



North Carolina
Asthma
Resource Guide

www.asthma.ncdhhs.gov



Foreword:

Asthma has a significant impact on many North Carolinians, especially young children, senior adults, women, certain minority groups, and those with a very low socioeconomic status. This Resource Guide was carefully designed to provide useful asthma related information to these and all populations affected by asthma in North Carolina. The development of this Resource Guide was coordinated by the North Carolina Asthma Program, in collaboration with many of our partners, and was made possible through a grant from the Centers for Disease Control and Prevention (CDC). The Guide was designed to be used either in its entirety or as individual educational materials/handouts on asthma related topics. The Asthma Program welcomes your feedback as we move forward and update this Guide.

Acknowledgements:

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The Asthma Alliance of North Carolina

The Albemarle Pediatric Asthma Coalition

Community Care of North Carolina

The North Carolina Division of Public Health,
Immunization Branch

The North Carolina Division of Public Health,
Tobacco Prevention and Control Branch

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Asthma Overview

Asthma

IN NORTH CAROLINA

What is Asthma?

Asthma is a chronic disease of the respiratory system characterized by episodes of tightening of the muscles around the airways in the lungs and swelling of the bronchial tubes (inflammation). It is one of the most common long-term diseases of children, but adults have asthma too. Asthma causes repeated episodes of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. If you have asthma, you have it all the time, but you will have asthma attacks only when something bothers your lungs.

A variety of factors can trigger an asthma episode or attack.

Asthma is one of the most common chronic diseases in school-age children.

Asthma, a major chronic illness among school-age children, is the leading cause of school absenteeism. Asthma has been the leading chronic health condition reported by N.C. schools, affecting 75,576 students in the 2008-2009 school year.¹



Common Asthma Triggers

General Irritants

- Strong chemicals, aerosol sprays, cleaning products, pesticides
- Strong odors (air fresheners, colognes/perfumes)
- Environmental tobacco smoke (secondhand smoke)

Allergic Triggers

- Mold and Mildew
- Warm-blooded animals (gerbils, cats, dogs, etc.)
- Pests (cockroaches, mice and lady bugs)
- Dust mites in stuffed animals, pillows, mattresses, comforters, and carpets
- Pollen (flowers, grasses, trees, weeds)

1 out of 10
North Carolina
children has
asthma





“You can control your asthma by knowing the warning signs of an attack, staying away from things that trigger an attack, and following the advice of your doctor or other medical professional.”

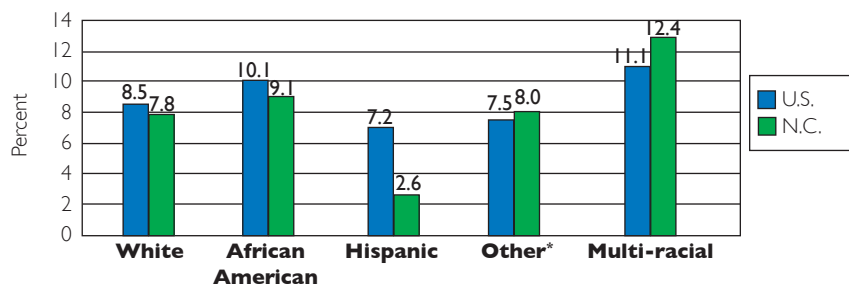
– Centers for Disease Control and Prevention, 2010⁵



Asthma in Adults

- Over 924,000 adults in North Carolina have had asthma, or approximately 12.9 percent of adults.²
- Almost 559,000 adults in North Carolina currently have asthma. That’s 7.8 percent of all adults in the state.²
- In 2008, there were 10,689 hospitalizations of adults due to asthma in North Carolina.³
- Between 1999 and 2008, asthma caused more than 1,000 deaths in North Carolina. Twice as many of those deaths occurred among adult women than in men.³
- About 33 percent of N.C. adults with asthma have reported visiting the emergency room due to asthma.⁴

Percentage of Adults Who Currently Have Asthma, N.C. and U.S., by Race/Ethnicity (2009)



Number of states includes District of Columbia. *Other includes Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaskan Native or other. Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention & Health (2009)

What can you do?⁶

Since asthma can be controlled, **the most important thing for you to do is try to prevent attacks.**

Keep a clean home.

- Make sure that your home is free of dust, mold, smoke, and other potential triggers.
- Vacuum often—HEPA (High Efficiency Particle Air) filters remove dust best.
- Keep foods stored in tightly sealed containers to avoid attracting cockroaches and rodents.
- Clear crumbs, drips, spills, and dirty dishes immediately.
- Identify and quickly fix water leaks in your home.



Keep people with asthma away from dust, dust mites, and smoke.

- Use zippered “allergen resistant” mattress and pillow covers to keep dust mites out of sleeping spaces.
- Keep pets outdoors or away from sleeping areas; clean hairs off of carpets and furniture.
- Always keep tobacco smoke away from children and people with asthma.
- Change bed sheets often.
- Keep people with asthma out of a room while vacuuming or dusting.



Get medical advice and follow the doctor's instructions.

- Get emergency medical care for bad attacks of shortness of breath or wheezing.
- Take all prescribed medication, either to prevent attacks or to lessen the symptoms.
- Find out what allergies you have so you can avoid these potential asthma triggers.





REFERENCES

1. NC Annual School Health Services Report: 2008-2009. (www.nchealthyschools.org/docs/data/reports/2008-09eoy.pdf) Accessed June 30, 2010.
2. North Carolina Behavioral Risk Factor Surveillance System (BRFSS) Survey, State Center for Health Statistics, N.C. Department of Health and Human Services (2009).
3. State Center for Health Statistics, N.C. Department of Health and Human Services, (2008).
4. North Carolina Behavioral Risk Factor Surveillance System (BRFSS) Survey, State Center for Health Statistics, N.C. Department of Health and Human Services (2008).
5. Centers for Disease Control and Prevention, National Center for Environmental Health. (www.cdc.gov/asthma/faqs.htm) Accessed August 4, 2010.
6. About Asthma. (<http://hud.gov/offices/lead/healthyhomes/asthma.cfm>) Accessed December 21, 2009.
7. Asthma Fact Sheet. (www.betterasthmacare.org/files/AsthmaFactSheet_V5_102909.pdf) Accessed December 21, 2009.

This publication was supported by Grant/Cooperative Agreement Number 1U59EH000518-01 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

Ten key tips to controlling and managing asthma⁷

1. Visit your doctor every six months, even if you think your asthma is under control.
2. Be sure to use your asthma medicines correctly.
3. Always use a holding chamber (or spacer) with your metered dose inhaler.
4. Make sure you always have access to your asthma medicines.
5. Get a written asthma action plan from your doctor. Make sure you understand it and have it updated at least every year.
6. Know what triggers your asthma and how to avoid conditions that may trigger an attack.
7. Ask your doctor about tests to determine if you have allergies to specific triggers.
8. Avoid exposure to tobacco smoke.
9. Ask your doctor about testing your lung function (spirometry) at least every 1-2 years.
10. Be sure you get a flu shot every year (available in the fall).

For more information, please visit the NC Asthma Program's website at www.asthma.ncdhhs.gov or call the Asthma Program at **(919) 707-5213** for additional assistance.



State of North Carolina | Beverly Eaves Perdue, Governor
Department of Health and Human Services | Lanier M. Cansler, Secretary
Division of Public Health | North Carolina Asthma Program
www.ncdhhs.gov

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Common Asthma Triggers



General Irritants

- Strong chemicals, aerosol sprays, cleaning products, pesticides
- Strong odors (air fresheners, scented candles, and colognes/perfumes)
- Environmental tobacco smoke (secondhand smoke)
- Smoke from burning wood (in fireplaces, wood stoves, etc.), leaves, or burning fields
- Kerosene heaters and un-vented gas stoves or heaters
- Paints, varnishes, and solvents containing volatile organic compounds (VOC)



Allergic Triggers

Avoid if allergic to these.

