this question, the researcher uses a test of statistical significance. The outcome of a **test of statistical significance** will be that the result is either “not statistically significant” or the result is “statistically significant.”

In this illustration, the meaning of “not statistically significant” is that if the sample were repeated many more times (in this case, that would mean many more different groups of $n=403$ randomly selected adults from the approximately 160,000 adults in Broome County), then the results of these samples would *not* consistently show that the Broome County adults *favor* a policy prohibiting the sale of tobacco products near schools less commonly than those residents in neighboring counties; some Broome County samples of 403 adults might be higher and some lower than the neighboring county average *favor* rate of 63.9%. In this case, the researcher could **not** report *with high levels of confidence* that the Broome County rate is statistically significantly different from the regional average. Rather, the difference found between the one actually-selected sample of size $n=403$ Broome County residents and the aggregate results of the neighboring counties would be interpreted as small enough that it could be due simply to the random chance of sampling when interviewing only 403 residents – *not statistically significant*.

Conversely, the meaning of “statistically significant” in this example is that if the sample were repeated many more times, then the results of these samples would consistently show that Broome County adults are less likely to *favor* a policy prohibiting the sale of tobacco products near schools than those adults in neighboring counties. Furthermore, if *every* adult in Broome County were interviewed, we are confident that this population favor-a-policy-prohibiting-tobacco-sales-near-schools rate in the county would be lower than the average rate in neighboring counties. One can never be 100% certain (or confident) that the result of a sample will indicate appropriately whether the population value (in this illustration that would be: the results for *all* Broome County residents) is, in fact, different from some hypothesized value (in this illustration that would be: the regional average rate) or not. However, using the standard confidence level of 95%, an interpretation of “not statistically significant” means that the size of the observed sample difference would naturally be expected to be found in 95 out of 100 random samples of similar size n . The interpretation of a “statistically significant” difference is that the sample difference is so large that there is a probability of less than 5% that this difference occurred simply due to the random chance of sampling; instead, it is considered a “real” difference. In this study, when completing significance tests, the 95% confidence level will be used. In statistical vocabulary and notation, this would be represented as a p -value of less than 5% ($p < 0.05$).

Note, this “opinion about a policy prohibiting the sale of tobacco products near schools” survey question is described in detail in Table 12, and the 2015 Broome County rate of 61.2% *favoring* a policy prohibiting the sale of tobacco products near schools is not significantly different from the current regional average rate of 63.9%, this is not a large enough difference to be considered statistically significant, which is what is indicated by the (“Favor”, **not significantly different from the current regional average**) comment that is directly below the “*Regional Average Results for Comparison*” gray table for Table 12. In other words, 61.2% as a sample result, from a sample of $n=403$ random adults, is not extremely unlikely to occur when selected from a larger population for which the overall population rate is 63.9%.

Correlated Explanatory Variables – How does one decide if there is a “statistically significant” correlation?

Throughout this report, cross-tabulation comparisons for “relationships between collected variables” have been completed. The theory when completing these comparisons is similar to that which was described in the illustration above – the comparison of the Broome County “opinion about a policy prohibiting the sale of tobacco products near schools” rate to the current regional average. However, with investigations for *relationships between variables*, the focus becomes the identification of correlations *between* variables – is the result for some survey question different when looking at various subgroups (or, levels) of some other variable? Again, referring to the “opinion about a policy prohibiting the sale of tobacco products near schools” scenario, one could observe in Table 12 that the “Favor” rate *among males is 55.7% support a policy that would prohibit the sale tobacco in stores located near schools*, and compare this to the rate *among females (which is 66.5%)*. A very small difference between these within-subgroup rates (or, proportions) could be small enough to quite likely occur simply due to the random chance of sampling when the real population values for all males and all females in the county are equal – found to be not a statistically significant difference ($p > 0.05$). Conversely, a very large difference between these within-subgroup proportions could be large enough to be quite *unlikely* to occur simply due to the random chance of sampling when the real population values for all males and all females in the county are equal – found to be a statistically significant difference ($p < 0.05$).

How does one determine if the observed difference in rates (or, percentages) when comparing subgroups is large enough to be statistically significant, or so small that it is not statistically significant? Commonly a traditional Chi Square Test is used to answer the question posed above (the question: “Is support for a policy prohibiting the sale of tobacco products near schools significantly related to gender in Broome County ... i.e. males and females differ significantly in their

attitudes toward this tobacco sales issue), however, an alternative and more user-friendly and versatile statistical approach will be used throughout this study, rather than using Chi Square Tests.

The following few paragraphs will explain to the reader of this report in clear terminology, and with clear instructions, the “why?” and “how?” regarding the determination of which observed differences in rates (or, percentages) when comparing subgroups are large enough to be statistically significant.

Each correlational investigation in this report is presented in its own cross-tabulation table (i.e. an investigation for a relationship between “Age” and “Opinion about policy that would limit the number of stores that could sell tobacco in one’s community?” would be presented in its own table. As a result of approximately 25 outcome tobacco-related variables in this study, each cross-tabulated by all five of the potential explanatory variables of Gender, Age, Smoking Status, Education, and Household Income, and further compared to past results when possible, there are hundreds of cross-tabulation correlational investigation tables included in the following Detailed Statistical Results section of this report. This large number of cross-tabulation tables, combined with the variety of ways that the response distribution to many survey questions could be collapsed (very important limiting factor), suggests that an alternative, more versatile, approach to testing for significance in the cross-tabulation tables be utilized in place of the standard Chi Square Test. Therefore, rather than calculating and reporting the results for each of the hundreds of cross-tabulation tables included in this report, the following method is recommended.

When the reader wishes to determine whether or not an observed difference in a cross-tabulation table is statistically significant or not (i.e. “Does the 55.7% of the 198 sampled *males* in Broome County who favor a policy that would prohibit the sale of tobacco products near schools differ significantly from the 66.5% of the 205 sampled *females* in Broome County who expressed this belief?”), the method that has been recommended by the New York State Department of Health in its presentation of the 2009 Expanded Behavioral Risk Factor Surveillance System (BRFSS) results is also recommended for this 2015 Broome County study. The NYSDOH 2009 Expanded BRFSS (on page 12 of 151 in that report) cites the following:

“When the confidence intervals of two estimates of the same indicator from different areas (or, subgroups) do not overlap, they may be said to be statistically significantly different, i.e., these differences are unlikely related to chance and are considered true differences. If there is any value that is included in both intervals, the two estimates are not statistically significantly different.”

In other words, first the reader must identify the specific response choice of interest ... is one interested in only investigating “Do Not Allow At All”, or more interested in collapsing the two possible response choices “Do Not Allow At All” and “Restrict to Certain Areas” together ... or, does one want to only investigate “Strongly Favor”, or does one want to collapse “Strongly Favor” and “Somewhat Favor” together? Then, after observing the sample sizes at the bottom of the cross-tabulation tables, one may again refer to Table 6 in this study to identify the correct margins of error if estimating proportions (or, “percentages” or “rates”) for subgroups. With these margins of error, two separate confidence intervals may be constructed, one for each subgroup, and the overlap-vs.-non-overlap rule recommended above by the NYSDOH may be applied to determine whether or not the observed sample difference between demographic subgroups should be considered statistically significant.

Correlated Explanatory Variables – An example of determining if there is a “statistically significant” correlation?

To illustrate this BRFSS-recommended decision process with the potential relationship in Broome County between the “gender” and “attitude about a policy prohibiting the sale of tobacco products near schools” variables that has been described earlier. The percentages illustrated below are the rates of responding “*Favor*”.

For Males: n=198, p=55.7%, therefore from Table 6 the approximate margin of error is $\pm 6.9\%$
The resulting confidence interval is: 55.7% $\pm 6.9\%$, or **(48.8%,62.6%)**.

For Females: n=205, p=66.5%, therefore from Table 6 the approximate margin of error is $\pm 6.6\%$
The resulting confidence interval is: 66.5% $\pm 6.6\%$, or **(59.9%,73.1%)**.

Since these two confidence intervals do overlap, the difference between males and females is not considered statistically significant in Broome County. In other words, based upon the sample data collected in this survey, attitude about a policy that would prohibit the sale of tobacco products near schools is not significantly related to gender in Broome County – males and females do not differ significantly in their level of support for this type of policy. The 55.7% among males is not far enough away from (below) the 66.5% among females to be a statistically significant difference.

It should be noted that the method of determining statistical significance in this study (the NYSDOH/BRFSS-recommended method) is less powerful than other mathematical hypothesis testing methods available. In other words, the overlapping-confidence-intervals method is more susceptible to erring with a “false-negative”, rather than a “false-positive” ... a real difference that exists in the populations being compared (i.e. males vs. females) is more likely to not be detected when using the overlapping-confidence-intervals method than is the case when using the alternative mathematical hypothesis testing methods available. However, the overlapping-confidence-intervals method is very, very unlikely to generate a “false-positive” ... in other words; a difference that does not actually exist in the entire populations is very, very

unlikely to be identified as a statistically significant difference when the overlapping-confidence-intervals method is utilized. Any questions about statistical tests of significance, power of tests, margins of error, and any other analyses should be directed to the professional staff at *Joel LaLone Consulting*.

The above-described process is the appropriate process to use whenever comparing subgroups within the data set that has been collected and analyzed within this study. The level of precision that is provided in the margins of error that are presented in Table 6 is the level of precision that is necessary to validly test for a statistically significant difference between subgroups (or, alternatively described – “test for a statistically significant relationship with some potential explanatory variable”). However, at times the results in this report will (and should be) presented to an audience that has less technical/statistical background than the typical members of a tobacco control community partnership. In this instance, it could be beneficial to explain the margins of error that are appropriate to use for smaller subgroups of the entire sample that has been collected in more general (or, *approximate*) terms. Therefore, the following Table 7 is provided with sample sizes and resulting *approximate* margins of error for the common demographic subgroups that will be compared within Broome County throughout the remainder of this report. Again, caution should be used in not over-interpreting the approximate margins of error presented in Table 7; these reported margins of error are “average” margins of error, averaging across varying sample proportions that could conceivably be the actual sample proportion for any survey question at each selected sample size. Table 7 is provided for explanation to some audience, for example, of the “typical margin of error when investigating results for only males in Broome County.” Note that the margin of error results recorded in Table 7 were directly calculated using the mathematical formula shown on page 22.

