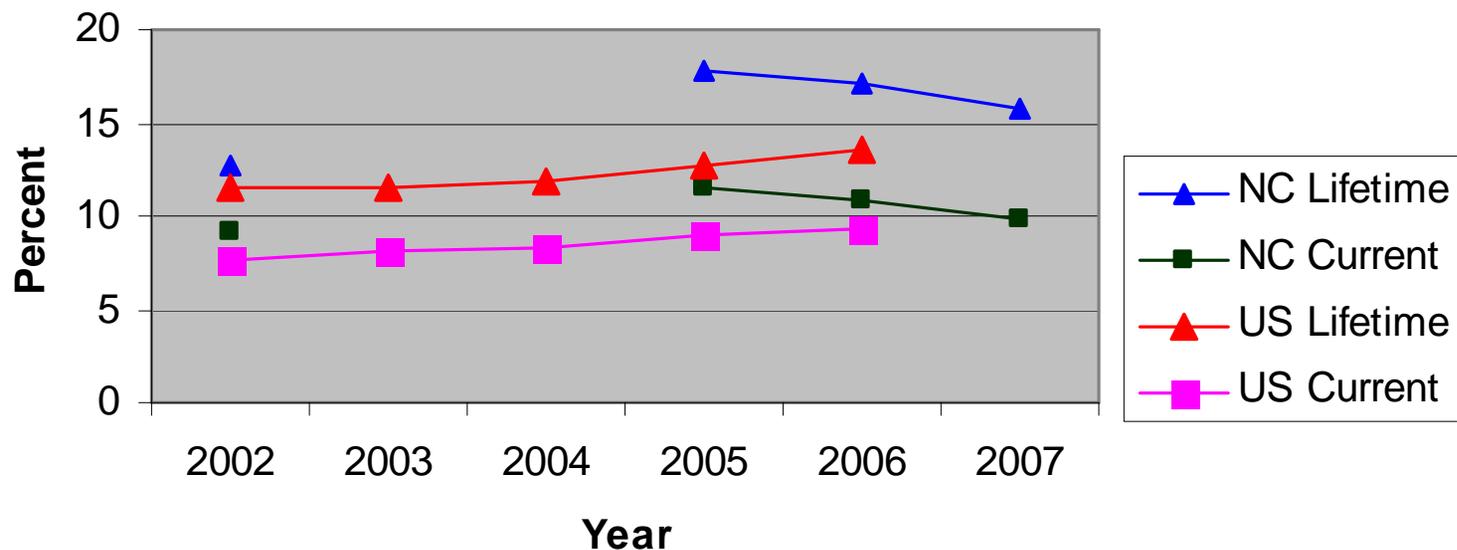


# **The Environment and Asthma: Strategies for North Carolina**

Dr. Karin Yeatts, & the Asthma Alliance  
of North Carolina (AANC)  
Environmental Committee,  
January 14, 2009

