

Florida Asthma Prevention and Control Program

Asthma Surveillance Plan

2011- 2014

Florida Department of Health
Division of Environmental Health
Bureau of Environmental Public Health Medicine
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Table of Contents

ASTHMA SURVEILLANCE PLAN 2011-2014

A. Asthma Surveillance: A Public Health Priority	3
B. Surveillance System Purpose, Management, and Evaluation	3
C. Asthma Defined.....	4
D. Sources of Asthma Data.....	6
i. Mandatory Reported Medical Health Data	
ii. Population-Based Surveys	
iii. Managed Care Data	
iv. Additional Sources	
E. Asthma Measures.....	8
i. Health Status	
▪ Prevalence, Severity, and Mortality	
ii. Risks and Risk Factors	
▪ Behaviors and Environment	
iii. Asthma Care, Awareness, and Management	
▪ Education, Medications, Triggers, and Routine Care	
iv. Costs and Barriers	
▪ Health System Charges, Cost as a Barrier to Treatment	
F. 2010 – 2014 Surveillance Work Plan	9

APPENDICES

Appendix A: Florida Asthma Data Sources	16
Appendix B: Florida Asthma Measures.....	26
Appendix C: Healthy People 2020 – Summary of Asthma Objectives	37

A. Asthma Surveillance: A Public Health Priority

Asthma is a chronic respiratory illness often associated with familial, allergenic, socioeconomic, psychological, and environmental factors. It is one of the most common chronic diseases in the United States and is estimated to affect approximately 25 million Americans (nearly 1 in 12 adults). Surveillance data illustrate that asthma affects all segments of Florida's population – particularly children, the elderly, specific racial subgroups, and those of lower socioeconomic status. Asthma impacts quality of life and can be costly to individuals and medical systems.

There is no cure for asthma; however it can be controlled with proper medical treatment and patient self-management. Improving asthma management and the quality of life for those Floridians living with asthma is the focus of the Florida Asthma Prevention and Control Program (FLAPCP). The program, established in 2009, participates in the statewide Florida Asthma Coalition (Coalition). The four overarching goals of the FLAPCP and the Coalition mirror those defined by the Center for Disease Control and Prevention's (CDC) Asthma Program:

1. Increase awareness and early detection of asthma.
2. Increase the number of patients with asthma who have a dedicated asthma care-provider (either primary care provider within a medical home or asthma specialist) who provides consistent self-management planning and education.
3. Reduce the number of deaths, hospitalizations, emergency department visits, school or work days missed, and limitations on activity due to asthma.
4. Reduce asthma disparities among populations disproportionately affected by asthma.

B. Surveillance System Purpose, Management, and Evaluation

The goal of the Florida Asthma Surveillance System is to compile data, conduct analyses, and create reports that will best support key stakeholders – those who are in positions to make an impact in asthma prevention and control. The key stakeholders include local and state public health professionals, health care practitioners, individuals with asthma and their families, program administrators, the general public, policy makers, and media.

Florida conducts surveillance for asthma using data from a variety of sources. Each source provides specific data elements that, collectively, offer a multi-dimensional view of the burden of asthma. These data sources will be systematically and routinely assessed, analyzed, and disseminated to provide stakeholders with an ongoing understanding of the scope and burden of asthma in Florida.

The Florida Asthma Surveillance Plan was developed in collaboration with the Florida Asthma Coalition's Surveillance Workgroup. This workgroup includes key stakeholders and enables them to shape the direction of surveillance activities to ensure their data needs are met.

In addition to analyzing, reporting, and disseminating data, ongoing evaluation of the data products that are produced will help provide critical feedback about how these products can be improved to better meet needs in future iterations.

C. Asthma Defined

The Florida Department of Health follows the definitions of Asthma established by the Council of Territorial Epidemiologists (CSTE), and the Guidelines for the Diagnosis and Management of Asthma of the National Heart, Lung, and Blood Institute (NHLBI). Both are shown below.

National Heart, Lung, and Blood Institute Definition

For purposes of developing its standards of clinical care, the NHLBI defines asthma as:

“Asthma is a chronic inflammatory disorder of the airways in which many cells and cellular elements play a role: in particular, mast cells, eosinophils, neutrophils (especially in sudden onset, fatal exacerbations, occupational asthma, and patients who smoke), T lymphocytes, macrophages, and epithelial cells. In susceptible individuals, this inflammation causes recurrent episodes of coughing (particularly at night or early in the morning), wheezing, breathlessness, and chest tightness.” NHLBI, 1997

In its *Guidelines* for the Diagnosis and Management of Asthma, the NHLBI notes that the diagnosis of asthma is based on patient: symptoms/medical history, physical exam, and tests of pulmonary function (spirometry), with the latter being needed to establish confirmed diagnosis. Using these three elements, the *Guidelines* provide a four-step classification scheme for asthma severity in which asthma is categorized as mild intermittent, mild persistent, moderate persistent, or severe persistent. The *Guidelines* note that asthma is also further classified into allergic or atopic (extrinsic) and nonallergic or nonatopic (intrinsic). Most cases of asthma are extrinsic, but cases may exhibit characteristics of both.

CSTE Working Surveillance Definitions of Asthma Outcomes and Risk Factors

I. MORTALITY AND HOSPITAL DISCHARGE CLASSIFICATION

Case Classification

Confirmed:

- There is no confirmed case classification for mortality and hospital discharge data.
- Health departments are encouraged to evaluate the accuracy of these sources

Probable:

- death certificates/records listing the asthma diagnostic code (ICD-9 Code: 493; or ICD-10 Codes: J45, J46) as the underlying cause of death
- hospital records listing the asthma diagnostic code (ICD-9-CM Codes: 493.0- 493.9; ICD-10-CM Codes: J45.0-J45.9) as the primary diagnosis

Possible:

- death certificates/records listing the asthma diagnostic code (ICD-9 Code: 493; or ICD-10 Codes: J45, J46) as a contributing cause of death
- hospital records listing the asthma diagnostic code (ICD-9-CM Codes: 493.0- 493.9; ICD-10-CM Codes: J45.0-J45.9) as a secondary diagnosis
- 466 (acute bronchitis and bronchiolitis) *** in children < 12 years***
- 491.20 and 491.21 (chronic bronchitis) *** in children < 12 years***

COMMENT:

Additional ICD-9 codes that may be used to evaluate administrative data for misdiagnoses and to evaluate possible changes in diagnoses that could explain changes in asthma trends may include:

- 492 (emphysema)
- 495 (extrinsic allergic alveolitis)
- 496 (chronic airway obstruction, not elsewhere classified)
- 508 (respiratory conditions due to other/unspecified external agents)
- 506.3 Other acute/subacute respiratory conditions due to fumes/vapors
- 506.9 unspecified respiratory conditions due to fumes and vapors
- 786 (symptoms involving respiratory system/other chest symptoms)

II. PREVALENCE CLASSIFICATION

Case Classification

Confirmed:

- There is no confirmed case classification for self-report
- Health departments are encouraged to validate the accuracy of survey self-response data.

Probable:

- A positive response to the survey question, “Did a doctor (or other health professional) ever tell you (or any household member) that you (they) had asthma?”
AND A positive response to any of the following survey questions:

a) “Do you (or the household member) still have asthma?”

OR

b) “Have you (or any household member) taken prescription medications for asthma (such as albuterol, inhaled steroids, cromolyn, theophylline, etc.) during the past year?”

OR

c) “Have you had a wheeze episode in the past year?”

Possible: A suspect case meets any of the following:

- A positive response to survey question: “Have you (or any household member) used over-the-counter medications for asthma during the past year?”
- Positive response to survey question: “Have you (or any household member) experienced episodes of wheezing during the past year?”

III. CLINICAL AND LABORATORY CLASSIFICATION

Clinical Criteria

- Presence of wheezing lasting 2 or more consecutive days.
- Chronic cough that responds to bronchodilation that persists 3-6 weeks in the absence of allergic rhinitis or sinusitis.
- Nocturnal awakening with dyspnea, cough, and/or wheezing in the absence of other medical conditions known to cause these symptoms (see Comments below).

Definitive Laboratory Criteria

- Pulmonary function testing (spirometry: FEV1, FVC) demonstrating a 12% increment after the patient inhales a short-acting bronchodilator
- A 20% decrement in FEV1 after a challenge by histamine, methacholine, exercise, or cold air

- A 20% diurnal variation in peak expiratory flow over 1 to 2 weeks

Case Classification

Confirmed:

- A confirmed case met any of the clinical symptoms at least 3 times during the past year AND at least one of the laboratory criteria.

