

Morrisville District Office

2016 Behavioral Risk Factor Surveillance System Data

Guidance • Support • Prevention • Protection

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What is the Behavioral Risk Factor Surveillance System or BRFSS?

The Behavioral Risk Factor Surveillance System (BRFSS) is a telephone survey conducted annually among adults 18 and older. The Vermont BRFSS is conducted by the Vermont Department of Health (VDH) in collaboration with the Centers for Disease Control and Prevention (CDC). All U.S. states, Washington D.C. and several U.S. territories participate in the survey.

Typically between 6,000 and 7,000 Vermont adults are interviewed as part of the Vermont BRFSS each year. Vermont residents ages 18 and older are eligible for the survey. A Vermont resident is defined as someone living in the state for at least 30 days in a given calendar year. Adults living in institutions such as nursing homes, group homes, or prisons are not eligible for the survey.

The BRFSS survey includes questions on chronic disease prevalence (e.g. asthma diagnosis), risk behaviors (e.g. currently smoke), demographics (e.g. age, gender, race), health care access (e.g. have health insurance), and preventive behaviors and health screening (e.g. routine visits to a doctor or colorectal cancer screening).

Additional information can be found on the VDH and CDC websites:

- <http://healthvermont.gov/research/brfss.aspx>
- <http://www.cdc.gov/brfss/>

A report summarizing the 2016 statewide results from the Vermont BRFSS can also be found on the VDH website: http://www.healthvermont.gov/sites/default/files/documents/pdf/summary_brfss_2016.pdf.

Changes to BRFSS Methodology

In 2011, the CDC implemented changes to the BRFSS weighting methodology in order to more accurately represent the adult population. Population weights are now calculated using iterative proportional fitting (or “raking”) methodology. This allows the weights to be calculated using smaller sample sizes, adjusts for more demographic variables, and incorporates cell phone interview data into estimates.

While these adjustments make the calculations more representative of the population, the changes in methodology also limit the ability to compare 2011 and subsequent results to previous years. VDH’s Center for Health Statistics recommends that comparisons between 2011 BRFSS data and earlier years be made with caution. Statistical differences between 2011 and earlier years may be due to methodological changes, rather than changes in opinion or behavior.

Demographics of Morrisville District Office*

The next few pages describe the demographic makeup of Morrisville area adults in 2015-2016.

Half of Morrisville adults are male and female, respectively. Two-thirds are ages 25-64, with one in five ages 65 and older.

- Morrisville adults report a similar age distribution as those in Vermont overall.

Four in ten Morrisville area adults have a high school degree or less, while three in ten have a college degree or higher.

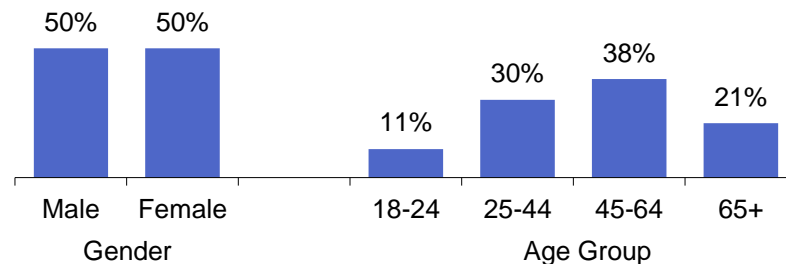
- Morrisville adults report a similar education distribution as those in Vermont overall.

Twenty-four percent of Morrisville adults live in a home making less than \$25,000 annually, while nearly half live in homes making \$50,000 or more per year (48%).

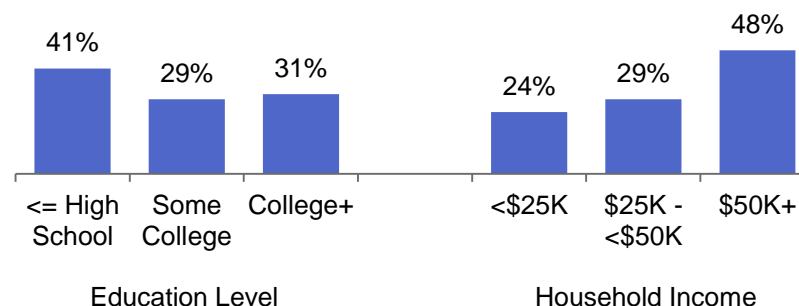
- There are no statistical differences between Morrisville adults and Vermont adults by annual income level.

Five percent of adults in the Morrisville area report being a person of color. This is statistically similar to the six percent reported among Vermont adults overall.

Morrisville Residents by Gender and Age



Morrisville Residents by Education & Income Level



*See page 31 for a list of the towns included in the Morrisville Health District.

Demographics of Morrisville District Office

Two-thirds (67%) of Morrisville adult residents are currently employed, with less than one in five (18%) retired. Six percent or fewer said they are a student or homemaker (6%), unable to work (5%), or are unemployed (4%).

- Morrisville area adults have a similar employment distribution to Vermont adults overall.

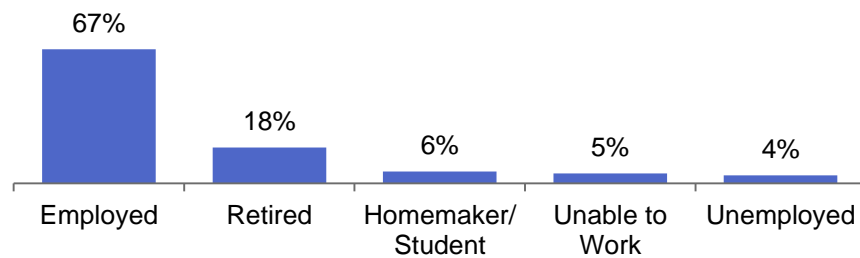
More than half (54%) of Morrisville adults are married. One in five (22%) percent have never married and 13% are divorced. Six percent are widowed (6%) or part of an unmarried couple (5%).

- Adults in the Morrisville area reported similar rates by marital status, as compared with Vermont adults overall.

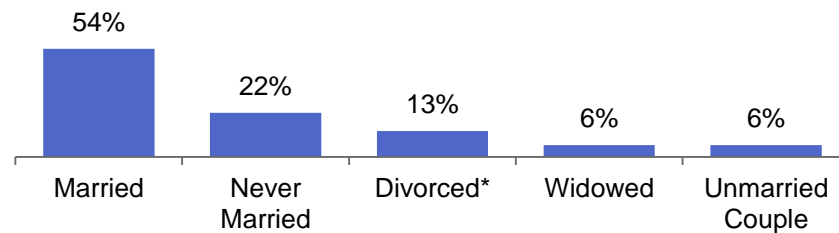
About seven in ten (69%) adults in the Morrisville area said there are no children less than 18 in their home. Five percent reported having three or more children.

- The number of children in the home reported by Morrisville area adults is similar to that for Vermont overall.

Morrisville Residents by Employment Status

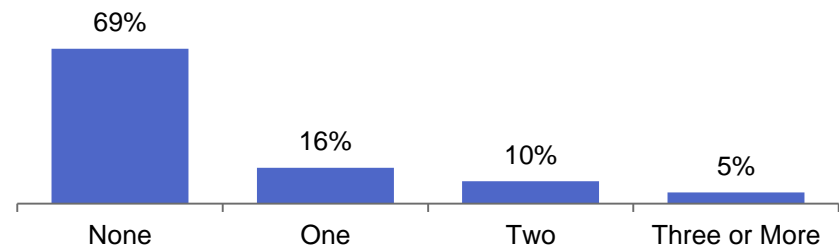


Morrisville Residents by Marital Status



*Includes those who reported their marital status as divorced or separated.

