

Asthma Data Sources and Availability

Chronic Disease Epidemiology



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Introduction

Asthma is a disease that affects the lungs causing repeated episodes of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. Asthma is increasing in prevalence in the United States and is one of the most common long-term diseases of children. We still don't know what causes this disease or how to cure it, but evidence has shown us that asthma can be well controlled resulting in a reduction in symptoms by following a medical management plan and by avoiding contact with environmental "triggers," such as cockroaches, dust mites, furry pets, mold, tobacco smoke, and certain chemicals.

The Vermont Asthma Program is currently funded by the Centers for Disease Control and Prevention (CDC) to create a comprehensive asthma prevention program and surveillance system in Vermont. Surveillance is the ongoing systematic collection, analysis, and interpretation of asthma-related data for use in planning, implementation, and evaluation of public health practice. Asthma surveillance data will help direct and inform Asthma Program activities as well as address the needs of the public to learn more about asthma in their communities.

The Chronic Disease Epidemiology Program within the Health Surveillance Division of the Vermont Department of Health has identified data sources and indicators to monitor asthma trends throughout Vermont. Indicators help us to understand how asthma affects Vermonters of all ages, including prevalence, morbidity (symptom frequency, impact of asthma on quality of life, and comorbidities), risk factors, self and clinical management of asthma, indicators of poor management of asthma (urgent care and ER visits, hospitalizations, and deaths), and costs. A variety of data sources including surveys, population-based datasets, school reports, and hospital discharge data, aid us in learning more about these indicators. Many partners work together in conducting asthma surveillance in Vermont, including the Department of Education, hospitals, and consumers.

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Data Sources

Currently Used Sources

Behavioral Risk Factor Surveillance System (BRFSS) and Asthma Callback Survey (CB)

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<http://www.healthyvermonters.info/hs/brfss/brfss.shtml>

Years of data available: 1990-2009 (BRFSS)

Data collection pattern: every year

Input on survey for following year by: August

Data from previous year available by: January (preliminary), March-June (Official)

Summary:

Since 1990, Vermont and 49 other states and three territories have tracked risk behaviors using a population-based telephone survey of adults called the Behavioral Risk Factor Survey. The CDC provides the Vermont Department of Health with funding each year to carry out the survey.

In 2008, 6,664 Vermonters were randomly and anonymously selected and called. An adult (18 or older) in the household is asked a uniform set of questions. The results are weighted by age and gender to represent the adult population of the state. The results are used to plan, support, and evaluate health promotion and disease prevention programs. The CASRO response rate for the 2009 BRFSS was 59%, an increase over the 57% seen in 2007.

Beginning in 2006, the Vermont Department of Health received funding for a youth and adult asthma callback survey. Vermonters identified as having asthma or as having a child with asthma through the BRFSS are asked to participate in this supplementary survey and called back to complete the survey within the following 2 weeks. This survey provides valuable detailed information on Vermonters with asthma.

Limitations: data are self-reported, there can be issues with small sample sizes, and response rate has declined in recent years.

Youth Tobacco Survey (YTS)/Youth Health Survey (YHS)

Contact name(s): Erika Edwards
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Years of data available: 2000, 2002, 2004, 2006 (YHS), 2008 (YHS)

Data collection pattern: even years

Input on survey for following year by: August

Data from previous year available by: August (preliminary), November (official)

Summary:

The YTS is a population-based, self-administered survey of all students in randomly selected classes in randomly selected schools statewide. Data for years 2000 and 2002 include only middle school students. Data for year 2004, 2006 and 2008 includes both middle and high school students. Data are collected during March and April in schools.

The YTS included questions on asthma in the 2002 and 2004 surveys. In 2006, the YTS transitioned into the YHS, Youth Health Survey. The 2006 and 2008 YHS surveys include 4 asthma questions.

Limitations: data are self-reported, survey is limited to kids in only grades 6-12, and school participation rate has been low in past years.

