

# **Strategic Plan for Asthma in Massachusetts 2009-2014**

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# Asthma Interferes with Daily Life



# Economic Cost of Asthma

- Nationally, total cost was \$19.7 billion in 2007<sup>1</sup>
- In Massachusetts, total charges for acute care hospital utilization for asthma were over \$136 million in 2006<sup>2</sup>
  - Public insurance was primary source of payment for 53.0% of visits

<sup>1</sup> American Lung Association

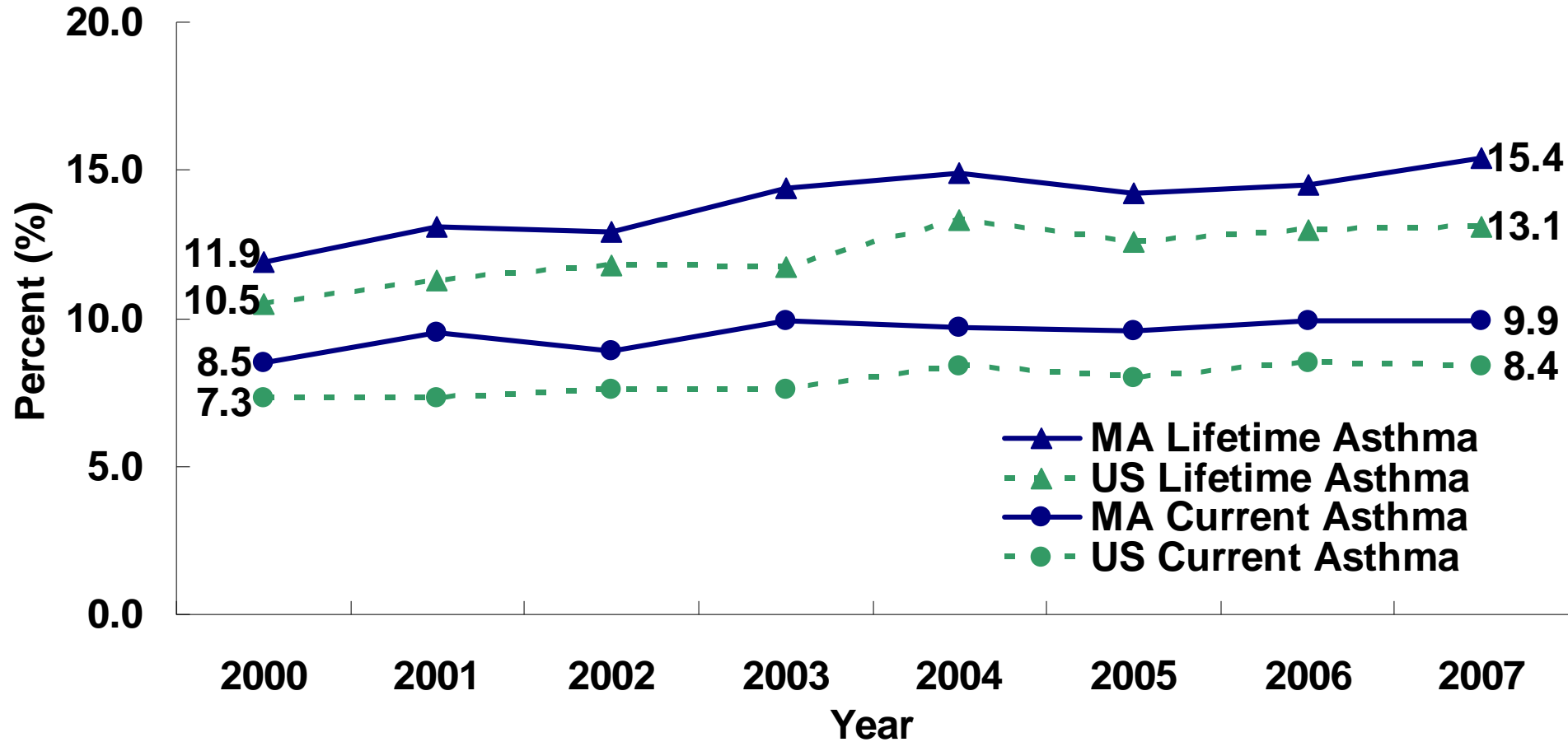
<sup>2</sup> Data Source: CY2006 MA Emergency Department Discharge, Inpatient Hospital Discharge, and Outpatient Observation Stay Databases, MA Division of Health Care Finance and Policy