Probable: A probable case meets any of the following:

- In the absence of supporting laboratory criteria, presence of any of the clinical symptoms which have been reversed by physician treatment with asthma medications and have occurred at least 3 times during the past year.
- In the absence of supporting clinical criteria, met at least one of the laboratory criteria during the past year.
- In the absence of supporting laboratory or clinical criteria, took medications in the past year that were prescribed by a physician for asthma.

Possible: A suspect case meets any of the following:

- the presence of any of the following during the past year:
 - shortness of breath on exertion
 - presence of wheezing or chronic cough in the absence of obvious respiratory infection
 - presence of increased nasal secretion, mucosal swelling, nasal polyps, or chronic sinusitis
 - hyper expansion of the thorax
 - sounds of wheezing during normal breathing
 - prolonged phase of forced exhalation
 - chest x ray showing hyper expansion
 - FEV1 less than 80% of predicted value

D. Sources of Asthma Data

There are a variety of data sources used to monitor asthma in Florida. For the purpose of this plan, they have been categorized into four broad categories: 1) Mandatory Reported Medical Health Data - data reported from hospitals, emergency rooms, and collected from death certificates; 2) Population-Based Survey Data; 3) Managed Care Data; and 4) Additional Sources – data collected from other sources, such as school-nurse reports and poison center data. A summary of these sources is provided below and detailed information, including populations covered, data collected, availability, and limitations, is included in **Appendix A: Florida Asthma Data Sources**.

There are a group of core datasets (denoted with an *) which are collected on an ongoing basis and available annually. These data sets will be analyzed minimally every two years specifically to address the asthma program and results will be used in the production of published briefs (See Data Analysis Plan), in the production of the Burden Report (to be done twice in the five year grant period), and included in special topic briefs, communications, and posted on-line through the asthma program's webpage, CHARTS, and list serves.

- 1. Mandatory Reported Medical Health Data:** Like many states, the state of Florida requires that certain medical data, such as hospitalization, emergency department discharge data, and

mortality data, be reported to state agencies. These data can be used to assess the direct burden and costs of asthma in the state, and are therefore an important part of a comprehensive asthma surveillance system. The Agency for Health Care and Administration (AHCA) collects and maintains the hospital inpatient and emergency department discharge data. The Office of Vital Statistics within the Florida Department of Health (DOH) is responsible for keeping record of mortality data and other data not relevant to asthma, such as births, fetal deaths, marriages, and dissolution of marriages (divorces). All three of these data sources are considered core datasets and will be collected and analyzed annually.

- **Hospital Discharge Data* (AHCA)**
- **Emergency Department Data* (AHCA)**
- **Vital Statistics Mortality Data* (DOH)**

2. Population-Based Survey Data: There are many on-going population-based surveys that capture information about asthma. These surveys use a complex sampling design and when targeted response rates are reached, are weighted to be representative of the entire population of Florida. Details of the specific questions included on each of these instruments are provided in **Appendix A, Florida Asthma Data Sources.**

- **Adult Asthma Call-back Survey (ACBS)***
- **Behavioral Risk Factor Surveillance System (BRFSS)***
- **Florida Adult Tobacco Survey (FLATS)**
- **Florida Child Health Survey (FCHS)***
- **Florida Youth Tobacco Survey (FYTS)***
- **Middle School Health Behavior Survey (MSHBS)**
- **National Survey of Children's Health**
- **Youth Risk Behavior Survey (YRBS)**

3. Managed Care and Pharmacy Data: Managed care data and pharmacy data can provide crucial information relating to medications, prescribed treatments, charges, and physician visits not available from other sources. These data sources can be used by health care plans and others for multiple purposes including evaluation of health care utilization, assessment of community or population health, medication usage, and/or levels of compliance with disease management protocols. Agreements will need to be put into place to incorporate these data sources into routine surveillance activities.

- **Medicaid/Medicare Claims Data**
- **Private Insurer / Health Management Plan Data**

4. Additional Sources: Some additional sources have been identified that could provide meaningful information related to asthma in Florida.

- **Florida DOH, School Health Services Reports**
- **School Health Profiles Survey (Profiles)**
- **School Health Practices and Policies Survey (SHPPS)**
- **Florida Poison Information Center Network (FPICN)**

- **Florida’s Air Quality System (FLAQS)**
- **Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE)**

E. Asthma Measures

The data sources listed above provide numerous indicators or measures that can be looked at over time to monitor changes in the burden of asthma, to compare Florida to national data, and to evaluate the impact of coalition activities. Priority measures are listed below, including those required under the Florida DOH’s cooperative agreement with the CDC.

The Asthma Measures are classified into four categories: 1) Health Status and Quality of Life, 2) Risks and Risk Behaviors, 3) Asthma Care, Awareness, and Management, and 4) Cost and Barriers. Some align with the Healthy People 2020 Objectives (noted with an *) and others have been selected based the needs of stakeholders, availability, and ease of analysis. The majority of the measures described below will be produced annually; particularly the 11 prescribed measures (numbered below) and the four additional measures required under the CDC cooperative agreement. Appendix B provides detailed information about each of the measures listed below including the definition, data source, formula, level of availability etc.

Health Status and Quality of Life Measures

- Lifetime Prevalence of Asthma in Adults¹
- Lifetime Prevalence of Asthma in Children and Adolescents²
- Current Prevalence of Asthma in Adults³
- Current Prevalence of Asthma in Children and Adolescents⁴
- Sleep Loss Due to Asthma Symptoms
- Asthma and Depression among Adults
- Asthma and Feelings of Hopelessness among Adolescents
- Asthma Hospitalizations*⁵
- Asthma Emergency Department Visits*
- Asthma Deaths*⁶

Risks and Risk Behavior Measures

- Current Asthma Episodes/Attacks in Adults
- Current Asthma Episodes/Attacks in Adolescents
- Current Smoking among Adults with Asthma
- Current Smoking among Adolescents with Asthma
- Exposure to Secondhand Smoke among Adults with Asthma
- Exposure to Secondhand Smoke among Adolescents with Asthma
- Smoking Rules in the Home of Adolescents with Asthma
- Unhealthy Levels of Ozone
- Unhealthy Levels of Fine Particulate Matter

Asthma Care, Awareness, and Management Measures

- Taken a Formal Class on Asthma*⁷
- Taught about the Symptoms of Asthma⁸
- Taught Proper Response to an Asthma Attack*⁹
- Taught about Peak Flow Use¹⁰
- Advised on Controlling Triggers
- Given a Written Asthma action plan*¹¹
- Instructed How to Use Medication*
- Routine Asthma Follow-up Visits*

Cost and Barrier Measures

- Asthma Hospitalization Costs
- Asthma Emergency Department Visit Costs
- Cost as a Barrier to Routine Doctor Visit
- Cost as a Barrier to Medication
- Missed Work Days/Limited Activity*
- School Absenteeism*

F. 2010 – 2014 Surveillance Work Plan

In addition to compiling the measures above, the Florida DOH plans to develop several specific reports to further the understanding of Asthma in Florida. The 2010-2014 Asthma Surveillance Work Plan below summarizes the proposed products and timeline of the Florida Asthma Surveillance System for the fiscal years (FY) 2-5 (9/1/10 - 8/31/14). As discussed above, this plan, developed in close coordination with the Florida Asthma Coalition Surveillance Workgroup, takes into account the needs of the FLAPCP and anticipated needs of the members of the Coalition. The plan will be reviewed annually by the Surveillance Workgroup in the fall to identify emerging concerns and to ensure it continues to meet stakeholders' needs. The reporting plan for future years may be adjusted so new topics/reports can be added as the Florida Asthma Coalition evolves and needs are reassessed.

Report Details by Year:

FY 2: 2010-2011 Data Analysis Plan

During fiscal year 2010-2011, the FLAPCP will produce four quarterly reports and a fifth report summarizing the asthma measures detailed in the previous section (including the CDC required core and a minimum of four additional measures). The first three reports will cover key asthma burden indicators: hospitalizations, emergency department visits, and deaths. Building on the first three reports, the fourth report will look at prevalence, disease impact, and risk factors, for children less than eighteen years of age. (Note: The activities described for FY 2 align with FLAPCP WP Objective 2.1, FAP Florida Asthma Plan Objective 2.3)

1. Asthma Hospitalizations in Florida 2006-2009

Delivery time period: February 28, 2011. (Note: This report was previously planned for release in Quarter 1, Sept 2010 – Nov 2010. There was a delay gaining access to the data system)

through AHCA.)

Data Sources: Florida Hospital Discharge Data

Description: This report will show four year combined rates of asthma hospitalizations (principal diagnosis) statewide and by county. Data will be broken down by age, gender, and race/ethnicity.

