

Vermont Department of Health

Asthma Data Pages 2009

Guidance • Support • Prevention • Protection

Vermont Department of Health
September 2010

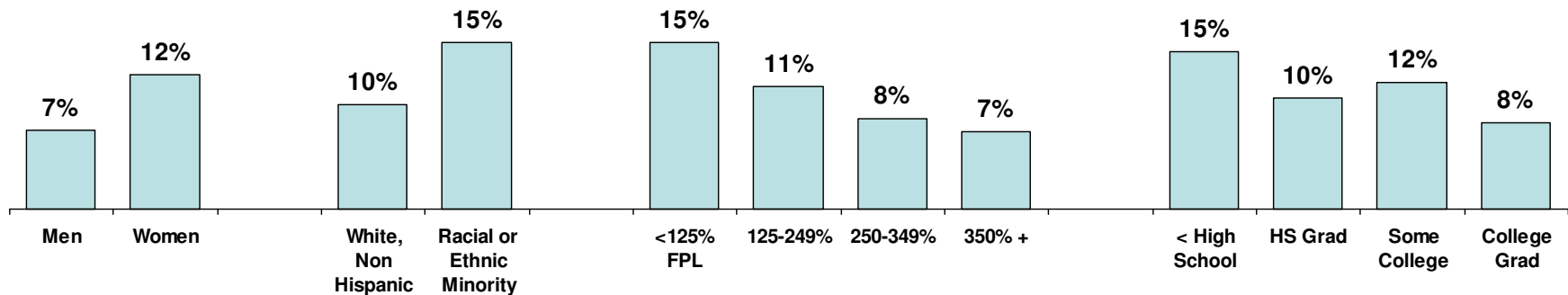
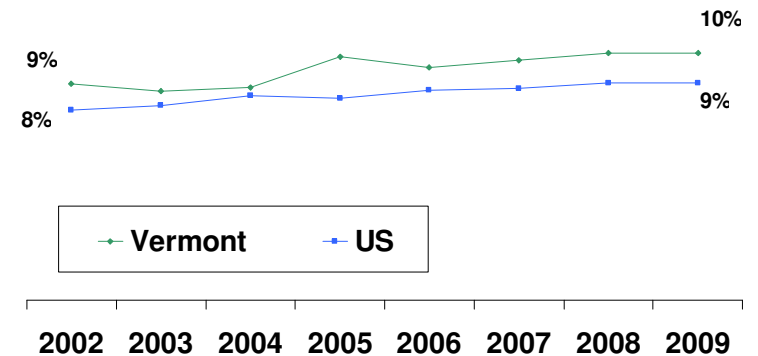
 **VERMONT**
DEPARTMENT OF HEALTH

Asthma Prevalence Among Adults

In 2009, 15% of adult Vermonters reported that they have ever had asthma (lifetime prevalence). Nearly 10% of adult Vermonters report they currently have asthma, which is approximately 50,000 adults. The Vermont adult asthma rate is significantly higher than the US White rate (9.9% versus 8.7%), and has been since about 2008. However, although the national asthma rates have been increasing; the VT rate has not changed significantly.

Among Vermont adults, the highest rates of asthma are observed among those with the lowest levels of education or income, and among females. These are statistically significant differences.

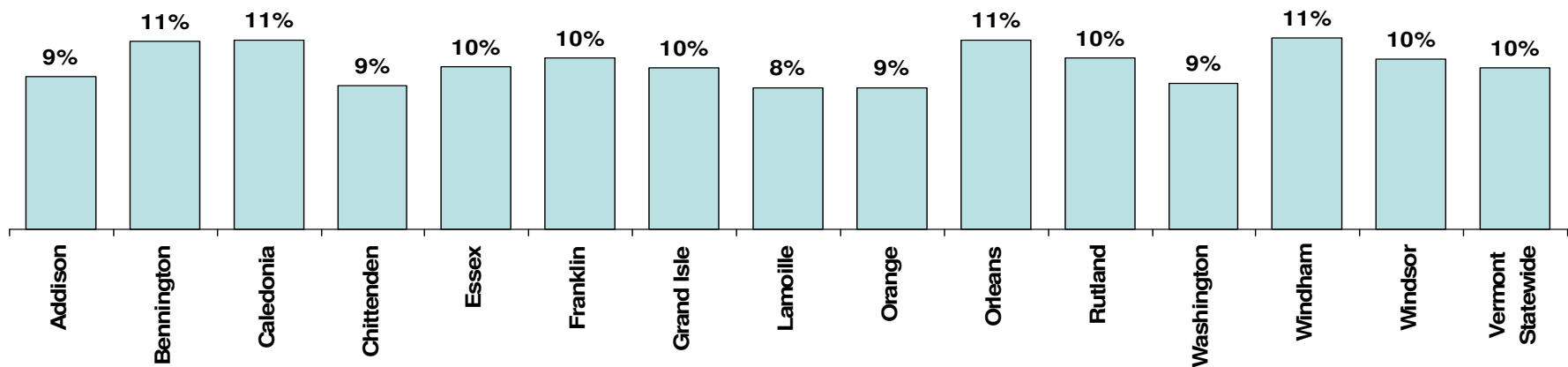
Nationally, White, non-Hispanic Americans have higher rates of asthma than their racial and ethnic minority counterparts; in Vermont the opposite is true, minorities show a higher rate of asthma prevalence than whites; though not a statistically significant difference.