Vital Statistics

Contact name(s): Cindy Hooley
Vermont Department of Health
802-651-1636

Years of data available: 1968-2007

Data collection pattern: yearly

Input on survey for following year by: NA

Data from previous year available by: September (preliminary), December (official)

Summary:

In Vermont, statewide vital registration began in 1857, when the General Assembly passed a bill requiring that towns report to the Secretary of State all births, marriages, and deaths occurring in their jurisdiction. Prior to that time, some towns kept such records in order to resolve questions concerning the distribution and inheritance of property. Vital records, particularly death records, gradually became recognized as an important tool in studying the location and spread of epidemics. In 1896, the Legislature transferred responsibility for the vital statistics system to the newly formed Board of Health, the forerunner of the Vermont Department of Health. The Health Department has retained this responsibility to the present day.

Until recently, the Vermont vital records system included six types of vital events: births, deaths, marriages, divorces, fetal deaths, and abortions. In 2000, with the passage of Act 91, the establishment and dissolution of civil unions and reciprocal beneficiaries relationships were added to the list.

Although a physician is responsible for filing the death certificate, the job may be, and often is, delegated to the funeral director. Most of the information needed to complete the death certificate is obtained from the family of the deceased. A physician, however, must complete the cause of death information and sign the death certificate. The funeral director files the completed certificate with the town clerk who sends a certified copy to the Health Department.

In addition to receiving copies of vital records from Vermont town clerks, the Health Department also receives copies of certificates of all Vermont resident births and deaths that occur in other states and in Canada. This allows the Department to do statistical analyses of vital events involving Vermont residents even if the birth or death occurred outside of the state. Health Department staff code and enter all vital records received into a computerized database, and send a data file containing some of the information from the records to the [National Center for Health Statistics](#) to become part of a national database.

Limitations: Small number of deaths due to asthma and unable to look at correlations between deaths and data in vital records.

Hospital Discharge Data and Emergency Department Visits (HDD)

Contact name(s): Joan Mongeon
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802-657-7249

Years of data available: HDD: 1982-2008
ED: 2002-2008

Data collection pattern: yearly

Input on survey for following year by: NA

Data from previous year available by: September (preliminary), December (official)

Summary:

Vermont's acute care hospitals participate in the state's hospital data system by supplying discharge abstracts of comparable information to Health Care Investment Analysts, a subsidiary of AMBAC, under contract with the Vermont Association of Hospitals and Health Systems (VAHHS). VAHHS, using its EXPLOR data system, then provides data to the Department of Health, the hospital discharge data management designee of the Division of Health Care Administration. Records of Vermont resident discharges from hospitals in neighboring states are obtained by the Department of Health. Records from Massachusetts, New Hampshire and New York hospitals are obtained from the Massachusetts Health Data Consortium, the New Hampshire Division of Public Health and the New York Department of Health respectively. The Veterans Administration provides discharge records from the VA hospital in White River Junction.

National data for comparison purposes is available through the Healthcare Cost and Utilization Project (HCUP). HCUP is a Federal-State-industry partnership to build a standardized, multistate health data system and companion set of complementary resources. HCUP databases are a family of longitudinal, administrative databases—including State-specific hospital-discharge databases and a national sample of discharges from community hospitals. The Agency for Healthcare Research and Quality (AHRQ) maintains HCUP and has taken the lead in making the databases publicly available and developing Web-based products and software tools.

Limitations: VA stopped providing data as of mid-2006. Also data are per visit and not person, so cannot easily discern number of people are going for repeat visits.

Medicaid

Contact name(s): Markle, Ann E
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Years of data available: 1999-2009

Data collection pattern: yearly

Input on survey for following year by: NA

Data from previous year available by: updated continually

Summary:

Medicaid data is currently available to us in Business Objects software, which includes all claims made by Medicaid recipients.