Morrisville Residents by Children in Household



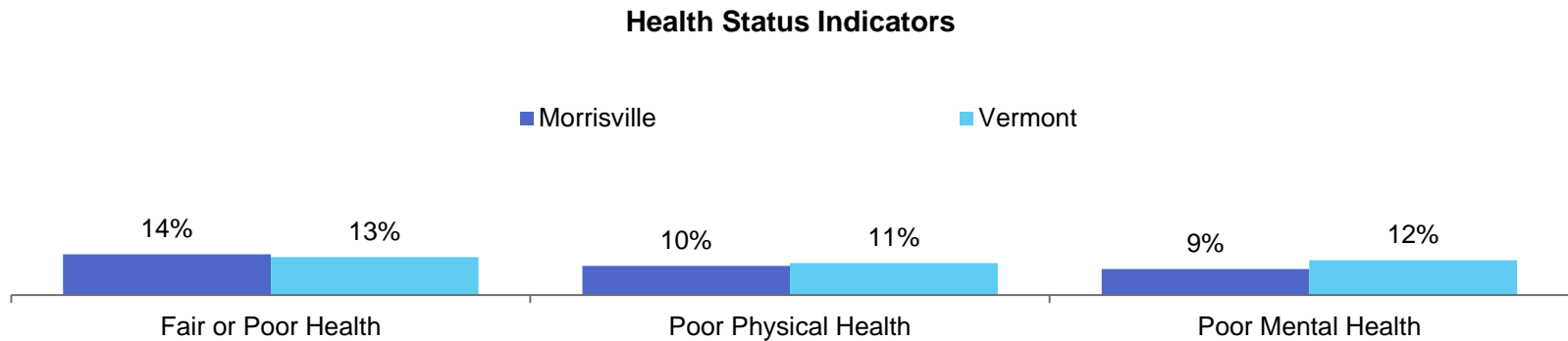
Health Status Indicators

In 2015-2016, one in seven Morrisville area adults reported being in fair or poor general health. Slightly less, one in ten, have poor physical health and poor mental health.

- Poor mental and physical health are defined as 14 or more days of poor mental/physical health in the last month.

There are no statistically significant differences in health status, regardless of the measure, when comparing Morrisville area adults and Vermont adults overall.

Among adults in the Morrisville area, health status indicators have not changed statistically since 2011. See Appendix A for results over time.



Health Status Indicators

Morrisville area females are twice as likely as males to report poor mental health (13% vs. 6%), a statistically significant difference.

- Rates of fair or poor general health and poor physical health do not differ statistically by gender.

As adults in the Morrisville area age they are more likely to report fair or poor health and poor physical health.

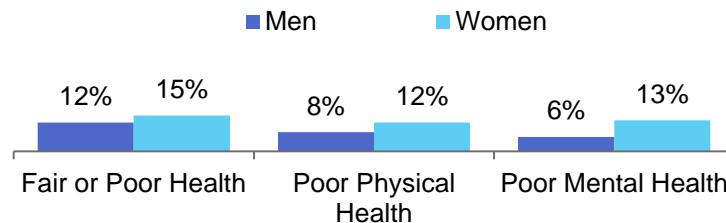
- Adults 65 and older are statistically more likely than younger adults, ages 18-44 to have fair or poor health.
- There are no differences in poor physical health by age.

Morrisville area adults 65 and older reported statistically lower rates of poor mental health compared to adults 45-64 years old.

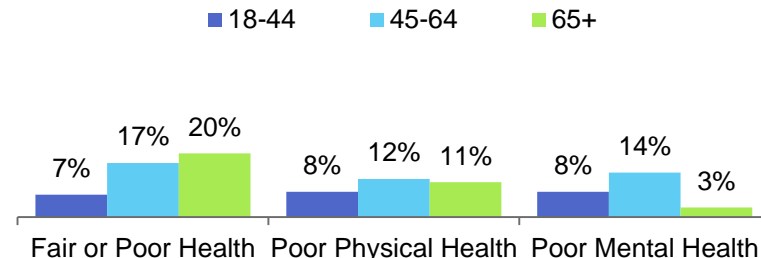
Poor health, regardless of the measure decreases with increasing annual household income.

- Adults in homes making less than \$50,000 per year are statistically more likely than those with more income to report fair or poor health.
- Adults in homes with the lowest annual household incomes are statistically more likely to report poor physical health than those in homes with more income per year
- Those in homes making less than \$25,000 annually are statistically more likely than those in homes with incomes of at least \$50,000 to report poor mental health.

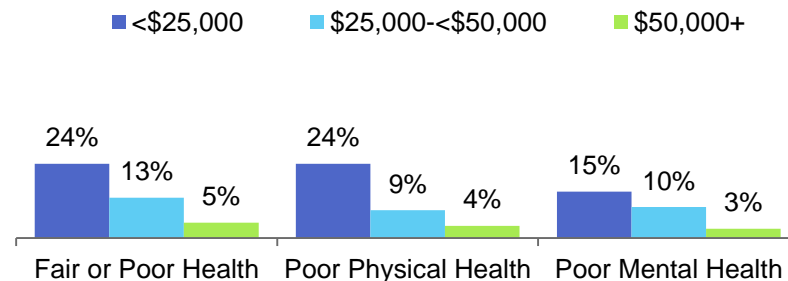
**Health Status Indicators by Gender
Morrisville Adults**



Health Status Indicators by Age



Health Status Indicators by Income Level



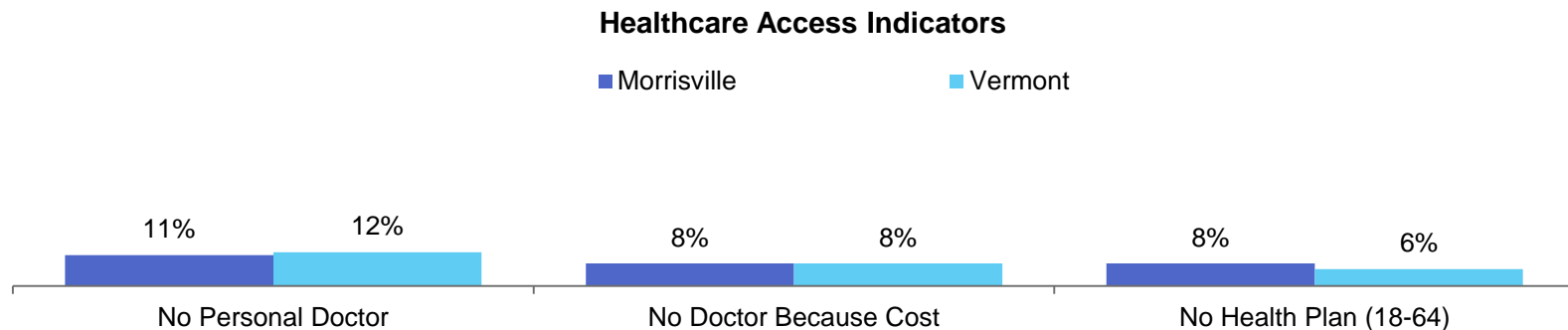
Healthcare Access Indicators

In 2015-2016, about one in ten adults in the Morrisville area said they do not have a personal doctor for health care, similar to the 12% reported among Vermont adults overall. Eight percent needed care in the last year but did not seek it due to the cost. Among Morrisville area adults ages 18-64, less than one in ten (8%) do not have a health plan.

The proportion of Morrisville area adults without a personal doctor is trending up from 8% in 2011-2012 to 11% in 2015-2016. However, the difference between the two time periods is not statistically significant.

- Delaying care due to cost and not having a health plan have not changed statistically since 2011-2012.

See Appendix A for results over time.



Healthcare Access Indicators

Morrisville area men are statistically more likely than women to not have a personal doctor (17% vs. 4%).

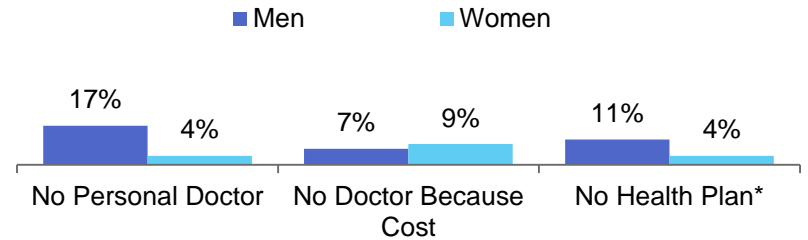
- There are no statistical differences by gender in area adults delaying care due to cost or lack of health plan coverage.

Reported barriers to health care decrease with increasing age.

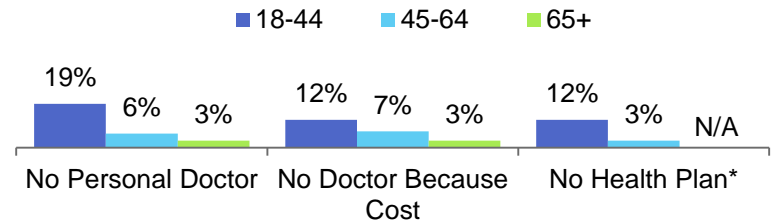
- Adults 18-44 are statistically more likely than older adults to not have a personal doctor
- Adults 18-44 are also more likely than those 45-64 to not have a health plan.
- There are no differences by age in delaying care due to cost among Morrisville adults.

There are no statistical differences in healthcare access by annual household income level, regardless of the measure.