Justification: This is the first in a series of reports that will look at important asthma burden indicators in Florida. The data will be used to determine geographic areas of need and to assess disparities.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

2. Asthma Emergency Department Visits in Florida 2006-2009

Delivery time period: Quarter 2 (Dec 2010 – Feb 2011)

Data Sources: Florida Emergency Department Data

Description: This report will show four year combined rates of asthma emergency department visits with asthma as the primary diagnosis statewide and by county. Data will be broken down by age, gender, and race/ethnicity.

Justification: Emergency department visits for asthma is another important asthma burden indicator in Florida. The data will be used to determine geographic areas of need and to assess disparities.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

3. Asthma Mortality in Florida, 2000-2009

Delivery time period: Quarter 3 (Mar 2011 – May 2011)

Data Sources: Vital Statistics Mortality Data

Description: This report will show asthma deaths (underlying cause) for the largest counties in Florida using three year rolling rates. Data will also be broken down by age category, gender, race, and ethnicity.

Justification: Deaths are an important and often preventable asthma outcome. The data will be used to determine geographic areas of need and to assess disparities.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

4. Childhood Asthma in Florida, 2000-2010

Delivery time period: Quarter 4 (June 2011 – Aug 2011)

Data Sources:

- Florida Hospital Discharge Data (HDD)
- Florida Emergency Department Data (ED)
- Vital Statistics Mortality Data (VS)
- Youth Risk Behavior Survey Data (YRBS)
- Florida Youth Tobacco Survey Data (FYTS)
- Middle School Health Behavior Survey (MSHBS)
- Florida Child Health Survey (FCHS)
- Florida School Health Services Report
- Florida School Health Profiles Survey (Profiles)

Description: This report will provide a comprehensive look at trends in childhood asthma prevalence, disease impact, risk factors, and management. The subpopulation analysis will include review of several strata (for example, race/ethnicity, age, gender, education, and geography). The following indicators will be included:

BURDEN INDICATORS

- Lifetime prevalence (FCHS, MSHBS, YRBS, FYTS)
- Current prevalence (FCHS, MSHBS, YRBS)
- Mortality rates (VS)
- Hospitalizations (HDD)
- Emergency department visits (ED)

BEHAVIOR INDICATORS (comparing middle and high school students with asthma vs. those without)

- Asthma episode or attack during the past year (FYTS)
- Smoking behaviors (FYTS)
- Exposure to SHS (FYTS)
- Living in a home with a smoker (FYTS)
- Living in a home where smoking is allowed indoors (FYTS)
- Feelings of hopelessness, depression (MSHBS, YRBS, FYTS)
- Participate in sports (MSHBS, YRBS)
- Weight status (FYTS)

MANAGEMENT / EDUCATION INDICATORS

- Asthma education (FCHS)
- Asthma medication / treatment (FCHS)
 - Rescue and control medication
 - Emergency department visits
 - Asthma management plan / school has asthma action plan on file
- School asthma management practices and policies (Profiles)

Justification: Children are a primary focus of asthma interventions across Florida. The purpose of the data analyses will be to inform the FLAPCP and Asthma Coalition members on the appropriate direction of ongoing and future program activities, including those activities and interventions proposed in year two of the FLAPCP's work plan: Wee Wheezers, Open Airways, the AAFA online nurse education module, and the EPA Childhood Asthma Awareness Campaign. By looking at the disease indicators across these many sublevels, the FLAPCP will determine how best to focus, refine, and expand these intervention strategies for subsequent years. Areas of particular significance highlighted through this routine analytic approach will prompt closer scrutiny of the data and further study to understand the data trends, and to determine their relevance for programmatic intervention.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

5. Asthma Measures Report (CDC required indicators and four additional measures)

Delivery time period: Quarter 4 (June 2011 – Aug 2011)

Data Sources / Indicators: See Appendix B: Florida Asthma Data Measures

Description: This "snapshot" report will be produced annually. It will summarize the most recently available asthma measures.

Justification: This report is produced to monitor key trends in asthma burden in compliance with the recommendations by the CDC asthma program.

Distribution: E-mail announcement to stakeholders and FLAPCP website

FY 3: 2011-2012 Data Analysis Plan (9/1/11 - 8/31/12)

1. Hospitalization and Emergency Department Fact Sheets, 2010

Delivery time period: Quarter 1 (September 2011 – November 2011)

Data Sources: Florida Emergency Department Data and Hospital Discharge Data.

Description: This report will show rates of emergency department and hospitalization visits with asthma as the primary diagnosis statewide and by county from 2010. Data will be broken down by age, gender, and race/ethnicity.

Justification: Emergency department visits and hospitalizations are important asthma burden indicators in Florida. The data will be used to determine geographic areas of need and to monitor the impact of interventions in specific geographic area, with a focus on reducing disparities.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

2. Adult Asthma in Florida, 2000-2010 (Greater than 17 years of age)

Delivery time period: Quarter 2 (December 2011 - February 2012)

Data Sources:

- Florida Hospital Discharge Data (HDD)
- Florida Emergency Department Data (ED)
- Vital Statistics Mortality Data (VS)
- Behavioral Risk Factor Surveillance System (BRFSS)
- Adult Asthma Call Back Survey (ACBS)

Description: This report will provide a comprehensive look at trends in adult asthma prevalence, disease impact, risk factors, and management. This subpopulation analysis will include review of several strata (for example, race, age, gender, education, income, and geography). The following indicators will be included:

BURDEN INDICATORS

- Lifetime prevalence (BRFSS)
- Current prevalence (BRFSS)
- Mortality rates (VS)
- Hospitalizations (HDD)
- Emergency department visits (ED)

BEHAVIOR INDICATORS (comparing adults with asthma vs. those without) (ACBS, BRFSS)

- Smoking behaviors
- Exposure to SHS
- Health care coverage
- Immunization
- Mental health status
- Physical health status
- Weight status

MANAGEMENT / EDUCATION INDICATORS (ACBS)

- Recent history
- Symptoms and episodes
- Knowledge of asthma / management plan
- Modifications to environment
- Medications

- Cost of asthma care
- Work related asthma
- Co-morbid conditions

Justification: The purpose of this report is to gain an understanding of statewide adult asthma trends. By looking at the disease indicators across these many sublevels, the FLAPCP will determine how best to identify and target populations at greatest impairment. Areas of particular significance highlighted through this routine analytic approach will prompt closer scrutiny of the data and further study to understand the data trends.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

3. Costs of Asthma in Florida, 2010

Delivery time period: Quarter 3 (March 2012 - May 2012)

Data Sources:

- Hospital Discharge Data (HDD)
- Emergency Department Data (ED)

Description: This report will look at charges for hospitalizations and emergency department visits for asthma based on payer in 2010. Subpopulation analyses will include review of gender, age, race, ethnicity, and geography.

Justification: The purpose of this report is to demonstrate the costs of asthma in Florida and to help stakeholders and partners recognize potential opportunities for reducing costs and achieving a return on investment.

Distribution: E-mail announcement to stakeholders and FLAPCP website

4. Core Indicator Table (CDC required indicators and four additional)

Delivery time period: Quarter 4 (June 2012 – August 2012)

Data Sources / Indicators: See Appendix B: Florida Asthma Data Measures

Description: This “snapshot” table will be produced annually. It will summarize the most recently available indicators suggested for annual analysis by the CDC.

Justification: This report is produced to monitor key trends in asthma burden in compliance with the recommendations by the CDC asthma program.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

FY 4: 2012-2013 Data Analysis Plan (9/1/12 - 8/31/13)

1. Hospitalization and Emergency Department Fact Sheets, 2011

Delivery time period: Quarter 1 (September 2012 – November 2012)

Data Sources: Florida Emergency Department Discharge data and Hospitalization data.

Description: This report will show rates of asthma emergency department and hospitalization visits with asthma as the chief complaint statewide and by county. Data will be broken down by age, gender, and race/ethnicity.

Justification: Emergency department visits and hospitalizations are important asthma burden indicators in Florida. The data will be used to determine geographic areas of need and to monitor the impact of interventions in specific geographic area, with a focus on reducing disparities.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

2. Updated Burden Report (Will include data through 2010)

Delivery time period: Quarter 2 (December 2012 – February 2013)

Data Sources: At minimum all core data measures will be included.

Justification: Description: This report will serve as an update to the 2009 Burden report. Disparities will be highlighted and additional information that was not available in 2009 will be included.

Justification: The purpose of the Burden report is to inform stakeholders of the status of asthma in Florida.

Distribution: Presentations, e-mail announcement to stakeholders, and FLAPCP website.