# Asthma Prevention and Control Program

- In one year, APCP has:
  - Funded **Boston, Brockton, Fall River, New Bedford, Springfield** to reduce disparities
  - Coordinated development of two documents:
    - *The Burden of Asthma in Massachusetts*
    - *A Strategic Plan for Asthma in Massachusetts 2009-2014*
  - Aggressively pursued additional funding to build program

# Asthma Burden Document

# Prevalence of Lifetime and Current Asthma among Adults in MA and US, 2000-2007



# Prevalence of Current Asthma among MA Adults, 2005-2007

- Prevalence is higher among:
  - Females vs. males (12.1% vs. 7.4%)
  - Individuals with lower vs. higher household incomes (11.0% vs. 8.3%)
  - Current smokers vs. never smokers (12.9% vs. 8.9%)
  - Individuals with disability vs. no disability (18.7% vs. 7.3%)
- Similar across race/ethnicity subgroups

# Work-related Asthma among Massachusetts Adults



- Among MA adults with current asthma:
  - 40.2% reported that their asthma was either caused or made worse by exposures at *any* job they had ever had (13.9% *current* job)
  - 10.0% reported discussing relation to work with health care provider
  - 5.1% reported changing or quitting jobs because of their work-related asthma



# Measures of Impairment among Massachusetts Children with Current Asthma

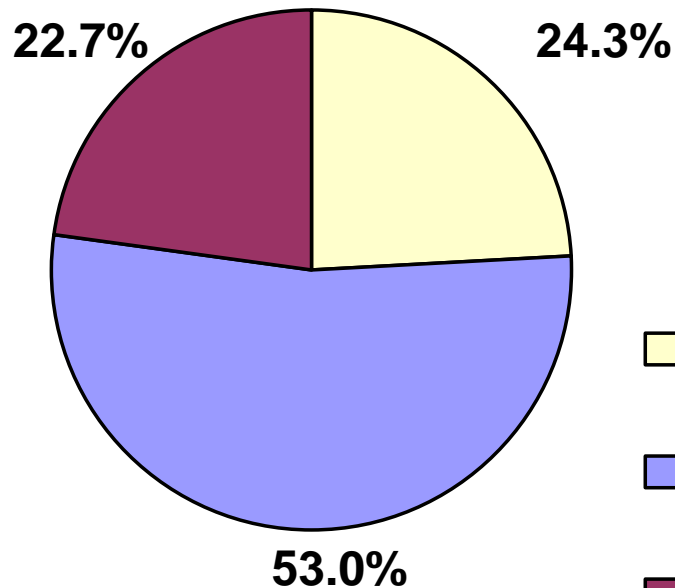
- 10.3% of MA children have current asthma\*
- Among MA children with current asthma<sup>+</sup>:
  - 50.9% had activity limitations due to asthma, past year
  - 44.2% had an asthma attack or episode, past year
  - 40.5% experienced symptoms of asthma at least once, past 30 days
  - 16.9% had sleep disruption due to asthma, past 30 days
  - 16.6% used an inhaled short-acting beta agonist 1 or more times per day

\*Three-year average annual estimate from 2005-2007 MA BRFSS, MDPH

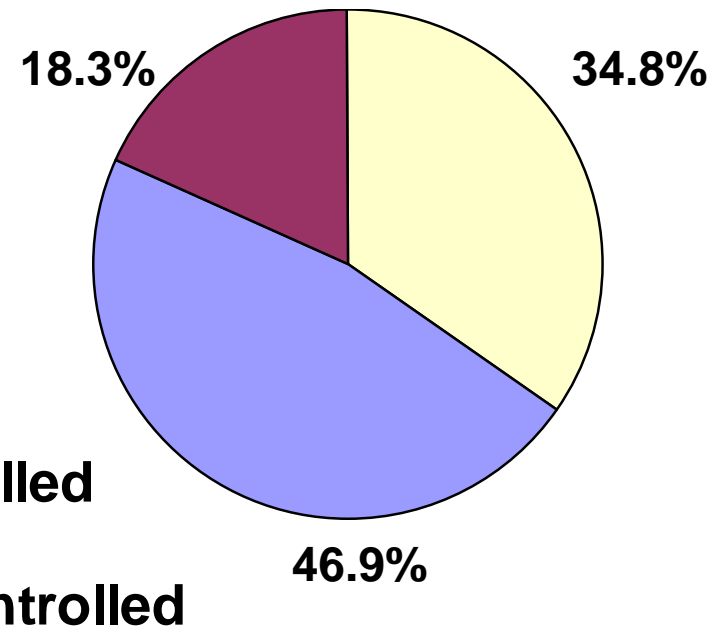
<sup>+</sup> Two-year average annual estimate from 2006-2007 MA Child Asthma Call-back Survey, MDPH