Table 7 Sample Sizes and Approximate Margins of Error Within Demographic Subgroups of Broome County (weighted by gender, age, education, residence type, and phone ownership)

Sample Sizes (within commonly-compared demographic subgroups)

By Gender		By Age		By Education		By Income		By Cigarette Use	
Male	n=198	18-24	n=63	HSG or less	n=176	<\$25,000	n=99	Smoker	n=91
Female	n=205	25-34	n=58	Some College	n=122	\$25-\$50k	n=82	Non-smoker	n=312
		35-44	n=55	4+ YD	n=105	\$50-\$75k	n=76		
		45-54	n=75			\$75,000+	n=77		
		55-64	n=65						
		65+	n=85						

Margins of Error (approximate, average across all possible values of sample proportions)

By Gender		By Age		By Education		By Income		By Cigarette Use	
Male	±5.6%	18-24	±9.9%	HSG or less	±5.9%	<\$25,000	±7.9%	Smoker	±8.2%
Female	±5.5%	25-34	±10.3%	Some College	±7.1%	\$25-\$50k	±8.6%	Non-smoker	±4.4%
		35-44	±10.6%	4+ YD	±7.6%	\$50-\$75k	±9.0%		
		45-54	±9.0%			\$75,000+	±8.9%		
		55-64	±9.7%						
		65+	±8.5%						

Regional Comparisons – How does one decide if Broome County is “statistically significantly” different?

A table is provided for each survey question in this study that includes the summarized overall results for a group of nineteen county-specific studies in Central, Northern, and Western New York that were completed by tobacco community partnerships between December 2014 and December 2015 (each of the nineteen studies has been completed by *Joel LaLone Consulting*, using similar methodology to that which has been used in December 2015 in Broome County). These summarized results include the minimum, maximum, and average values found for each survey question among the nineteen studies. The research question that is being investigated in these comparisons is: “Is Broome County statistically significantly different from the typical current result for the 19-county upstate region regarding some tobacco-related attribute?” In this instance, the statistical approach that is used to determine if the difference between the observed sample percentage in Broome County and the overall regional average percentage is “statistically significant” necessitates the use of only one confidence interval. One must only use Table 6 once, with the appropriate sample percentage and sample size for Broome County, construct the appropriate confidence interval, and the decision is made as follows: if the constructed confidence interval *does* include the 19-county regional average result then Broome County is *not* statistically significantly different from the current regional average; conversely, if the constructed confidence interval *does not* include the 19-county regional average result then Broome County *is* statistically significantly different from the current 19-county regional average. Since there is only one of these comparison-to-regional-average analyses required for each survey question in the study, all comparisons for all survey questions have been calculated and reported for the reader throughout the Detailed Statistical Results section of this report. A comment is made below each regional comparison table that describes whether

or not any difference that can be observed between Broome County and the current 19-county regional average is statistically significant.

To illustrate a regional comparison, again consider the “attitude about a policy prohibiting the sale of tobacco products near schools” variable. Reference to Table 12 shows that:

In Broome County: $n=403$ participants, and $p=61.2\%$ respond with *favor*; therefore from Table 6 the approximate margin of error is $\pm 4.8\%$. The resulting confidence interval is: $61.2\% \pm 4.8\%$, or **(56.4%,66.0%)**.

Since this confidence interval does contain the estimated 19-county regional average of 63.9%, the difference between Broome County and the current regional average is not considered statistically significant. In other words, based upon the sample data collected in this survey, attitude in Broome County about a policy prohibiting the sale of tobacco products near schools is not significantly different from the current 19-county regional average attitude distribution – Broome County adults are no more or less likely to be *in favor* of a policy prohibiting the sale of tobacco products near schools than is the typical situation in upstate New York counties.

Trend Analysis – How does one decide if a county has “statistically significantly” changed over time?

Whenever possible in this report, comparisons are made between the current results and the results in earlier tobacco community assessment studies completed in Broome County. The research question that is being investigated in these comparisons is, “Has there been any statistically significant change in tobacco-related attributes among the adult residents in Broome County between 2006 and 2015?”

When interpreting the comparisons that have been provided, the reader should consider the following factors. *Joel LaLone Consulting* also completed the earlier Broome County studies. The earlier studies used telephone-interviewing methodology that was virtually identical to that which was utilized in the present December 2015 Broome County study, as well as similar post-stratification weighting procedures. However, the earlier survey instruments that were used are not exactly the same instrument that has been used in December 2015. Therefore, only the questions/items that were also measured in earlier studies are available for trend analysis to compare with the current results. With the similar methodologies and weighting procedures that have been applied, it is valid to make comparisons between the studies – observe changes or trends.

The same concept of statistical significance that was described in the preceding pages regarding “Correlational Analyses” is also applied when a researcher attempts to investigate whether or not results in Broome County have changed significantly over the past nine years; however, the focus now becomes the comparison of the 2015 Broome County result to the earlier Broome County results (rather than comparing males to females, for example, as was the case in the correlational analysis shown earlier), and the same *overlap-vs.-non-overlap* rule recommended by the NYSDOH may be applied to determine whether or not the observed sample difference between years should be considered statistically significant.

To illustrate a trend analysis, once more please consider the “attitude about a policy prohibiting the sale of tobacco products near schools” variable. Reference to Table 12 shows that:

In 2011: in Broome County: $n=406$ participants, and $p=56.1\%$ respond *favor*; therefore from Table 6 the approximate margin of error is $\pm 4.9\%$. The resulting confidence interval for 2011 is: $56.1\% \pm 4.9\%$, or **(51.2%,61.0%)**.

In 2015: in Broome County: $n=403$ participants, and $p=61.2\%$ respond *favor*; therefore from Table 6 the approximate margin of error is $\pm 4.8\%$. The resulting confidence interval for 2015 is: $61.2\% \pm 4.8\%$, or **(56.4%,66.0%)**.

Since these two confidence intervals do overlap, the difference between 2011 and 2015 in Broome County (the 4-year trend) is not considered statistically significant. In other words, based upon the sample data collected in this survey, attitude about a policy prohibiting the sale of tobacco products near schools in Broome County has not significantly changed between 2011 and 2015 – residents are now no more or less in favor of this type of policy than they were in 2011, which is what is indicated by the (“*Favor*”: **no significant trend between 2011-2015**) comment that is directly below the “*Trend Analysis of Results*” table for Table 12.

Finally, the preceding comments regarding statistically significant differences between subgroups, comparisons to the current regional average, and statistically significant differences or changes between study years, are comments addressing **statistical significance** ... which, of course, is not one-and-the-same as **practical significance**. The reader should be reminded that statistical significance with respect to sample differences found addresses the concept of *probability*, as follows – “is this difference likely to occur in a sample of size $n=403$ (or, in the case of subgroups, samples of less than 403, at times) if there is no difference in the entire sampled populations... could the result simply be due to chance?” However, practical significance is an interpretation that is left to the subject area expert, since practical significance addresses the concept of *usefulness*, as follows – “is this difference identified in the collected data useful in the

real world?” A *difference* identified in a sample (or, samples) may be statistically significant without being practically significant, however, a *difference* identified in a sample (or, samples) may *not* be practically significant without being statistically significant. To summarize, readers are warned not to over-interpret some practical significance or meaning for a difference in this study data that is mathematically deemed to be *not* statistically significant.

We now begin the presentation of the detailed quantitative results of the December 2015 Broome County Tobacco Study, including results for each of the following seven sets of survey questions:

1. **Rules About Smoking in Your Home and Vehicles**
2. **Tobacco Point of Sale**
3. **Tobacco Marketing – *Protecting Youth From Tobacco On Screen***
4. **Outdoor Tobacco Policies**
5. **Smoke-Free Housing**
6. **Tobacco Use**
7. **Electronic Cigarettes – *Attitudes and Prevalence of Use***

Section 3

Detailed Statistical Results

This section of the final report of study findings provides a detailed presentation of the results for each of the questions in the survey. There are seven separate sections of presentation of detailed statistical results to follow (3.1-3.7). Each section is comprised of an analysis of a set of related tobacco attitude and/or behavior questions. The survey questions included in this study and analyzed in this report have been organized into the following sections:

1. **Rules About Smoking in Your Home and Vehicles**
2. **Tobacco Point of Sale**
3. **Tobacco Marketing – Protecting Youth From Tobacco On Screen**
4. **Outdoor Tobacco Policies**
5. **Smoke-Free Housing**
6. **Tobacco Use**
7. **Electronic Cigarettes – Attitudes and Prevalence of Use**

The most detailed statistical results are presented within the next seven sections of this report on an *individual-question* basis. Whenever possible, the results for *each* of the approximately 25-30 individual tobacco-related survey questions are presented in this section of the report with the following organizational structure, each typically organized including the following four reporting components, as its own set of one-to-two pages of this report:

- (1) The **2015 Broome County survey results** are presented in a table for each survey question that was included in this study – including sample percentages, sample frequencies or counts, and the sample size (all weighted by gender, age, education level, residence type, and phone ownership). The benefit of this table is to provide current county-specific prevalence estimate data.
- (2) When possible, directly following the “Broome County December 2015 Results” tables, **a trend analysis for Broome County results over recent years** including an analysis of the current study results compared to the results from the previous Broome County tobacco studies is provided. These “comparison for a trend” tables are only possible when the same survey questions have been asked in earlier studies, as well as in the current 2015 study. If the question phrasing and/or possible response distribution (choices, or answers) have been altered between earlier studies and the 2015 study, to an extent that it is likely that the actual variable or phenomena being measured has changed in definition or description, then no trend table is presented. These trend analysis tables provide information for an analysis of changes over the past nine years – an opportunity to attempt to identify community member attitude and behavior change, and potentially identify TFBT impact. Statistically significant changes or trends, or lack of a change or trend, are highlighted throughout the report (directly below each trend table).