- Mold and mildew (in bathroom, refrigerators, basements, water leaks, soil of house plants, etc)
- Warm-blooded animals (gerbils, cats, dogs, birds, etc)
- Pests (cockroaches, mice, and lady bugs)
- Dust mites present in stuffed animals, pillows, mattresses, comforters, and carpets
- Pollens (flowers, grasses, trees, weeds)



NOTE: These are just some of the known triggers.

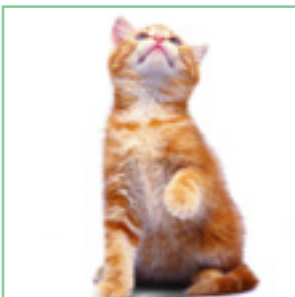
If you have concerns about other items that could cause an asthma episode, please discuss this with the parent, caregiver, or healthcare provider.

SOURCES:

www.cdc.gov/asthma/faqs.htm#triggers, June 2008.

www.epa.gov/asthma/triggers.html, June 2008.

www.niehs.nih.gov/health/topics/conditions/asthma/allergens.cfm, June 2008.



Environmental Control Measures

Mold and Mildew

Mold grows on damp things such as shower curtains, bath items, tubs, basins and tiles. Moisture control is essential in limiting indoor mold growth. The moisture problem must be repaired. If the moisture problem is not gotten rid of, the mold growth will return.

What you can do?

- Clean mold or mildew with a cleaning solution made up of detergent and water. Wear gloves when mixing or applying solution. After the area has been cleaned, make sure to dry it.
- Use exhaust fans or open a window in the bathroom when showering and the kitchen when cooking.
- Fix leaky plumbing or other sources of water (faucets, pipes, roof leaks, window leaks) as soon as possible.
- Dry damp or wet items within 1-2 days to avoid mold growth.
- Use air conditioning to cool the house; evaporative coolers are not recommended.
- When first turning on home or car air conditioners, leave the room or drive the car with windows open for several minutes to allow mold spores to disperse.



- Do not use a humidifier.
- Do not install carpet and/or wallpaper in rooms prone to dampness.
- After trying to correct the moisture in a closet, leaving the closet door open will improve ventilation and may solve the problem. Also consider leaving an incandescent light on in the closet to reduce the humidity level.
- Install and use exhaust fans in the kitchen, bathrooms, and damp areas.
- Vent bathrooms and clothes dryers to the outside.
- Remove decaying debris from the yard, roof, and gutters.
- Avoid raking leaves, mowing lawns, or working with peat, mulch, hay, or dead wood if you are allergic to mold spores.

SOURCES:

- www.epa.gov/asthma/triggers.html, Aug 2008.
- www.epa.gov/asthma, June 2008.
- www.atsdr.cdc.gov/csem/asthma/treatment.html, June 2008.

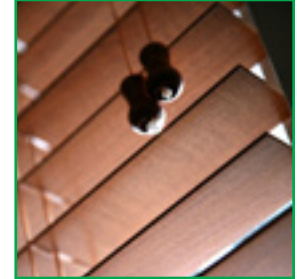
Environmental Control Measures

Dust Mites

Dust mites are tiny bugs you can't see. They live in sheets, blankets, pillows, mattresses, box springs, soft furniture, carpets, and stuffed toys, such as stuffed animals.

What you can do:

- Vacuum carpets, rugs and furniture often with a cleaner that has a High Efficiency Particulate Air (HEPA) filter or double-layered micro filter bags.
- Remove carpet from bedrooms.
- Cover mattresses, box springs, and pillows with dust proof (allergen-resistant) zippered covers.
- Wash bedding (sheets, blankets and bedcovers) once per week in hot water and dry completely.
- Choose washable stuffed toys; wash them often in hot water and dry them thoroughly.
- Place small stuffed toys in freezer for 24 hours once a month. You must wash anything you freeze to remove the residue which will still cause allergies.



- Keep stuffed toys off beds.
- Keep humidity low, ideally between 30-50% relative humidity. Humidity levels can be measured by hygrometers which are available at local hardware stores.
- Use an air conditioner or dehumidifier.
- Consider removing upholstered furniture if it cannot be properly cleaned.
- Replace draperies with blinds or other window coverings that can be wiped clean.
- Use a damp mop or rag to remove dust.
- Keep people with asthma or respiratory problems out of the area when cleaning.

SOURCES:

www.epa.gov/asthma/triggers.html, Aug 2008.

www.epa.gov/asthma, June 2008.

www.atsdr.cdc.gov/csem/asthma/treatment.html, June 2008.

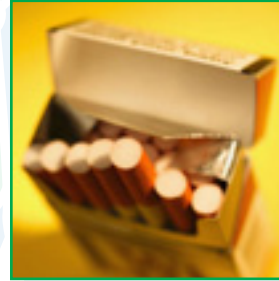
Environmental Control Measures

Secondhand Smoke

Asthma can be triggered by the smoke from the burning end of a cigarette, pipe, or cigar, or the smoke breathed out by a smoker. Choose not to smoke in the home or car, and don't allow others to do so. Simply smoking outside is not enough to limit the harm from tobacco smoke.

What you can do:

- Change clothes after smoking while you are in the process of cutting down on the number of cigarettes.
- If you smoke, do not smoke near children or other nonsmokers.
- Seek support to quit smoking:
 - 1) Call the N.C. Tobacco Use Quit Line at 1-800-QUIT-NOW (1-800-784-8669) to talk to a trained quit coach for free and confidential assistance.
 - 2) Visit the website "Become an Ex" at: www.becomeanex.org



3) Medicines that are used in an effort to quit smoking can double the chances of quitting when used with quit support like the Quitline. Talk to a health care provider about the use of nicotine gum, patch, and other medicines to help in quitting smoking.

- Choose smoke-free home child care settings and social settings. All licensed child care centers are smoke-free.
- Seek smoke-free environments in restaurants, theaters, and hotel rooms.

PARENTS:

Pledge to make your home "smoke-free."

SOURCES:

www.tobaccopreventionandcontrol.ncdhhs.gov, June 2008.
www.epa.gov/asthma, June 2008.
www.nctobaccofreeschools.com, Aug 2008.
www.smokefree.gov, Aug 2008.
www.epa.gov/asthma/triggers.html, Aug 2008.
www.atsdr.cdc.gov/csem/asthma/treatment.html, Aug 2008.

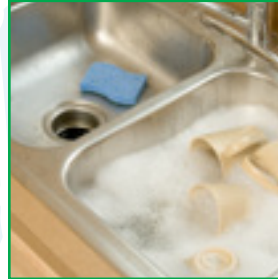
Environmental Control Measures

Pest Management

Use the integrated pest management (IPM) approach for extermination and lower toxic methods should be used. Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices.

What you can do:

- Keep house clean and dry. Remove any moisture.
- Remove any left-over food items. Keep food in air-tight containers and clean dirty dishes.
- Use boric acid powder under stoves and other appliances. Wear face mask and gloves when applying powder.
- Use bait stations and gels.
- Use outdoor treatments as much as possible to prevent insects from entering your house.
- If those steps are unsuccessful, seek help from a professional, licensed exterminator rather than spraying chemicals yourself.
- Stay away from house for several hours after pesticides are applied.
- Avoid using liquid sprays inside the house, especially near places where children crawl, play, or sleep.
- Never attempt to use industrial-strength pesticide sprays that require dilution.



Cockroaches

Cockroach body parts and droppings may trigger asthma attacks.

What you can do

- Keep counters, sinks, tables, and floors clean and dry.
- Clean dishes, crumbs, and spills.
- Store food (including pet food) in air-tight containers.
- Cover trash cans.
- Limit spread of food around the house, especially in bedrooms.
- Restrict food consumption to the kitchen or dining room.
- Fix water leaks under sinks.
- Mop the kitchen floor and clean countertops at least once a week.
- Check for and seal/repair crevices outside the home that cockroaches may enter.
- Caulk or patch holes in walls, cupboards, and cabinets.

SOURCES:

www.epa.gov/asthma/triggers.html, Aug 2008.

www.epa.gov/asthma, June 2008.

www.atsdr.cdc.gov/csem/asthma/treatment.html, June 2008.