3. Asthma in Florida Schools Report

Delivery time period: Quarter 3 (March 2013 - May 2013)

Data Sources / Indicators:

- School Health Services Reports
- School Health Profiles Survey (Profiles)
- Youth Risk Behavior Survey Data (YRBS)
- Florida Youth Tobacco Survey Data (FYTS)
- Middle School Health Behavior Survey
- FLAPCP Evaluation of Intervention Data

Description: This report will describe the burden of asthma on the school system in Florida and discuss progress made in establishing asthma friendly schools in Florida.

Justification: The purpose of the report will be to provide data needed to assess the progress in establishing Asthma Friendly Schools in Florida. It is connected to the FLAPCP's interventions and evaluation activities.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

4. Asthma in State Programs, 2008-2012

Delivery time period: Quarter 4 (June 2013 - August 2013)

Data Sources / Indicators: AHCA Billing Data

Description: This report will describe the burden of asthma on state programs, namely Medicare, Medicaid, and KidCare.

Justification: This type of report is needed to understand if there is an opportunity for improving asthma outcomes and reducing costs to the state.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

5. Core Indicator Table (CDC required indicators and four additional)

Delivery time period: Quarter 4 (June 2013 – Aug 2013)

Data Sources / Indicators: See Appendix B: Florida Asthma Data Measures

Description: This “snapshot” table will be produced annually. It will summarize the most recently available indicators suggested for annual analysis by the CDC.

Justification: This report is produced to monitor key trends in asthma burden in compliance with the recommendations by the CDC asthma program.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

FY 5: 2013-2014 Data Analysis Plan (9/1/13 - 8/31/14)

1. Hospitalization and Emergency Department Fact Sheets, 2012

Delivery time period: Quarter 1 (September 2013 – November 2013)

Data Sources: Florida Emergency Department Data and Hospital Discharge Data.

Description: This report will show rates of asthma emergency department and hospitalization visits with asthma as the chief complaint statewide and by county. Data will be broken down by age, gender, and race/ethnicity.

Justification: Emergency department visits and hospitalizations are important asthma burden indicators in Florida. The data will be used to determine geographic areas of need and to monitor the impact of interventions in specific geographic area, with a focus on reducing disparities.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

2. Environmental Triggers for Asthma in Florida

Delivery time period: Quarter 2 (December 2013 - February 2014)

Possible Data Sources:

- Healthy Homes findings
- Aquatic toxins
- Air quality
- Second hand smoking information / policies
- School environmental data

Description: This report will discuss and provide data on environmental triggers for asthma in Florida. It will use several different data sets that have not yet been looked at in Florida, including the Healthy Homes data collected by the Florida Childhood Lead Poisoning Prevention and Healthy Homes Program, Aquatic Toxins program data, Air quality data, second hand smoke information from ongoing youth surveys, and possibly information about school environments and management practices. This will be a dynamic report produced in partnership with the Florida Environmental Public Health Tracking Program, the Aquatic Toxins program, Healthy Homes Program and the school health programs. Where possible, GIS maps will be included to demonstrate the relationships between health and environmental data.

Justification: The purpose of this report is to gain a better understanding of the impact of environmental triggers on asthma outcomes in Florida.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

3. Updated Burden Report (Will include data through 2012)

Delivery time period: Quarter 4 (June 2014 - August 2014)

Data Sources: All required core measures.

Description: This report will serve as an update to the 2012 Burden report.

Justification: The purpose of the burden report is to inform stakeholders of the status of asthma in Florida.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

4. 2012 Core Indicator Table (CDC required indicators and four additional)

Delivery time period: Quarter 4 (June 2014 - August 2014)

Data Sources / Indicators: See Appendix B: Florida Asthma Data Measures

Description: This “snapshot” table will be produced annually. It will summarize the most recently available indicators suggested for annual analysis by the CDC.

Justification: This report is produced to monitor key trends in asthma burden in compliance with the recommendations by the CDC asthma program.

Distribution: E-mail announcement to stakeholders and FLAPCP website.

Appendix A: Florida Asthma Data Sources

This appendix describes the core data sources available for use in the surveillance of Asthma in Florida. The sources have been separated into four categories: 1) Mandatory report medical health data; 2) Population-based surveys; 3) Managed care data; and 4) Additional sources.

MANDATORY REPORTED MEDICAL HEALTH DATA

Hospital Discharge Data – Emergency Department Data – Vital Statistics Mortality Data

Hospital Discharge Data (HDD)

Description:	This dataset contains a record of each inpatient discharge for Florida hospitals.
Size:	Approximately 2.5 million records per year
Collected Since:	1988
Availability:	Annual data must be submitted by 5/31 of the following year – available after this point, but changes/corrections are allowed for 18 months following submission.
Local Data:	Data are available by county and zip code
Use in Surveillance:	Number of hospitalizations and rate for asthma (primary and secondary diagnosis); demographic characteristics; charges; payer; length of stay; facility information
Limitations:	State operated, federally funded, or Shriner’s hospitals are not required to report; Records are a medical billing dataset and may not be clinically accurate in all cases
Source:	Agency for Health Care Administration
Website:	http://ahca.myflorida.com/SCHS/data.shtml

Emergency Department Data (ED)

Description:	This dataset contains a record of each Florida emergency department visit.
Size:	Approximately 5.5 million records per year
Collected Since:	2005
Availability:	Annual data must be submitted by 5/31 of the following year – available after this point, but changes/corrections are allowed for 18 months following submission.
Local Data:	Data are available by county and zip code
Use in Surveillance:	Number of ED visits related to asthma (primary and secondary diagnoses); demographic characteristics; charges; payer; length of service; facility information
Limitations:	State operated, federally funded, or Shriner’s hospitals are not required to report; Records are a medical billing dataset and may not be clinically accurate in all cases
Source:	Agency for Health Care Administration (AHCA)
Website:	http://ahca.myflorida.com/SCHS/data.shtml

MANDATORY REPORTED MEDICAL HEALTH DATA (continued)

Vital Statistics Mortality Data (VS)

Description:	This dataset contains a record of each Florida resident death.
Sample Size:	Approximately 170,000 records per year
Collected Since:	2005
Availability:	Annual data available by spring of the next calendar year (April)
Local Data:	Data are available by county and zip code
Use in Surveillance:	Asthma mortality counts and rates (primary and secondary diagnoses); demographic characteristics
Limitations:	Cause of death data as recorded on death certificates are known to be incomplete; Limited details of death
Source:	Agency for Health Care Administration (AHCA)
Website:	http://www.FloridaCharts.com

POPULATION-BASED SURVEYS

Adult Asthma Call-back Survey – Behavioral Risk Factor Surveillance System (BRFSS) – Florida Adult Tobacco Survey – Florida Child Health Survey– Florida Youth Tobacco Survey – Middle School Health Behavior Survey – National Survey of Children’s Health – Youth Risk Behavior Survey

Adult Asthma Callback Survey (ACBS)

Description:	The ACBS is an annual telephone follow-up survey of Florida BRFSS residents funded by CDC
Population:	Those who responded on the BRFSS (discussed above) that 1) were willing to be called back for future studies; and 2) currently have asthma.
Sample Size:	Approximately 450 respondents per year
Collected Since:	2007
Availability:	Annual data available by the middle of the next calendar year (July)
Local Data:	Not available
Use in Surveillance:	Detailed information on asthma severity, symptoms, limitations, knowledge, education, treatment, and self-management
Asthma Specific Questions (first asked in 2007)	As this entire survey instrument is dedicated to asthma-specific questions, a link is provided to the full questionnaire: http://www.cdc.gov/asthma/pdfs/SurveyQuestionsAdult08.pdf
Limitations:	Data are self-reported; Small sample size
Source:	Florida Department of Health, Bureau of Epidemiology Centers for Disease Control and Prevention
Website:	http://www.FloridaChronicDisease.org & http://www.cdc.gov/asthma/ACBS.htm

POPULATION-BASED SURVEYS (continued)

Behavioral Risk Factor Surveillance System (BRFSS)

Description:	The BRFSS is an annual telephone survey of Florida residents, funded by the Centers for Disease Control and Prevention (CDC)
Population:	Randomly dialed representative households with one or more Floridians ages 18 and older. In recent years, a version for cell-phone only households was administered. The cell-phone data will be incorporated with the landline data in future years, starting with the 2010 BRFSS.
Sample Size:	Approximately 10,000 (state-level) and 35,000 (county-level)
Collected Since:	1986
Availability:	Annual data available for analysis by the middle of the next calendar year (July)
Local Data:	County-level data collected in 2002, 2007, and 2010 – Next county-level in 2013
Use in Surveillance:	Adult current and lifetime prevalence of asthma; Other chronic health conditions; Associated risk factors, such as air quality, healthcare access and coverage, smoking, and exposure to secondhand smoke
Asthma Specific Questions (first asked in 2000)	<ul style="list-style-type: none"> • Have you ever been told by a doctor, nurse, or other health professional that you have asthma? • Do you still have asthma?
Limitations:	Data are self-reported; Sampling frame is not based on presence of asthma, therefore the sample size for individuals with asthma is small
Sources:	Florida Department of Health, Bureau of Epidemiology Centers for Disease Control and Prevention
Website:	http://www.FloridaChronicDisease.org & http://www.cdc.gov/brfss/