NOTE: the following notation has been adopted and used in each trend table:

↑ = “A statistically increase over the described time frame”

↓ = “A statistically decrease over the described time frame”

- (3) **Regional Comparative results are provided**, reporting the summarized outcomes for each survey question for a group of nineteen Central, Northern, and Western New York tobacco-related studies completed between December 2014 and December 2015. Each of these nineteen studies had adults as the target population, investigated tobacco-related issues, used telephone methodology, and used similar sample sizes. The summarized results include the minimum, maximum, and average result among the nineteen studied counties. The nineteen studied counties combined for an overall sample size of 8,408 interviewed upstate New York adult residents. The nineteen participating counties are Broome, Chemung, Cortland, Jefferson, Lewis, Monroe (twice), Madison, Onondaga, Ontario, Oswego, St. Lawrence, Schuyler, Seneca, Steuben, Tioga, Tompkins, Wayne, and Yates Counties. To ease the interpretation of regional comparison results (as well as to satisfy requirements of statistical tests of significance that are applied), responses to survey questions that have a multinomial response distribution have typically been collapsed. For example, a survey question with possible responses of: “Strongly Favor”, “Somewhat Favor”, “Neither”, “Somewhat Against”, “Strongly Against”, and “Don’t Know” would typically be collapsed to: “Favor” (Strongly + Somewhat) versus “Do Not Favor” before displaying regional comparison data and applying statistical tests of significance. These tables provide information for an analysis of the current relative magnitude of the result found in Broome County – is the rate in Broome County statistically significantly higher or lower than the typical rate in upstate New York? Statistical significance of comparative results, whether or not Broome County current results differ significantly from the current 19-county regional average, are highlighted throughout (again, directly below each regional comparison table).

NOTE: the following notation has been adopted and used in each regional comparison table:

↑ = “Statistically significantly *higher* than the current 19-county regional average”

↓ = “Statistically significantly *lower* than the current 19-county regional average”

- (4) Finally, the Broome County 2015 results for each of the survey questions are **cross-tabulated by each of the demographic factors of Gender, Age, Education Level, and Household Income Level, as well as by Cigarette Smoking Status** (this report includes hundreds of cross-tabulation tables of results). The results for these correlational investigations are provided in tables along with the “current”, “trend”, and “regional comparison” tables for each survey item. Note that at times, for survey questions that were only posed to smaller subgroups, such as those only posed for current cigarette smokers, or only posed for those participants who are currently employed, the sample sizes are not sufficiently large to complete valid tests of statistical significance with the cross-tabulation data – the resulting sample sizes within demographic subgroups are at times well less than 50 (minimum cell size required by NYSDOH standards). Readers are reminded that the method to determine which observed sample differences between subgroups (e.g. comparing males to females, or smokers to non-smokers, in Broome County) are *statistically significant* differences is explained in detail in the “Technical Comments” section earlier in this report, Section 2.4. The statistics reported in the correlative tables (the cross-tabulations by Cigarette Smoking, Gender, Age, Education, and Income) are percentages within the sampled subgroups. To determine the sample size for each subgroup – to avoid over-interpretation – the reader should refer to the bottom row in each cross-tabulation table. Again, findings should be considered with sample sizes in mind. Statistical tests of significance take into consideration these varying sample sizes.

3.0

“FRAMING A STATISTIC” – *Providing Perspective to Better Understand, Interpret, and Use Survey Data*

The rationale behind providing so many analyses (statistics) for every survey question included in this study (all of those statistical analyses that are illustrated earlier in Section 2.4 – Technical Comments) is that one never fully understands the information contained in a reported statistic without “framing” that statistic. Framing involves adding a more rich perspective to the value, or size, of some reported statistic. For example, when Broome County residents were asked the survey question: “What is your opinion about policy that would prohibit smoking on college campuses ... are you in favor or against this type of policy?”, the result in the current 2015 Broome County community study is that 44.6% of the participants responded with “Favor” (reported later in Table 22). So what does this 44.6% really mean? Often-times community-based researchers will describe the process of framing a statistic as completing as many as possible of the six following comparisons (frames) to better understand a reported statistic from a sample:

- **Within Response Scale Distribution**
(Is it a majority? 4:1 ratio? “Three times more likely to favor than to be against?)
- **Trend Across Time**
(Has it increased? Decreased?)
- **Compare to Regional Average**
(Compare to 19-county regional average? Compare to NYS statewide results?)
- **Compare to Target/Benchmark**
(Compare to the coalition’s workplan goal or target?)
- **Ranking/Relative Standing Among Similar Variables**
(Among many different similar locations or attributes that all use the same response scale, is this specific item ranked first? Last?)
- **Cross-tabulations by Potential Explanatory Variables**
(Smokers and non-smokers differ? Age-dependent? Gender-dependent? Education-dependent? Income-dependent?)

The design of this final study report of findings includes all of the various types of tables that are listed above (and explained in the preceding Technical Comments pages) precisely to allow community leaders to best frame the statistics included in this report, best understand the statistics included, and make best decisions in the future regarding how to use the statistics and utilize them in their tobacco-related decisions. As has been mentioned several times previously, if one has further questions about “framing a statistic” please contact the professional staff at *Joel LaLone Consulting*.

3.1

RULES ABOUT SMOKING IN YOUR HOME AND VEHICLES – DETAILED FINDINGS

Table 8

For tobacco products that are burned, such as cigarettes, cigars, pipes or hookah, which statement best describes the rules about smoking in your home? Would you say...

Broome County December 2015 Results:

	Frequency	Percentage
Not allowed anywhere inside your home	319	79.1%
Allowed in some places or at some times	47	11.7%
Allowed anywhere inside your home	31	7.7%
There are no rules about smoking in the home.	6	1.5%
Don't know	0	0.0%
Refused	0	0.0%
Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Not allowed at all”	79.1%	79.4%	79.6%
“Allowed sometimes”	6.9%	9.3%	11.7%
“Allowed anywhere”	7.7%	8.0%	8.3%

(“Not allowed at all”, not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Not allowed anywhere inside your home	79.7%	78.5%	88.5%	82.0%	84.3%	64.0%	83.1%	76.9%
Allowed in some places or at some times	9.6%	13.8%	11.5%	12.8%	11.9%	9.1%	8.8%	15.7%
Allowed anywhere inside your home	8.3%	7.1%	0.0%	5.3%	3.8%	21.4%	8.1%	5.0%
There are no rules about smoking in the home.	2.4%	0.6%	0.0%	0.0%	0.0%	5.5%	0.0%	2.3%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Refused	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level				Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+	
Not allowed anywhere inside your home	54.9%	86.1%	75.0%	77.1%	88.1%	60.0%	71.5%	88.9%	95.1%	
Allowed in some places or at some times	17.4%	10.1%	12.3%	11.7%	10.8%	18.7%	19.5%	9.5%	0.0%	
Allowed anywhere inside your home	26.7%	2.1%	10.3%	10.4%	0.2%	18.5%	8.1%	1.4%	4.7%	
There are no rules about smoking in the home.	1.1%	1.6%	2.4%	0.7%	1.0%	2.9%	0.8%	0.2%	0.2%	
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Refused	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Sample Size	91	312	176	122	105	99	82	76	77	

Table 9 Which statement best describes the rules about smoking in your car or cars? Would you say...

Broome County December 2015 Results:

	Frequency	Percentage
Never allowed in any car	305	75.6%
Allowed some times or in some cars	39	9.7%
Allowed in all cars	37	9.3%
Do not have a car	22	5.4%
Don't know	0	0.0%
Refused	0	0.0%
Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

Responses:	2006	2009	2015
Smoking is not allowed any cars	60.7%	63.0%	75.6%
Smoking is allowed in some times or in some cars	16.0%	16.3%	9.7%
Smoking is allowed in all cars	14.6%	9.6%	9.3%
Do not have a car	7.3%	10.1%	5.4%
Don't know	1.3%	1.0%	0.0%

(“Not allowed at all”: significant ↑ between 2006-2015)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
“Not allowed in any cars”	75.6%	79.2%	82.7%
“Allowed at some times or in some cars”	8.6%	9.2%	9.7%
“Allowed in all cars”	6.8%	8.1%	9.3%

(“Not allowed at all”, not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Never allowed in any car	73.4%	77.7%	60.6%	80.3%	88.2%	66.2%	79.4%	80.6%
Allowed some times or in some cars	10.5%	8.9%	20.1%	14.4%	4.5%	5.7%	8.0%	7.1%
Allowed in all cars	11.7%	7.0%	19.3%	5.3%	3.8%	12.4%	8.4%	6.0%
Do not have a car	4.4%	6.4%	0.0%	0.0%	3.4%	15.7%	4.2%	6.1%
Don't know	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Refused	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Never allowed in any car	35.7%	87.2%	63.1%	77.6%	94.1%	70.4%	77.7%	63.5%	94.1%
Allowed some times or in some cars	15.1%	8.1%	12.1%	10.5%	4.9%	2.7%	10.4%	21.0%	0.9%
Allowed in all cars	35.2%	1.7%	18.4%	3.6%	0.6%	8.1%	11.5%	15.2%	5.0%
Do not have a car	14.0%	2.9%	6.5%	8.3%	0.2%	18.8%	0.3%	0.0%	0.0%
Don't know	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%	0.0%
Refused	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	91	312	176	122	105	99	82	76	77

3.2

TOBACCO POINT OF SALE – DETAILED FINDINGS

Table 10

Opinion about policy that would prohibit the sale of tobacco products (such as cigarettes, cigars and chewing tobacco) in pharmacies?

Broome County December 2015 Results:

		Frequency	Percentage
Opinion about policy that would: Prohibit the sale of tobacco products (such as cigarettes, cigars and chewing tobacco) in pharmacies?	Favor	231	57.3%
	Against	118	29.3%
	Neither	46	11.3%
	Don't know	8	2.0%
	Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (Includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Favor”	57.3%	63.8%	71.8%
“Against”	16.3%	22.3%	29.3%

(“Favor”, significantly ↓ than the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	50.4%	64.1%	83.9%	57.2%	32.9%	58.5%	49.5%	58.7%
Against	33.2%	25.5%	16.1%	29.1%	54.1%	19.9%	30.4%	30.5%
Neither	15.2%	7.6%	0.0%	7.7%	13.1%	17.6%	19.3%	9.4%
Don't know	1.2%	2.8%	0.0%	6.0%	0.0%	4.0%	0.8%	1.5%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	33.6%	64.3%	53.7%	61.5%	58.5%	42.8%	53.8%	57.5%	77.1%
Against	46.7%	24.2%	37.2%	24.2%	22.0%	32.3%	34.2%	35.4%	10.5%
Neither	18.0%	9.4%	7.0%	11.3%	18.6%	22.4%	7.5%	6.2%	11.4%
Don't know	1.7%	2.2%	2.0%	3.0%	0.9%	2.4%	4.5%	0.9%	1.1%
Sample Size	91	312	176	122	105	99	82	76	77

Table 11

Opinion about policy that would prohibit the display of tobacco products such as packs of cigarettes or cigars from stores?