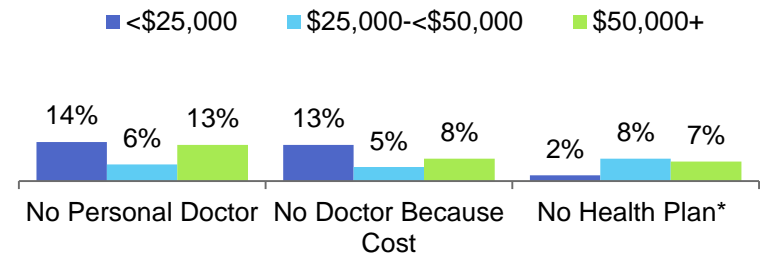
**Healthcare Access Indicators by Gender
Morrisville Adults**



Healthcare Access Indicators by Age



**Healthcare Access Indicators
by Income Level**



*Limited to adults 18-64.

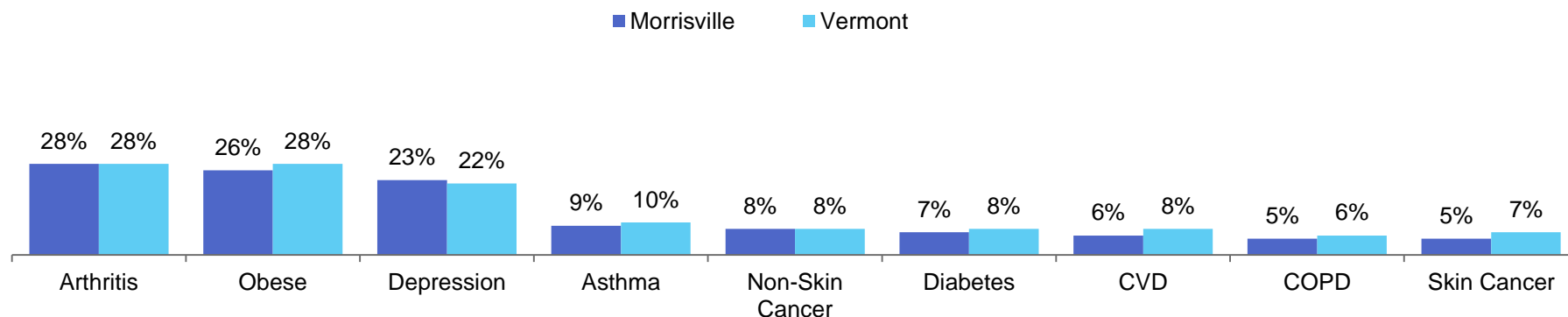
Chronic Conditions

More than a quarter (28%) of Morrisville area adults have arthritis. The same proportion are obese, while fewer (23%) have ever been diagnosed with a depressive disorder. One in ten adults have asthma, while 8% or fewer have each of the following: a non-skin cancer, diabetes, cardiovascular disease (CVD), chronic obstructive pulmonary disease (COPD), and skin cancer.

Morrisville adults reported similar rates of all chronic conditions, regardless of the measure, as compared with Vermont adults overall.

The prevalence of all reported chronic conditions among the Morrisville district office have not changed statistically since 2011. See Appendix A for trend results.

Prevalence of Selected Chronic Conditions Over Time



Obesity data is limited to adults 20 and older and is age-adjusted to the U.S. 2000 population.

Chronic Conditions

Morrisville area women are statistically more likely than men to have arthritis (34% vs. 23%).

- There are no statistically significant differences by gender in the prevalence of depressive disorders, obesity, and asthma.

Arthritis prevalence among Morrisville adults increases with increasing age.

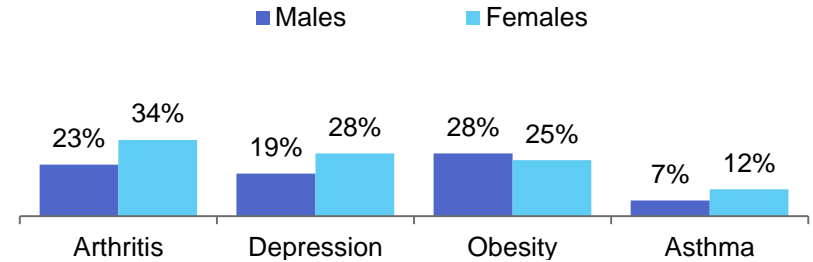
- All differences by age are statistically significant for arthritis prevalence.

There are no differences by age in depressive disorder, obesity, and asthma prevalence among Morrisville adults.

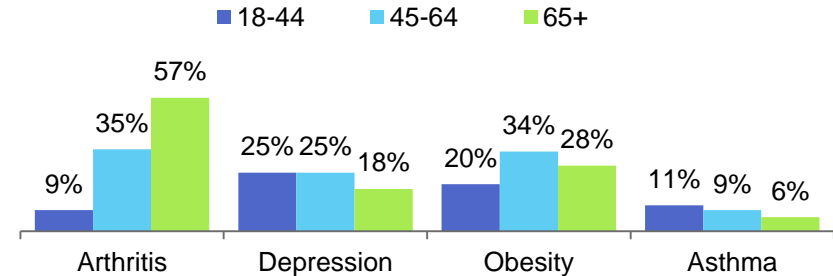
The prevalence of arthritis, depressive disorders, obesity, and asthma among Morrisville adults all decrease as reported annual household income increases.

- Adults in homes making less than \$25,000 per year are statistically more likely than those in homes making at least \$50,000 per year to have a depressive disorder.
- Differences in arthritis, obesity, and asthma prevalence by annual household income level are not statistically significant.

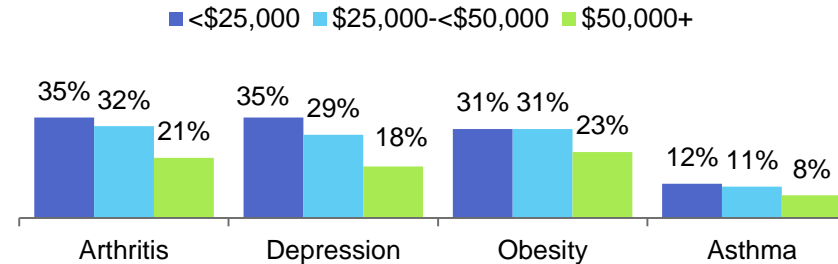
**Chronic Conditions by Gender
Morrisville Adults**



Chronic Conditions by Age



Chronic Conditions by Income Level



Note: Obesity data are for adults 20 and, except that by age, are age adjusted to U.S. 2000 standard population.

Chronic Conditions

There are no statistically significant differences by gender in the prevalence of CVD, diabetes, and COPD among Morrisville area adults.

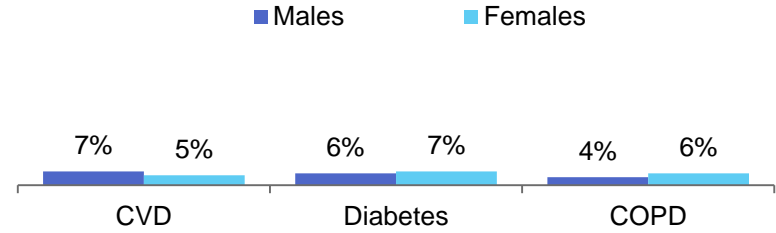
As age increases, the prevalence of CVD, diabetes, and COPD increases as well.

- Adults 65 and older are statistically more likely to having CVD, compared with adults 45-64.
- Differences in diabetes and COPD prevalence by age are not statistically significant.

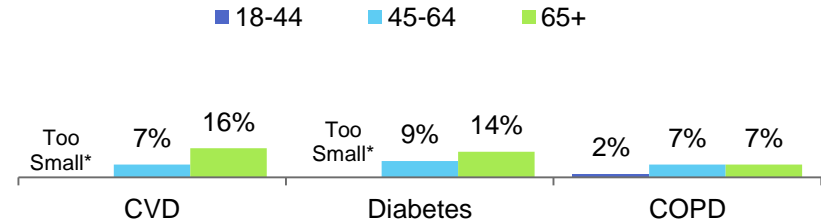
Morrisville area adults living in homes with less income are generally more likely to have CVD, diabetes, or COPD.

- Those in homes making less than \$25,000 per year are statistically more likely than those making \$25,000-\$49,999 to have COPD.
- Differences in CVD and diabetes prevalence by annual household income level are not statistically significant.