The Vermont Department of Health has also contracted with the Vermont Program for Quality in Health Care (VPQHC) to analyze asthma-related claims from the Medicaid database. VPQHC produced a report for us called "Asthma Prevalence in the 2002 PCPlus Program: A Comparison of CSTE and NCQA Classification Systems." A second grant was given to VPQHC to analyze and report on the prevalence of asthma, service utilizations for asthma, and selected quality assessment indicators among low income Vermonters for 2003 and 2004. The report was delivered during the summer of 2006. The Vermont Department of Health would like to contract for an updated version of this report.

Limitations: Only Medicaid recipients.

School Nurse Reports (SNR)

Contact name(s): Nathaniel Waite
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Years of data available: 2004-05, 2005-06, 2006-07, 2007-08, 2008-09, 2009-10

Data collection pattern: yearly

Input on survey for following year by: February

Data from previous year available by: June

Summary:

The Vermont Department of Education sends a Health Services Screening Report to all school nurses every year. The Vermont Asthma Program included a question at the end of the form on asthma written management plans through an agreement with the Department of Education beginning in 2004-2005. Unfortunately, without asthma prevalence as a denominator, this question was not extremely useful. In 2005-2006, the Department of Education allowed us to include two questions, on asthma prevalence and use of a written management plan. In 2007-2008, the survey moved to an electronic database format which has improved accuracy and ease of reporting.

Limitations: School aged children only, parent must report asthma and/or nurse must make note of asthma in student record for it to be counted.

Vermont Blueprint for Health

Contact name(s): <http://healthvermont.gov/blueprint.aspx>

Years of data available: 2005, 2006, 2007, 2008, 2009

Data collection pattern: ongoing

Input on survey for following year by: na

Data from previous year available by: na

Summary:

The vision of the Vermont Blueprint for health is that Vermont will have a comprehensive, proactive system of care that improves the quality of life for people with or at risk for chronic conditions. A major area of emphasis in the Blueprint is that Vermonters with chronic conditions will be effective managers of their own health. The asthma program has been incorporated into the Blueprint.

Data are collected on the following:

- Expansion of pilot communities
- Number of grants awarded for walking programs
- Number who completed the "Healthier Living Workshop" developed by Stanford University and adopted by the Blueprint. This highly-acclaimed, evidence-based course teaches successful self-management of chronic conditions through a variety of techniques.
- Number of physician offices implementing the Registry
- Number of adult primary care providers signed up in participating communities
- An inventory and assessment of disease management services offered by Vermont insurance carriers

Limitations: Not population based, number of people participating in Healthier Living Workshops with asthma is relatively low, response rate at follow-up is less than 75%, and data are self-reported.

Data Availability

Prevalence

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
Adults											
	Have you ever been told by a doctor, nurse, or other health professional that you had asthma?	BRFSS	X	X	X	X	X	X	X	X	X
	Do you still have asthma?	BRFSS	X	X	X	X	X	X	X	X	X
	How old were you when you were first told by a doctor or other health professional that you had asthma?	BRFSS CB			X	X	X	X	X	X	X
	How long ago was that	CB						X	X	X	X
Youth											
	Has a doctor or other medical professional ever said that the child has asthma?	BRFSS					X	X	X	X	X
	Does the child still have asthma?	BRFSS					X	X	X	X	X
	How old was the child when a doctor first said he had asthma?	CB						X	X	X	X
	How long ago was that?	CB						X	X	X	X
	How many of these children have ever been diagnosed with asthma?	BRFSS	X	X	X	X					
	Does this child/how many of these children still have asthma?	BRFSS	X	X	X	X					
	Was your child diagnosed with asthma (greater or less than 12 months ago)?	BRFSS					X				
	Have you ever been told by a doctor or other health professional that you had asthma?	YTS/ YHS			YX	X		X		X	
	Do you currently have asthma?	YTS/ YHS			X	X		X		X	
	Number of children known to have asthma	SNR					X	X	X	X	X

*Note YHS current asthma question is worded differently than written here.