Broome County December 2015 Results:

Opinion about policy that would: Prohibit the display of tobacco products such as packs of cigarettes or cigars from stores?	Favor	Frequency	Percentage
		Against	223
Neither	128	31.9%	
Don't know	47	11.8%	
Totals	5	1.1%	
		403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

Responses:	2011	2013	2015
Favor	46.2%	50.3%	55.2%
Against	31.5%	34.8%	31.9%
Neither	20.3%	13.1%	11.8%
Not sure	2.0%	1.8%	1.1%

("Favor": significant ↑ between 2011-2015)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(Includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
"Favor"	55.2%	56.0%	56.7%
"Against"	28.8%	30.4%	31.9%

("Favor", not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	45.8%	64.3%	56.3%	60.7%	53.6%	49.2%	59.1%	54.2%
Against	36.8%	27.1%	36.3%	34.2%	32.4%	30.0%	24.1%	34.3%
Neither	16.3%	7.3%	7.4%	5.0%	14.0%	18.3%	15.3%	9.6%
Don't know	1.0%	1.2%	0.0%	0.0%	0.0%	2.6%	1.5%	1.9%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	33.0%	61.7%	45.3%	68.5%	56.5%	45.1%	66.7%	59.2%	65.7%
Against	47.7%	27.3%	44.8%	20.1%	23.9%	32.1%	23.9%	35.0%	19.4%
Neither	16.7%	10.3%	7.8%	11.2%	19.0%	20.4%	8.6%	5.2%	14.3%
Don't know	2.6%	0.7%	2.1%	0.2%	0.6%	2.4%	0.7%	0.7%	0.6%
Sample Size	91	312	176	122	105	99	82	76	77

Table 12

Opinion about policy that would prohibit the sale of tobacco products in stores that are located near schools?

Broome County December 2015 Results:

	Frequency	Percentage
Favor	247	61.2%
Against	119	29.6%
Neither	27	6.7%
Don't know	10	2.5%
Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

Responses:	2011	2013	2015
Favor	56.1%	57.0%	61.2%
Against	29.3%	34.7%	29.6%
Neither	11.4%	7.5%	6.7%
Not sure	3.2%	0.7%	2.5%

("Favor": no significant trend between 2011-2015)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(Includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
"Favor"	52.8%	63.9%	74.1%
"Against"	18.8%	26.6%	37.7%

("Favor", not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	55.7%	66.5%	76.4%	71.3%	36.1%	52.4%	60.9%	67.4%
Against	34.9%	24.5%	23.6%	22.7%	46.3%	29.8%	31.4%	26.3%
Neither	6.8%	6.7%	0.0%	0.0%	9.1%	17.2%	6.9%	5.3%
Don't know	2.6%	2.3%	0.0%	6.0%	8.5%	0.6%	0.8%	1.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	49.7%	64.6%	56.8%	66.7%	62.2%	51.6%	58.5%	63.6%	76.2%
Against	30.7%	29.3%	38.0%	14.7%	32.8%	33.0%	27.0%	28.3%	22.5%
Neither	14.5%	4.5%	4.5%	11.8%	4.6%	14.6%	4.5%	8.0%	0.6%
Don't know	5.1%	1.7%	0.8%	6.7%	0.4%	0.9%	9.9%	0.0%	0.6%
Sample Size	91	312	176	122	105	99	82	76	77

Table 13

Opinion about policy that would limit the number of stores that could sell tobacco in your community?

Broome County December 2015 Results:

		Frequency	Percentage
Opinion about policy that would: Limit the number of stores that could sell tobacco in your community?	Favor	187	46.6%
	Against	168	41.8%
	Neither	39	9.7%
	Don't know	8	2.0%
	Totals	402	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

Responses:	2011	2015
Favor	51.1%	46.6%
Against	41.3%	41.8%
Neither	15.3%	9.7%
Not sure	2.3%	2.0%

("Favor": no significant trend between 2011-2015)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(Includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
"Favor"	41.1%	49.7%	63.3%
"Against"	31.9%	40.4%	49.5%

("Favor", not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	37.9%	54.9%	56.3%	56.7%	24.8%	45.2%	43.4%	50.1%
Against	53.3%	30.5%	36.3%	26.0%	64.0%	49.8%	47.0%	31.2%
Neither	5.8%	13.5%	0.0%	17.3%	11.2%	4.5%	8.1%	16.4%
Don't know	3.0%	1.0%	7.4%	0.0%	0.0%	0.6%	1.4%	2.4%
Sample Size	198	204	63	58	55	74	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	22.8%	53.4%	46.4%	47.4%	45.9%	33.8%	50.0%	51.8%	47.1%
Against	59.0%	36.8%	43.2%	41.6%	39.6%	49.6%	36.3%	44.3%	43.4%
Neither	17.8%	7.3%	8.9%	11.1%	9.3%	15.8%	12.5%	3.9%	2.8%
Don't know	0.4%	2.5%	1.5%	0.0%	5.2%	0.9%	1.2%	0.0%	6.7%
Sample Size	90	312	175	122	105	98	82	76	77

Table 14

Opinion about policy that would prevent retailers from accepting coupons that reduce the price of cigarettes?

Broome County December 2015 Results:

		Frequency	Percentage
Opinion about policy that would: Prevent retailers from accepting coupons that reduce the price of cigarettes?	Favor	201	50.0%
	Against	158	39.1%
	Neither	40	9.9%
	Don't know	4	0.9%
	Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison: (coupons+discounts)

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (Includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Favor”	30.8%	49.4%	62.3%
“Against”	27.2%	39.6%	59.1%

(“Favor”, not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	42.3%	57.4%	61.5%	54.8%	36.0%	48.6%	45.7%	51.8%
Against	47.6%	30.9%	38.5%	32.0%	54.5%	32.6%	43.7%	36.7%
Neither	9.7%	10.2%	0.0%	13.2%	9.5%	18.2%	8.9%	8.9%
Don't know	0.3%	1.5%	0.0%	0.0%	0.0%	0.6%	1.7%	2.7%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	20.6%	58.5%	45.5%	50.4%	56.9%	36.3%	49.1%	52.8%	69.4%
Against	64.8%	31.6%	48.5%	36.3%	26.7%	44.1%	40.5%	37.7%	23.4%
Neither	13.8%	8.8%	4.7%	12.9%	15.4%	18.3%	9.1%	9.2%	6.6%
Don't know	0.7%	1.0%	1.3%	0.3%	1.0%	1.3%	1.3%	0.3%	0.6%
Sample Size	91	312	176	122	105	99	82	76	77

Table 15

Opinion about policy that would prevent retailers from offering multi-pack discounts on cigarettes, such as 2 packs for the price of 1?

Broome County December 2015 Results:

Opinion about policy that would prevent retailers from offering multi-pack discounts on cigarettes, such as 2 packs for the price of 1?		Frequency	Percentage
		Favor	200
Against	153	38.4%	
Neither	42	10.5%	
Don't know	4	0.9%	
Totals	398	100.0%	

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison: (coupons+discounts)

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (Includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Favor”	30.8%	49.4%	62.3%
“Against”	27.2%	39.6%	59.1%

(“Favor”, not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	43.2%	56.7%	65.8%	54.8%	32.5%	46.7%	46.2%	53.7%
Against	46.7%	30.5%	34.2%	32.0%	54.5%	34.6%	42.4%	35.5%
Neither	9.8%	11.2%	0.0%	13.2%	12.9%	18.2%	8.9%	9.0%
Don't know	0.3%	1.5%	0.0%	0.0%	0.0%	0.6%	2.5%	1.8%
Sample Size	194	205	59	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	16.7%	60.0%	44.9%	52.0%	56.9%	36.3%	49.1%	52.8%	70.9%
Against	66.7%	30.0%	47.9%	34.3%	27.1%	42.0%	40.8%	37.4%	21.7%
Neither	15.9%	9.0%	5.8%	13.3%	15.4%	20.3%	9.1%	9.4%	6.7%
Don't know	0.7%	1.0%	1.4%	0.4%	0.6%	1.4%	1.1%	0.3%	0.7%
Sample Size	91	308	175	118	105	99	82	76	73

Table 16

How much effect do you think seeing tobacco products displayed and advertised in retail stores has on whether or not a child becomes a smoker?

Broome County December 2015 Results:

		Frequency	Percentage
How much effect do you think seeing tobacco products displayed and advertised in retail stores has on whether or not a child becomes a smoker?	Much more likely	59	14.6%
	Somewhat more likely	174	43.2%
	No effect	157	38.8%
	Don't know	14	3.4%
	Refused	0	0.0%
	Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):
(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
“Much more likely”	14.6%	21.3%	25.5%
“Somewhat more likely”	33.7%	41.5%	47.7%
“No effect”	22.1%	32.9%	38.8%

(“No effect”, significantly ↑ than the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Much more likely	11.4%	17.6%	1.8%	12.2%	6.9%	19.7%	18.1%	23.2%
Somewhat more likely	45.9%	40.6%	66.5%	60.1%	51.1%	31.1%	31.1%	29.6%
No effect	41.1%	36.7%	31.7%	26.6%	42.0%	47.9%	47.7%	35.5%
Don't know	1.6%	5.1%	0.0%	1.1%	0.0%	1.3%	3.1%	11.6%
Refused	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Much more likely	8.5%	16.3%	16.3%	16.7%	9.2%	16.9%	21.6%	10.8%	9.2%
Somewhat more likely	46.8%	42.2%	28.2%	58.5%	50.6%	33.7%	43.1%	55.0%	54.9%
No effect	40.2%	38.4%	50.9%	22.6%	37.5%	46.5%	34.3%	31.8%	34.4%
Don't know	4.4%	3.1%	4.6%	2.3%	2.7%	2.9%	1.0%	2.5%	1.5%
Refused	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	91	312	176	122	105	99	82	76	77

Table 17

Opinion about a policy that would require people to be 21 years old before they could purchase cigarettes and other tobacco products?