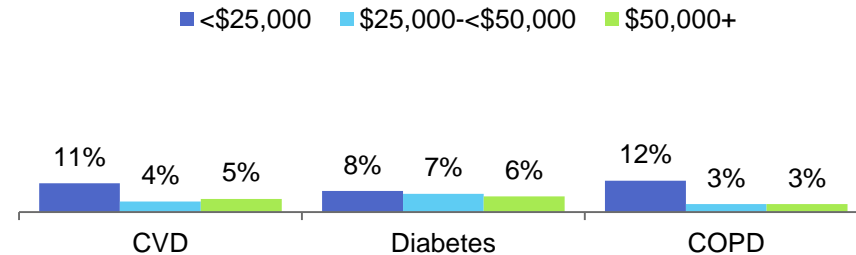
**Chronic Conditions by Gender
Morrisville Adults**



Chronic Conditions by Age



Chronic Conditions by Income Level



*Sample size is too small to report.

Chronic Conditions

Female adults in the Morrisville area are statistically more likely than males to have ever been diagnosed with a non-skin cancer (13% vs. 4%).

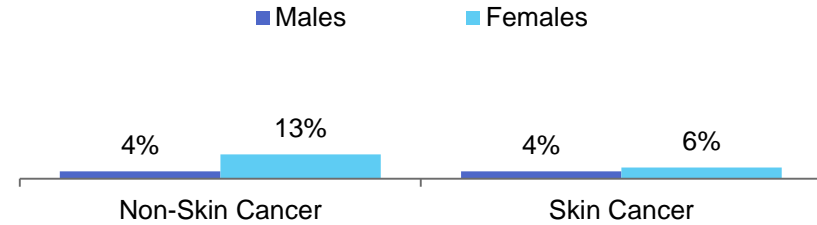
- There are no statistical differences by gender in the prevalence of skin cancer.

The prevalence of both non-skin and skin-cancer increases as age increases.

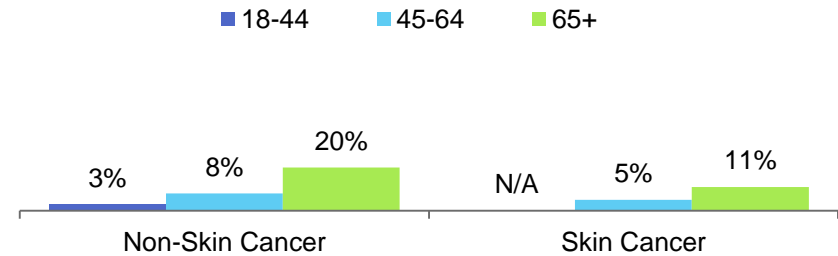
- Morrisville adults 18-64 are statistically less likely than older adults to have ever had a non-skin or skin cancer.
- Differences in skin cancer prevalence by age are not statistically significant.

There are no statistically significant differences in the prevalence of non-skin cancers or skin cancer by annual household income level within the Morrisville area.

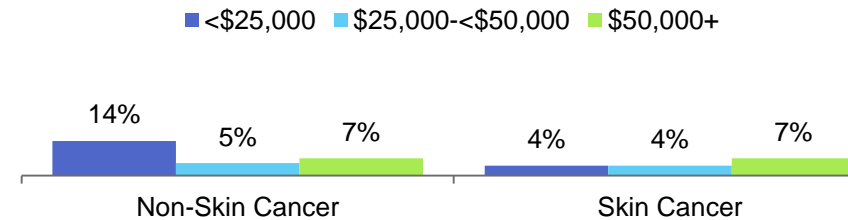
**Chronic Conditions by Gender
Morrisville Adults**



Chronic Conditions by Age



Chronic Conditions by Income Level



*Sample size is too small to report.

Risk Behaviors

In 2015-2016, one in five Morrisville adults did not participate in any leisure time physical activity during the last month.

A similar proportion, 17%, said they currently smoke. Among smokers, about half (48%) reported trying to quit at least once during the past year.

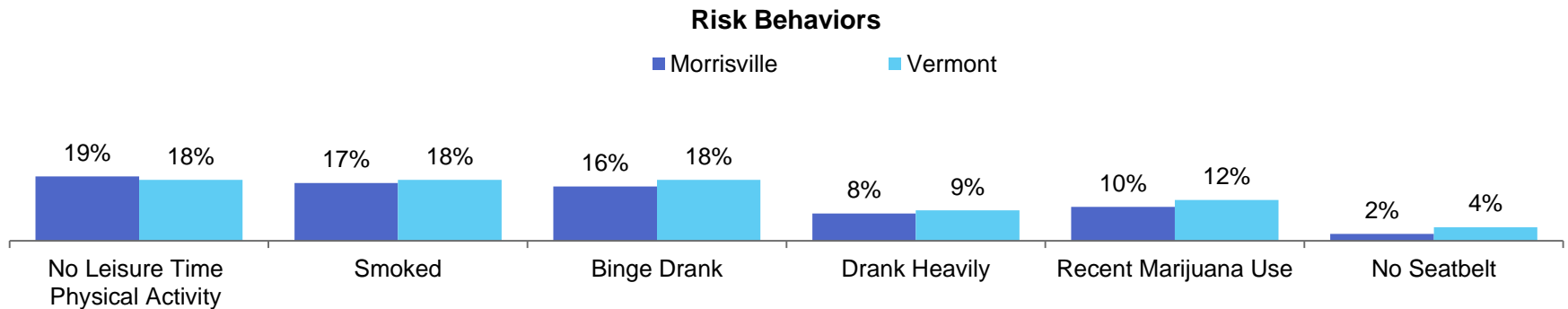
Sixteen percent of Morrisville adults binge drank during the previous month. Less than one in ten, 8%, heavily drank during that time.

- Binge drinking is defined as five or more drinks in one sitting for men and four or more drinks for women. Heavy drinking is defined as more than two drinks per day for men and more than one for women.

One in ten recently used marijuana and two percent seldom or never wear a seatbelt.

Morrisville adults are half as likely as Vermont adults to report seldom or never wearing a seatbelt (2% vs. 4%). This difference is statistically significant. No other risk behavior measures are statistically different, when comparing Morrisville adults and Vermont adults overall.

Additionally, risk behavior prevalence has not changed statistically for any measure since 2011. See Appendix A for results over time.



Note: Smoking and exercise data are age adjusted to the U.S. 2000 standard population.

Risk Behaviors

There are no statistically significant differences by gender among Morrisville area adults in smoking and not participating in leisure time physical activity.

Among adults in the Morrisville area, smoking rates decrease with increasing age, however differences are not statistically significant.

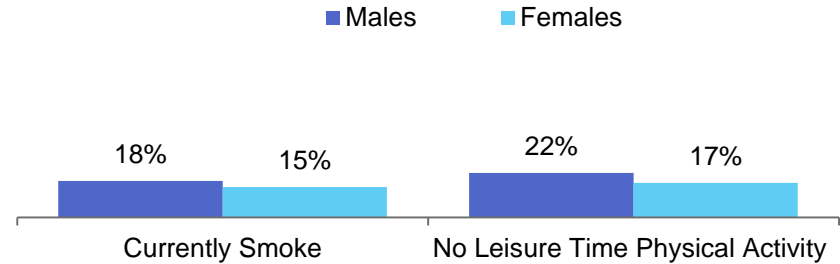
Conversely, not participating in leisure time physical activity increases with increasing age.

- Adults 65 and older are statistically more likely than those 18-44 to not participate in any leisure time physical activity.

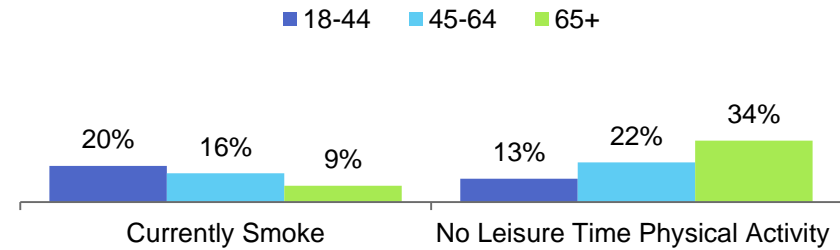
Morrisville area adults in homes with more income are less likely to currently smoke and less likely to not participate in physical activity.

- Adults in homes making \$50,000 or more are statistically less likely than those in homes with less income to smoke.
- Differences in not participating in any leisure time physical activity by annual household income level are not statistically significant.