Morbidity

Symptom Frequency

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
Adults											
	How long has it been since you last had any symptoms of asthma?	CB						X	X	X	X
	During the past 30 days, on how many days did you you have any symptoms of asthma?	CB						X	X	X	X
	Do you have symptoms all the time?	CB						X	X	X	X
	During the past two weeks, on how many days were you completely symptom free?	CB						X	X	X	X
	During the past 30 days have you had an episode of asthma or an asthma attack?	CB						X	X	X	X
	During the past 3 months how many asthma episodes or attacks have you had?	CB						X	X	X	X
	How long did your most recent asthma episode or attack last?	CB						X	X	X	X
	Compared with other episodes or attacks, was this most recent attack shorter, longer, or about the same?	BRFSS						X	X	X	X
	During the past 12 months, have you had an episode of asthma or an asthma attack?	BRFSS		X	X	X	X				
	During the past 30 days, how often did you have any symptoms of asthma?	BRFSS		X	X	X	X				
Children											
	How long has it been since your child last had any symptoms of asthma?	CB						X	X	X	X
	During the past 30 days, on how many days did you your child have any symptoms of asthma?	CB						X	X	X	X
	Does your child have symptoms all the time?	CB						X	X	X	X
	During the past two weeks, on how many days was the child completely symptom free?	CB						X	X	X	X
	During the past 30 days has the child has an episode of asthma or an asthma attack?	CB						X	X	X	X

	During the past 3 months how many asthma episodes or attacks has the child had?	CB						X	X	X	X
	How long did the child's most recent asthma episode or attack last?	CB						X	X	X	X
	Compared with other episodes or attacks, was this most recent attack shorter, longer, or about the same?	CB						X	X	X	X
	During the past 30 days, when you did not have a cold or respiratory infection, how often did you have any of these symptoms.	YTS				X					

Impairment in Daily Function

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
Adults											
	During the past 12 months, how many days were you unable to work or carry out your usual activities because of your asthma?	BRFSS CB		X	X	X	X	X	X	X	X
	During the past 12 months, would you say you were limited in usual activities due to asthma not at all, a little, a moderate amount, or a lot?	CB						X	X	X	X
	During the past 30 days, how many days did symptoms of asthma make it difficult for you to stay asleep?	BRFSS CB			X	X	X	X	X	X	X
Children											
	During the past 30 days, on how many days did symptoms of asthma make it difficult for your child to stay asleep?	CB						X	X	X	X
	During the past 12 months, would you say your child was limited in usual activities due to asthma not at all, a little, a moderate amount, or a lot?	CB						X	X	X	X
	Does child currently go to school or pre school outside the home?	CB						X	X	X	X
	Why not in school?	CB						X	X	X	X
	Has child gone to school in past 12 months?	CB						X	X	X	X
	What grade?	CB						X	X	X	X
	During past 12 months, how many days did child miss because of asthma?	CB						X	X	X	X
	Does child go to daycare outside of home?	CB						X	X	X	X
	Has child gone to daycare in past 12 months?	CB						X	X	X	X
	During past 12 months, how many days missed due to asthma?	CB						X	X	X	X
	During the past 12 months, how many days was your child unable to attend school or carry out their usual activities because of their asthma?	BRFSS									