Adult Prevalence by County

Although some variation is observed in adult asthma prevalence rates by county, when developing asthma prevention and control programs it is important to target populations with known risk factors for asthma, such as income, education and gender.

There is little variation in adult asthma prevalence by county, and no county shows a statistically different asthma prevalence rate than the statewide rate.

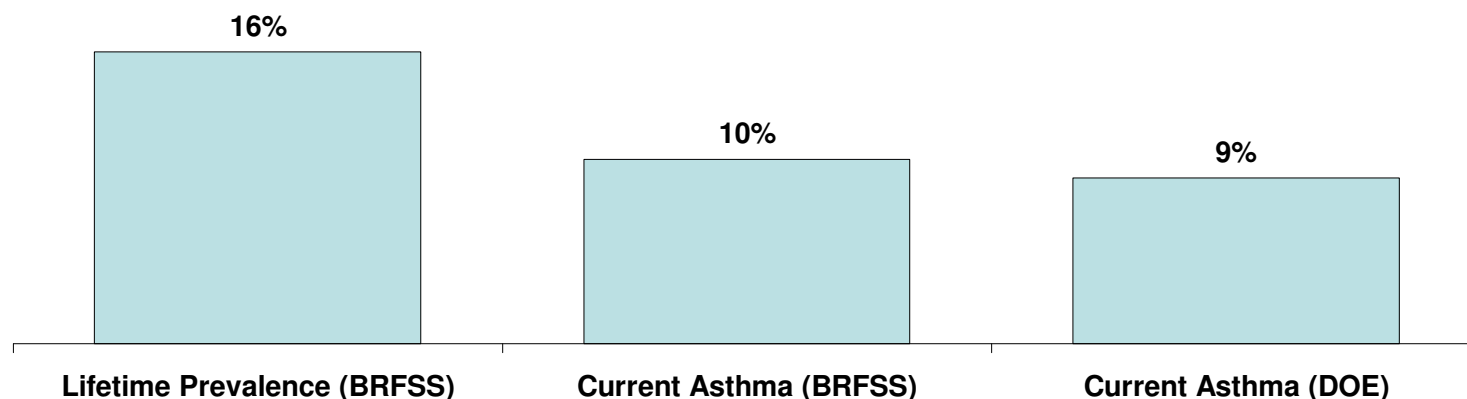


Asthma Prevalence Among Youth

There are two different sources of youth asthma prevalence – the Behavioral Risk Factor Surveillance Survey (BRFSS) and the Vermont Department of Health School Nurse Reports.

In 2009, the BRFSS showed that one in six youth indicated they have been diagnosed with asthma at some point in their lives. The 2009 BRFSS and DOE data indicates that about half as many kids report currently having an asthma diagnosis (around 10%).

The BRFSS data also shows that boys have a higher rate of current asthma diagnosis than girls (12% versus 8%). Trends regarding household income are similar among youth as adults – youth in households with less than 125% of the Federal poverty level have a significantly higher rate of asthma. The lowest FPL category (<125%, 16%) has a child asthma rate twice as high as the highest FPL category (350%+, 9%).

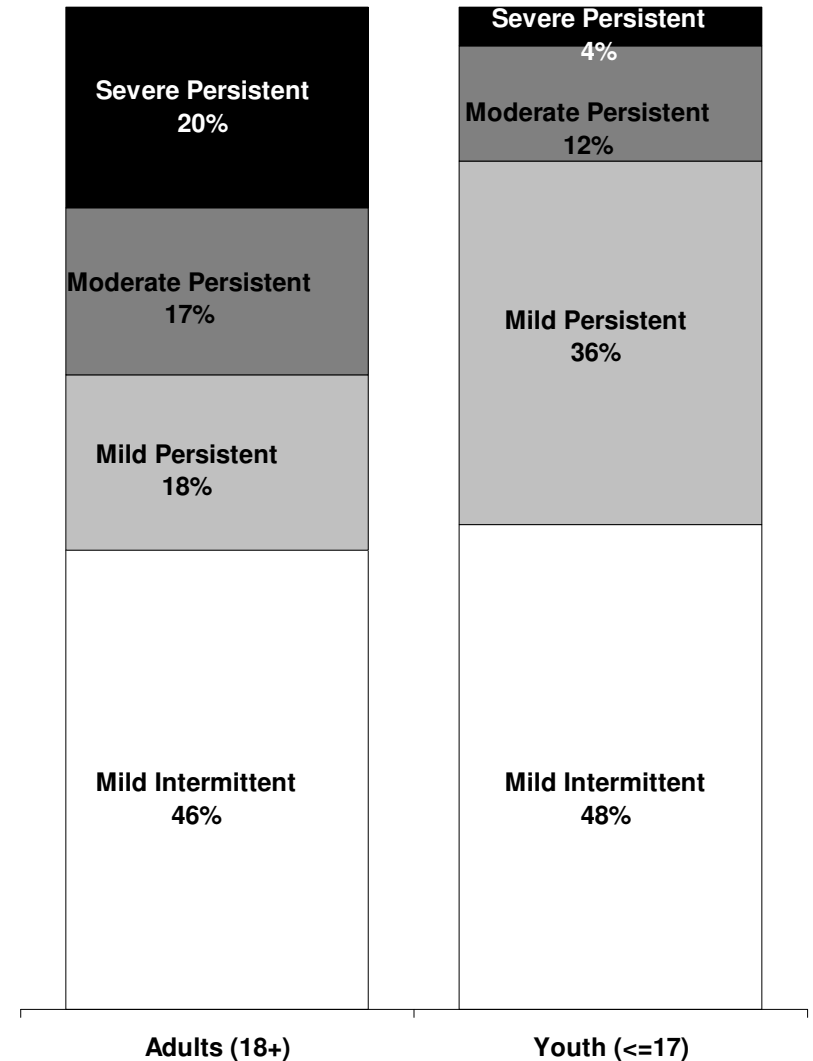


Asthma Severity & Overall Health

Among adults with Asthma, just less than half report their asthma is mild and intermittent. Around one in five report mild persistent symptoms, moderate symptoms or severe asthma symptoms. About half of youth also report mild, intermittent asthma; but few report severe, persistent asthma (4%). More than a third of youth indicate their asthma is mild (36%).