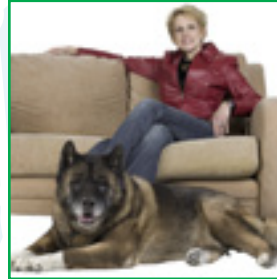
Environmental Control Measures

Animal Allergens

A warm-blooded animal's urine, skin, and saliva may also trigger attacks.

What you can do:

- Keep pets outside if possible, or find a new home for the pet.
- If you have a pet inside, keep it out of the bedroom and off the furniture.
- Vacuum carpets and furniture regularly using a cleaner with a HEPA filter or a double-layered micro-filter bag.
- Select low-dander pets in place of those with fur or feathers. It is not the fur, but the skin and saliva that are considered pet dander.



If those options are not possible, the following steps may help reduce exposure:

- Enclose mattresses, box springs, and pillows with zippered plastic cases.
- Remove carpets.
- Do not vacuum when the person with asthma is at home or in the room.
- Keep pets off furniture.

SOURCES:

www.epa.gov/asthma/triggers.html, Aug 2008.

www.epa.gov/asthma, June 2008.

www.atsdr.cdc.gov/csem/asthma/treatment.html, June 2008.

Environmental Control Measures

Chemical Irritants

Chemical irritants found in some scented and unscented products in the house, such as cleaners, paints, varnishes, or solvents containing volatile organic compounds (VOC), adhesives, pesticides, cosmetics, or air fresheners, may make asthma worse.

What you can do:

- Use these products less often, and make sure people with asthma are not around when you use the products. Also, consider trying different products.
- Take great care to follow the instructions on the label. Open windows or doors, and use an exhaust fan.
- Use low-odor or low volatile organic compounds (VOC) in paints, zero-VOC paint, and/or non-toxic or natural paint.



- Limit use of products and materials that give off strong odors and irritants, such as:
 - air fresheners, sprays, air wicks, scented candles, plug-ins
 - chalk dust
 - cleaning sprays and products
 - hair sprays
 - insect sprays
 - sawdust
 - paint vapors
 - smoke
 - strong perfumes
 - body powder

SOURCES:

www.epa.gov/asthma, June 2008.

www.atsdr.cdc.gov/csem/asthma/treatment.html, June 2008.

www.epa.gov/asthma/triggers.html, Aug 2008.

Environmental Control Measures

Indoor Air Pollution

The two best approaches to reducing indoor air pollution are source control and ventilation.

What you can do:

- Limit indoor humidity and moisture.
- Use good housekeeping practices to reduce the presence of airborne particles.
- Install an exhaust fan close to the source of airborne contaminants or odors, and vent it to the outside.
- Properly ventilate the room in which fuel-burning appliances are used.
- Ensure that the doors of wood burning stoves fit tightly.
- Do not use un-vented space heaters or other appliances. If you have to, then open a window in the area.
- Ensure that fireplaces are properly vented so smoke escapes through the chimney.
- Never use a gas cooking appliance as a heating source.



- Open windows, especially when pollutant sources are in use (this option must be balanced against the concern of mold allergy or other plant allergens and outdoor air pollution).
- Check filters regularly, and change them when necessary.

SOURCES:

www.epa.gov/asthma/triggers.html, Aug 2008.

www.epa.gov/asthma, June 2008.

www.atsdr.cdc.gov/csem/asthma/treatment.html, June 2008.

Environmental Control Measures

Outdoor Air Pollution

Outdoor air pollution, especially ozone and particulate matter, can increase asthma symptoms. There are many ways to limit exposure to outdoor air pollution.

What you can do:

- Monitor air quality and pollen levels, and indoors when pollutants are high.
- Avoid contact with vehicle exhaust gases and particulates (such as student exposure to idling school buses).
- Consider upgrading to a MERV 8 or better filter. MERV, or Minimum Efficiency Reporting Value, is a number from 1 to 16 that is relative to an air filter's effectiveness. The higher the MERV, the better the air filter is at removing particles. Consult a contractor familiar with your heating, ventilation, and air conditioning system before upgrading to a more efficient filter.



- If possible, move to a less polluted location.
- Schedule outdoor activities for times when ozone levels are lowest, typically in the morning.

SOURCES:

www.epa.gov/asthma/triggers.html, Aug 2008.

www.epa.gov/asthma, June 2008.

www.atsdr.cdc.gov/csem/asthma/treatment.html, June 2008.

Environmental Control Measures

Nitrogen Dioxide

Nitrogen dioxide is an odorless gas that can be an asthma trigger for some people. It can irritate the eyes, nose, and throat and may cause shortness of breath. This gas can come from the use of appliances that burn fuels, such as gas, wood, and kerosene.

What you can do:

- If possible, use fuel-burning appliances that are vented outside. Always follow the manufacturer's instructions on how to use these appliances.
- Gas cooking stoves: Never use these to keep you warm or to heat the house. If you have an exhaust fan, use it when you cook.
- Un-vented kerosene or gas space heaters: Use the proper fuel and keep the heater adjusted the right way. Open a window slightly or use an exhaust fan.
- Wood stoves: Make sure the doors are tight-fitting. Follow the maker's instructions for starting, burning, and putting out the fire.

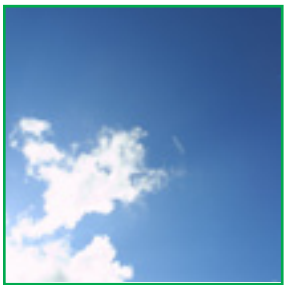


- Fireplaces: Always open the chimney smoke outlet so that the smoke can escape through the chimney.

SOURCES:

- www.epa.gov/asthma/triggers.html, Aug 2008
- www.epa.gov/asthma, June 2008
- www.atsdr.cdc.gov/csem/asthma/treatment.html, June 2008

The Air Quality Index



AQI INDEX VALUE	THE AIR	COLOR
0 - 50	Good	Green
51 - 100	Moderate	Yellow
101 - 150	Unhealthy for Sensitive Groups	Orange
151 - 200	Unhealthy	Red



The Air Quality Index (AQI) helps you to understand what the air quality forecast for each day means for your health. It helps you know if the air outside is clean or polluted (dirty).

The AQI uses numbers from 0-500 to decide the color forecast for each day. The less clean the air, the larger the forecast number. A green forecast means the best air quality, and a red forecast means the most unhealthy air quality. Yellow means moderate air quality; and during orange days, it can be unhealthy for sensitive groups to be outside, especially children, older adults, and people with asthma. On red days, all people should limit outdoor activities. See table below.

North Carolina forecasts are developed each day by staff weather experts at the NC Division of Air Quality. Forecasts are available for these “areas” in North Carolina: Asheville Ridge Tops, Asheville Valleys, Charlotte, Fayetteville, Hickory, Rocky Mount, Triad, and Triangle.

More information about the air quality index is available from the NC Division of Air Quality’s web site, <http://daq.state.nc.us>. You can even sign up to receive air quality forecasts every day on your email or cell phone at www.enviroflash.info.