Risk Factors

Workplace, school, and home triggers and exposures

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
Workplace											
	Employment status	CB						X	X	X	X
	What is main reason unemployed?	CB						X	X	X	X
	Ever been employed outside home?	CB						X	X	X	X
	Were you ever told by a doctor, nurse, or other health professional that your asthma was related to any job you ever had?	BRFSS CB				X	X	X	X	X	X
	Was your asthma caused by chemicals, smoke, fumes, or dust in your current job?	CB						X	X	X	X
	Was your asthma made worse by chemicals, smoke, fumes, or dust in your current job?	CB						X	X	X	X
	Was your asthma caused by chemicals, smoke, fumes, or dust in a previous job?	CB						X	X	X	X
	Was your asthma made worse by chemicals, smoke, fumes, or dust in a previous job?	CB						X	X	X	X
	Did you ever quit or change a job because chemicals, smoke, fumes, or dust caused your asthma or made it worse?	CB						X	X	X	X
	Did you ever tell a doctor, nurse, or other health professional that your asthma was related to any job you ever had?	BRFSS CB				X	X	X	X	X	X
	In the past 12 months have you had an illness or symptom that you think was caused by something in the air inside a home, office, or other building?	BRFSS				X					
	In the past 12 months have you had an illness or symptom that you think was caused by pollution in the air outdoors?	BRFSS				X					
School											
	Are there any pets in child's classroom?	CB						X	X	X	X
	Are you aware of any mold problems in school?	CB						X	X	X	X
	Are there any pets in room at daycare?	CB						X	X	X	X
	Are you aware of any mold problems at daycare?	CB						X	X	X	X

Home							X	X	X	X
	Is an air cleaner regularly used inside home?	CB					X	X	X	X
	Is a dehumidifier regularly used to reduce moisture inside?	CB					X	X	X	X
	Is an exhaust fan used when cooking?	CB					X	X	X	X
	Is gas used for cooking?	CB					X	X	X	X
	In past 30 days, has anyone seen or smelled mold or a musty odor inside home?	CB					X	X	X	X
	Does household have pets with fur?	CB					X	X	X	X
	Is pet allowed in bedroom?	CB					X	X	X	X
	In past 30 days has anyone seen cockroaches?	CB					X	X	X	X
	In past 30 days, has anyone seen mice or rats?	CB					X	X	X	X
	Is a wood burning fireplace or wood burning stove used in home?	CB					X	X	X	X
	Are unvented gas logs...used in home?	CB					X	X	X	X
	Use mattress cover that is made especially for controlling dust mites?	CB					X	X	X	X
	Use pillow cover made especially for controlling dust mites?	CB					X	X	X	X
	Have carpeting or rugs in bedroom?	CB					X	X	X	X
	Sheets washed in cold, warm, or hot water?	CB					X	X	X	X
	In bathroom, regularly use exhaust fan that vents to outside?	CB					X	X	X	X

Self and Clinical Care Management

Written Management Plans

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
Adults											
	In the past 12 months, have you and your doctor or other health care provider worked out a written plan for taking care of your asthma?	BRFSS CB	X			X	X	X	X	X	X
	Have you ever taken a course on how to manage asthma?	CB						X	X	X	X
	Does your plan include....	BRFSS	X								
	Have you and your doctor worked out ways to reduce asthma triggers in the home?	BRFSS	X			X					
	Have you and your doctor worked out medicines to be taken regularly?	BRFSS	X			X					
	Have you and your doctor worked out medicines to be used in case of an asthma attack?	BRFSS	X			X					
	Have you and your doctor worked out how to know when you need to call your doctor?	BRFSS	X			X					
	Have you and your doctor worked out how to know when you need to go to the emergency room?	BRFSS	X			X					
Children											
	In the past 12 months, have you, your child, and your doctor or other health care provider worked out a written plan for taking care of your child's asthma?	BRFSS					X				
	Has a doctor or health professional ever given child's parent or guardians a written management plan?	BRFSS CB			X			X	X	X	X
	Have you or your child ever taken a course on how to manage asthma?	CB						X	X	X	X
	Does child have written asthma action plan on file at school?	CB						X	X	X	X
	Does child have written asthma action plan on file at daycare?										
	In the past 12 months, have you and your doctor or other health care provider worked out a written plan for taking care of your asthma?	YTS/ YHS				X		X			