The highest rates of severe, persistent asthma in adults are found in those with the lowest incomes (35% of those with <125% FPL) and lowest levels of education (37% of those without any college education). Asthma severity does not differ by gender among adults.

Overall, more than twice as many adults with asthma report their general health is fair or poor (23%) than do those who do not have asthma (10%).



Quality of Life For Those With Asthma

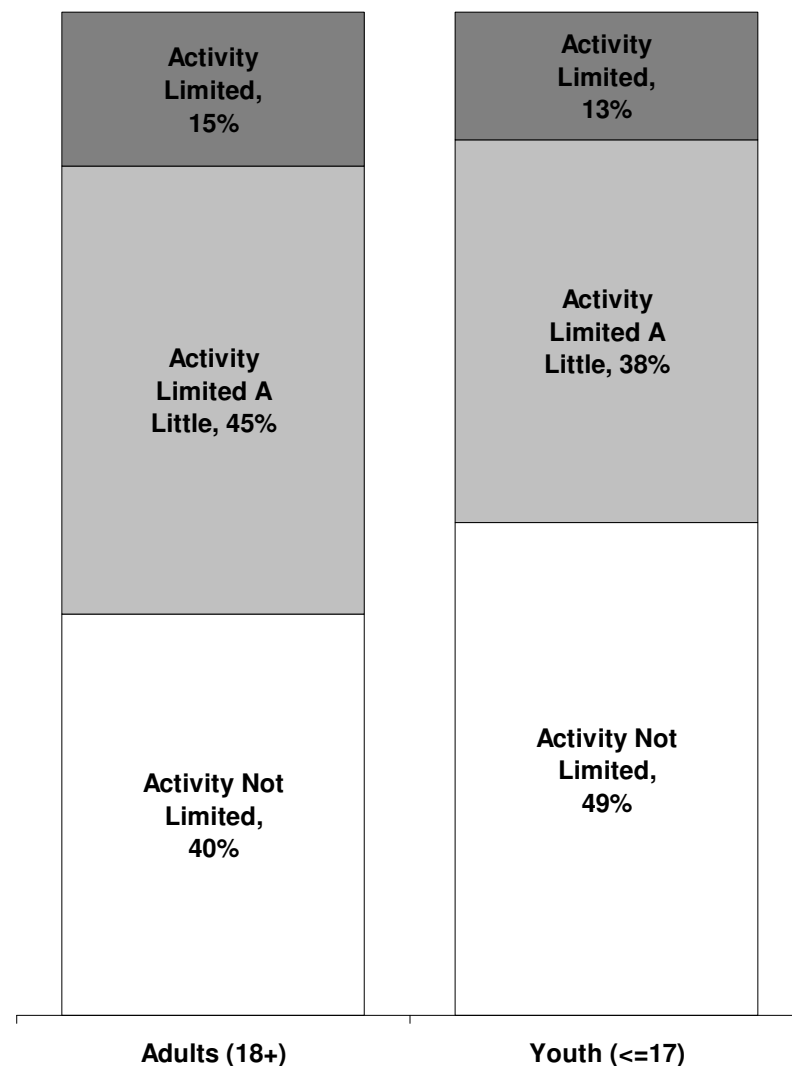
Many adults and youth with asthma report that the disease does not limit their daily activity (40% of adults, 49% of youth). However, a majority of each group does indicate some time of limitation due to their asthma.

Among adults, less than one-fifth indicate they have significantly limitations due to asthma (15%); while just less than two-fifths report a small amount of limitation (45%). Among youth, just 13% report serious limitation, and just more than a third say they are limited 'a little' (38%).

More than a third of adults with asthma symptoms report those symptoms have made it difficult for them to sleep on one or more days in the past month (38%).

Twice as many adults with asthma report being unemployed (12% versus 6% of adults without asthma); and nearly four times as many report being unable to work (11% versus 3%).