SOURCES:

US Environmental Protection Agency, www.airnow.gov

NC Division of Air Quality, <http://daq.state.nc.us>

Children and Asthma

IN NORTH CAROLINA

Childhood asthma continues to be an important public health issue in North Carolina. In 2008, about 14.2 percent (approx. 314,700) of children under age 18 in North Carolina had been diagnosed with asthma at some point in their lives,¹ as compared to 13.0 percent of children in the U.S.²

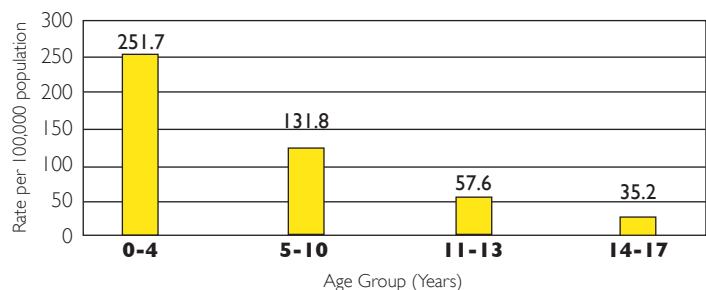


In 2008, children below age 5 with asthma had the **highest hospitalization rate** of any other age group under age 18.³

Children under the age of 5 with asthma have:

- Highest hospitalization rate due to asthma among all children and adults (251.7 per 100,000 population)³
- Highest rate of emergency room visits and urgent care clinic visits (42.7 percent)
- Lowest percentage of asthma action plans (33.0 percent)

Asthma Hospitalizations, by Age Group, North Carolina, 2008



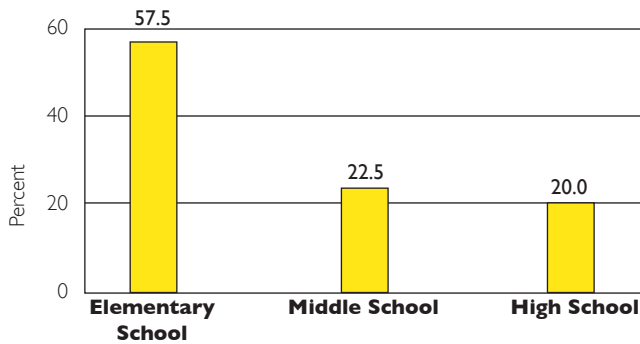
Source: N.C. State Center for Health Statistics, 2008.



Asthma is the **leading chronic health condition reported by North Carolina schools**. Asthma accounted for 31.4 percent of all chronic health conditions, affecting 75,576 students in the 2008-2009 school year.⁴

- The majority (57.5 percent) of school-aged children with asthma attend elementary schools.

North Carolina School-Aged Children with Asthma, 2008-2009 School Year



Source: N.C. Annual School Health Services Report, 2008-2009

¹ North Carolina Child Health Assessment and Monitoring Program (CHAMP) Survey, N.C. State Center for Health Statistics, N.C. Department of Health and Human Services (2008).
² National Health Interview Survey, National Center for Health Statistics, Centers for Disease Control and Prevention, (2008).
³ N.C. State Center for Health Statistics, N.C. Department of Health and Human Services, 2008 Provisional data. (newborns were not included).
⁴ NC Annual School Health Services Report: 2008-2009. (www.nchealthyschools.org/docs/data/reports/2008-09eoy.pdf). Accessed July 27, 2010.
⁵ Help Your Child Gain Control Over Asthma (www.epa.gov/asthma/pdfs/ll_asthma_brochure.pdf)

Help your child control her/his asthma

- **Make an asthma action plan with your healthcare provider** – the action plan looks at what triggers or brings on your child's asthma and informs everyone who care for your child about the plan. It should include your child's *daily medicine* needs and *rescue medicines* for quick relief during an attack.
- **Give the right amount of medicine everyday** – Ask your doctor if you have any questions.
- **Learn what may trigger your child's asthma** and take action(s) in reducing those triggers.
- **Monitor the Air Quality Index (AQI)** (www.airnow.gov) before your child participates in any outdoor activities.

This publication was supported by Grant/Cooperative Agreement Number 1U59EH000518-01 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.



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Older Adults and Asthma

IN NORTH CAROLINA

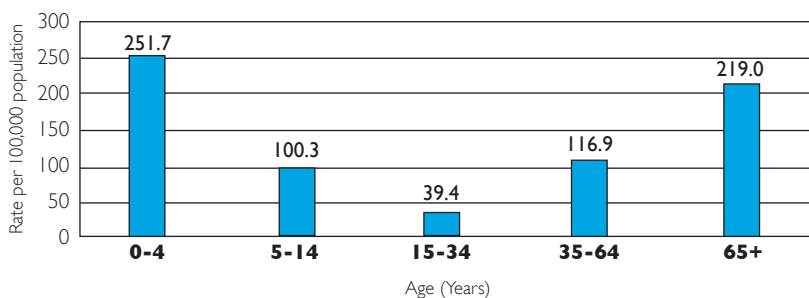
Asthma is common among older adults, affecting around 7 percent of those above age 65. Despite its prevalence, late onset asthma may be misdiagnosed and inadequately treated, with important negative consequences for the person's health.

Asthma in older patients is **often under-diagnosed** due to respiratory symptoms similar to those found in persons with COPD, lung cancer, pulmonary infection, and chronic bronchitis.



- Lifetime (ever had) asthma prevalence among adults 65+ years in North Carolina was 10.5 percent, and in the U.S., 10.8 percent.¹ The current (still have) asthma prevalence in North Carolina was 6.7 percent, and that for the U.S. was 7.9 percent.¹

Asthma Hospitalizations, by Age Group, North Carolina, 2008



Source: N.C. State Center for Health Statistics, 2008.

- In 2008, the asthma hospitalization rate for the 65+ age group was 219.0 per 100,000 population, the second highest rate after the 0-4 year age group.²



Ten key tips to controlling and managing asthma⁵

1. Visit your doctor every six months, even if you think your asthma is under control.
2. Be sure to use your asthma medicines correctly.
3. Always use a holding chamber (or spacer) with your metered dose inhaler.
4. Make sure you always have access to your asthma medicines.
5. Get a written asthma action plan from your doctor. Make sure you understand it and have it updated at least every year. In 2008, 68.3 percent of North Carolina adults did not obtain an asthma management plan from their doctor.³
6. Know what triggers your asthma and how to avoid conditions that may trigger an attack.
7. Ask your doctor about tests to determine if you have allergies to specific triggers.
8. Avoid exposure to tobacco smoke.
9. Ask your doctor about testing your lung function (spirometry) at least every 1-2 years.
10. Be sure you get a flu shot every year (available in the fall).

Asthma is a chronic disease that requires effective control and management.

- Over 70 percent of adults 65 and older with asthma in North Carolina **do not have an asthma action plan** that was provided by their health care provider.³
- About 67 percent of adults aged 65 and older with asthma in North Carolina take prescription asthma medication to prevent an asthma attack from occurring.³
- North Carolina adults 65 and older have an asthma mortality rate of 44.8 per million population compared to 8.2 per million for the under 65 age group.⁴

¹ Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention & Health (2009). (www.cdc.gov/asthma/brfss/08/brfssdata.htm). Accessed July 29, 2010.

² North Carolina State Center for Health Statistics, provisional asthma hospitalization data, 2008.

³ Behavioral Risk Factor Surveillance System, North Carolina State Center for Health Statistics, North Carolina Department of Health and Human Services (2008)

⁴ North Carolina State Center for Health Statistics, asthma mortality data, 2008.

⁵ About Asthma. (<http://hud.gov/offices/lead/healthyhomes/asthma.cfm>). Accessed December 21, 2009.

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For more information, please visit
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at **www.asthma.ncdhhs.gov**
or call the Asthma Program
at **(919) 707-5213**
for additional assistance.

Women and Asthma

IN NORTH CAROLINA

In North Carolina, 7.8 percent (approx. 554,000) of adults currently have asthma, compared with 8.8 percent (approx. 20.5 million) of U.S. adults.¹

Women are disproportionately affected by asthma¹:

Adults who have ever had asthma

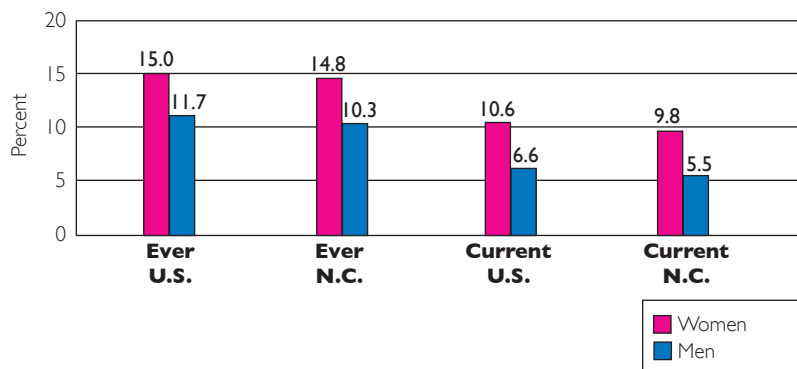
- In the U.S., **15 percent (approx. 17.9 million) of women**, compared with only 11.7 percent (approx. 13.3 million) of men.
- In N.C., **14.8 percent (approx. 544,300) of women**, compared with only 10.9 percent (approx. 352,800 thousand) of men.