Florida Adult Tobacco Survey (FLATS)

Description:	The FLATS is an annual telephone survey of Florida residents, funded by the Florida Department of Health, Bureau of Tobacco Prevention Programs.
Population:	Randomly dialed representative households with one or more Floridians ages 18 and older.
Sample Size:	Between 4,000 and 8,000 (depending on funding)
Collected Since:	2003
Availability:	Annual data available by the middle of the next calendar year (July)
Local Data:	No
Use in Surveillance:	Lifetime and current asthma prevalence; Associated risk factors, such as smoking, exposure to secondhand smoke, smoking rules in the home
Asthma Specific Questions (first asked in 2006)	<ul style="list-style-type: none"> • Have you ever been told by a doctor or nurse that you have asthma? • Do you still have asthma? • Exposure to tobacco smoke can trigger an asthma attack (agree/disagree)
Limitations:	Data are self-reported; Sampling frame is not based on presence of asthma;
Source:	Florida Department of Health, Bureau of Epidemiology
Website:	http://www.FloridaChronicDisease.org

POPULATION-BASED SURVEYS (continued)

Florida Child Health Callback Survey (FCHS)

Description:	The FCHS is an annual telephone follow-up survey of Florida BRFSS residents. It is funded by the Florida Asthma Prevention and Control Program and the Tobacco Program.
Population:	Those who responded on the BRFSS that 1) were willing to be called back for future studies; and 2) have a child under the age of 18 living in the household.
Sample Size:	Approximately 450 respondents per year
Collected Since:	2008
Availability:	Annual data available by the middle of the next calendar year – however, multiple years (3) must be rolled together to create large enough sample sizes
Local Data:	Not available
Use in Surveillance:	Detailed information on school health issues, asthma prevalence, treatment, education, and management among children
Asthma Specific Questions (year first asked noted in parenthesis)	<ul style="list-style-type: none"> • Has a doctor, nurse, or other health professional ever said that the child has asthma? (2008) • Does the child still have asthma? (2010) • During the past 12 months, how many times has your child needed to see a doctor because of his/her asthma? (2008) • During the past 12 months, how many times has your child been to an emergency room or urgent care center because of his/her asthma? (2008) • Is your child using a medicine every day, such as Beclovent, Azmacort, Pulmicort, Flovent, Advair, Singulair, or Vancoril inhaler, that was prescribed by a doctor to keep him/her from having asthma problems? (2008) • Does your child use a rescue medication such as Albuterol, Alupent, Ventolin, Proventil, Xopenex, or Maxair inhaler? (2008) • Has a doctor or other health professional ever given you an asthma management plan or asthma action plan for your child? (2008) • Have you provided a copy of this asthma management plan to the school that your child is currently attending? (2008) • Does your child carry his/her rescue inhaler at school? (2008) • At school, is your child allowed to self-administer emergency medication for asthma? (2008) • During the past 12 months, how many days of daycare or school did your child miss due to asthma? (2008) • Has a doctor or other health professional ever taught you or your child (2010) <ul style="list-style-type: none"> ○ How to recognize early signs or symptoms of an asthma episode? ○ What to do during an asthma attack? ○ How to use a peak flow meter to adjusted his/her daily medications? • Have you or your child ever taken a course or class on how to manage his/her asthma? (2010)
Limitations:	Data are self-reported; Sampling frame is not based on presence of asthma therefore the sample size of children with asthma is small;
Source:	Florida Department of Health, Bureau of Epidemiology
Website:	http://www.FloridaChronicDisease.org

POPULATION-BASED SURVEYS (continued)

Florida Youth Tobacco Survey (FYTS)

Description:	The FYTS is an annual, school-based, pencil and paper survey funded by the DOH Tobacco Prevention and Control Program.
Population:	Random representative sample of Florida public middle and high school students (grades 6 through 12)
Sample Size:	Approximately 10,000 (state-level) and 60,000 (county-level)
Collected Since:	1998
Availability:	Data collected in the spring are available that same year in the fall (September)
Local Data:	County-level data for 2000, 2002, 2006, 2008, 2010 – Plans for county-level data in 2012 and 2014
Use in Surveillance:	Lifetime asthma prevalence and current asthma episodes; Associated risk factors, such as smoking, weight status, and exposure to secondhand smoke
Asthma Specific Questions (first asked in 2006)	<ul style="list-style-type: none"> • Have you ever been told by a doctor or nurse that you have asthma? • During the past 12 months, did you have an asthma attack?
Limitations:	Data are self-reported; Sampling frame is not based on presence of asthma;
Source:	Florida Department of Health, Bureau of Epidemiology
Website:	http://www.FloridaChronicDisease.org

Middle School Health Behavior Survey (MSHBS)

Description:	The MSHBS is a biennial school-based, pencil and paper survey funded by the Bureau of Epidemiology
Population:	Random representative sample of Florida public middle school students (grades 6 through 8)
Sample Size:	Approximately 5,000
Collected Since:	2009
Availability:	Data collected in odd-numbered years. Data collected in the spring are available that same year in the fall
Local Data:	Not available
Use in Surveillance:	Lifetime and current asthma prevalence; associated risk factors such as participation in sports and physical activity, and feelings of hopelessness
Asthma Specific Questions (first asked in 2009)	<ul style="list-style-type: none"> • Have you ever been told that you have asthma by a doctor, nurse, or parent? • Do you still have asthma?
Limitations:	Data are self-reported; Sampling frame is not based on presence of asthma;
Source:	Florida Department of Health, Bureau of Epidemiology
Website:	http://www.FloridaChronicDisease.org

POPULATION-BASED SURVEYS (continued)

National Survey of Children’s Health (NSCH)

Description:	The NSCH is a national telephone-based survey of national residents, conducted every 4 years
Population:	National households with children under the age of 18
Sample Size:	Between 90,000 and 105,000 respondents nationally (1,800 per state)
Collected Since:	2003 (conducted every 4th year)
Availability:	Data collection is ongoing for a year – results are available two years after collection is initiated
Local Data:	Not Available – State-level estimates only
Use in Surveillance:	Asthma prevalence and quality of life; physical, emotional, and behavioral health; medical homes; missed school days; family interactions
Asthma Specific Questions (first asked in 2003)	<ul style="list-style-type: none"> • Please tell me if a doctor or other health care provider ever told you that your child has asthma, even if the child does not have asthma now. • Does your child currently have asthma? • Would you describe his/her asthma as mild, moderate, or severe? • During the past 12 months, how many times did your child see a doctor or other health care provider because of his/her asthma?
Limitations:	Data are self-reported; limited availability (conducted every 4 years)
Sources:	Centers for Disease Control and Prevention
Website:	http://www.cdc.gov/nchs/slait/nsch.htm

Youth Risk Behavior Survey (YRBS)

Description:	The YRBS is a biennial school-based, pencil and paper survey funded by the CDC.
Population:	Random representative sample of Florida public high school students (grades 9 through 12)
Sample Size:	Approximately 5,000
Collected Since:	2001
Availability:	Data collected in odd-numbered years only. Data collected in the spring are available that same year in the fall (September)
Local Data:	County-level data available for 5 large districts in Florida (Miami-Dade, Broward, Orange, Palm Beach, Duval) Sample size between 1,500 and 2,500
Use in Surveillance:	Lifetime and current asthma prevalence; associated risk factors such as participation in sports and physical activity, and feelings of hopelessness
Asthma Specific Questions (year first asked noted in parenthesis)	<ul style="list-style-type: none"> • Have you ever been told by a doctor or nurse that you have asthma? (2005) • Do you still have asthma? (2007)
Limitations:	Data are self-reported; Sampling frame is not based on presence of asthma;
Sources:	Florida Department of Health, Bureau of Epidemiology Centers for Disease Control and Prevention
Website:	http://www.FloridaChronicDisease.org & http://www.cdc.gov/yrbs

MANAGED CARE DATA

Publicly Funded Managed Care: Medicaid and Medicare Claims Data –
Private Insurers: Health Management Plan Data