Routine Care Visits

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
Adults											
	Has a doctor or other health professional ever taught you how to recognize early signs or symptoms of an asthma episode?	CB						X	X	X	X
	Has a doctor or health professional ever taught you what to do during an asthma episode or attack?	CB						X	X	X	X
	Has a doctor or health professional ever taught you how to monitor peak flow for daily therapy?	CB						X	X	X	X
	How long has it been since you last talked to a doctor or other health professional about your asthma?	CB						X	X	X	X
	During the past 12 months, how many times did you see a doctor, nurse or other health professional for a routine checkup for your asthma?	BRFSS CB		X	X	X	X	X	X	X	X
	During the past 12 months, has a doctor, nurse, or other health professional talked with you about how to recognize early signs and symptoms of asthma attacks and how to respond to them?	BRFSS	VT			X	X				
Children											
	Has a health professional ever advised you to change things in the child's home, school, or work, to improve his asthma?	CB						X	X	X	X
	How long has it been since you last talked to a doctor or other health professional about your child's asthma?	CB						X	X	X	X
	During the past 12 months, how many times did your child see a doctor or other health professional for a routine checkup for his asthma?	CB						X	X	X	X
	Are you knowledgeable about the medical care received by the child with asthma?	BRFSS			X						
	How long has it been since the child's parent last talked to a doctor about the child's asthma?	BRFSS			X						
	Has a doctor or other health professional ever	BRFSS			X		X	X	X	X	X

	taught you or your child how to recognize early signs or symptoms of an asthma episode?	CB									
	Has a doctor or health professional ever taught you or your child what to do during an asthma episode or attack?	BRFSS CB					X	X	X	X	X
	Has a doctor or health professional ever taught the child's parent or guardians how to respond to episodes of asthma?	BRFSS			X						
	Has a doctor or health professional ever taught the child's parent or guardians how to monitor peak flow for daily therapy?	BRFSS CB			X			X	X	X	X
	During the past 12 months, how many times have you seen a doctor or other health professional for a routine checkup for your asthma?	YTS/ YHS				X		X			

Medication Use

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
Adults											
	How long has it been since you last took asthma medication?	CB						X	X	X	X
	Used over-the-counter medication for her asthma?	CB						X	X	X	X
	Ever used prescription inhaler?	CB						X	X	X	X
	Did health professional show how to use inhaler?	CB						X	X	X	X
	Did health professional watch you use inhaler?	CB						X	X	X	X
	In past 3 months, taken prescription asthma meds using an inhaler?	CB						X	X	X	X
	Are there 80,100, or 200 puffs	CB						X	X	X	X
	How long using inhaler?	CB						X	X	X	X
	Use a spacer?	CB						X	X	X	X
	In past 3 months, use meds when had an asthma attack?	CB						X	X	X	X
	In past 3 months, take meds before exercising?	CB						X	X	X	X
	In past 3 months, take meds on a regular schedule each day?	CB						X	X	X	X
	How many puffs each time?	CB						X	X	X	X
	How many times per week?	CB						X	X	X	X
	How many canisters used in past 3 months?	CB						X	X	X	X
	In past 3 months, taken any prescription meds in pill form?	CB						X	X	X	X
	How long taking pills	CB						X	X	X	X
	In past 3 months, taken any prescription meds in syrup form?	CB						X	X	X	X
	In past 3 months, were any meds used with a nebulizer?	CB						X	X	X	X
	Where used a nebulizer?	CB						X	X	X	X
	In past 3 months, what prescription asthma meds taken using nebulizer	CB						X	X	X	X
	During the past 30 days, how often did you take a prescription asthma medication to prevent an asthma attack from occurring?	BRFSS					X				
	During the past 30 days, how often did you take a	BRFSS					X				