# Level of Asthma Control among Massachusetts Adults and Children with Current Asthma, 2006-2007

## Adults



## Children

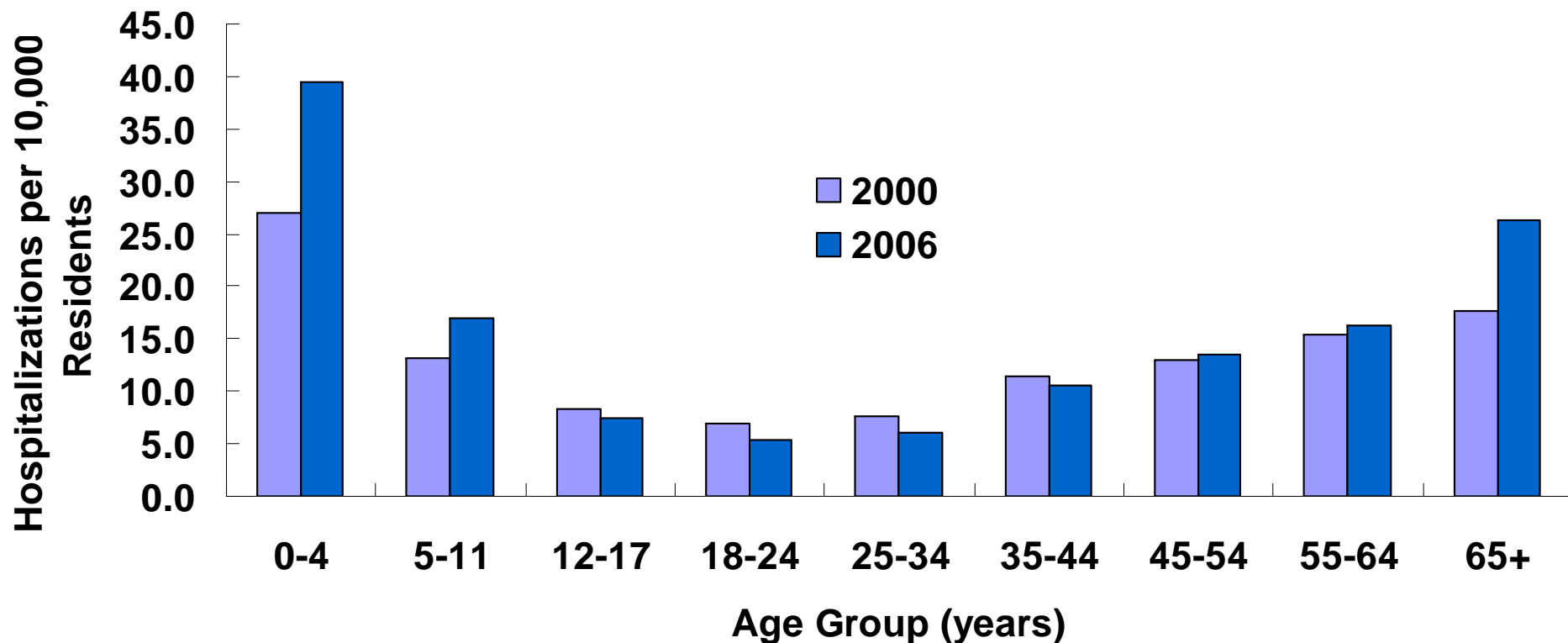


- Well Controlled
- Not Well Controlled
- Very Poorly Controlled

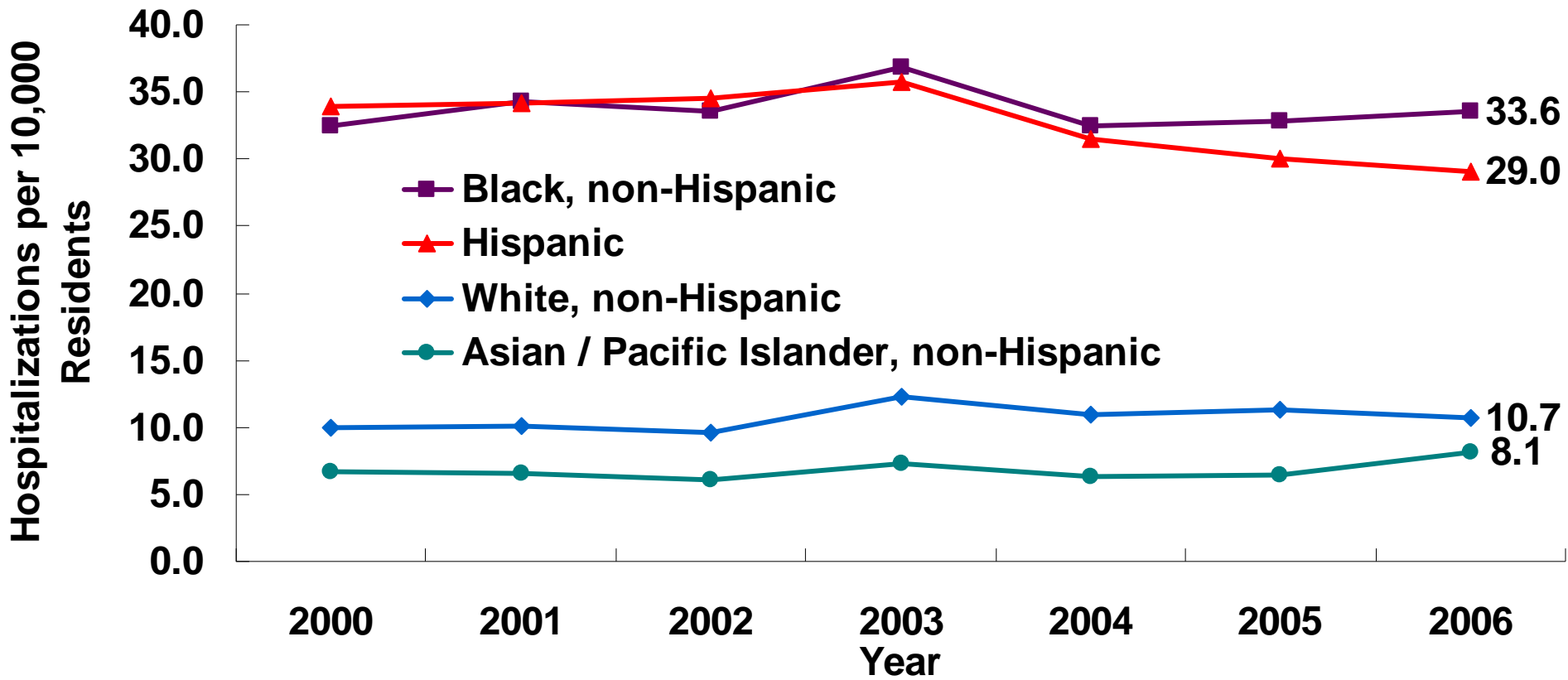
# Magnitude and Trends of Hospital Treatment for Asthma in Massachusetts

- On an average day in Massachusetts, asthma was associated with:
  - 102 emergency department visits (57.8 per 10,000 residents; n= 36,146 in 2005)
  - 25 inpatient hospitalizations (14.7 per 10,000 residents; n=9,457 in 2006)
  - 8 observation stays (3.4 per 10,000 residents; n=2,101 in 2005)
- Annual age-adjusted rates for asthma remained:
  - Stable for emergency department visits (2002-2005)
  - Stable for inpatient hospitalization (2000-2006)
  - Decreased 35% for observation stays (2000-2005)