Publicly Funded Managed Care: Medicaid and Medicare Claims Data

Description:	Medicaid and Medicare are two of several publicly funded managed care organizations serving Floridians. Medicaid is the state and federal partnership that provides health coverage for selected categories of people with low incomes. Medicare is a federal health program for people who are 65 years or older or disabled.
Population:	Those who meet the above criteria
Collected Since:	1988 – However, not all measures are available from this time
Availability:	Data collection is ongoing.
Local Data:	Data are available by county and zip code
Use in Surveillance:	Diagnoses; Prescription data; Therapies; Demographic characteristics; Charges;
Limitations:	Currently do not have a data sharing agreement established
Sources:	Agency for Health Care Administration
Website:	http://ahca.myflorida.com/SCHS/data.shtml

Private Insurers: Health Management Plan Data

Description:	Private insurers / managed care plans keep records of all of the claims they process. Data sharing agreement can hopefully be established with these entities to gather specific information on treatment, medication, etc.
Population:	Varies depending on the size of the population served by each managed care organization.
Collected Since:	Varied
Availability:	Data collection is ongoing
Local Data:	Yes
Use in Surveillance:	To gather more specific information on treatment, medication, etc.
Limitations:	Difficult / time consuming to obtain agreements with data owners.
Sources:	Each individual group

ADDITIONAL DATA SOURCES

Florida Department of Health, School Health Services Reports – School Health Profiles Survey – School Health Practices and Policies Survey – Florida Poison Information Center Network – Florida’s Air Quality System – Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE)

Florida Department of Health, School Health Services Reports

Description:	A summary of health services provided within schools during the school year.
Population:	All Florida public schools; 3 different levels of School Health Services (Basic, Comprehensive, and Full)
Collected Since:	2004-2005 school year
Availability:	Data collection occurs at the end of a school year– results are available sometime during the next school-year
Local Data:	County level reports are available
Use in Surveillance:	Annual number of health room visits; number of students with reported asthma; number of inhaled medications provided
Limitations:	Services are provided in accordance with local School Health Services Plan, therefore, there is variability in what services are provided and how services are recorded. Some counties’ counts are wide-ranging with large variations from year to year due to under or over reporting
Sources:	Florida Department of Health – School Health Services Program
Website:	http://www.doh.state.fl.us/Family/school/reports/reports.html

School Health Profiles Survey (Profiles)

Description:	A biennial school-based, pencil and paper survey funded by the CDC
Population:	Random representative sample of Florida public middle and high school principals and lead health educators
Collected Since:	2006
Availability:	Data are collected each even-numbered year. Data are collected in the spring and are available that same year in the fall (September)
Local Data:	County-level data are only available for 5 large districts in Florida (Miami-Dade, Broward, Orange, Palm Beach, Duval)
Use in Surveillance:	School policies and practices related to student asthma control and management, medication, and teacher trainings (useful for evaluation)
Limitations:	Data are self-reported; Only represent public middle and high schools
Sources:	Florida Department of Education, Office of Healthy Schools Centers for Disease Control and Prevention
Website:	http://www.FloridaChronicDisease.org & http://www.cdc.gov/healthyyouth/profiles/

ADDITIONAL DATA SOURCES (continued)

School Health Policies and Practices Study (SHPPS)

Description:	SHPPS is a national survey periodically conducted by CDC to assess school health policies and practices at the state, district, school, and classroom levels.
Population:	Random sample of district staff that oversee school health components.
Collected Since:	1994
Availability:	Summary Reports are available after each administration (every 6 years)
Local Data:	County-level data available for some of the large districts in Florida (In 2006: Miami-Dade, Broward, Hillsborough, and Orange)
Use in Surveillance:	School Policies and Practices related to Asthma
Limitations:	Data only provided every 6 years; Limited asthma related measures
Sources:	Centers for Disease Control and Prevention
Website:	http://www.cdc.gov/HealthyYouth/shpps/index.htm

Florida Poison Information Center Network (FPICN)

Description:	The Florida Poison Information Center Network is made up of three centers across the state responsible for responding to the toll-free poison hotline.
Population:	Those who call the poison hotline
Collected Since:	1998
Availability:	Reports are available quarterly, annually, and on the fiscal year
Local Data:	County of call is coded
Use in Surveillance:	Number of calls to the poison hotline regarding asthma therapies.
Limitations:	Provides number and types of asthma related calls but diagnoses are not verified and many of these calls would be expected to be information only calls.
Sources:	The Florida Poison Information Center Network
Website:	http://www.fpicn.org/

Florida's Air Quality System (FLAQS)

Description:	Florida's Air Quality System (FLAQS) provides mapping and reporting applications that show ozone and continuously monitored particle pollution levels recorded by the state's ambient air monitoring network.
Population:	There are 65 operating monitoring sites across the state – Some of them measure ozone levels and others measure particulate matter readings
Collected Since:	Varies
Availability:	Reports are available for daily and monthly readings, and highest readings.
Local Data:	Yes
Use in Surveillance:	Number of days in which ozone or particulate matter was above the National Standards for Ambient Air Quality (NAAQS)
Limitations:	The ozone and PM2.5 data show potential risks from outdoor air exposures.
Sources:	Florida Department of Environmental Protection
Website:	http://www.dep.state.fl.us/air/air_quality/airdata.htm

ADDITIONAL DATA SOURCES (continued)

Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE)

Description:	ESSENCE is a biosurveillance system that collects emergency department chief complaint data from participating hospitals and urgent care centers in Florida, call data from the Florida Poison Information Center Network, reportable disease data from the Merlin database, and mortality data from the Florida Office of Vital Stats.
Population:	Those who receive services from one of the above mentioned sources
Collected Since:	2007 – some historical data also available
Availability:	Immediate availability
Local Data:	County where service provided is available
Use in Surveillance:	Monitor the prevalence of chief complaints of asthma during bad air quality times or environmental events such as wild fires
Limitations:	Not all hospitals in Florida are currently reporting; not all urgent care centers report; chief complaints vary and may not be related to asthma
Sources:	Florida Department of Health, Bureau of Epidemiology
Website:	http://www.doh.state.fl.us/Disease_ctrl/epi/Acute/systems.html

Appendix B: Florida Asthma Measures

This appendix includes a list of priority measures that will be collected to monitor the burden of asthma in Florida annually. This list will be modified as capacity increases, data availability changes, and/or new data needs arise. Health People 2020 (HP2020) comparisons will be made when appropriate.

HEALTH STATUS AND QUALITY OF LIFE MEASURES

Lifetime Prevalence in Adults – Lifetime Prevalence in Children and Adolescents – Current Prevalence in Adults – Current Prevalence in Children and Adolescents – Sleep Loss due to Asthma – Asthma and Depression Among Adults – Asthma and Feelings of Hopelessness among Adolescents – Asthma Hospitalizations – Asthma Emergency Department Visits – Asthma Deaths

Lifetime Prevalence in Adults (Age ≥ 18)

Description:	Adults who responded “Yes” to the question: Have you ever been told by a doctor, nurse, or other health professional that you have asthma?
Formula:	# Adults ever told they have asthma / # Adults in the sample * 100
Measure Format:	Percentage
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Local Data:	County-level: 2002, 2007, 2010 – Next county-level in 2013
HP2020 Measure:	No
CDC Measure Type:	Core

Lifetime Prevalence in Children (Age < 18) and Adolescents (Middle and High School Students)

Description:	Adults who responded “Yes” to the question: Has a doctor, nurse, or other health professional ever said that [your] child has asthma?	Students who respond “Yes” to the question: Have you ever been by a doctor or nurse [or parent] that you have asthma?
Formula:	# Children with asthma / # Children in sample * 100	# Students with asthma / # Students in the sample * 100
Measure Format:	Percentage	Percentage
Data Source:	Florida Child Health Survey (FCHS)	MSHBS, YRBS, and FYTS
Local Data:	No	Limited
HP2020 Measure:	No	No
CDC Measure Type:	Core	Core

Current Prevalence in Adults (Age ≥ 18)

Description:	Adults with lifetime asthma that responded “Yes” to the question: Do you still have asthma?
Formula:	# Adults who still have asthma / # Adults in sample * 100
Measure Format:	Percentage
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Local Data:	County-level: 2002, 2007, 2010 – Next county-level in 2013
HP2020 Measure:	No
CDC Measure Type:	Core

HEALTH STATUS AND QUALITY OF LIFE MEASURES (continued)

Current Prevalence in Children (Age < 18) and Adolescents (Middle and High School Students)

Description:	Adults who have children with lifetime asthma that responded “Yes” to the question: Does [your] child still have asthma?	Students with lifetime asthma that respond “Yes” to the question: Do you still have asthma?
Formula:	# Children who still have asthma / # Children in sample * 100	# Students who still have asthma / # Students in the sample * 100
Measure Format:	Percentage	Percentage
Data Source:	Florida Child Health Survey (FCHS)	MSHBS and YRBS
Local Data:	No	Limited – Data available for students in a few select counties
HP2020 Measure:	No	No
CDC Measure Type:	Core	Core