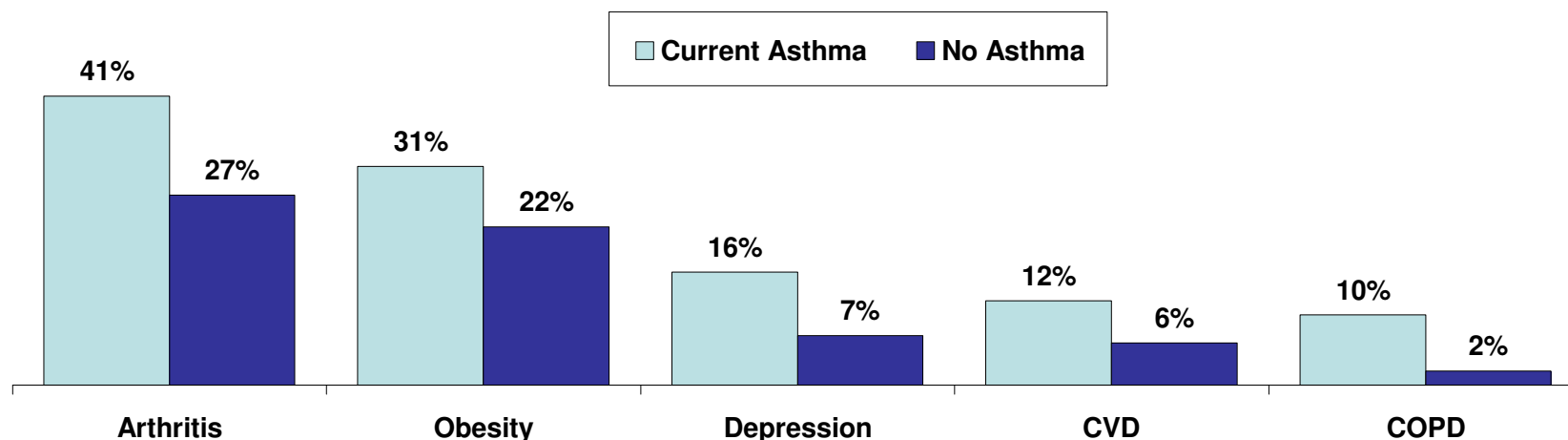
Just less than one in five adults report they missed days of work in the past year due to their asthma (16%); however, a third of youth with asthma have missed school more than once in the past year (32%).



Adult Asthma and Co-Morbidity

Because many chronic diseases have similar risk factors, it is not surprising to find people with more than one chronic disease. Given that people with asthma may be dealing with multiple chronic conditions, initiatives aimed at reducing chronic diseases will benefit from working together.

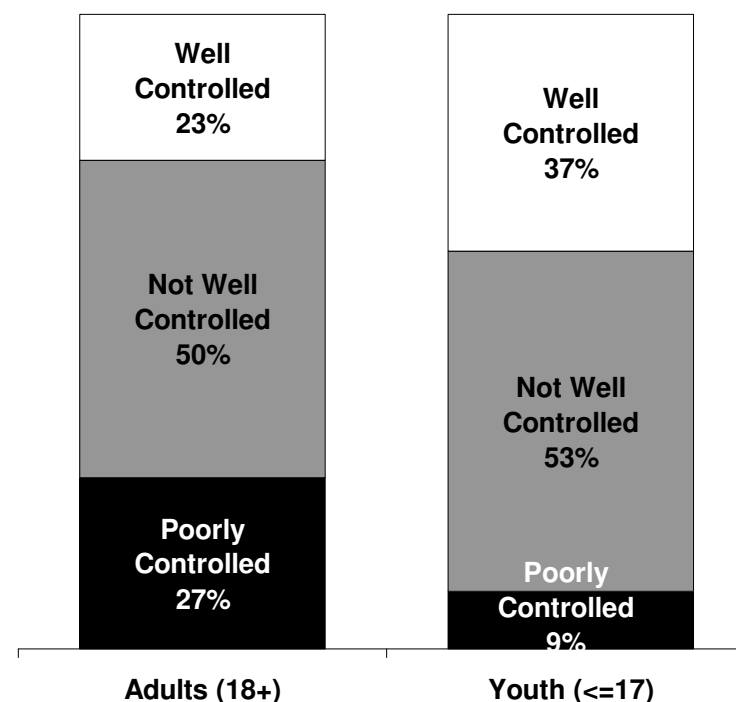
Compared to Vermonters without asthma, Vermonters with asthma are more likely to have arthritis, obesity, depression, cardiovascular disease and COPD.



Asthma Management

Just less than one-quarter of adults (23%) and just more than one-third of youth (37%) indicate their asthma is well-controlled. Around half in each group have asthma that is not well controlled (50% of adults, 53% of youth). Among adults, another quarter have poorly controlled asthma (27%); while just one in ten youth have poorly controlled asthma (9%).

As with other aspects of asthma, those with lower levels of education and household income are also more likely to indicate their asthma is poorly controlled. While nearly a third of adults with a college education have well-controlled asthma (32%); just one in ten of those with less than a high school education have well-controlled asthma (12%). Conversely, half of those without a high school diploma (52%) have very poorly controlled asthma; while just one in ten college graduates have poorly controlled asthma (11%). Similar patterns are seen in relation to the highest and lowest levels of income.