# Age-Specific Rate of Inpatient Hospitalization due to Asthma in Massachusetts, 2000 and 2006

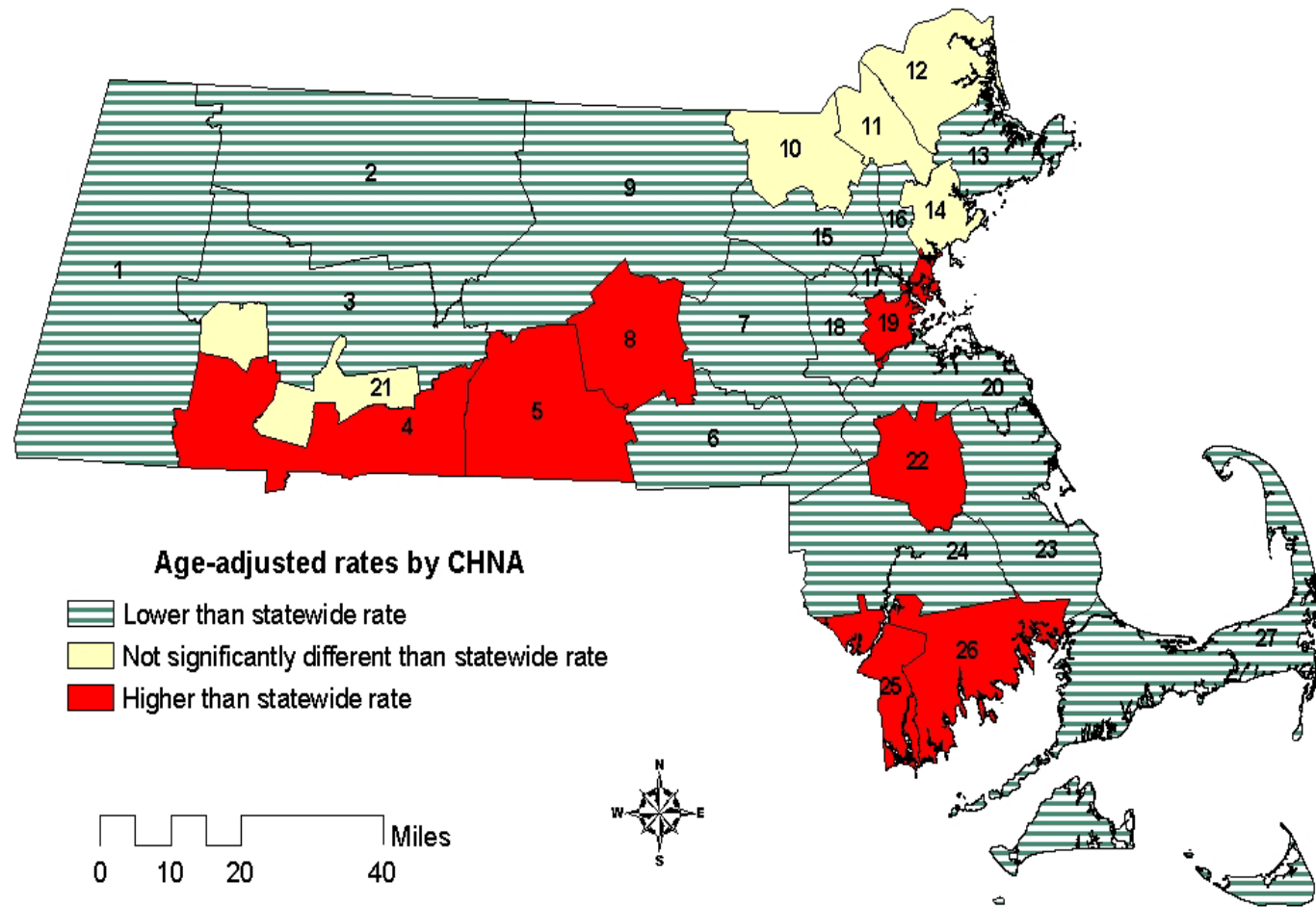


# Age-adjusted Rate of Inpatient Hospitalization for Asthma by Race/Ethnicity in Massachusetts, 2000-2006



Source: 2000-2006 MA Inpatient Hospital Discharge Database, MA Division of Health Care Finance and Policy

# Age-adjusted Rate of Inpatient Hospitalization due to Asthma by Community Health Network Area of Residence, 2004-2006



Source: 2004-2006 MA Inpatient Hospital Discharge Database, MA Division of Health Care Finance and Policy

# Age-adjusted Rate of Inpatient Hospitalization due to Asthma by City/Town of Residence, 2004-2006

Top 10 Cities/Towns	Age-Adjusted Rate*
Fall River	35.3
New Bedford	31.6
Southbridge	31.4
Brockton	27.7
Avon	27.6
Holyoke	26.7
Boston	25.8
Springfield	24.6
Wareham	22.6
Massachusetts Total	14.1

\*Rates are per 10,000 residents.