Broome County December 2015 Results:

		Frequency	Percentage
Opinion about policy that would: Require people to be 21 years old before they could purchase cigarettes and other tobacco products?	Favor	206	51.1%
	Against	177	44.0%
	Neither	13	3.2%
	Don't know	7	1.7%
	Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (Includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Favor”	51.1%	53.6%	56.0%
“Against”	36.3%	40.2%	44.0%

(“Favor”, not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	48.9%	53.4%	41.4%	39.7%	31.7%	67.1%	60.7%	57.3%
Against	48.7%	39.4%	58.6%	56.3%	63.1%	31.4%	33.3%	31.9%
Neither	2.4%	3.9%	0.0%	4.0%	3.5%	1.5%	5.1%	4.9%
Don't know	0.0%	3.3%	0.0%	0.0%	1.8%	0.0%	0.9%	6.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	44.7%	53.0%	50.6%	50.9%	52.3%	59.5%	54.2%	40.9%	50.2%
Against	44.7%	43.8%	43.4%	45.9%	42.9%	37.8%	36.8%	58.6%	46.7%
Neither	5.5%	2.5%	3.1%	3.2%	3.3%	2.2%	7.7%	0.3%	1.8%
Don't know	5.1%	0.7%	2.9%	0.0%	1.5%	0.5%	1.3%	0.3%	1.3%
Sample Size	91	312	176	122	105	99	82	76	77

3.3

TOBACCO MARKETING – DETAILED FINDINGS –

Protecting Youth from Tobacco on Screen

Table 18

“Internet sites that are intended for youth should not include tobacco use or images.”

Broome County December 2015 Results:

	Frequency	Percentage
Agree	340	84.4%
Disagree	34	8.4%
Neither	29	7.2%
Don't know	0	0.0%
Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (Includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Agree”	78.7%	85.0%	93.7%
“Disagree”	3.8%	8.8%	12.1%

(“Agree”, not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine *statistically significant* relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Agree	83.0%	85.7%	91.6%	92.4%	74.9%	80.1%	91.5%	77.9%
Disagree	8.1%	8.8%	8.4%	4.7%	0.0%	14.9%	5.4%	13.2%
Neither	8.9%	5.5%	0.0%	2.9%	25.1%	5.0%	3.1%	8.8%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Agree	74.8%	87.2%	80.7%	82.6%	92.7%	78.5%	86.7%	90.3%	81.4%
Disagree	9.4%	8.2%	13.3%	6.8%	2.3%	16.5%	1.9%	4.9%	12.2%
Neither	15.9%	4.6%	6.1%	10.6%	5.0%	5.0%	11.4%	4.8%	6.3%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	91	312	176	122	105	99	82	76	77

Table 19

“Social media that are intended for youth should not include tobacco use or images.”

Broome County December 2015 Results:

	Frequency	Percentage
Agree	341	84.6%
Disagree	33	8.2%
Neither	29	7.1%
Don't know	0	0.0%
Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (Includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Agree”	82.4%	85.5%	91.7%
“Disagree”	5.1%	9.8%	13.3%

(“Agree”, not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine *statistically significant* relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Agree	84.6%	84.6%	89.4%	93.4%	72.9%	86.1%	90.0%	77.2%
Disagree	6.5%	9.9%	10.6%	3.7%	3.4%	8.9%	6.9%	13.3%
Neither	8.8%	5.5%	0.0%	2.9%	23.7%	5.0%	3.1%	9.5%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Agree	78.3%	86.5%	83.5%	79.8%	92.1%	78.8%	84.1%	91.8%	83.5%
Disagree	5.8%	8.9%	10.3%	9.9%	2.9%	16.5%	4.6%	4.2%	10.0%
Neither	15.9%	4.6%	6.3%	10.3%	5.0%	4.8%	11.3%	4.0%	6.5%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	91	312	176	122	105	99	82	76	77

Table 20

“Movies that are intended for youth should not include tobacco use or images.”

Broome County December 2015 Results:

	Frequency	Percentage
Agree	332	82.4%
Disagree	43	10.6%
Neither	29	7.1%
Don't know	0	0.0%
Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (Includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Agree”	81.2%	82.5%	84.9%
“Disagree”	10.6%	12.8%	14.7%

(“Agree”, not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine *statistically significant* relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Agree	82.1%	82.6%	91.6%	88.3%	81.3%	79.0%	85.3%	72.9%
Disagree	10.0%	11.1%	8.4%	3.7%	6.9%	12.7%	10.6%	17.3%
Neither	7.9%	6.3%	0.0%	8.0%	11.8%	8.3%	4.1%	9.8%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Agree	74.4%	84.7%	77.9%	83.4%	88.6%	71.1%	80.9%	86.5%	91.7%
Disagree	8.9%	11.0%	14.2%	9.5%	5.8%	20.1%	3.9%	13.2%	7.0%
Neither	16.7%	4.3%	7.9%	7.2%	5.6%	8.8%	15.2%	0.3%	1.3%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	91	312	176	122	105	99	82	76	77

Table 21

“TV shows that are intended for youth should not include tobacco use or images.”

Broome County December 2015 Results:

	Frequency	Percentage
Agree	338	83.8%
Disagree	41	10.1%
Neither	25	6.1%
Don't know	0	0.0%
Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (Includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Agree”	81.6%	82.7%	83.8%
“Disagree”	10.1%	11.0%	11.9%

(“Agree”, not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine *statistically significant* relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Agree	85.6%	82.1%	98.2%	88.3%	81.3%	84.2%	84.1%	71.4%
Disagree	9.0%	11.0%	1.8%	7.7%	6.9%	11.8%	11.8%	17.0%
Neither	5.4%	6.8%	0.0%	4.0%	11.8%	4.1%	4.1%	11.7%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Agree	74.8%	86.5%	79.7%	86.4%	87.8%	73.9%	80.5%	85.4%	96.7%
Disagree	8.5%	10.5%	14.0%	6.1%	8.0%	20.2%	7.1%	13.2%	2.0%
Neither	16.7%	3.0%	6.3%	7.5%	4.2%	5.9%	12.4%	1.3%	1.3%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	91	312	176	122	105	99	82	76	77

3.4

OUTDOOR TOBACCO POLICIES – DETAILED FINDINGS

Table 22 Opinion about policy that would prohibit smoking: on a college campus?

Broome County December 2015 Results:

	Frequency	Percentage
Favor	179	44.6%
Against	176	43.7%
Neither	38	9.6%
Don't know	9	2.2%
Totals	402	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(Includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
“Favor”	44.6%	54.0%	63.3%
“Against”	29.3%	36.5%	45.7%

(“Favor”, significantly ↓ than the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine *statistically significant* relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	38.0%	51.0%	62.9%	49.3%	24.5%	34.0%	43.0%	51.6%
Against	51.8%	35.8%	27.9%	38.3%	72.2%	54.1%	38.7%	35.1%
Neither	10.0%	9.2%	9.2%	12.4%	3.3%	10.0%	16.5%	6.2%
Don't know	0.2%	4.0%	0.0%	0.0%	0.0%	1.9%	1.7%	7.2%
Sample Size	197	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	15.8%	53.0%	42.6%	58.3%	32.2%	32.9%	46.1%	52.5%	53.9%
Against	70.3%	35.9%	46.9%	34.2%	49.3%	60.5%	44.6%	38.9%	26.5%
Neither	7.9%	10.1%	6.7%	6.9%	17.4%	5.6%	7.4%	8.3%	19.6%
Don't know	6.1%	1.0%	3.9%	0.6%	1.0%	1.1%	1.9%	0.3%	0.0%
Sample Size	91	311	175	122	105	98	82	76	77

Table 23

Opinion about policy that would prohibit smoking: at public outdoor community events such as a fair, festival, or sporting event?

Broome County December 2015 Results:

		Frequency	Percentage
Opinion about policy that would prohibit smoking: at public outdoor community events such as a fair, festival, or sporting event?	Favor	234	58.3%
	Against	138	34.4%
	Neither	24	5.9%
	Don't know	5	1.4%
	Totals	402	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
“Favor”	58.3%	65.2%	73.0%
“Against”	18.6%	27.0%	34.4%

(“Favor”, significantly ↓ than the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	56.0%	60.5%	73.7%	62.0%	61.1%	46.2%	53.0%	57.3%
Against	39.9%	29.1%	24.5%	31.0%	27.0%	48.8%	38.5%	33.1%
Neither	4.0%	7.8%	1.8%	7.1%	11.9%	4.3%	8.6%	3.8%
Don't know	0.2%	2.5%	0.0%	0.0%	0.0%	0.7%	0.0%	5.9%
Sample Size	197	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	28.2%	67.1%	53.3%	58.9%	65.9%	36.9%	60.2%	52.0%	75.2%
Against	54.3%	28.6%	38.9%	32.7%	28.9%	53.5%	32.7%	39.6%	23.5%
Neither	12.6%	4.0%	5.0%	8.1%	5.0%	9.2%	6.4%	8.4%	1.3%
Don't know	4.8%	0.4%	2.7%	0.4%	0.2%	0.4%	0.7%	0.0%	0.0%
Sample Size	91	311	175	122	105	98	82	76	77

3.5 SMOKE-FREE HOUSING – DETAILED FINDINGS

Table 24

Which statement best describes the rules that your landlord has set regarding smoking tobacco inside the residential units in your building?

Broome County December 2015 Results:

		Frequency	Percentage
Rules inside your rental residential unit.	Allowed in all residential units	45	35.2%
	Allowed in some residential units	22	17.1%
	Not allowed in any residential units	46	36.0%
	Don't know/Not sure	15	11.7%
	Totals	129	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

Responses:	2006	2009	2011	2013	2015
Allowed in all residential units	67.6%	69.8%	48.8%	31.4%	35.2%
Allowed in some residential units		4.7%	4.5%	5.5%	17.1%
Not allowed in any residential units	30.8%	18.5%	31.8%	51.7%	36.0%
Don't know/Not sure	1.6%	6.9%	14.9%	11.4%	11.7%

(“Allowed in all units”: significant ↓ between 2009-2015)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(Includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
“Allowed in all residential units”	6.7%	28.2%	46.6%
“Allowed in some residential units”	2.4%	17.9%	38.4%
“Not allowed in any residential units”	16.9%	41.7%	89.2%

(“Allowed in all units”, Broome County levels significantly ↑ the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Allowed in all residential units	34.9%	35.6%	0.0%	100.0%	37.5%	35.4%	51.6%	29.9%
Allowed in some residential units	13.3%	23.1%	0.0%	0.0%	20.8%	13.1%	31.5%	17.9%
Not allowed in any residential units	32.6%	41.3%	68.4%	0.0%	0.0%	51.5%	12.0%	52.2%
Don't know/Not sure	19.3%	0.0%	31.6%	0.0%	41.7%	0.0%	4.9%	0.0%
Sample Size	79	50	15	4	22	31	23	34

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Allowed in all residential units	58.5%	21.9%	35.5%	39.1%	30.2%	42.8%	17.9%	0.0%	21.1%
Allowed in some residential units	6.6%	23.1%	16.7%	17.9%	17.2%	12.0%	19.8%	6.7%	51.7%
Not allowed in any residential units	24.9%	42.3%	47.9%	14.7%	33.4%	45.2%	23.4%	93.3%	0.0%
Don't know/Not sure	10.0%	12.8%	0.0%	28.3%	19.2%	0.0%	38.9%	0.0%	27.3%
Sample Size	47	82	66	33	30	57	27	15	17

Table 25

Opinion about policies that prohibit smoking in... apartment buildings, condominiums, and other multi-unit complexes, including indoor areas, private balconies and patios?