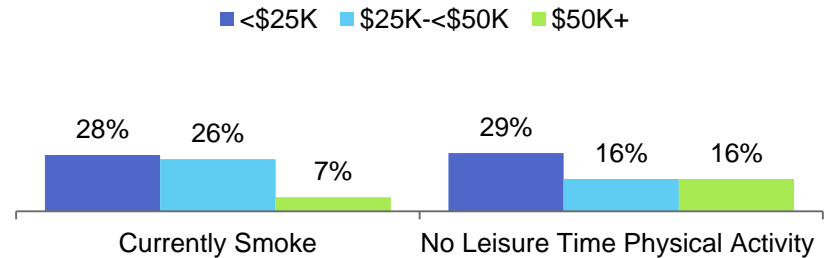
**Risk Behaviors by Gender
Morrisville Adults**



Risk Behaviors by Age



Risk Behaviors by Income Level



Note: smoking and physical activity data, except that by age, are age-adjusted to the U.S. 2000 population.

Risk Behaviors

Male adults in the Morrisville area are statistically more likely than females to binge drink and use marijuana.

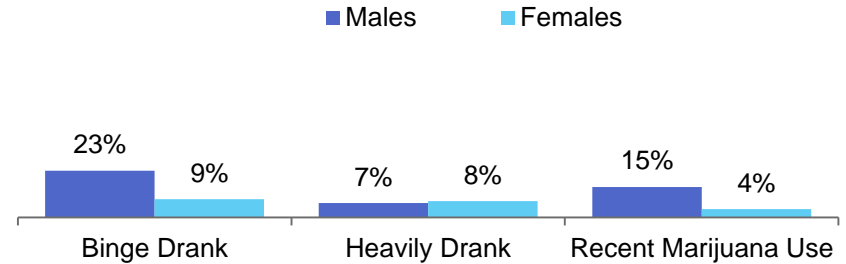
- There are no significant differences by gender in heavy drinking.

Binge drinking, heavy drinking and marijuana use are all highest among Morrisville adults ages 18-44.

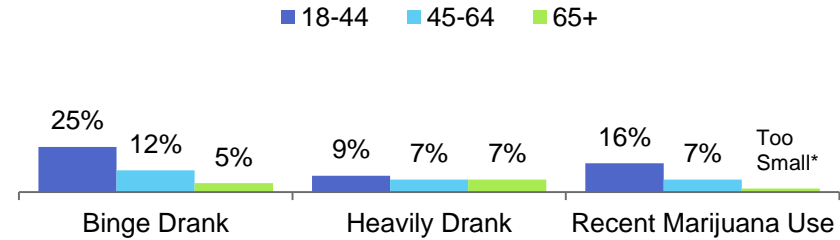
- All differences by age are statistically different for binge drinking.
- Adults 18-64 are statistically more likely than older adults to use marijuana.
- Differences in heavy drinking do not vary statistically by age.

There are no significant differences by annual household income level in rates of binge drinking, heavy drinking, and recent marijuana use.

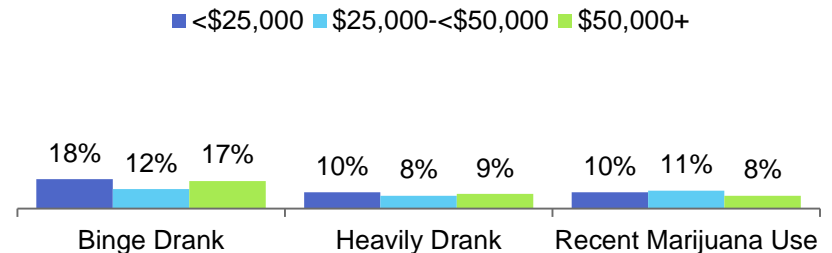
**Risk Behaviors by Gender
Morrisville Adults**



Risk Behaviors by Age



Risk Behaviors by Income Level



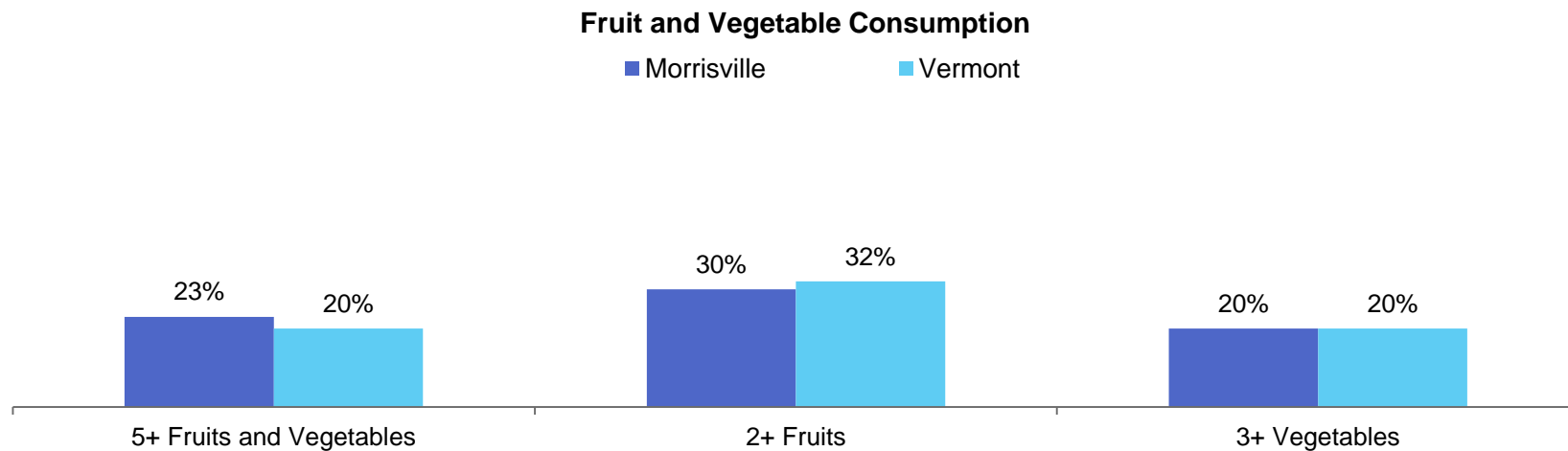
*Sample size is too small to report.

Preventive Behaviors

In 2013/2015, less than a quarter (23%) of Morrisville area adults ate five or more fruits and vegetables per day. Three in ten ate two or more fruits and one in five ate vegetables three or more times per day.

Morrisville area adult consumption of fruits and vegetables is statistically similar to that among Vermont adults overall.

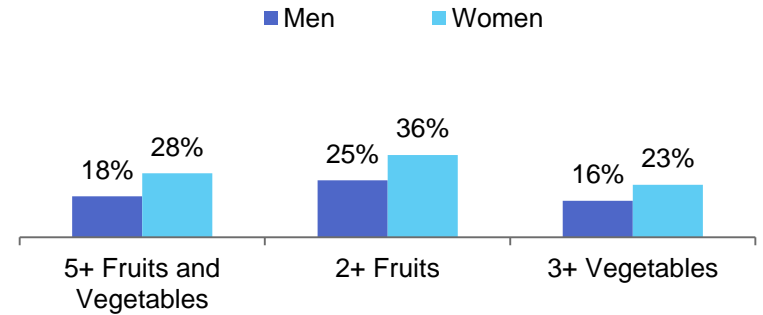
Fruit and vegetable consumption, among Morrisville area adults, did not change statistically from 2011/2013 to 2013/2015. See Appendix A for trend results.



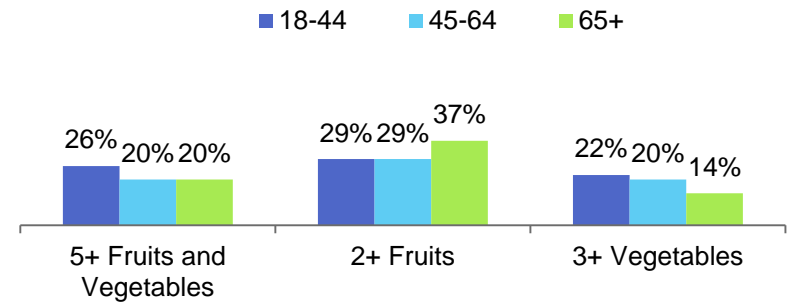
Preventive Behaviors

There are no statistical differences in fruit and vegetable consumption by gender, age, or annual household income level, among Morrisville adults.