Sleep Loss due to Asthma Symptoms (Age ≥ 18)

Description:	Adults with asthma symptoms during the past 3 months who responded one or more to the question: During the past 30 days, on how many days did symptoms of asthma make it difficult for you to stay asleep?
Formula:	# Adults with asthma symptoms in past 3 months who experienced sleep loss due to asthma symptoms / # Adults with asthma symptoms in past 3 months * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	No
CDC Measure Type:	Additional

Asthma and Depression among Adults (Age ≥ 18)

Description:	Adults with lifetime asthma who responded “Yes” to the question: Have you ever been told by a doctor or other health professional that you were depressed?
Formula:	# Adults with lifetime asthma who had been told by a doctor or other health professional that they were depressed/ # Adults with lifetime asthma * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-Back Survey (ACBS)
Local Data:	No
HP2020 Measure:	No
CDC Measure Type:	Additional

HEALTH STATUS AND QUALITY OF LIFE MEASURES (continued)

Asthma and Feelings of Hopelessness among Adolescents (Age 11-17)

Description:	Adolescents with lifetime asthma that answered yes to the question: During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?
Formula:	# Adolescents with lifetime asthma and feelings of hopelessness/ # Adolescents with asthma * 100
Measure Format:	Percentage
Data Source:	Florida Youth Tobacco Survey
Local Data:	Yes (Even-numbered years)
HP2020 Measure:	No
CDC Measure Type:	Additional

Asthma Hospitalizations (Age Groups: 0-5, 5-64, 65+)

Description:	Patient's discharged from a Florida hospital with the principal diagnosis of asthma (Diagnosis code 493)
Formula:	# of Hospital Discharges with Asthma / Florida Population *10,000
Measure Format:	Age-Specific Rate per 10,000
Data Source:	Agency for Health Care Administration (AHCA)
Local Data:	Yes
HP2020 Measure:	Yes
CDC Measure Type:	Core

Asthma Emergency Department Visits (Age Groups: 0-5, 5-64, 65+)

Description:	Emergency department visits in Florida with the principal diagnosis of asthma (Diagnosis code 493)
Formula:	# of Asthma Emergency Department Visits / Florida Population * 10,000
Measure Format:	Age-Specific Rate per 10,000
Data Source:	Agency for Health Care Administration (AHCA)
Local Data:	Yes
HP2020 Measure:	Yes
CDC Measure Type:	Additional

Asthma Deaths (Age Groups: 0-34, 35-64, 65+)

Description:	Deaths of Florida residents with the underlying cause of death listed as asthma (IC10 Codes J45-J46)
Formula:	# of Asthma Deaths / Florida Population * 1,000,000
Measure Format:	Age-Specific Death Rate per 1,000,000
Data Source:	Bureau of Vital Statistics
Local Data:	Yes
HP2020 Measure:	Yes (No set measure for age group 0-34)
CDC Measure Type:	Core

RISKS AND RISK BEHAVIOR MEASURES

Current Asthma Episodes/Attacks among Adults – Current Asthma Episodes/Attacks among Adolescents – Current Smoking among Adults with Asthma – Current Smoking among Adolescents with Asthma – Exposure to Secondhand Smoke among Adults – Exposure to Secondhand Smoke among Adolescents – Smoking Rules in the Home for Adolescents – Unhealthy Levels of Ozone – Unhealthy Levels of Fine Particulate Matter

Current Asthma Episodes/Attacks among Adults (Age ≥ 18)

Description:	Adults with asthma who responded “Yes” to the question: During the past 12 months, have you had an episode of asthma or an asthma attack? Provided definition: Asthma attacks, sometimes called episodes, refer to periods of worsening asthma symptoms that make you limit your activity more than you usually do, or make you seek medical care.
Formula:	$\frac{\text{\#Adults who experienced an episode or attack during the past 12 months}}{\text{\#Adults who had some symptoms of asthma within the past year}} * 100$
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	No
CDC Measure Type:	Additional

Current Asthma Episodes/Attacks among Adolescents (Age 11-17)

Description:	Adolescents with lifetime asthma who responded “Yes, I have had an attack” to the question: During the past 12 months, did you have an asthma attack?
Formula:	$\frac{\text{\# Adolescents with past year attack}}{\text{\# Adolescents lifetime asthma}} * 100$
Measure Format:	Percentage
Data Source:	Florida Youth Tobacco Survey (FYTS)
Local Data:	Yes (Even-numbered years)
HP2020 Measure:	No
CDC Measure Type:	Additional

Current Smoking among Adults with Asthma (Age ≥ 18)

Description:	Adults with lifetime asthma who responded that they have smoked 100+ cigarettes in their life and respond “Everyday” or “Some days” to the question: “Do you now smoke cigarettes ever day, some days, or not at all?”
Formula:	$\frac{\text{\# Adults with lifetime asthma who are current smokers}}{\text{\# Adults with lifetime asthma}} * 100$
Measure Format:	Percentage
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Local Data:	County-level: 2002, 2007, 2010 – Next county-level in 2013
HP2020 Measure:	No
CDC Measure Type:	Additional

RISKS AND RISK BEHAVIOR MEASURES (continued)

Current Smoking among Adolescents with Lifetime Asthma (Middle and High School Students)

Description:	Adolescents with lifetime asthma who respond one or more days to the question: During the past 30 days, on how many days did you smoke cigarettes?
Formula:	# Adolescents with lifetime asthma who are current smokers/ # Adolescents with lifetime asthma * 100
Measure Format:	Percentage
Data Source:	Florida Youth Tobacco Survey (FYTS)
Local Data:	Yes (Even-numbered years)
HP2020 Measure:	No
CDC Measure Type:	Additional

Exposure to Secondhand Smoke at Home among Adults with Lifetime Asthma (Age ≥ 18)

Description:	Adults with lifetime asthma who responded “Yes” to the question: “During the past 7 days, on how many days did anyone smoke cigarettes, cigars, or pipes in your home while you were there?”
Formula:	# Adults with lifetime asthma exposed to secondhand smoke in their home during the past 7 days / # Adults with lifetime asthma * 100
Measure Format:	Percentage
Data Source:	Behavioral Risk Factor Surveillance System (BRFSS)
Local Data:	County-level: 2002, 2007, 2010 – Next county-level in 2013
HP2020 Measure:	No
CDC Measure Type:	Additional

Exposure to Secondhand Smoke among Adolescents with Lifetime Asthma (Middle and High School Students)

Description:	Adolescents with lifetime asthma who respond one or more times to <u>either</u> of the following questions: During the past 7 days, on how many days were you in the same room with someone who was smoking cigarettes?; During the past 7 days, on how many days did you ride in a car with someone who was smoking cigarettes?
Formula:	# Adolescents with lifetime asthma exposed to secondhand smoke in a room or car during the past 7 days / # Adolescents with lifetime asthma * 100
Measure Format:	Percentage
Data Source:	Florida Youth Tobacco Survey (FYTS)
Local Data:	Yes (Even-numbered years)
HP2020 Measure:	No
CDC Measure Type:	Additional

RISKS AND RISK BEHAVIOR MEASURES (continued)

Smoking Rules in the Home for Adolescents with Lifetime Asthma (Middle and High School Students)

Description:	Adolescents who respond “Yes” to the question: Is smoking allowed inside your home?
Formula:	# Adolescents with lifetime asthma who live in a home where smoking is allowed inside / # Adolescents with lifetime asthma * 100
Measure Format:	Percentage
Data Source:	Florida Youth Tobacco Survey (FYTS)
Local Data:	Yes (Even-numbered years)
HP2020 Measure:	No
CDC Measure Type:	Additional

Unhealthy Levels of Ozone

Description:	Total number of days in which any county in Florida had maximum 8-hour average ozone concentration over the National Ambient Air Quality Standard
Formula:	Total number of days in which any county in Florida had a maximum 8-hour average ozone concentration exceeding 0.075ppm
Measure Format:	Count
Data Source:	DEP/Florida Tracking
Local Data:	Available for certain counties
HP2020 Measure:	No
CDC Measure Type:	Additional

Unhealthy Levels of Fine Particulate Matter

Description:	Total number of days in which any county in Florida had a 24-hour PM _{2.5} reading above the National Ambient Air Quality Standard
Formula:	Total number of days in which any county in Florida had a 24-hour PM _{2.5} reading above 35µg/m ³
Measure Format:	Count
Data Source:	Florida’s Air Quality System (FLAQS)
Local Data:	Yes
HP2020 Measure:	No
CDC Measure Type:	Additional