Broome County December 2015 Results:

		Frequency	Percentage
Opinion about policies that prohibit smoking in... apartment buildings, condominiums, and other multi-unit complexes, including indoor areas, private balconies and patios.?	Favor	58	44.7%
	Against	63	48.9%
	Neither	8	6.5%
	Don't know	0	0.0%
	Totals	129	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

Responses:	2006	2009	2011	2013	2015
Favor	39.9%	52.4%	70.6%	51.3%	44.7%
Against	48.5%	41.4%	27.6%	37.2%	48.9%
Neither	0.0%	0.0%	0.0%	0.0%	6.5%
Don't know	11.6%	6.2%	1.8%	11.4%	0.0%

(Survey question wording altered dramatically between 2013 and 2015)

Regional Average Results for Comparison: (phrasing?)

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Favor”	38.6%	62.3%	84.8%
“Against”	7.6%	29.6%	56.8%

(“Favor”, significantly ↓ than the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	33.5%	62.1%	68.4%	100.0%	0.0%	31.7%	38.9%	73.3%
Against	58.8%	33.5%	31.6%	0.0%	100.0%	48.5%	61.1%	20.1%
Neither	7.8%	4.4%	0.0%	0.0%	0.0%	19.8%	0.0%	6.6%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	79	50	15	4	22	31	23	34

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	33.8%	50.9%	54.4%	26.4%	43.5%	48.7%	41.4%	82.9%	24.4%
Against	66.2%	39.0%	42.2%	73.6%	36.4%	40.6%	50.4%	17.1%	75.6%
Neither	0.0%	10.1%	3.4%	0.0%	20.1%	10.6%	8.2%	0.0%	0.0%
Don't know	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	47	82	66	33	30	57	27	15	17

3.6

TOBACCO USE – DETAILED FINDINGS

Table 26 Have you smoked at least 100 cigarettes in your entire life?

Broome County December 2015 Results:

		Frequency	Percentage
Smoked 100+ cigarettes in your entire life?	Yes	200	49.5%
	No	203	50.5%
	Don't know/Not sure	0	0.0%
	Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

Responses:	2006	2009	2011	2013	2015
Yes	42.8%	47.5%	45.0%	44.6%	49.5%
No	57.2%	52.5%	55.0%	55.4%	50.5%
Don't know/Not sure	0.0%	0.0%	0.0%	0.0%	0.0%

("Yes, 100+": no significant trend between 2008-2015)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (includes only those counties that used this question in their version of the survey) "Yes, 100+"	Minimum in Any County	Regional Average	Maximum in Any County
	26.5%	43.6%	52.5%

("Yes, 100+", significantly ↑ than the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Yes	54.9%	44.4%	27.7%	41.3%	48.5%	52.5%	62.7%	59.2%
No	45.1%	55.6%	72.3%	58.7%	51.5%	47.5%	37.3%	40.8%
Don't know/Not sure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Yes	100.0%	34.8%	60.4%	51.3%	29.4%	62.3%	47.8%	48.5%	41.2%
No	0.0%	65.2%	39.6%	48.7%	70.6%	37.7%	52.2%	51.5%	58.8%
Don't know/Not sure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	91	312	176	122	105	99	82	76	77

Table 27 Current Cigarette Use – Every Day, Some days, Not at All?

Broome County December 2015 Results:

		Frequency	Percentage
Current cigarette smoking frequency	Smoke Every Day	69	17.0%
	Smoke Some Days	22	5.5%
	Do Not Smoke At All	312	77.4%
	Don't Know/Not Sure	0	0.0%
	Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

Responses:	2006	2009	2011	2013	2015
Smoke every day	22.2%	21.4%	11.7%	16.3%	17.0%
Smoke some days	2.7%	3.6%	4.7%	6.3%	5.5%
Do not smoke at all	75.1%	75.0%	83.6%	77.4%	77.4%
Don't know/Not sure	0.0%	0.0%	0.0%	0.0%	0.0%

("Every day": no significant trend between 2006-2015)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
"Every day"	7.5%	13.4%	22.4%
"Some days"	2.2%	4.7%	8.9%

("Every day", significantly ↑ than the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Smoke Every Day	17.3%	16.8%	16.1%	25.6%	13.5%	22.5%	12.2%	13.0%
Smoke Some Days	8.6%	2.6%	3.2%	1.4%	23.7%	5.1%	1.3%	2.1%
Do Not Smoke At All	74.1%	80.6%	80.7%	73.1%	62.8%	72.4%	86.5%	84.9%
Don't Know/Not Sure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Smoke Every Day	75.5%	0.0%	23.5%	21.1%	1.5%	21.4%	18.3%	24.5%	4.7%
Smoke Some Days	24.5%	0.0%	7.8%	5.7%	1.5%	1.6%	10.5%	1.6%	2.4%
Do Not Smoke At All	0.0%	100.0%	68.7%	73.2%	97.0%	77.0%	71.2%	73.9%	92.9%
Don't Know/Not Sure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	91	312	176	122	105	99	82	76	77

Table 28 Cigarette Use Status – Current, Former, Never Smokers?

Broome County December 2015 Results:

		Frequency	Percentage
Cigarette Smoking Status	Current smoker	91	22.6%
	Former smoker	109	27.0%
	Never a smoker	203	50.5%
	Don't know/Not sure	0	0.0%
	Totals	403	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

Responses:	2006	2009	2011	2013	2015
Current smoker	24.9%	25.0%	16.4%	22.6%	22.6%
Former smoker	17.9%	22.5%	28.6%	22.0%	27.0%
Never a smoker	57.2%	52.5%	55.0%	55.4%	50.5%
Don't know/Not sure	0.0%	0.0%	0.0%	0.0%	0.0%

(“Current”: no significant trend between 2006-2015)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
“Current smoker”	9.8%	18.1%	24.6%
“Former smoker”	16.6%	25.4%	30.8%

(“Current”, significantly ↑ than the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Current smoker	25.9%	19.4%	19.3%	26.9%	37.2%	27.6%	13.5%	15.1%
Former smoker	29.0%	25.0%	8.4%	14.4%	11.3%	24.9%	49.2%	44.0%
Never a smoker	45.1%	55.6%	72.3%	58.7%	51.5%	47.5%	37.3%	40.8%
Don't know/Not sure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Current smoker	100.0%	0.0%	31.3%	26.8%	3.0%	23.0%	28.8%	26.1%	7.1%
Former smoker	0.0%	34.8%	29.1%	24.4%	26.4%	39.4%	19.0%	22.4%	34.2%
Never a smoker	0.0%	65.2%	39.6%	48.7%	70.6%	37.7%	52.2%	51.5%	58.8%
Don't know/Not sure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	91	312	176	122	105	99	82	76	77

Table 29

Do you now use cigars, cigarillos, or little cigars every day, some days, rarely, or not at all?

Broome County December 2015 Results:

	Frequency	Percentage
Every Day	1	0.2%
Some Days	1	0.2%
Rarely	22	5.4%
Not At All	380	94.2%
Don't Know/Not Sure	0	0.0%
Totals	403	100.0%

(5.8% "At least rarely")

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
"At least rarely" (E+S+R)	5.8%	8.2%	10.4%

("E+S+R", not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine *statistically significant* relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Every Day	0.4%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%
Some Days	0.2%	0.2%	0.0%	0.0%	0.0%	0.5%	0.0%	0.5%
Rarely	8.7%	2.2%	8.4%	15.4%	8.5%	2.0%	1.1%	0.6%
Not At All	90.7%	97.6%	91.6%	84.6%	91.5%	96.5%	98.9%	98.9%
Don't Know/Not Sure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Every Day	0.8%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%
Some Days	0.0%	0.3%	0.3%	0.3%	0.0%	0.0%	0.5%	0.0%	0.0%
Rarely	8.7%	4.4%	1.6%	8.9%	7.7%	6.5%	8.5%	2.1%	7.1%
Not At All	90.5%	95.3%	97.8%	90.7%	92.3%	93.5%	91.0%	97.0%	92.9%
Don't Know/Not Sure	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Sample Size	91	312	176	122	105	99	82	76	77

3.7

ELECTRONIC CIGARETTES – DETAILED FINDINGS –

Attitudes and Prevalence of Use

Table 30

The next few questions are about electronic cigarettes, also known as e-cigarettes, e-cigs, vape pens, hookah pens, e-hookahs, or personal vaporizers. These devices are battery-operated and may look like real cigarettes. They contain nicotine cartridges with varying flavors such as mint, fruit, or candy.
Which of the following best describes your use of e-cigarettes?

Broome County December 2015 Results:

	Frequency	Percentage
Every Day	10	2.5%
Some Days	11	2.6%
Rarely	11	2.6%
Used in the Past	55	13.6%
Never Used	316	78.3%
Don't know	1	0.3%
Totals	403	100.0%

(7.7% "Use now at least rarely")

Trend Analysis of Results – Broome County (when a trend is possible):

Responses:	2013	2015
Every day	0.0%	2.5%
Some days	0.1%	2.6%
Rarely	3.7%	2.6%
Used in the past	96.0%	13.6%
Never used	0.2%	78.3%
Don't know	0.2%	0.3%

("Use now at least rarely", significant ↑ between 2013-2015)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
"Use now, daily."	1.5%	2.0%	2.5%
"Use now, at least rarely." (D+S+R)	7.7%	7.7%	7.7%
"Used in past, but now now."	10.4%	12.0%	13.6%
"Never, used."	78.3%	80.0%	81.6%

("Use now at least rarely", not significantly different from the current regional average)

Table 30
(cont.)