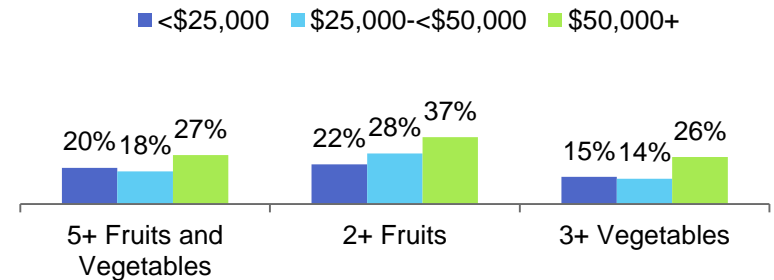
**Preventive Behaviors by Gender
Morrisville Adults**



Preventive Behaviors by Age



Preventive Behaviors by Income Level



Note: fruit and vegetable data, except that by age is age adjusted to the U.S. 2000 standard population.

Preventive Behaviors

In 2013/2015, about six in ten Morrisville (61%) and Vermont (59%) adults met physical activity recommendations*.

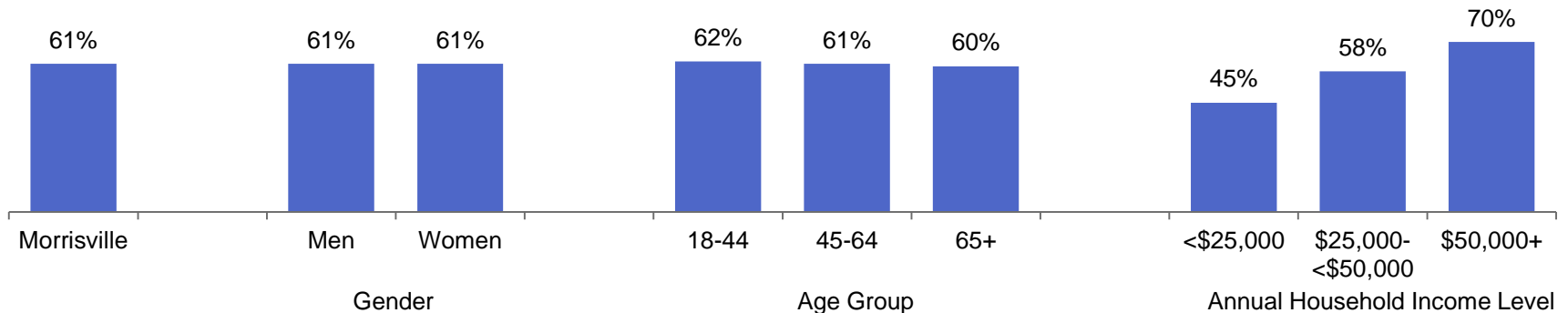
Among Morrisville adults, there are no significant differences in meeting physical activity recommendations by gender or age.

Meeting physical activity recommendations increases with annual household income level, among Morrisville area adults.

- Adults in homes with an income of \$50,000 or more are statistically more likely than those with incomes of less than \$25,000 to meet physical activity recommendations.

Meeting physical activity recommendations did not change statistically from 2011/2013 to 2013/2015. See Appendix A for trend results.

**Met Physical Activity Recommendations, Overall and by Sub-groups
Morrisville Adults**



*For adults, the CDC currently recommends they participate in 150 minutes of moderate physical activity or 75 minutes of vigorous activity per week. Strength building activities are recommended at least two times per week. For more information see: www.cdc.gov/physicalactivity/everyone/guidelines/index.html.

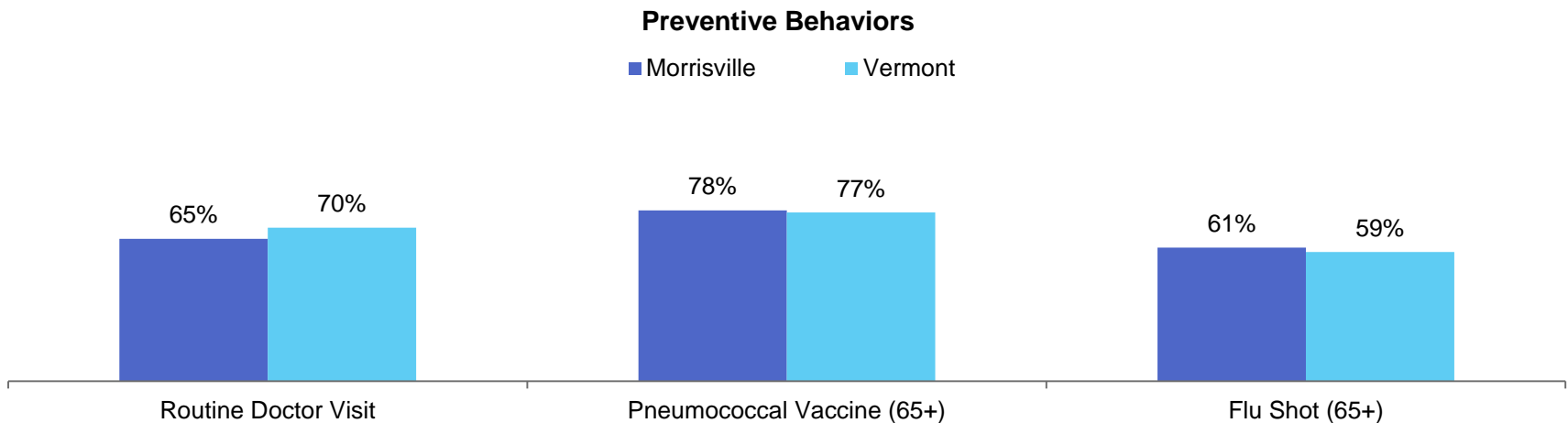
Preventive Behaviors

Two-thirds of adults in the Morrisville area saw their doctor for a routine visit in the previous year. This is similar to the 70% reported among all Vermont adults.

More than three-quarters (78%) of Morrisville area adults ages 65 and older have ever gotten a pneumococcal vaccine. Six in ten (61%) reported getting a flu shot in the last year.

- Vermont adults, ages 65 and older get pneumococcal and flu shot vaccines at similar rates to Morrisville adults, 77% and 59%, respectively.

Routine doctor visits and receipt of vaccinations among Morrisville area adults have not changed since 2011. See Appendix A for results over time.



Preventive Behaviors

Female adults in the Morrisville area are statistically more likely than men to routinely visit their doctor. There are no statistical differences by gender, among adults 65 and older, in the receipt of pneumococcal and flu vaccinations.

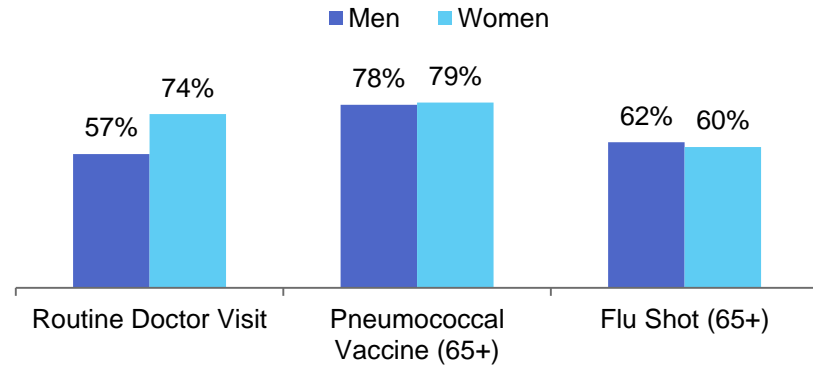
Routine visits to the doctor in the last year increase with increasing age.

- All differences by age are statistically significant.

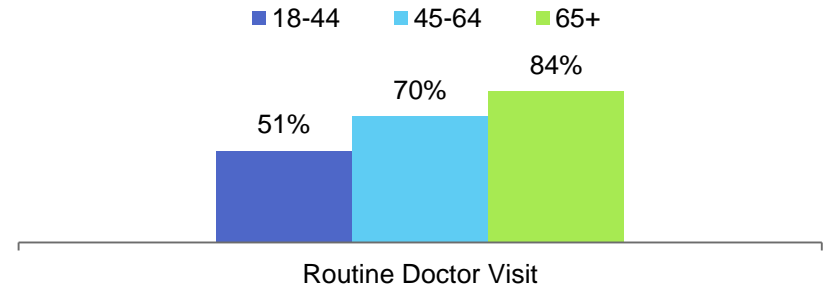
Adults 65 and older who live in homes making at least \$50,000 per year are statistically more likely than those in homes with an income of \$25,000-\$49,999 to have gotten a flu shot.

- There are no differences in routine doctor visits or receipt of a pneumococcal vaccination by annual household income.