Adults who currently have asthma

- In the U.S., **10.6 percent (approx. 12.6 million) of women**, compared with only 6.6 percent (approx 7.5 million) of men.
- In N.C., **9.8 percent (approx. 360,400) of women**, compared with only 5.5 percent (approx. 188,400) of men.



Percentage of Adults Who Have Ever Had or Currently Have Asthma by Gender, U.S. and N.C., 2009



Women have significantly higher rates of hospitalization due to asthma than men.

In 2008, that rate was 141.3 per 100,000 population, compared to 84.4 per 100,000 for men.

Between 2000 and 2008, asthma caused more than 1,000 deaths in North Carolina. More than twice as many of those deaths occurred among adult women than in men.

In 2008, there were 71 deaths due to asthma among females versus 46 for males, resulting in an age-adjusted death rate that was about 20 percent greater.

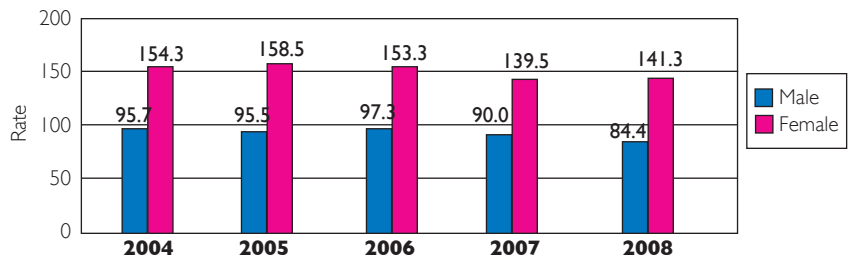
¹ Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. National Center for Chronic Disease Prevention & Health (2009). (www.cdc.gov/asthma/brfss/08/brfssdata.htm). Accessed July 27, 2010.

² North Carolina State Center for Health Statistics, N.C. Department of Health and Human Services (2008). Personal communication, 2010.

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For more information, please visit the NC Asthma Program's website at www.asthma.ncdhhs.gov or call the Asthma Program at (919) 707-5213 for additional assistance.

Hospitalizations with a Primary Diagnosis of Asthma per 100,000 Population, by Gender, All Ages, N.C., 2004-2008



Source: N.C. State Center for Health Statistics, 2004-2008.

Ten key tips to controlling and managing asthma³

1. Visit your doctor every six months, even if you think your asthma is under control.
2. Be sure to use your asthma medicines correctly.
3. Always use a holding chamber (or spacer) with your metered dose inhaler.
4. Make sure you always have access to your asthma medicines.
5. Get a written asthma action plan from your doctor. Make sure you understand it and have it updated at least every year.
6. Know what triggers your asthma and how to avoid conditions that may trigger an attack.
7. Ask your doctor about tests to determine if you have allergies to specific triggers.
8. Avoid exposure to tobacco smoke.
9. Ask your doctor about testing your lung function (spirometry) at least every 1-2 years.
10. Be sure you get a flu shot every year (available in the fall).



African Americans and Asthma

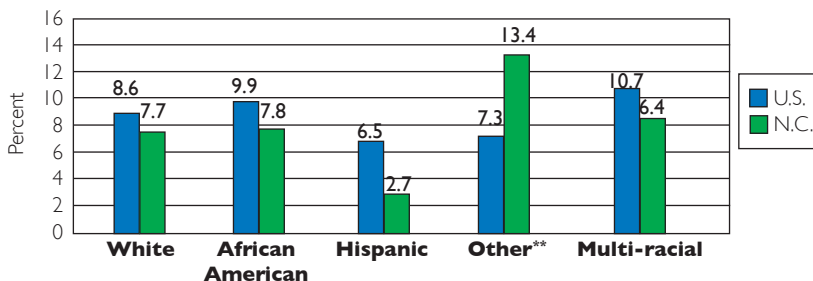
IN NORTH CAROLINA



In North Carolina, 7.6 percent (approx. 532.8 thousand) of adults currently have asthma, compared with 8.7 percent in the United States.¹ In N.C., 13.7 percent of African Americans compared with 11.8 percent whites have ever had asthma. Among U.S. adults, 15.2 percent of African Americans have asthma compared with 13.3 percent of whites.

- In 2008, **the mortality rate** of African Americans **due to asthma** was more than twice that for whites: African Americans – 32.8/1,000,000 population; whites – 12.3/1,000,000 population.²
- More adult African Americans than whites reported seeing a **health professional three or more times for urgent treatment of worsening asthma symptoms**:³
 - African Americans: 23.3%
 - Whites: 14.7%
- In N.C., **65.4 percent of African American adults had symptoms of asthma that made it difficult to stay asleep**, compared with 47.1 percent of white adults.³

Percentage of Adults Who Currently Have Asthma, N.C. and U.S. by Race/Ethnicity (2008)



Number of states includes District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands in years > 1995. **Other includes Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaskan Native or other. Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention & Health (2008)



State of North Carolina
 Beverly Eaves Perdue, Governor
 Department of Health and Human Services
 Lanier M. Cansler, Secretary
 Division of Public Health
 North Carolina Asthma Program
www.ncdhhs.gov

For more information, please visit the NC Asthma Program's website at www.asthma.ncdhhs.gov.

Asthma More Common In African American Children

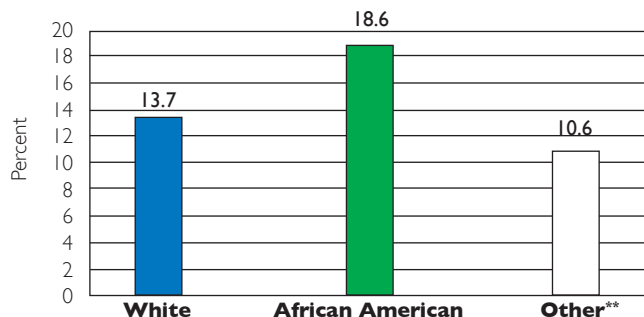
- African American children (ages 1-17) had higher lifetime asthma prevalence⁺ than white or other minority children⁴:
 - African American children: 18.6 percent
 - White children: 13.7 percent
 - Other minority children: 10.5 percent
- In 2008, more African American children (ages 1-17) **visited emergency departments** or urgent care clinics because of their asthma than white children in the same age group⁴:
 - African American children: 26.0 percent
 - White children: 15.3 percent



Ten key tips to controlling and managing asthma

1. Visit your doctor every six months, even if you think your asthma is under control.
2. Be sure to use your asthma medicines correctly.
3. Always use a holding chamber (or spacer) with your metered dose inhaler.
4. Make sure you always have access to your asthma medicines.
5. Get a written asthma action plan from your doctor. Make sure you understand it and have it updated at least every year. In 2008, 68.3 percent of North Carolina adults did not obtain an asthma management plan from their doctor.³
6. Know what triggers your asthma and how to avoid conditions that may trigger an attack.
7. Ask your doctor about tests to determine if you have allergies to specific triggers.
8. Avoid exposure to tobacco smoke.
9. Ask your doctor about testing your lung function (spirometry) at least every 1-2 years.
10. Be sure you get a flu shot every year (available in the fall).

Percentage of N.C. Children (Age 1-17) Who Currently Have Asthma, by Race (2008)



**Other includes Asian, Native Hawaiian or other Pacific Islander, American Indian or Alaskan Native or other. Source: North Carolina Child Health Assessment and Monitoring System (CHAMP) Survey, N.C. State Center for Health Statistics (2008)

¹ Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. National Center for Chronic Disease Prevention & Health (2008) (<http://apps.nccd.cdc.gov/BRFSS/display.asp?cat=AS&yr=2008&qkey=4416&state=NC>). Accessed May 28, 2009.