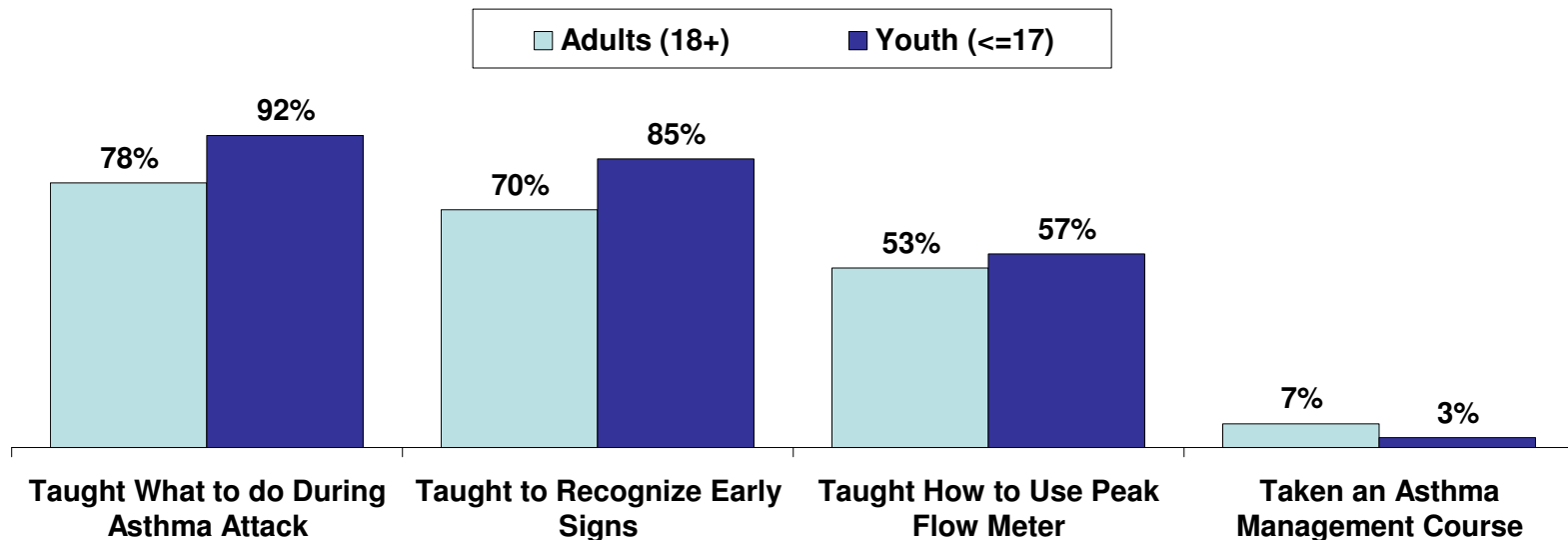


Asthma Management – Self Care

Three-quarter of adults (78%) and nine out of ten youth with asthma (92%) have been taught what to do during an asthma attack by a health care professional. Just slightly fewer adults (70%) and youth (85%) report being taught to recognize early signs and symptoms of an asthma attack.

About half of all persons with asthma have been taught how to use a peak flow meter to adjust their medication (53% of adults with asthma, 57% of youth with asthma).

Few have taken a course on asthma management -- just 7% of adults with asthma and only 3% of youth with asthma report taking an asthma management course.



Asthma Management – Adult Medication Use

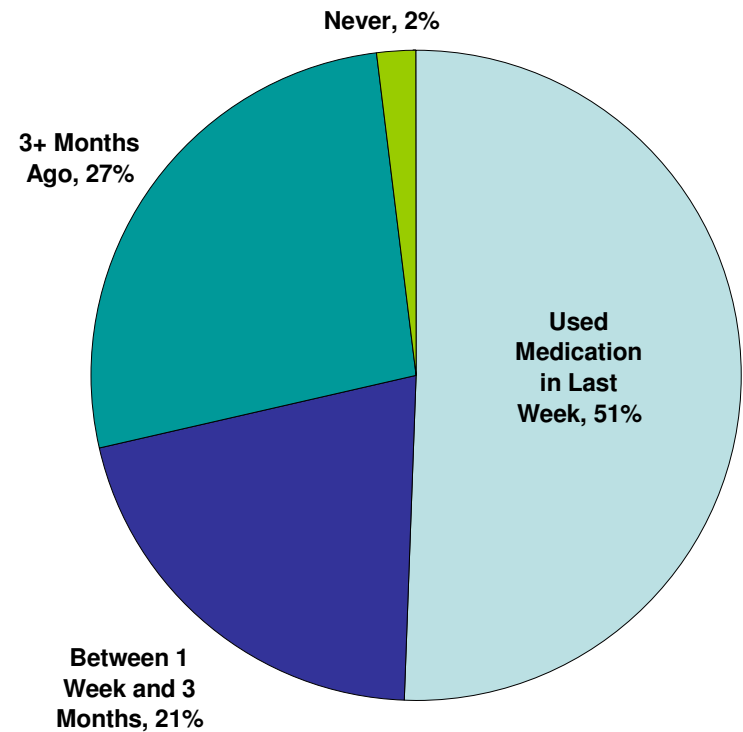
Virtually all adults with asthma report they have, at some point, used a prescription inhaler (99%). One-quarter report they have used over-the-counter medication for their asthma (24%).

Half of adults with asthma report they have used asthma medication in the past week (51%).

In last three months, nine out of ten adults with asthma have used an inhaler (90%). Around one in five have used pills (23%) or a nebulizer (17%) to medicate their asthma symptoms. None reporting using a syrup medication to treat asthma symptoms (0%).

Complementary and Alternative Medicine

About one-third of adults with asthma report they have used a complementary or alternative medicine (CAM) therapy (31%). Breathing techniques are the most commonly utilized type of CAM (28%). Six percent report they used yoga; and 5% used herbs or vitamins as CAM therapy.