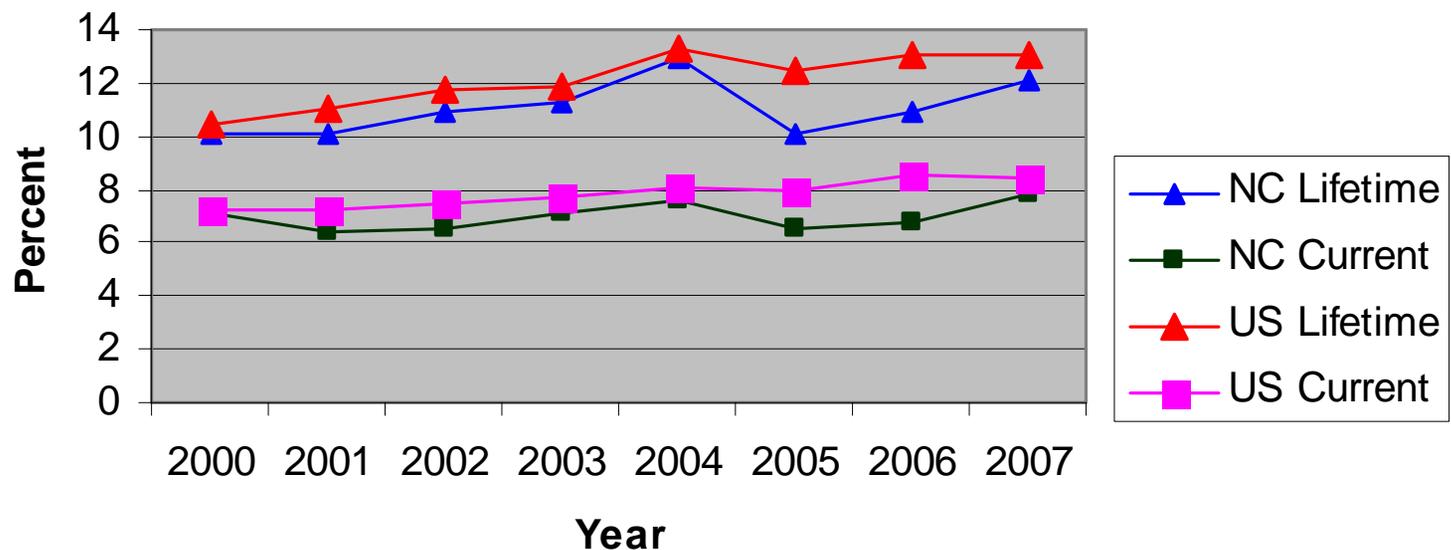
# Asthma Prevalence-Children

Prevalence of Asthma among Children under 18 Years of Age, North Carolina and US, 2002-2007



# Asthma Prevalence-Adult

Prevalence of Asthma among Adults 18 Years and Older, North Carolina and U.S., 2000-2007



# Costs and Disparities in North Carolina

## ■ Cost

- In 2004, total charges for hospitalizations for a primary diagnosis of asthma exceeded \$88 million dollars. This represented an average charge of \$8,259 per asthma hospitalization stay.

## ■ Disparities

- Over the previous six years, African American's mortality rate due to asthma (30.39 deaths per million) is significantly higher than the mortality rate for whites (11.21 deaths per million).

# The “Environment”

- Indoor Air
  - Housing
  - Schools
  - Workplace
- Outdoor Air

# Key Strategies

- A. Building links and collaboration among agencies, groups, stakeholders involved with indoor and outdoor air environment exposures affecting asthma
- B. Increasing asthma-related environmental exposure education and advocacy

# Recommendations- Building links, collaboration

- 1) Increase collaboration among asthma advocates, housing/building code officials and organizations, and the legal community.
  - Organizations include NC Legal Aid and the NC Housing Alliance.
  - AANC Environmental Committee members have attended the NC Housing Code Officials Conference to help bridge the gap between asthma-related needs of families and housing/building codes.

# Examples-

## Building links, collaboration

- NC Housing Coalition is working to make sure landlords and tenants are aware of the Fair Housing law's requirement for landlords to provide accommodations for disabilities related to asthma and other healthy homes issues.
- Our Division of Air Quality, DENR representative is collaborating with the DENR Asthma Affinity Group and other key groups in DENR to promote the distribution of information and resources regarding indoor and outdoor asthma triggers.
- Essentials for Healthy Homes Practitioners Courses
  - training sponsored by Advanced Energy, several of our committee members are participating as trainees and trainers in future regional trainings.

## **Recommendations- Increasing education & advocacy**

- 2) Invite key health organizations (like Blue Cross Blue Shield) to link to asthma-related resources on the NC Asthma Program website and create an inventory of research articles on indoor and outdoor environmental factors for the NC Asthma Program website.

# Recommendations-

## Increasing education & advocacy

- 3) Develop training and educational literature/materials for health care providers and respiratory therapists, focusing on environmental factors for asthma.
  - This includes adapting existing federal (NIH) asthma guidelines into a type of “checklist”, so that they reflect relevant information on environmental factors and how professionals can relay information to their patients/families.

## Recommendation- Increasing education & advocacy

- 4) Support the efforts pursued by the DENR Division of Air Quality, NC DHHS, Asthma Program, and the UNC Institute for Environment as they relate to asthma issues, including policy on emissions from buses, cars and other vehicles that can exacerbate asthma.

# Recommendations-

## Increasing education & advocacy

- 5) Implement carbon monoxide detectors in rental housing (effective 2010).
  - (Hopeful) anticipation that detector inspections could become part of healthy housing policy.
  - Carbon monoxide detectors are being implemented in rental housing (effective 2010), and the AANC Environmental committee has discussed the (hopeful) anticipation that inspections could become part of healthy housing policy.

## **NC Public Schools-example of both increasing linkages, & education, advocacy**

- Partnership among NC DHHS, NCSU, DPI, DENR to promote EPA's Tools for Schools (addresses asthma in NC public schools and, with some modifications, in Childcare/Daycare Centers).
  
- NC DHHS
  - Asthma Branch,
  - Industrial Hygiene Consultation Unit in Occupational and Environmental Epidemiology,
- Local health departments,
- NCSU Extension,
- Department of Public Instruction,
- DENR
  - Children's Environmental Health

# Public Schools

- Schools-building recommendations
  - Cleaning
  - New-no carpets,
  - Repair-vents, rip out carpets, check HVAC