² Mortality Statistics. State Center for Health Statistics, N.C. Department of Health and Human Services (2008). (www.schs.state.nc.us/SCHS/brfss/2008/nc/all/topics.html#ash). Accessed May 28th, 2009.

³ North Carolina Behavioral Risk Factor Surveillance System (BRFSS), State Center for Health Statistics, N.C. Department of Health and Human Services (2008). (www.schs.state.nc.us/SCHS/brfss/2008/nc/all/topics.html#ash). Accessed May 25, 2010.

⁴ North Carolina Child Health Assessment and Monitoring Program (CHAMP), State Center for Health Statistics, N.C. Department of Health and Human Services (2008). (www.schs.state.nc.us/SCHS/champ/2008/topics.html#as). Accessed May 25, 2010.

⁺ The 95% confidence intervals for the groups' percentages in these comparisons overlap; therefore, no statistical difference between these groups should be assumed.

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Native Americans and Asthma

IN NORTH CAROLINA

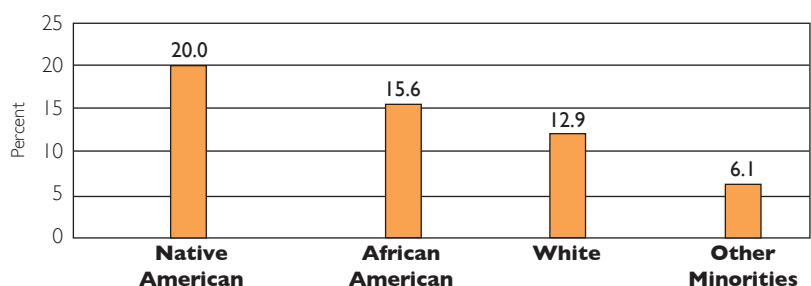
North Carolina has one of the largest Native American populations in the country. Native Americans were more likely to report being in poor health (13.1 percent) and more likely to report being unable to see a doctor in the past year due to cost (23.8 percent) than whites (5.8 percent and 14.2 percent, respectively).¹

In North Carolina, Native American adults are disproportionately affected by asthma.

- 20 percent of Native Americans have ever had asthma, compared with 12.9 percent of whites, 15.6 percent of African Americans, and 6.1 percent of Other Minorities.²
- Native Americans reported **more asthma attacks/episodes** than other racial/ethnic groups – 65.1 percent compared to 49.6 percent for whites and 42.9 percent for African Americans.³



Percentage of Adults Who Have Ever Had Asthma, by Race/Ethnicity, North Carolina, 2009



Source: N.C. State Center for Health Statistics, 2009.

Ten key tips to controlling and managing asthma

1. Visit your doctor every six months, even if you think your asthma is under control.
2. Be sure to use your asthma medicines correctly.
3. Always use a holding chamber (or spacer) with your metered dose inhaler.
4. Make sure you always have access to your asthma medicines.
5. Get a written asthma action plan from your doctor. Make sure you understand it and have it updated at least every year
6. Know what triggers your asthma and how to avoid conditions that may trigger an attack.
7. Ask your doctor about tests to determine if you have allergies to specific triggers.
8. Avoid exposure to tobacco smoke.
9. Ask your doctor about testing your lung function (spirometry) at least every 1-2 years.
10. Be sure you get a flu shot every year (available in the fall).

¹ 2009 North Carolina Health Profile, North Carolina State Center for Health Statistics.

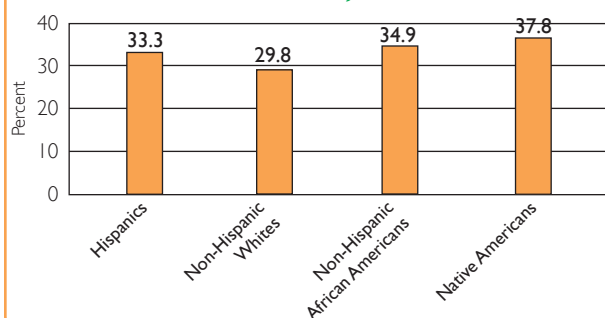
² Behavioral Risk Factor Surveillance System (NC BRFSS), North Carolina State Center for Health Statistics, North Carolina Department of Health and Human Services (2009)

³ Behavioral Risk Factor Surveillance System (NC BRFSS), North Carolina State Center for Health Statistics, North Carolina Department of Health and Human Services (2005-2008)

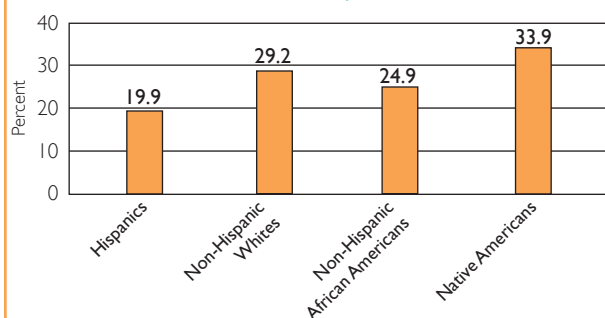
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- Among adults who have ever had asthma, more Native Americans than their Hispanic, White or African-American counterparts reported that their general health status was only fair or poor.³
- Among adults who have ever had asthma, more Native Americans than Hispanics, Whites, or African-Americans were current smokers.³

General Health Status (Fair/Poor), Adults with Lifetime Asthma, North Carolina, 2005-2008



Current Smoking among Adults with Lifetime Asthma, North Carolina, 2005-2008



For more information, please visit the NC Asthma Program's website at www.asthma.ncdhhs.gov or call the Asthma Program at **(919) 707-5213** for additional assistance.

Low Income Households and Asthma

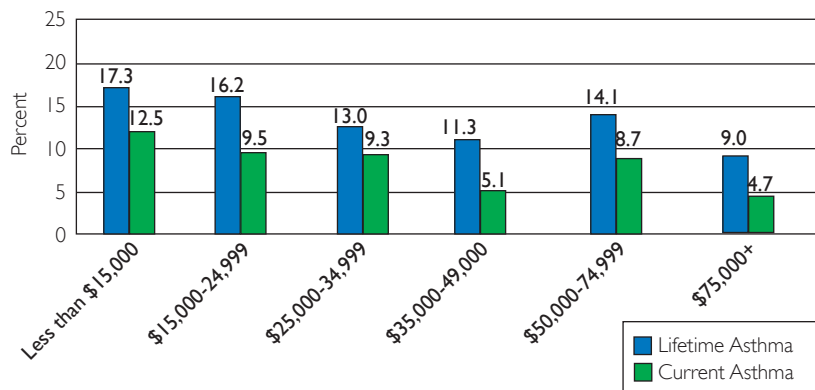
IN NORTH CAROLINA

N.C. adults living in households with an income of less than \$15,000 are more affected with asthma than those who live in households with an income of more than \$15,000 a year¹:

- 17.3 percent of adults in households with an income less than \$15,000 have had a diagnosis of asthma (lifetime asthma), compared with 9.0-16.2 percent for other income groups.¹
- 12.5 percent of adults in households with an income less than \$15,000 still have asthma (current asthma), compared with 4.7-9.5 percent for other income groups.¹



Percentage of Adults Who Have Asthma, by Income, North Carolina, 2009



Source: N.C. State Center for Health Statistics, 2009.



Ten key tips to controlling and managing asthma³

1. Visit your doctor every six months, even if you think your asthma is under control.
2. Be sure to use your asthma medicines correctly.
3. Always use a holding chamber (or spacer) with your metered dose inhaler.
4. Make sure you always have access to your asthma medicines.
5. Get a written asthma action plan from your doctor. Make sure you understand it and have it updated at least every year.
6. Know what triggers your asthma and how to avoid conditions that may trigger an attack.
7. Ask your doctor about tests to determine if you have allergies to specific triggers.
8. Avoid exposure to tobacco smoke.
9. Ask your doctor about testing your lung function (spirometry) at least every 1-2 years.
10. Be sure you get a flu shot every year (available in the fall).