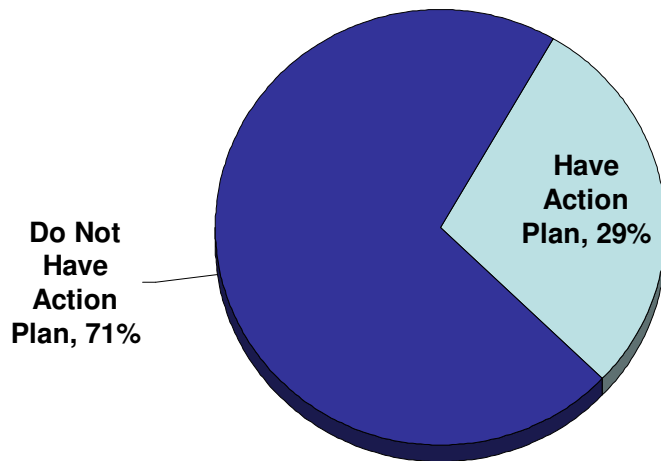


Asthma Management – Action Plans

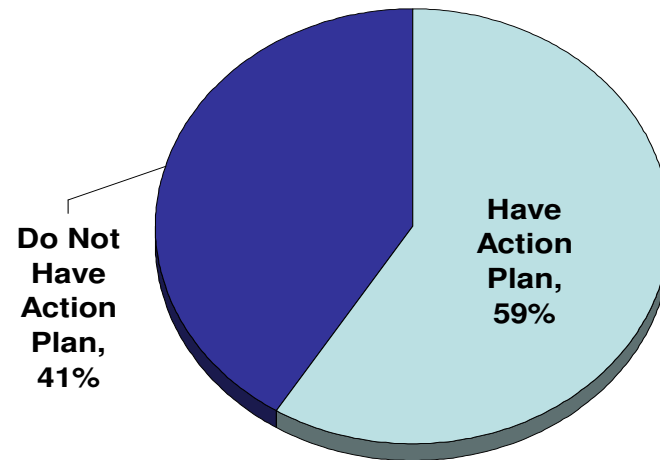
Less than one-third of Vermont adults with asthma report ever receiving an asthma action plan from a health care professional (29%). A majority of youth with asthma report they have received an asthma action plan (59%).

The Department of Education also collects data on the use of action plans in schools. In the 2008-2009 school year, school nurses report 22% of students with asthma had an action plan on file.

Adults (18+)



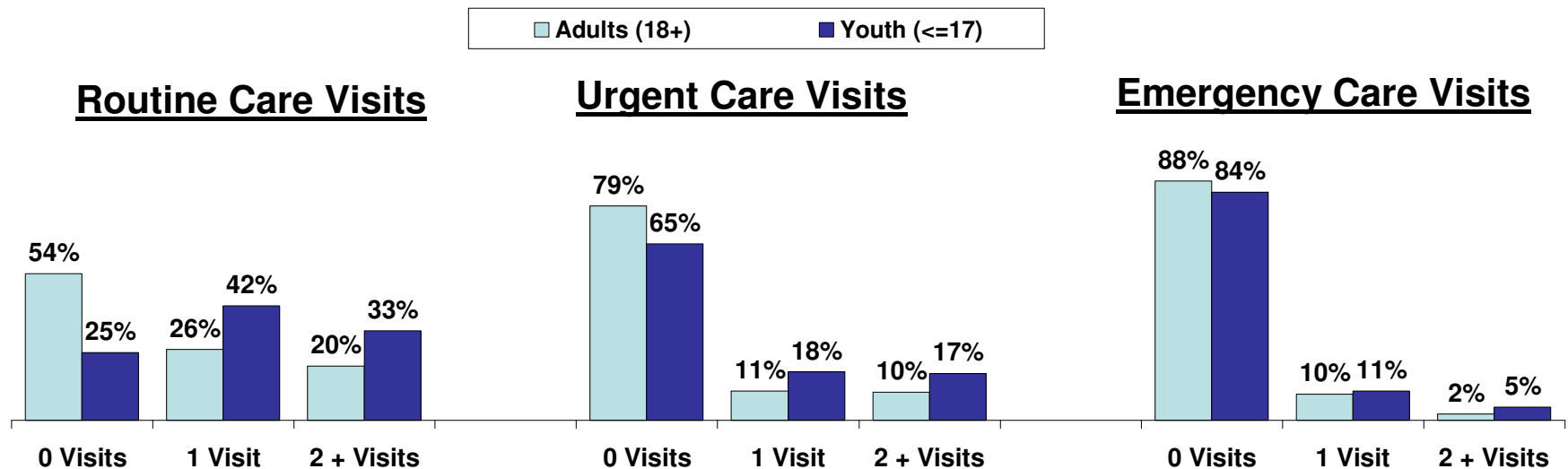
Youth (<=17)



Asthma Management – Clinical Care

A majority of adults with asthma have not seen a physician for a routine care visit in the past year (54%); while three-quarters of youth with asthma have seen a doctor at least once.

Majorities of all persons with asthma have NOT needed an urgent or emergency care visit with a health care professional or hospital to treat their asthma. Around one in five adults have needed an urgent care visit (21%); while about one in ten have needed an emergency visit (12%). Among youth, just more than a third saw their doctor for urgent asthma care(35%); while about half as many visited the emergency room (16%).