Source: 2004-2006 MA Inpatient Hospital Discharge Database, MA Division of Health Care Finance and Policy

# **Strategic Plan for Asthma in Massachusetts**

**2009 - 2014**



# Socio-ecological Model



# Strategic Plan Goals

- Enhance asthma surveillance
- Improve asthma management
- Reduce exposure to environmental factors that cause and/or exacerbate asthma
- Better understand the causes of asthma and the role of primary prevention
- Increase capacity of the statewide and local partnerships
- Evaluate Massachusetts' progress

# Goal 1: Enhance Asthma Surveillance

- Selected highlights:
  - Add occupation and industry questions to the BRFSS to better understand work-related asthma
  - Prepare bulletins to explain and document the burden of asthma among priority populations, such as older adults and certain race/ethnic groups

# Goal 2: Improve Asthma Management

6 objectives that include:

1. Reduce disparities
2. Improve standards of care
3. Improve environmental management of asthma in the clinic
4. Improve asthma self-management
5. Increase sustainability of asthma care
6. Improve integration of care outside clinic

# Goal 2, Objective 5: Increase sustainability of asthma care

- Inconsistent coverage of:
  - Asthma education
  - Case management
  - Controller medications (tier 3)
- Selected highlights:
  - Promote coverage of asthma care recommended in the national guidelines

# Goal 3: Reduce Exposure to Environmental Factors that Cause and/or Exacerbate Asthma

- 5 Objectives include reducing exposure to environmental factors in the following:
1. Outdoor or ambient air
  2. Schools, child care and child recreational areas
  3. Homes
  4. Work places
  5. Chemicals, such as cleaning agents

## Goal 3, Objective 4: Reduce Exposures to Factors that Cause and/or Exacerbate Asthma in the Work Place

- In partnership with MDPH Occupational Health Surveillance Program:
  - Track cases and recommend work site changes
  - Raise awareness
  - Advance (or implement) policy initiatives to decrease exposures to hazardous products in worksites



# Strategic Plan for Asthma in Massachusetts 2009 – 2014

RELEASED MAY 2009





# Community Collaborators

- ABCD Head Start
- American Lung Association
- Asthma and Allergy Foundation of America, New England Chapter
- Asthma Regional Council of New England
- Boston Medical Center
- Boston Medical Center HealthNet Plan
- Boston Public Health Commission
- Boston Urban Asthma Coalition
- Boston University
- Brockton Neighborhood Health Center
- Cambridge Health Alliance
- Cape Cod Regional Tobacco Control Program
- Children's Hospital Boston
- Clean Water Action
- Committee for Boston Public Housing
- Community Engagement through Public Broadcasting/WGBH
- Dorchester House Multi Service Center
- Fitchburg Lead Action Group
- GlaxoSmithKline
- Greater Brockton Asthma Coalition
- Greater Lawrence Family Health Center
- Greater New Bedford Community Health Center
- Harvard Pilgrim Health Care
- High Street Health Center
- MA Association for the Chemically Injured
- MA College of Emergency Physicians

# Community Collaborators

- MA School Nurse Research Network
- MA Teachers Association
- Mason Square Health Center
- Massachusetts Asthma Advocacy Partnership  
Massachusetts Coalition for Occupational Safety and Health
- Massachusetts Health Quality Partners
- Metropolitan Area Planning Council
- Neighborhood Health Plan
- Massachusetts Nurses Association
- Northborough Southborough Schools
- Old Colony Planning Council Area Agency on Aging
- Pioneer Valley Asthma Coalition
- Pioneer Valley Planning Commission
- Schering-Plough
- Self Help, Inc.
- Springfield Partners for Community Action
- Springfield Public Schools
- Springfield, Department of Parks, Buildings, and Recreation Management
- Square One
- Stanley Street Treatment and Resources
- The Medical Foundation
- Tobacco Free Mass
- Toxic Use Reduction Institute
- Tufts Medical Center
- UMass Lowell Center for Family, Work, and Community
- UMass Lowell, Lowell Center for Sustainable Production
- Viz Health Consulting

# State Agency Collaborators

- Department of Early Education and Child Care
- Department of Elementary and Secondary Education
- Department of Environmental Protection
- MA Operational Services Division

# MDPH Collaborators

- Bureau of Environmental Health
- Early Childhood Comprehensive Systems Project (MECCS)
- Essential School Health Services
- Health Survey Program
- Healthy Aging and Disability Unit
- Immunization Program
- MassCHIP
- Occupational Health Surveillance Program
- Office of Statistics and Evaluation
- Tobacco Control Program
- Wellness Division

# Resources

- View [www.mass.gov/dph/asthma](http://www.mass.gov/dph/asthma)
  - *The Strategic Plan for Asthma In Massachusetts, 2009-2014*
  - *Burden of Asthma in Massachusetts*
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# Questions?

# Additional Goals and Objectives

- Increase linkages between health care providers and schools and child care settings
- Promote safer alternatives to chemicals
- Develop a roadmap for primary prevention
- Increase the capacity of statewide and local partnership to implement the state asthma plan
- Evaluate our progress