In U.S. households below the poverty threshold*:

- Adults had higher rates of asthma than adults in households above the poverty threshold.²
- Children were more likely to have ever been diagnosed with asthma or to still have asthma (17 percent and 12 percent) than children in families above the poverty threshold (12 percent and 8 percent).²

¹ Behavioral Risk Factor Surveillance System, North Carolina State Center for Health Statistics, N.C. Department of Health and Human Services (2009).

² Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2008. National Health Interview Survey, Centers for Disease Control and Prevention (2008).

³ About Asthma. (<http://hud.gov/offices/lead/healthyhomes/asthma.cfm>) Accessed December 21, 2009.

* Poverty status is based on family income and family size using the U.S. Census Bureau's poverty thresholds for the previous calendar year.

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for additional assistance.





Asthma Management

Asthma Action Plan

Name: _____ DOB: _____
 Doctor: _____ Date: _____
 Phone for Doctor or Clinic: _____
 Predicted/Personal Best Peak Flow Reading: _____

Asthma Triggers

Try to stay away from or control these things:

- | | |
|--|---|
| <input type="checkbox"/> Exercise | <input type="checkbox"/> Smoke, strong odors or spray |
| <input type="checkbox"/> Mold | <input type="checkbox"/> Colds/Respiratory infections |
| <input type="checkbox"/> Chalk dust/dust | <input type="checkbox"/> Carpet |
| <input type="checkbox"/> Pollen | <input type="checkbox"/> Change in temperature |
| <input type="checkbox"/> Animals | <input type="checkbox"/> Dust mites |
| <input type="checkbox"/> Tobacco smoke | <input type="checkbox"/> Cockroaches |
| <input type="checkbox"/> Food _____ | <input type="checkbox"/> Other _____ |

1. Green – Go

- Breathing is good.
- No cough or wheeze.
- Can work and play.



Use these controller medicines *every day* to keep you in the green zone:

<u>Medicine:</u>	<u>How much to take:</u>	<u>When to take it:</u>	<input type="checkbox"/> Home
			<input type="checkbox"/> School

Or Peak Flow _____ to _____ (80-100%)

5-15 minutes before very active exercise, use Albuterol _____ puffs.

2. Yellow – Caution



Coughing



Wheezing



Tight Chest



Wakes up at night

Or Peak Flow _____ to _____ (50-80%)

Keep using controller green zone medicines everyday.

Add these medicines to keep an asthma attack from getting bad:

<u>Medicine</u>	<u>How much to take</u>	<u>When to take it</u>
Albuterol	<input type="checkbox"/> 2 puffs by inhaler	<input type="checkbox"/> May repeat every
or	<input type="checkbox"/> 4 puffs by inhaler	20 min up to 3 doses
_____	<input type="checkbox"/> with spacer, if available	in first hour, if needed
	<input type="checkbox"/> by nebulizer	

If symptoms **DO NOT** improve after first hour of treatment, then go to **red zone**.

If symptoms **DO** improve after first hour of treatment, then continue:

Albuterol	<input type="checkbox"/> 2 puffs by inhaler	<input type="checkbox"/> Every 4 - 8 hours
or	<input type="checkbox"/> 4 puffs by inhaler	for _____ days
_____	<input type="checkbox"/> with spacer, if available	
	<input type="checkbox"/> by nebulizer	

_____, _____ times a day for _____ days Home
 (oral corticosteroid) (how much) School

Call your doctor if still having some symptoms for more than 24 hours!

3. Red – Stop – Danger

- Medicine is not helping.
- Breathing is hard and fast.
- Nose opens wide.
- Can't walk.
- Ribs show.
- Can't talk well.



Or Peak Flow _____ (Less than 50%)

Call your doctor and/or parent/guardian NOW!

Take these medicines until you talk with a doctor or parent/guardian:

<u>Medicine:</u>	<u>How much to take:</u>	<u>When to take it:</u>
Albuterol	<input type="checkbox"/> 2 puffs by inhaler	<input type="checkbox"/> May repeat every
or	<input type="checkbox"/> 4 puffs by inhaler	20 minutes until
_____	<input type="checkbox"/> with spacer, if available	you get help
	<input type="checkbox"/> by nebulizer	
_____	_____ times a day for _____ days	<input type="checkbox"/> Home
(oral corticosteroid)	(how much)	<input type="checkbox"/> School

Call 911 for severe symptoms, if symptoms don't improve, or you can't reach your doctor and/or parent/guardian.

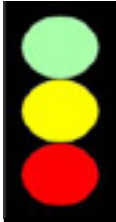
Physician Signature _____ Date _____ Phone _____

WHITE – PATIENT

YELLOW – CHART

PINK – SCHOOL

ASTHMA ACTION PLAN FOR PRESCHOOL CHILDREN YEAR 20__ - 20__



Name _____ DOB _____
 Parent/Guardian _____
 Ph (Home) _____ Ph (Cell) _____
 Doctor _____ Ph _____

CATEGORY OF SEVERITY MILD MODERATE SEVERE EXERCISE-INDUCED ASTHMA

Green Zone	GO	Use Controller Medicines at Home Every Day		
	Child is feeling well <ul style="list-style-type: none"> Breathing is good No cough or wheeze Sleeps through the night Can play 	MEDICINE/ROUTE	HOW MUCH	HOW OFTEN/WHEN

Yellow Zone	CAUTION Rescue Medicine			
	Child is not feeling well <ul style="list-style-type: none"> COUGHING day or night Wheezing—hard or noisy breathing Vomiting after coughing Other symptoms <ul style="list-style-type: none"> Trouble breathing Trouble eating Cranky and tired Other Signs <ul style="list-style-type: none"> Change in sleep pattern Not playing as usual Reaction to asthma trigger 	MEDICINE/ROUTE	HOW MUCH	HOW OFTEN/WHEN
<input type="checkbox"/> Nebulizer <input type="checkbox"/> Mask <input type="checkbox"/> Spacer <input type="checkbox"/> Inhaler		Rescue medicine: _____ <input type="checkbox"/> Give a nebulizer treatment <input type="checkbox"/> Give _____ puffs of metered dose inhaler	Stay with child and keep child quiet for 15 minutes Encourage child to drink fluids If symptoms not improved, may repeat rescue medicine ONCE Call parent to report child had breathing problem IF STILL HAVING TROUBLE, FOLLOW RED ZONE	

NOTE: Parent should contact the doctor if child needs rescue med >2 times/wk to see if a medication change is necessary.

Red Zone	STOP Get Help from a Doctor			
	Child is very sick Danger-Get Help! <ul style="list-style-type: none"> Medicine is not helping Constant cough Working hard to breathe Trouble walking or talking Child looks very sick 	MEDICINE/ROUTE	HOW MUCH	HOW OFTEN/WHEN
		<input type="checkbox"/> Nebulizer <input type="checkbox"/> Mask <input type="checkbox"/> Spacer <input type="checkbox"/> Inhaler	Rescue medicine: _____ <input type="checkbox"/> Give a nebulizer treatment <input type="checkbox"/> Give _____ puffs of metered dose inhaler	Give rescue medicine NOW Watch child closely Repeat rescue medicine in 15 minutes if still in distress
Call parent. If not better, call doctor. IF IN SEVERE DISTRESS, CALL 911.				

Doctor signature: _____ Date _____

I hereby release the local School Board and their agents and employees and the child care providers from any liability that may result from my child taking the prescribed medication. I give permission for my child to receive medications and for health care providers to exchange information regarding the care of my child. I agree to provide rescue medication to be kept at the child care center in case of emergency.

Parent/Guardian: _____ Date _____

Peak Flow



How do I use a peak flow meter?

- Make sure that the scale reads zero (0)
- Stand up, if you are able
- Take a really deep breath
- Put the meter in your mouth, and close your lips on the mouthpiece
- Blow out as hard and as fast as you can (for one or two seconds)!
- Write down your peak flow number (from the scale on the meter)
- Repeat this process two more times, and write down the highest of your three readings in your peak flow chart
- You should keep a peak flow chart to compare your peak flows from one day to the next (more severe asthma may require several peak flow readings per day).

What is a peak flow meter?