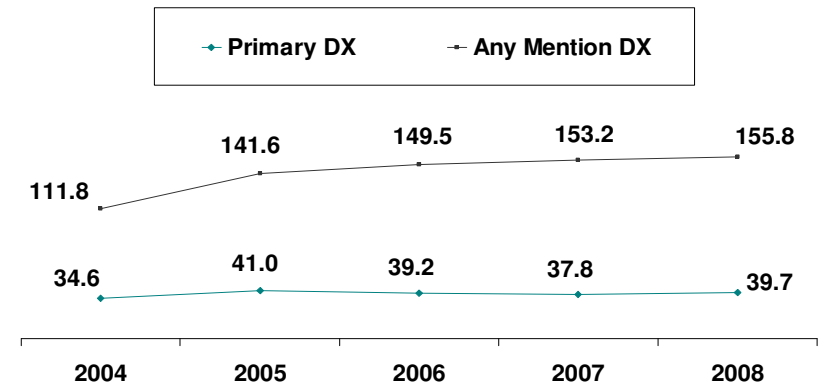
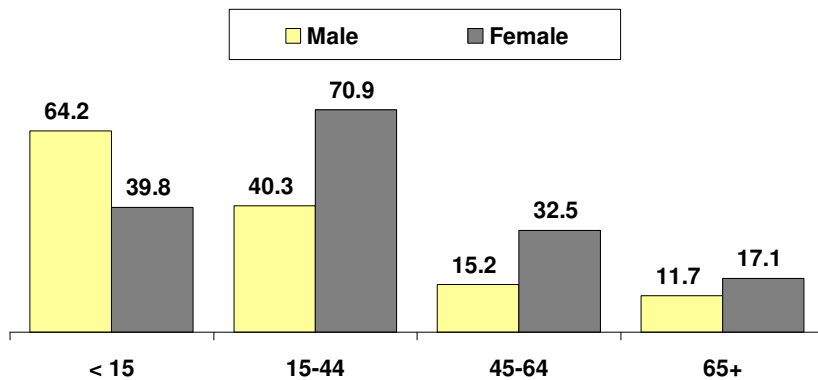
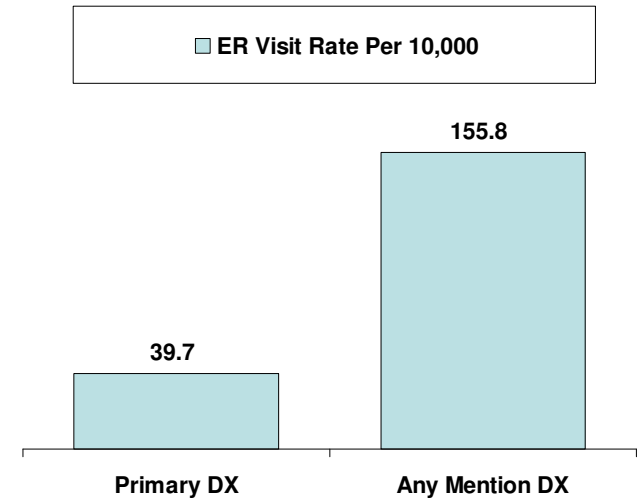
Indicators of Poor Asthma Management

Emergency Room Visits

There were 2,469 emergency room visits with a primary diagnosis of asthma in 2008 (among Vermont residents). This equates to rate of 39.7 per 10,000 Vermonters. There were nearly four times as many ER visits where asthma is listed as a contributing factor (9,682), a rate of 155.8 per 10,000 Vermonters. Vermont sees the highest ER visits for asthma September and October.

In the last five years, ED visit rates for primary diagnosis of asthma have remained relatively steady. The rate for ED visits with asthma as a contributing factor increased between 2004 and 2005, and has continued to rise slightly since.

Overall, women have a higher rate of primary diagnosis of asthma in ER visits than men (46.0 versus 33.3); however, when age is considered, young boys (<15, 64.2/10,000) and adolescent or young adult females (15-44, 70.9/10,000) have the highest rates of asthma-attributed ER visits. Rates of ED visits for which asthma is a contributing factor show a similar pattern.



Indicators of Poor Asthma Management

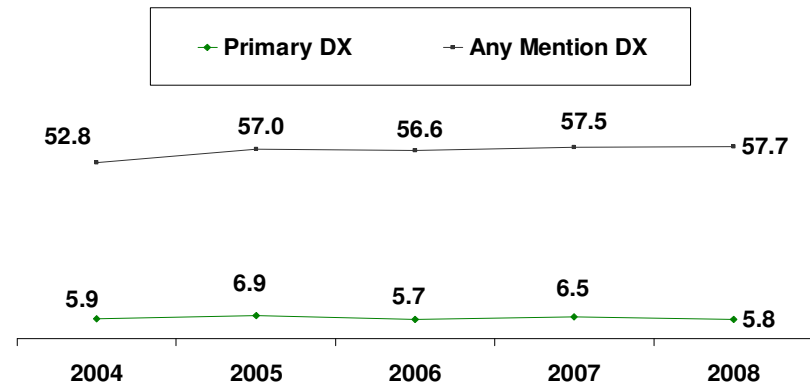
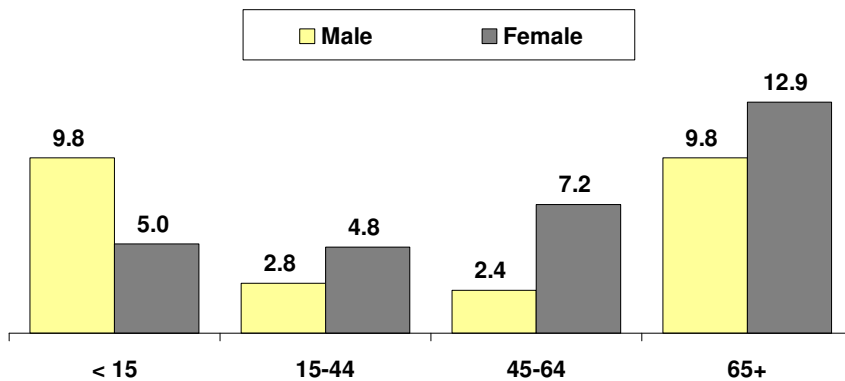
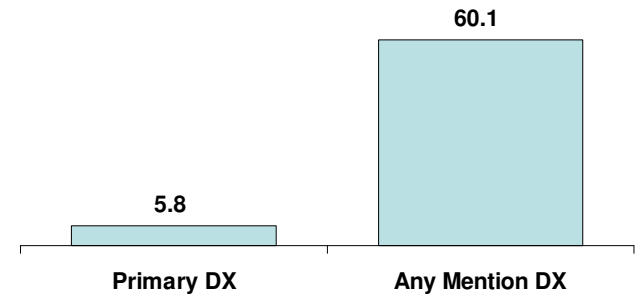
Hospitalizations