	prescription asthma inhaler during an asthma attack to stop it?										
	During the past 30 days, how often did you take asthma medication that was prescribed or given to you by a doctor?	BRFSS		X	X	X					
	Use of Complimentary Alternative Medicine	CB					X	X	X	X	
Children											
	How long has it been since the child last took asthma medication?	CB					X	X	X	X	
	Has child used over-the-counter medication for her asthma?	CB					X	X	X	X	
	Has child ever used prescription inhaler?	CB					X	X	X	X	
	Did health professional show child how to use inhaler?	CB					X	X	X	X	
	Did health professional watch child use inhaler?	CB					X	X	X	X	
	In past 3 months, has child taken prescription asthma meds using an inhaler?	CB					X	X	X	X	
	List meds	CB					X	X	X	X	
	Are there 80,100, or 200 puffs	CB					X	X	X	X	
	How long using inhaler?	CB					X	X	X	X	
	Use a spacer?	CB					X	X	X	X	
	In past 3 months, use meds when had an asthma attack?	CB					X	X	X	X	
	In past 3 months, take meds before exercising?	CB					X	X	X	X	
	In past 3 months, take meds on a regular schedule each day?	CB					X	X	X	X	
	How many puffs each time?	CB					X	X	X	X	
	How many times per week?	CB					X	X	X	X	
	How many canisters used in past 3 months?	CB					X	X	X	X	
	In past 3 months, taken any prescription meds in pill form?	CB					X	X	X	X	
	How long taking pills	CB					X	X	X	X	
	In past 3 months, taken any prescription meds in syrup form?	CB					X	X	X	X	
	In past 3 months, were any meds used with a nebulizer?	CB					X	X	X	X	
	Where used a nebulizer?	CB					X	X	X	X	
	In past 3 months, what prescription asthma meds taken using nebulizer	CB					X	X	X	X	

	Does school allow children with asthma to carry their asthma meds with them while at school?	CB						X	X	X	X
	During the past 30 days, have you taken medication for asthma that was prescribed or given to you by a doctor? This includes using an inhaler.	YTS			X	X					
	Use of Complimentary Alternative Medicine	CB						X	X	X	X

Indications of Poor Asthma Management

Urgent Care Visits

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
Adults											
	During the past 12 months, how many times did you see a doctor, nurse or other health professional for urgent treatment of worsening asthma symptoms?	BRFSS CB		X	X	X	X	X	X	X	X
Children											
	During the past 12 months, how many times did the child see a doctor for urgent treatment of worsening asthma symptoms?	CB						X	X	X	X

Emergency Room Visits

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Number of visits to ER	HDD	X	X	X	X	X	X	X	X	X
Adults											
	During the past 12 months, how many times did you visit an emergency room or urgent care center because of your asthma?	BRFSS CB	X	X	X	X	X	X	X	X	X
	How many times did you visit the ER?	CB						X	X	X	X
Children											
	During the past 12 months, how many times has your child visited an emergency room or urgent care clinic because of an episode of asthma or an asthma attack?	BRFSS					X				
	During the past 12 months, has the child had to visit the ER or urgent care center because of her asthma?	CB						X	X	X	X
	During the past 12 months, how many times have you visited an emergency room or urgent care clinic because of an episode of asthma or an asthma attack?	YTS			X	X					

Hospitalizations

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Number of hospitalizations	HDD	X	X	X	X	X	X	X	X	X
Adults											
	During the past 12 months, have you had to stay overnight in a hospital because of her asthma?	CB						X	X	X	X
	How many different times did you have to stay overnight?	CB						X	X	X	X
	The last time you left the hospital, did a health professional talk with you about how to prevent serious attacks in the future?	CB						X	X	X	X
Children											
	During the past 12 months, has the child had to stay overnight in a hospital because of her asthma?	CB						X	X	X	X
	How many different times did he have to stay overnight?	CB						X	X	X	X
	The last time the child left the hospital, did a health professional talk with you or the child about how to prevent serious attacks in the future?	CB						X	X	X	X

Deaths

HV 2010	Question	Source	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Deaths	Vitals	X	X	X	X	X	X	X	X	X