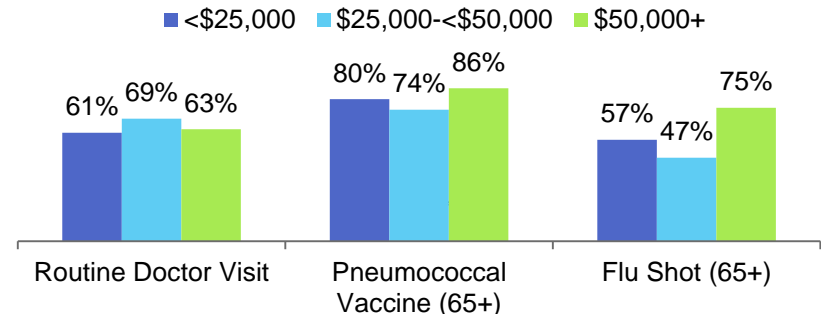
**Preventive Behaviors by Gender
Morrisville Adults**



Preventive Behaviors by Age



Preventive Behaviors by Gender

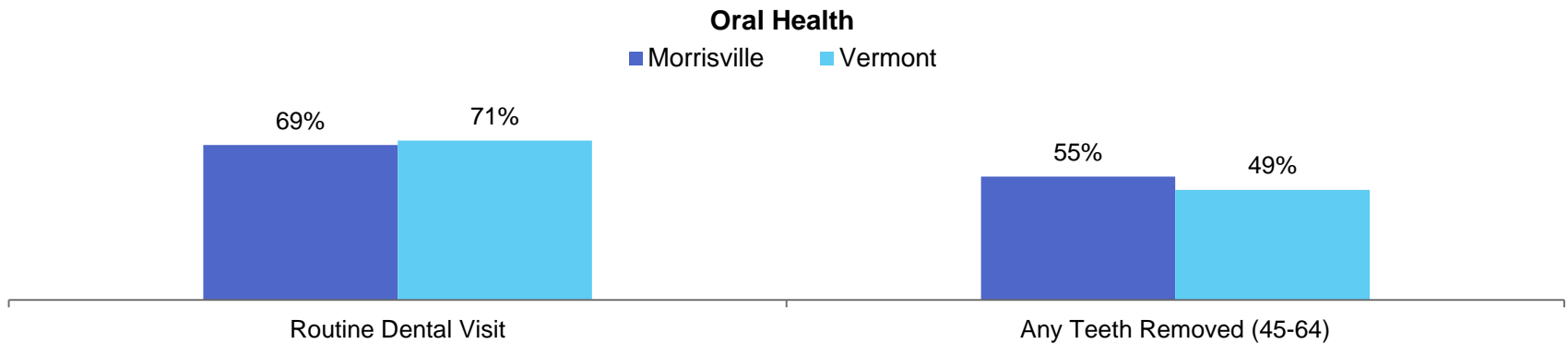


Oral Health

About seven in ten (69%) Morrisville area adults saw a dentist in the last year. This is similar to the 71% among Vermont adults overall.

More than half (55%) of Morrisville adults ages 45-64 have had at least one tooth extracted, statistically similar to the 49% among VT adults of the same age.

Reported routine dental visits and teeth extractions did not change statistically from 2012/2014 to 2014/2016. See Appendix A for trend results.



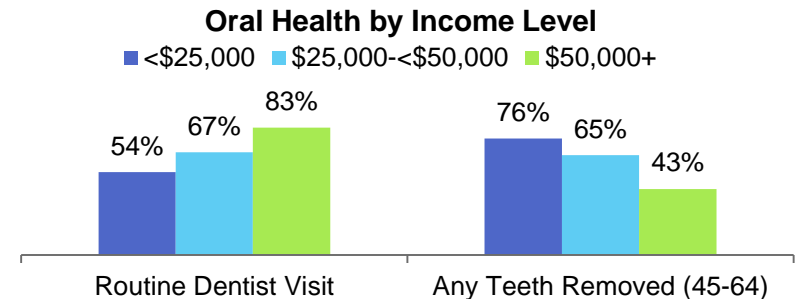
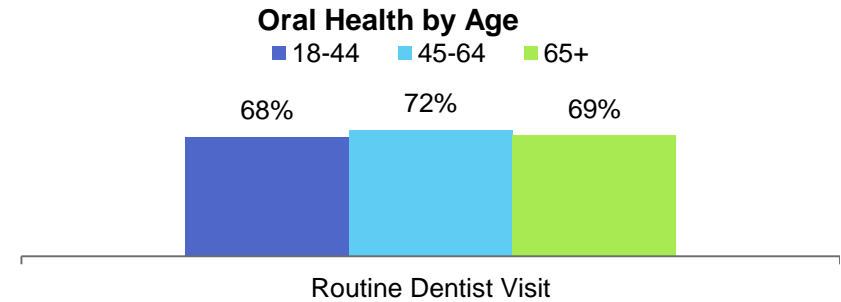
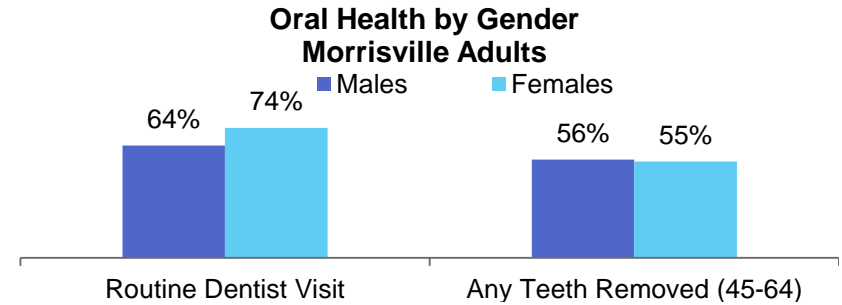
Oral Health

Among Morrisville area adults, men and women are as likely to regularly visit their dentist and have one or more teeth removed/extracted.

There were no statistical differences by age, among Morrisville area adults in regularly visiting their dentist.

Morrisville Area adults living in homes with more income are more likely to visit the dentist routinely and less likely to have had any teeth removed.

- Adults in homes making \$50,000 or more per year are more likely to have visited the dentist in the last year, compared to adults with incomes of less than \$25,000.
- Conversely, adults 45-64 in homes making at least \$50,000 are statistically less likely than those in homes making less than \$25,000 per year to have had any teeth removed.



HIV Screening

In 2015-2016, three in ten Morrisville area adults had ever been tested for HIV. This is statistically similar to the 37% among Vermont adults overall.

Men and women in the Morrisville area experience HIV testing at similar rates.

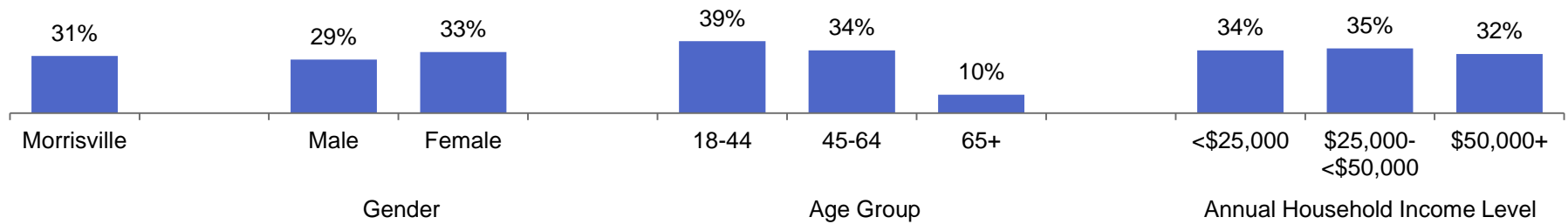
Ever having an HIV test decreases with increasing age.

- Adults 18-64 are statistically more likely than older adults to have ever received an HIV test..

There are no differences, among adults in the Morrisville area, in HIV testing by annual household income level.

HIV testing among Morrisville adults has not changed statistically since 2011. See Appendix A for results over time.

**Ever Had HIV Test, Overall and by Sub-Groups
Morrisville Adults**



Cancer Screening

In 2014/2016, about three quarters (74%) of women ages 50-74 in the Morrisville area met breast cancer screening recommendations. Vermont women in this age group have statistically similar rates (79%)

- The breast cancer screening recommendation is a mammogram every two years.

Eighty-eight percent of women 21-65 who live in the Morrisville area met cervical cancer recommendations, statistically similar to the 86% among Vermont women of the same age.