ASTHMA CARE, AWARENESS, AND MANAGEMENT MEASURES

Taken a Formal Class on Asthma – Taught about the Symptoms of Asthma – Taught Proper Response to an Asthma Attack – Taught about Peak Flow Use – Advised on Controlling Triggers – Given a Written Asthma Action Plan – Instructed How to Use Medication – Routine Asthma Follow-up Visits

Taken a Formal Class on Asthma

Description:	Adults with asthma who respond “Yes” to the question: Have you ever taken a course or class on how to manage your asthma?
Formula:	# Adults who took a class / # Adults in sample * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	Yes
CDC Measure Type:	Core

Taught About the Symptoms of Asthma

Description:	Adults with asthma who respond “Yes” to the question: Has a doctor or other health professional ever taught you how to recognize early signs or symptoms of an asthma episode?
Formula:	# Adults who were taught asthma symptoms / # Adults in sample * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	No
CDC Measure Type:	Core

Taught Proper Response to an Asthma Attack

Description:	Adults with asthma who respond “Yes” to the question: Has a doctor or other health professional ever taught you what to do during an asthma episode or attack?
Formula:	# Adults who were taught response to attack / # Adults in sample * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	Yes
CDC Measure Type:	Core

ASTHMA CARE, AWARENESS, AND MANAGEMENT MEASURES (continued)

Taught About Peak Flow Use

Description:	Adults with asthma who respond “Yes” to the question: Has a doctor or other health professional ever taught you how to use a peak flow meter to adjust your daily medications?
Formula:	# Adults who were taught about peak flow use / # Adults in sample * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	No
CDC Measure Type:	Core

Advised on Controlling Asthma Triggers

Description:	Adults with asthma who respond “Yes” to the question: Has a health professional ever advised you to change things in your home, school, or work to improve your asthma?
Formula:	# Adults who were advised to change environment / # Adults in sample * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	No
CDC Measure Type:	Additional

Given a Written Asthma Action Plan

Description:	Adults with asthma who respond “Yes” to the question: Has a doctor or other health professional ever given you an asthma action plan?
Formula:	# Adults who were given an action plan / # Adults in sample * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	Yes
CDC Measure Type:	Core

ASTHMA CARE, AWARENESS, AND MANAGEMENT MEASURES (continued)

Instructed How to Use Medication

Description:	Adults with asthma who respond “Yes” to the question: Did a doctor or other health professional show you how to use the inhaler?
Formula:	# Adults who were shown how to use an inhaler / # Adults who have ever used a prescription inhaler * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	Yes
CDC Measure Type:	Additional

Routine Follow-up Visits

Description:	Adults with asthma who respond one or more to the question: During the past 12 months, how many times did you see a doctor or other health professional for a routine checkup for your asthma?
Formula:	# Adults who had routine checkup one or more times during past 12 months / # Adults with current asthma * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	Yes
CDC Measure Type:	Additional

COSTS AND BARRIER MEASURES

Asthma Hospitalization Costs – Asthma Emergency Department Visit Costs –
 Cost as a Barrier to Routine Doctor Visit – Cost as a Barrier to Medication –
 Missed Work Days/Limited Activities – School Absenteeism

Asthma Hospitalization Costs

Description:	Total charges for hospitalizations with asthma listed as the primary diagnosis in Florida
Formula:	N/A
Measure Format:	Cost in millions of dollars
Data Source:	Agency for Health Care Administration (AHCA)
Local Data:	Yes
HP2020 Measure:	No
CDC Measure Type:	Additional

COSTS AND BARRIER MEASURES (continued)

Asthma Emergency Department Visit Costs

Description:	Total charges for emergency department visits with asthma listed as the primary diagnosis in Florida
Formula:	N/A
Measure Format:	Cost in millions of dollars
Data Source:	Agency for Health Care Administration (AHCA)
Local Data:	Yes
HP2020 Measure:	No
CDC Measure Type:	Additional

Cost as a Barrier to Routine Doctor Visit

Description:	Adults with asthma who respond “Yes” to the question: Was there a time in the past 12 months when you needed to see your primary care doctor for your asthma but could not because of cost?
Formula:	$\frac{\# \text{ Adults who could not see primary care doctor during past 12 months because of cost}}{\# \text{ Adults with current asthma}} * 100$
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	Yes
CDC Measure Type:	Additional

Cost as a Barrier to Medication

Description:	Adults with asthma who respond “Yes” to the question: Was there a time in the past 12 months when you needed to buy medication for your asthma but could not because of the cost?
Formula:	$\frac{\# \text{ Adults who could not buy asthma medication during past 12 months because of cost}}{\# \text{ Adults with current asthma}} * 100$
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	Yes
CDC Measure Type:	Additional

COSTS AND BARRIER MEASURES (continued)

Missed Work Days/Limited Activities

Description:	Adults who responded one or more to the question: During the past 12 months, how many days were you unable to work or carry out your usual activities because of your asthma?
Formula:	# Adults who missed work or had to limit usual activities / # Adults with Asthma * 100
Measure Format:	Percentage
Data Source:	Adult Asthma Call-back Survey (ACBS)
Local Data:	No
HP2020 Measure:	Yes
CDC Measure Type:	Additional

School Absenteeism

Description:	Children whose parent or guardian answered one or more to the question: During the past 12 months, how many days of daycare or school did your child miss due of asthma?
Formula:	# Children with asthma who missed one or more days of daycare or school / # Children with asthma * 100
Measure Format:	Percentage
Data Source:	Florida Child Health Callback Survey (FCHS)
Local Data:	No
HP2020 Measure:	Yes
CDC Measure Type:	Additional

Appendix C: Healthy People 2020 – Summary of Asthma Objectives

RD–1: Reduce asthma deaths.

- RD–1.1 Children and adults under age 35 years.
 - Target: none set
- RD–1.2 Adults aged 35 to 64 years old.
 - Target: 6.0 deaths per million.
- RD–1.3 Adults aged 65 years and older.
 - Target: 22.9 deaths per million.

RD–2: Reduce hospitalizations for asthma.

- RD–2.1 Children under age 5 years.
 - Target: 18.1 hospitalizations per 10,000.
- RD–2.2 Children and adults aged 5 to 64 years.
 - Target: 8.6 hospitalizations per 10,000.
- RD–2.3 Adults aged 65 years and older.
 - Target: 20.3 hospitalizations per 10,000.

RD–3: Reduce hospital emergency department visits for asthma.

- RD–3.1 Children under age 5 years.
 - Target: 95.5 emergency department visits per 10,000.
- RD–3.2 Children and adults aged 5 to 64 years.
 - Target: 49.1 emergency department visits per 10,000.
- RD–3.3 Adults aged 65 years and older.
 - Target: 13.2 emergency department visits per 10,000.

RD–4: Reduce activity limitations among persons with current asthma.

- Target: 10.2 percent.

RD–5: Reduce the proportion of persons with asthma who miss school or work days.

- RD–5.1 Reduce the proportion of children aged 5 to 17 years with asthma who miss school days.
 - Target: 48.7 percent.
- RD–5.2 Reduce the proportion of adults aged 18 to 64 years with asthma who miss work days.
 - Target: 26.8 percent.

RD–6: Increase the proportion of persons with current asthma who receive formal patient education.

- Target: 14.4 percent.

RD–7: Increase the proportion of persons with current asthma who receive appropriate asthma care according to National Asthma Education and Prevention Program (NAEPP) guidelines.

- RD–7.1 Persons with current asthma who receive written asthma management plans from their health care provider.
 - Target: 36.8 percent.
- RD–7.2 Persons with current asthma with prescribed inhalers who receive instruction on their use.
 - Target: Not applicable.
- RD–7.3 Persons with current asthma who receive education about appropriate response to an asthma episode, including recognizing early signs and symptoms or monitoring peak flow results.
 - Target: 68.5 percent.
- RD–7.4 Increase the proportion of persons with current asthma who do not use more than one canister of short-acting inhaled beta agonist per month.
 - Target: 90.2 percent.
- RD–7.5 Persons with current asthma who have been advised by a health professional to change things in their home, school, and work environments to reduce exposure to irritants or allergens to which they are sensitive.
 - Target: 54.5 percent.
- RD– 7.6 (Developmental) Persons with current asthma who have had at least one routine follow-up visit in the past 12 months.
- RD– 7.7 (Developmental) Persons with current asthma whose doctor assessed their asthma control in the past 12 months.
- RD– 7.8 (Developmental) Adults with current asthma who have discussed with a doctor or other health professional whether their asthma was work related.

RD–8: Increase the numbers of States, Territories, and the District of Columbia with a comprehensive asthma surveillance system for tracking asthma cases, illness, and disability at the State level.