There were 360 hospitalizations with a primary diagnosis of asthma in 2008 (5.8 per 10,000 Vermonters). There were nearly ten times as many hospitalizations for asthma as a contributing factor (3,733 or (60.1/10,000)).

For the last five years, the rate of asthma hospitalization – for both primary diagnosis and contributing factor diagnosis – has remained relatively constant.

Overall, women have a higher asthma hospitalization rate (primary Dx) than men (6.8 versus 4.7); however, as with ER visits, young boys have a higher rate than young girls (9.8 versus 5.0). Rates of hospitalization for which asthma is a contributing factor show a similar pattern.

■ Hospitalization Rate Per 10,000



Cost of Poor Asthma Management

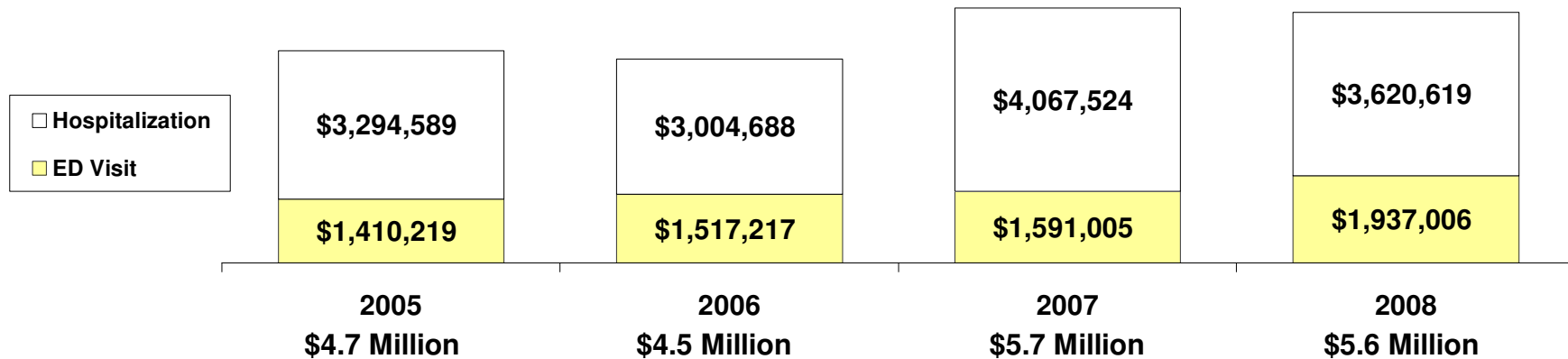
Death

In the past ten years, more than 70 Vermonter have died because of their asthma. In 2008, there were 7 deaths attributed to asthma. Between 2004 and 2008, there have been between 7 and 9 deaths per year due to asthma.

Health Care Cost

In addition to the human cost of poor asthma management, the cost for hospitalization and ED visits can be measured by the charges incurred for each visit.

Overall, hospitalization costs significantly more than an ED visit, and the costs for asthma-related treatment in a hospital or ED setting have been increasing.



Asthma Risk Factors

Smoking

Those who report they currently have asthma are more likely to also report they are currently smoking. Nearly one-quarter of those with asthma report they smoke; while just 16% of those without asthma are smokers. Among youth the gap is narrower, however one in ten of those with asthma report smoking; slightly fewer of those without asthma smoke (8%).

While the rates of smoking have been decreasing among those who do not have asthma, the smoking rate among those with asthma has been increasing in recent years.

Exposure in the Workplace

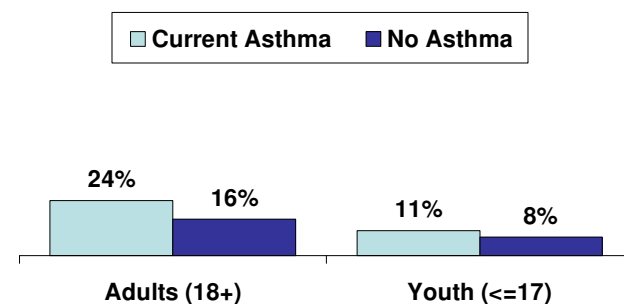
In 2009, 5% of adult Vermonters with asthma indicated they believe their asthma was caused by chemicals, smoke, fumes or dust at their current workplace; another 24% believe such factors exacerbated their asthma. More than a third report they have changed jobs or quit a job because of factors such as these (36%).

One in ten have *told* a doctor they believe their asthma is related to employment (10%); just slightly fewer have been *told* by a doctor that their asthma is related to employment (8%).

Immunization for Flu and Pneumonia

A majority of adults and youth with asthma report they have had a flu shot in the past year (54% of adults and youth*); among adults 39% have had a pneumonia vaccine.

Smoking Among Those With and Without Asthma



Smoking Trends Among Adults With and Without Asthma