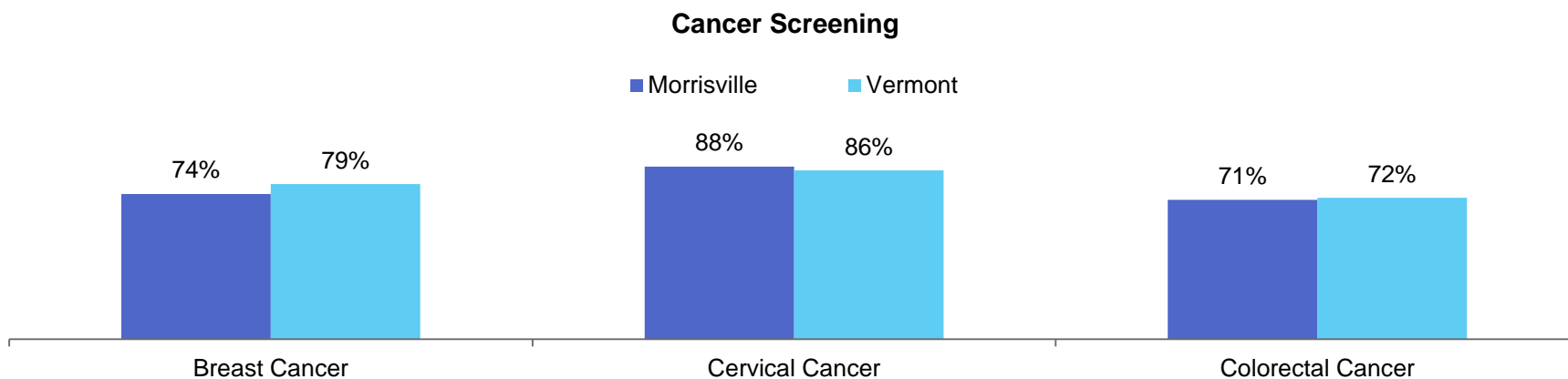
- Cervical cancer screening recommendations are for a PAP test every three years, and excludes women who have had a hysterectomy.

Among adults 50 to 75 living in the Morrisville area, more than seven in ten (71%) met colorectal cancer screening recommendations. This is similar to the rate (72%) among all Vermonters of the same age.

- Recommendations for screening for colorectal cancer are: a fecal occult blood test (FOBT) annually OR sigmoidoscopy every five years and FOBT every three years OR colonoscopy every ten years.

Receipt of mammograms among women 50-74, and of colorectal cancer screening among adults 50-75 did not change statistically from 2012/2014 to 2014/2016. Changes in cervical cancer screening could not be measured over time due to a difference in

how hysterectomies were asked about in 2016 and earlier years.



VDH – June 2018

Morrisville District Office: BRFSS Data,

Breast and Colorectal Cancer Screening - 2014, 2016; Cervical Cancer – 2012, 2014

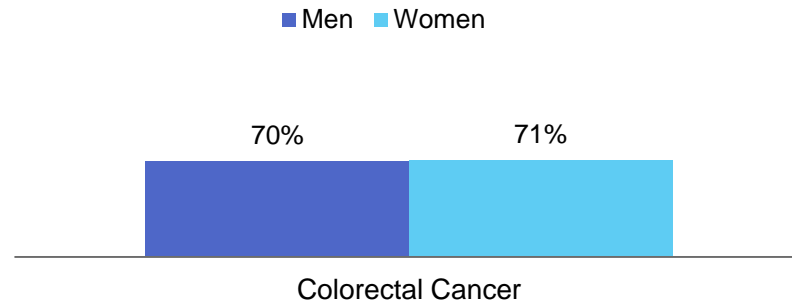
Cancer Screening

Among Morrisville area adults, there are no statistically significant differences by gender in receipt of recommended colorectal cancer screening.

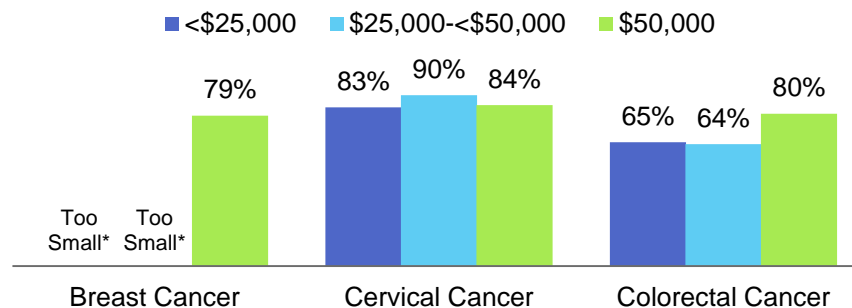
Receipt of cancer screening is more likely among those in homes with more income.

- Adults 50-75 in homes making at least \$50,000 are statistically more likely than those in homes making less than \$25,000 to meet colorectal cancer screening recommendations.
- Differences in breast and cervical cancer screenings by annual household income are not statistically significant.

Cancer Screening By Gender Morrisville Adults



Cancer Screening by Income Level



*Sample size is too small to report.

Appendix A: Morrisville District Office Trend Results (2011-2016)

	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	Significant Change Since 2011
Fair or Poor General Health	14%	12%	12%	12%	14%	No
Poor Physical Health	15%	13%	10%	9%	10%	No
Poor Mental Health	12%	11%	10%	9%	9%	No
Health Access Indicators	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	Significant Change Since 2011
No Personal Doctor	8%	10%	15%	15%	11%	No*
No Doctor Because of Cost	12%	11%	9%	8%	8%	No
No Health Plan (ages 18-64)	13%	15%	16%	11%	8%	No
Chronic Conditions	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	Significant Change Since 2011
Arthritis	30%	32%	31%	30%	28%	No
Depression	23%	20%	21%	21%	23%	No
Obesity	27%	24%	28%	30%	26%	No
Asthma	14%	14%	10%	11%	9%	No
Diabetes	7%	9%	8%	7%	7%	No
Non-Skin Cancer	8%	8%	8%	8%	8%	No
Cardiovascular Disease (CVD)	7%	8%	8%	7%	6%	No
Skin Cancer	5%	6%	6%	4%	5%	No
Chronic Obstructive Pulmonary Disease (COPD)	7%	7%	7%	6%	5%	No

*Not having a personal doctor among Morrisville area adults has a statistically significant upward trend. However, due to a decrease in 2015-2016, the change from 2011-2012 to the most recent year is not statistically significant. Future data will illustrate whether the change in 2015-2016 represents a change in the trend.

Appendix A: Morrisville District Office Trend Results (2011-2016)

Risk Behaviors	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	Significant Change Since 2011
Cigarette Smoking	20%	20%	20%	18%	17%	No
Binge Drinking	21%	19%	19%	18%	16%	No
Heavy Drinking	9%	11%	10%	9%	8%	No
No Exercise	21%	21%	22%	22%	19%	No
Seldom or Never use Seatbelt	3%	5%	5%	3%	2%	No
	2011-2012	2012-2013	2013, 2015	2015-2016		Significant Change Since 2011
Recent Marijuana Use	10%	9%	9%	10%		No
Preventive Behaviors						
Routine Doctor Visit, in Last year	61%	60%	59%	62%	65%	No
Pneumococcal Vaccine, Ever, Ages 65+	68%	69%	70%	72%	78%	No
Flu Shot in the Last Year, Ages 65+	62%	64%	66%	62%	61%	No
Ever Tested for HIV	30%	29%	31%	32%	31%	No

Appendix A: Morrisville District Office Trend Results (2011-2016)

Preventive Behaviors (cont).	2011, 2013	2013, 2015	Significant Change Since 2011
Meet Physical Activity Recommendations	59%	61%	No
Eat 2+ Fruits Per Day	33%	30%	No
Eat 3+ Vegetables Per Day	21%	20%	No
Eat 5+ Fruits & Vegetables Per Day	23%	23%	No
	2012, 2014	2014, 2016	Significant Change Since 2011
Routine Dental Visit, Last Year	68%	69%	No
Teeth Removed , Ages 45-64	46%	42%	No
Mammogram, Last 2 Years, Women 50-74	77%	74%	No
Meet Colorectal Cancer Screen Recommendations, Adults 50-75	68%	71%	No
PAP Test, Last 3 Years, Women 21-65	88%		

Additional Information

Contact the BRFSS Coordinator for additional information or for BRFSS data

Jessie Hammond

Jessie.Hammond@vermont.gov

802-863-7663

Additional sub-state level data can be found on the Vermont Department of Health website

<http://healthvermont.gov/hv2020/index.aspx>

Towns included in the Morrisville Health District are: Hardwick, Stannard, Belvidere, Cambridge, Eden, Elmore, Hyde Park, Johnson, Morristown, Stowe, Waterville, Wolcott, Craftsbury, Greensboro, and Woodbury.