Which of the following best describes your use of e-cigarettes?

Cross-tabulations – Broome County (using only December 2015 data):

(to determine *statistically significant* relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Every Day	3.8%	1.2%	11.8%	0.0%	0.0%	0.0%	3.1%	0.7%
Some Days	1.0%	4.2%	3.2%	0.0%	0.0%	0.0%	0.0%	10.0%
Rarely	4.4%	0.9%	8.4%	2.3%	3.1%	2.4%	0.5%	0.0%
Used in the Past	20.1%	7.3%	24.9%	20.8%	16.5%	9.5%	11.0%	3.9%
Never Used	70.5%	85.9%	51.7%	76.8%	80.4%	88.1%	84.4%	84.5%
Don't know	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.9%	0.8%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Every Day	1.9%	2.7%	4.5%	1.7%	0.2%	0.0%	2.5%	0.8%	9.7%
Some Days	2.2%	2.8%	6.0%	0.0%	0.0%	8.2%	3.0%	0.0%	0.0%
Rarely	3.5%	2.3%	0.8%	6.5%	1.1%	2.5%	1.6%	2.2%	5.4%
Used in the Past	41.1%	5.5%	20.6%	9.9%	6.2%	9.7%	11.3%	25.4%	10.3%
Never Used	50.6%	86.5%	67.6%	81.9%	92.2%	79.1%	80.8%	71.4%	74.5%
Don't know	0.7%	0.2%	0.6%	0.0%	0.3%	0.4%	0.8%	0.2%	0.2%
Sample Size	91	312	176	122	105	99	82	76	77

Table 31

Opinion about a policy that bans the use of electronic cigarettes, or e-cigarettes, in all public places, including bars and restaurants?

Broome County December 2015 Results:

Opinion about a policy that bans the use of electronic cigarettes, or e-cigarettes, in all public places, including bars and restaurants?		Frequency	Percentage
		Favor	211
Against	126	31.3%	
Neither	46	11.3%	
Don't know	20	5.0%	
Totals	403	100.0%	

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 <small>(includes only those counties that used this question in their version of the survey)</small>	Minimum in Any County	Regional Average	Maximum in Any County
“Favor”	52.4%	58.6%	64.7%
“Against”	18.6%	25.0%	31.3%

(“Favor”, significantly ↓ than the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Favor	45.6%	58.9%	33.2%	49.6%	63.2%	46.5%	59.7%	60.9%
Against	34.3%	28.4%	44.0%	29.9%	27.2%	35.9%	28.9%	23.5%
Neither	14.0%	8.8%	11.0%	20.5%	7.8%	12.8%	8.8%	8.3%
Don't know	6.1%	3.9%	11.8%	0.0%	1.8%	4.8%	2.6%	7.3%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Favor	52.2%	52.4%	49.1%	50.5%	60.1%	42.2%	49.0%	71.6%	56.9%
Against	37.7%	29.5%	36.2%	36.5%	17.1%	41.1%	33.0%	19.3%	33.4%
Neither	9.3%	11.9%	6.9%	9.1%	21.3%	14.5%	16.2%	6.6%	6.8%
Don't know	0.8%	6.2%	7.8%	3.9%	1.5%	2.2%	1.8%	2.4%	2.9%
Sample Size	91	312	176	122	105	99	82	76	77

Table 32

Do you smoke e-cigarettes to help quit smoking conventional cigarettes?
 (among e-cigarette users who are current cigarette smokers)

Broome County December 2015 Results:

Among e-cigarette users who also are cigarette smokers:

		Frequency	Percentage
Do you smoke e-cigarettes to help quit smoking conventional cigarettes?	Yes	6	80.4%
	No	1	19.6%
	Not sure	0	0.0%
	Totals	7	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
Among all current cigarette smokers who are also e-cigarette users: “Yes”	43.0%	61.7%	80.4%

(“Yes”, not significantly different from than the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

Sample Size Insufficient to Construct Cross-tabulations.

Table 33

Do you feel that e-cigarettes are more harmful than conventional tobacco cigarettes, less harmful, or about the same?

Broome County December 2015 Results:

		Frequency	Percentage
Do you feel that e-cigarettes are more harmful than conventional tobacco cigarettes, less harmful, or about the same?	More	51	12.8%
	Less	122	30.3%
	Same	123	30.5%
	Not sure	106	26.4%
	Totals	402	100.0%

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“More harmful”	8.4%	10.6%	12.8%
“Less harmful”	16.7%	23.5%	30.3%
“Same”	30.5%	35.9%	41.3%

(Current levels not significantly different from the current regional averages)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
More	10.3%	15.2%	6.6%	21.2%	7.2%	13.1%	10.2%	16.9%
Less	37.0%	23.8%	49.1%	32.1%	59.7%	10.8%	33.5%	11.2%
Same	26.7%	34.2%	30.7%	31.7%	12.1%	37.6%	29.7%	35.7%
Not sure	26.0%	26.8%	13.6%	14.9%	21.1%	38.5%	26.6%	36.2%
Sample Size	197	205	63	58	54	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
More	19.8%	10.8%	14.8%	11.7%	10.7%	14.2%	10.7%	7.1%	18.6%
Less	26.5%	31.4%	25.6%	36.5%	31.0%	18.9%	35.4%	23.4%	36.6%
Same	31.4%	30.3%	34.0%	28.0%	27.6%	30.4%	31.7%	45.8%	29.4%
Not sure	22.3%	27.6%	25.6%	23.8%	30.7%	36.6%	22.2%	23.7%	15.4%
Sample Size	91	311	176	121	105	99	81	76	77

Table 34

Do you think that breathing the aerosol from someone else’s e-cigarettes is: very harmful to one’s health; somewhat harmful to one’s health, not that harmful to one’s health, or not at all harmful to one’s health?

Broome County December 2015 Results:

		Frequency	Percentage
Do you think that breathing the aerosol from someone else’s e-cigarettes is ... to one’s health?	Very harmful	63	15.7%
	Somewhat harmful	127	31.5%
	Not that harmful	65	16.2%
	Not at all harmful	41	10.1%
	Don’t know/Not sure	107	26.6%
	Totals	403	100.0%

(47.2% “Very or Somewhat harmful”)

Trend Analysis of Results – Broome County (when a trend is possible):

(Not measured in Broome County in past community surveys.)

Regional Average Results for Comparison:

Among 19 Central, Western, and Northern New York Counties Surveyed between December 2014 and December 2015 (includes only those counties that used this question in their version of the survey)	Minimum in Any County	Regional Average	Maximum in Any County
“Very harmful”	11.8%	17.0%	21.7%
“Very or Somewhat harmful”	46.1%	48.7%	54.7%
“Not at all harmful”	4.6%	7.4%	10.1%
“Don’t know”	26.6%	31.4%	35.8%

(“Very Harmful or Somewhat Harmful”, not significantly different from the current regional average)

Cross-tabulations – Broome County (using only December 2015 data):

(to determine statistically significant relationships, refer to explanations on pp 24-27)

Broome County Cross-tabulations:

	Gender		Age					
	Male	Female	18-24	25-34	35-44	45-54	55-64	65+
Very harmful	10.5%	20.8%	0.0%	27.9%	3.2%	17.2%	13.1%	27.8%
Somewhat harmful	30.2%	32.7%	36.8%	22.2%	52.2%	25.3%	32.5%	25.1%
Not that harmful	26.2%	6.4%	33.3%	27.4%	23.1%	4.9%	11.8%	4.6%
Not at all harmful	5.6%	14.4%	18.1%	7.6%	0.0%	10.6%	10.3%	11.6%
Don’t know/Not sure	27.5%	25.7%	11.8%	14.9%	21.5%	42.0%	32.3%	30.8%
Sample Size	198	205	63	58	55	75	66	85

	Cigarette Use		Education Level			Annual Household Income			
	Smoker	Non-smoker	No College	Some College	4+ Year Degree	<\$25,000	\$25,000-\$50,000	\$50,000-\$75,000	\$75,000+
Very harmful	16.6%	15.5%	17.2%	14.8%	14.3%	16.4%	18.3%	12.4%	16.3%
Somewhat harmful	29.0%	32.2%	29.2%	31.4%	35.3%	23.0%	32.7%	47.7%	28.3%
Not that harmful	12.0%	17.4%	12.8%	18.2%	19.4%	9.5%	13.8%	11.5%	28.4%
Not at all harmful	12.3%	9.4%	13.3%	13.1%	1.2%	13.8%	14.2%	7.4%	10.9%
Don’t know/Not sure	30.1%	25.6%	27.5%	22.6%	29.8%	37.3%	20.9%	20.9%	16.2%
Sample Size	91	312	176	122	105	99	82	76	77

Section 4

Concluding Comments

This report is a summary of the data collected in a community tobacco survey completed in Broome County, New York on behalf of *Tobacco Free Broome and Tioga* (TFBT) during December 2015. The data provides a tremendous amount of rich information that can be used to plan future programs and services offered by the agency, as well as current data against which past and future performance may be measured and evaluated. To accomplish this program and/or agency evaluation component, it is recommended that a comparable study to the one described in this report be repeated in Broome County in 2017. To maximize comparability and minimize the possibility of the introduction of confounding factors, it is recommended that the methodology, survey instrument, and data analysis be implemented in a manner similar to that which was used and described in this report for 2015. The only significant changes recommended for 2017 (and similarly, limitations to the current study) would be the slight rephrasing and reordering of a small number of the questions used in the interview, and it is strongly recommended that continued emphasis be placed on the selection of survey questions that relate directly to the current community partnership workplan.

Finally, if further investigation of the data presented in this report is desired, for example, if any further sorts, cross-tabulations, or correlations to further investigate specific Broome County subpopulations is of interest, please contact *Joel LaLone Consulting*.

Appendix 1 NYS Adult Tobacco Survey 2014 Results

Appendix 2

The 2015

Broome County

Survey

Instrument

Introductory Script

Hello, this is _____ calling on behalf of the New York State Department of Health. We are not selling anything, we are conducting a very short survey in Broome and Tioga Counties about health-related issues. The survey should only take about 4-5 minutes; would you be willing to help us out tonight?

If YES- "Great, thanks."

If NO-try to arrange a CALL BACK time.

NOTE: As you start the interview: "I would like to speak to a member of the household who is age 18 or older. Your help is voluntary, but important. If we come to a question you don't want to answer, we will skip over it. You can end the interview at any time. The information you provide will be kept strictly confidential."

Are you speaking on a cell phone or a landline?

READ ONLY IF NECESSARY: "By cell phone, we mean a telephone that is mobile and usable outside of your neighborhood."

Cell

Landline

If on a cell phone:

Are you driving a vehicle at this moment? Are you in a safe and private place to use your cell phone?

If not driving, and in a safe and private place.

If driving or in an unsafe or not private place.

If driving or in an unsafe place:

"I'm sorry, but for your safety we're not able to talk to you at this time. We will call you back another time. Thank you."
SECURE CALL-BACK TIME, TERMINATE CALL, USE "PREVIOUS BUTTONS" TO RETURN TO BEGINNING FOR NEXT INTERVIEW.

Rules About Smoking in Your Home and Vehicles

First, we are interested in your thoughts about smoking in homes and personal vehicles.

Q4: For tobacco products that are burned, such as cigarettes, cigars, pipes or hookah, which statement best describes the rules about smoking in your home? Would you say...

- Smoking is not allowed anywhere inside your home
- Smoking is allowed in some places or at some times
- Smoking is allowed anywhere inside the home
- There are no rules about smoking inside the home
- Don't know
- Refused

Q5: Which statement best describes the rules about smoking in your car or cars? Would you say...

- Smoking is never allowed in any car
- Smoking is allowed some times or in some cars
- Smoking is allowed in all cars
- Do not have a car
- Don't know
- Refused

Tobacco Point of Sale

Our next questions relate to Tobacco Sales.

We are interested in your opinion about each of the following possible policies, for each we are interested in whether you are IN FAVOR or AGAINST. Are you in favor or against a policy that would ...

	Favor	Against	Neither Favor or Against	Don't Know/Not Sure
Q10: Prohibit the sale of tobacco products (such as cigarettes, cigars and chewing tobacco) in pharmacies?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q11: Prohibit the display of tobacco products such as packs of cigarettes or cigars from stores?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q12: Prohibit the sale of tobacco products in stores that are located near schools?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q13: Limit the number of stores that could sell tobacco in your community?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q15: Prevent retailers from accepting coupons that reduce the price of cigarettes?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q16: Prevent retailers from offering multi-pack discounts on cigarettes, such as 2 packs for the price of 1?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q17: How much effect do you think seeing tobacco products displayed and advertised in retail stores has on whether or not a child becomes a smoker? Would you say they make a child...

- Much more likely to be a smoker
- Somewhat more likely to be a smoker
- Does not have any effect on whether or not a child becomes a smoker
- Don't know
- Refused

Q18: Currently, in Broome and Tioga County you must be 18 years old to purchase cigarettes and other tobacco products. What is your opinion about a policy that would require people to be 21 years old before they could purchase cigarettes and other tobacco products? Are you in favor or against this type of policy?

- Favor Against Neither Favor or Against Don't know/Not sure

Protecting Youth from Tobacco On Screen

Our next questions deal with tobacco portrayed on screen in the media and movies.

Do you AGREE or DISAGREE with each of the following four statements?

	Agree	Disagree	Don't Know/Not Sure
Q19: "Internet sites that are intended for youth should NOT include tobacco use or images."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q20: "Social Media that are intended for youth should NOT include tobacco use or images."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q21: "Movies that are intended for youth should NOT include tobacco use or images."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q22: "TV shows that are intended for youth should NOT include tobacco use or images."	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Outdoor Tobacco Policies

Our next questions relate to outdoor tobacco policies.

We are interested in your opinion about each of the following possible policies. Are you in FAVOR or AGAINST a policy that would prohibit smoking ...

	Favor	Against	Neither Favor or Against	Don't Know/Not Sure
Q27: on a college campus?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q29: at public outdoor community events such as a fair, festival, or sporting event?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Smoke-Free Housing

Next, we have some questions about smoking in multiple-unit dwellings or apartments.

Q34: Do you live in an apartment, condominium, townhouse, or other multi-unit dwelling?

Yes (MUD) No (not a MUD) Don't Know/Not Sure

Further questions for MUD-dwellers

Q35: Do you live in government subsidized or public housing?

Yes No Don't Know/Not Sure

Q36: Which statement best describes the rules regarding smoking tobacco inside the residential units in your building? (read choices)

- Smoking is allowed in all residential units
- Smoking is allowed in some residential units
- Smoking is not allowed in any residential units
- Don't know/Not sure

Q38: Next I would like to ask you about your support for tobacco policies. What is your opinion about policies that prohibit smoking in... apartment buildings, condominiums, and other multi-unit complexes, including indoor areas, private balconies and patios.? Are you in...

- Favor Against Neither Favor or Against Don't Know/Not Sure

TOBACCO USE

Our last section of questions deals with Tobacco Use.

Q39: Have you smoked at least 100 cigarettes in your entire life?

- Yes No Don't Know/Not Sure

* Q40: Do you now smoke cigarettes everyday, some days, or not at all?

- Every day Some days Not at all

Q44: Do you now use cigars, cigarillos, or little cigars every day, some days, rarely, or not at all?

- Every day Some days Rarely Not at all Don't Know/Not Sure

E-Cigarette Questions

READ THIS:

"The next few questions are about electronic cigarettes, also known as e-cigarettes, e-cigs, vape pens, hookah pens, e-hookahs, or personal vaporizers. These devices are battery-operated and may look like real cigarettes. They contain nicotine cartridges with varying flavors such as mint, fruit, or candy."

Q46: We are interested in whether you have ever used one of these products. Which of the following best describes your use of e-cigarettes?

- I use daily.
- I use some days.
- I use rarely.
- I have used in the past at least once, but do not use them now.
- I have never used.
- Don't know/Not sure

Q47: What is your opinion about a policy that bans the use of electronic cigarettes, or e-cigarettes, in all public places, including bars and restaurants?

- Favor Against Neither favor or Against Don't know/Not sure

Q48: Do you smoke e-cigarettes to help quit smoking conventional cigarettes?
(among current smokers who also use e-cigarettes)

- Yes No Don't know/Not sure

Q49: Do you feel that e-cigarettes are more harmful than conventional tobacco cigarettes, less harmful, or about the same?

- More harmful Less Harmful About the same. Don't know/Not sure

Q50: Do you think that breathing the aerosol from someone else's e-cigarettes is very harmful to one's health; somewhat harmful to one's health, not that harmful to one's health, or not at all harmful to one's health?

- Very harmful
- Somewhat harmful
- Not that harmful
- Not at all harmful
- Don't know/Not sure

Demographics Start Here (all participants)

Finally, to better understand the many factors that may be related to adult health status and beliefs about health conditions, we have a few demographic questions for you.

* Q54: If you don't mind me asking, what is your age (read intervals...)?

- | | | |
|-----------------------------|-----------------------------|-----------------------------|
| <input type="radio"/> 18-24 | <input type="radio"/> 45-54 | <input type="radio"/> 75-84 |
| <input type="radio"/> 25-34 | <input type="radio"/> 55-64 | <input type="radio"/> 85+ |
| <input type="radio"/> 35-44 | <input type="radio"/> 65-74 | |

* Q55: What is the highest level of school you completed or the highest degree you received?

- | | |
|--|--|
| <input type="radio"/> Never attended school or only attended kind. | <input type="radio"/> Some college, no degree |
| <input type="radio"/> Grades 1 through 8 (Elementary) | <input type="radio"/> AA; technical or vocational school |
| <input type="radio"/> Grades 9 through 12 (Some high school) | <input type="radio"/> AA; academic |
| <input type="radio"/> Grade 12 (High school graduate) | <input type="radio"/> BA, BS (College graduate) |
| <input type="radio"/> G.E.D. | <input type="radio"/> At least some grad or prof school |
| <input type="radio"/> Some technical or vocational school | <input type="radio"/> Graduate or professional degree |

Q56: How many children live in your household who are under 18 years old?

- | | | |
|----------------------------|-------------------------|--------------------------|
| <input type="radio"/> None | <input type="radio"/> 2 | <input type="radio"/> 4 |
| <input type="radio"/> 1 | <input type="radio"/> 3 | <input type="radio"/> 5+ |

* Q57: If you don't mind me asking, what is your gender?

- | | | |
|----------------------------|------------------------------|-----------------------------------|
| <input type="radio"/> Male | <input type="radio"/> Female | <input type="radio"/> Transgender |
|----------------------------|------------------------------|-----------------------------------|

Other (please specify)

Q58: What is your annual household income from all sources ... you can stop me when I get to your interval. READ INTERVALS. (Reason why asked: to allow determining whether the sample we select accurately represents the whole population that lives in _____ County)

- | | | |
|--|---|-------------------------------|
| <input type="radio"/> Less than \$10,000 | <input type="radio"/> \$50,000 to less than \$75,000 | <input type="radio"/> Refused |
| <input type="radio"/> \$10,000 to less than \$25,000 | <input type="radio"/> \$75,000 to less than \$100,000 | |
| <input type="radio"/> \$25,000 to less than \$50,000 | <input type="radio"/> \$100,000 or more | |

* Q60: In what county do you reside?

- | | |
|------------------------------|-----------------------------|
| <input type="radio"/> Broome | <input type="radio"/> Tioga |
|------------------------------|-----------------------------|

- Other County

* Q61: What is your postal Zip code?

- | | |
|--|--------------------------------|
| <input type="radio"/> Will | <input type="radio"/> Of |
| <input type="radio"/> Change | <input type="radio"/> The |
| <input type="radio"/> For | <input type="radio"/> Studied |
| <input type="radio"/> Each | <input type="radio"/> Counties |
| <input type="radio"/> Other (please specify) | |

* Q62: Finally, in what town do you reside?

- | | |
|--|--------------------------------|
| <input type="radio"/> Will | <input type="radio"/> Of |
| <input type="radio"/> Change | <input type="radio"/> The |
| <input type="radio"/> For | <input type="radio"/> Studied |
| <input type="radio"/> Each | <input type="radio"/> Counties |
| <input type="radio"/> Other (please specify) | |

THE SURVEY IS COMPLETE: thank you for taking the time to help out with this important study, if you have any questions please contact (refer to FAQ sheet for correct contact information).