A peak flow meter is a simple hand held device that measures your air flow, or how well you are able to push air out of your lungs. Peak flow meters help you and your physician measure the severity of your asthma. Peak flow will drop as your asthma symptoms (like coughing and wheezing) get worse and even before they start. The earlier that your asthma warning signs are detected, the earlier you can get help!

What is a “normal” peak flow reading?

Normal peak flow rates are based on your age, height, sex, and race. Your doctor will work with you to get your personal best peak flow and to determine what a “normal” rate is for you or your child. Your doctor will also help you develop a plan for managing your asthma based upon peak flow readings.

How do I care for my peak flow meter?

Your peak flow meter should be properly cleaned. If dirt, particles, or germs gather in the meter, they can make your peak flow readings inaccurate. Be sure to follow the cleaning and care instructions (usually including cleaning with mild detergent and hot water) that come with your peak flow meter.

****Your doctor can provide you with more information on peak flow!***

SOURCES:

American Academy of Allergy, Asthma, and Immunology (AAAAI), www.aaaai.org/patients/publicedmat/tips/whatispeakflowmeter.stm

American Lung Association, www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=22586

Spacers



Using Your Spacer

- Attach the spacer to your prescribed inhaler, as directed
- Breathe out
- Place the spacer's mouthpiece into your mouth
- Press down on the inhaler
- Breathe in slowly (for about 3-5 seconds)
- Hold your breath for about 10 seconds

What is a Spacer?

A spacer is a device that attaches to the end of your inhaler. A spacer helps the medicine inside the inhaler get into your lungs, instead of just into your mouth.

Notes About Your Spacer

- It is important to clean and care for your spacer. Follow the directions that come in the package.
- Masks are available for young children to use with their spacers.
- If you have questions or problems with your spacer, contact your (or your child's) physician!

SOURCE:

National Jewish Health,
www.nationaljewish.org/healthinfo/medications/lung-diseases/devices/metered-dose/mdi-spacers.aspx



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**QuitlineNC and tobacco treatment
medications can more than double the
chances of quitting for good.**





Resources for Quitting Smoking and Other Tobacco Use

Phone and Mobile Phone-Based Resources

QuitlineNC (24/7 expert phone coaching)	www.quitlinenc.com or 1-800-Quit-Now (1-800-784-8669)
Smokefree Smart Phone Applications	http://smokefree.gov/apps/ (NCI QuitPal, Smokefree Teen QuitSTART, QuitGuide)
Facebook App: <i>UbiQuitous</i>	http://apps.facebook.com/quitlab

Internet-Based Resources

QuitlineNC: Downloadable information; materials for printing	www.quitlinenc.com/community-resources/download-materials
Why Quit? Interactive calculator, benefits of quitting and much more	www.quitlinenc.com/tobacco-users/why-quit-
More Resources for Quitting at: www.quitlinenc.com	www.quitlinenc.com/community-resources/other-resources
	Become An Ex (adult smokers) www.becomeamex.org
	QuitNet (on-line community) www.QuitNet.com
	ChewFree (smokeless, all ages) www.ChewFree.com www.mylastdip.com
	ASPIRE (youth) www.mdanderson.org/aspire Freedom From Smoking www.ffsonline.org/
Medications for Quitting	www.ceasesmoking2day.com/index.php/medications-tools or www.quitlinenc.com/health-professionals/tobacco-dependence-medication/treatment-for-smoking
You Quit Two Quit: Pregnancy and post-partum cessation information	www.youquittwoquit.com

Got Asthma?

Make an appointment!

For Patients with Asthma: What to do during Flu Season?

Why is getting a cold or the flu serious when you have asthma?

When you have asthma, the airways that carry air into your lungs tend to be swollen and irritated. If you get sick with a cold or the flu, the coughing, sneezing, and other symptoms of your illness put extra stress on your airways. Since your airways are already irritated and swollen from having asthma, this extra stress from having a cold or the flu can lead to serious breathing problems or to a serious infection such as pneumonia or bronchitis.

What do I do if I feel sick?

Watch for complications such as the worsening of asthma symptoms, (like more trouble breathing or wheezing), and talk to your doctor. Your doctor can provide suggestions on how to monitor and manage your illness and may also help keep your asthma under control by changing your asthma medicine while you are sick.

How do I avoid a cold or the flu?

A cold and the flu are spread from person to person by close contact with someone who is infected. These viruses can also be spread through contact with items that a sick person has touched. To avoid the flu, get the flu vaccine every year. This is the best way to avoid being infected. Washing your hands and keeping your fingers away from your nose, mouth and eyes are good ways to avoid getting sick. Also, always cover your mouth and nose with a tissue or your arm when you cough or sneeze.

Who should get a flu vaccine?

People with chronic diseases, such as asthma, should get the flu vaccine every year. Anyone in close contact or who lives with a person with asthma should also get the flu vaccine. This decreases the risk of getting the flu and spreading it within your house.

People with asthma should **not** get the nasal spray flu vaccine because of the increased risk of wheezing after the vaccination is administered. Instead, they should get the injectable flu vaccine. The flu vaccine cannot give you the flu.

When and where is the flu vaccine available?

The ideal time to get your flu vaccine is in the fall. You can receive the vaccine as early as August up until May. It is best to get vaccinated as soon as the flu vaccine is available. However, it will still help if you get it later in the season. Contact your primary health care provider to schedule an appointment to get the flu vaccine. In North Carolina, you can find a flu clinic near you through www.flu.nc.gov.

North Carolina Department of Health and Human Services | Division of Public Health
NC Asthma Program and NC Immunization Branch

This fact sheet was supported by the Cooperative Agreement Number: 5U29CE000518-03 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention. NC DHHS is an equal opportunity employer and provider. 4/13



Asthma Education Classes

Cape Fear Valley Pediatric Asthma Program

- Free Asthma Education offered to patients and their families to find solutions to problems of uncontrolled asthma.
- Free Pediatric Asthma Kit containing folders, brochures, booklets and handouts with instructions for parents.
- Access to certified pediatric asthma educators available by phone or by appointments for continued asthma educational services.
- **Contact:** Holly Lawing, (910)-615-3185, hlawing@capefearvalley.com

Vidant Medical Center Pediatric Asthma Services

- Classes offered in Pitt and Greene Counties – Home, School, Childcare, Physician Office visits
- Program provides services to children (up to age 18) who have asthma, their families, and the community on how to control and prevent asthma episodes. Services are free and include: education on asthma management; tools for asthma treatment; local support resources on asthma awareness.
- **Contact:** Lisa Johnson, (252) 847-6834, or lcjohnso@pcmh.com

Rex Asthma Program

- Classes are offered throughout the school year, either before or after school
- Classes offered at Wake and Durham County Schools, in computer lab or media center.
- The Rex Asthma Program involves five to seven educational sessions for 30 to 45 minutes. It is a no-cost asthma education and self management program. The program helps children reach their asthma goals by sending trained asthma educators from Rex Hospital to deliver this education program in schools.
- **Contact:** Jackie Choman, (919) 784-7504, or your school nurse

WakeMed Children's Asthma Program

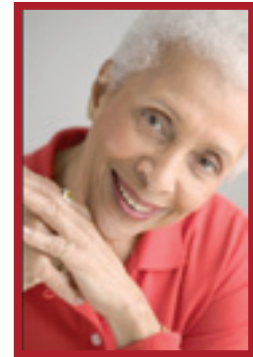
- Monthly asthma education sessions (call for times)
- Child must have a diagnosis of asthma and a current physician.
- Program is free to all!
- If more education is needed, participants can enroll in (free) asthma education program
- For more information, contact Sharon Caudle at (919) 350-6944



Living Healthy

(Chronic Disease Self-Management Program; CDSMP)

The North Carolina Division of Aging and Adult Services (DAAS) and the Division of Public Health (DPH) are mobilizing a statewide campaign to implement and sustain the Stanford University’s Chronic Disease Self-Management Program (CDSMP), referred to in North Carolina as *Living Healthy*. By the end of 2012, we will have the program broadly accessible statewide.



What is *Living Healthy*?

Living Healthy is a highly participatory workshop that takes place once a week for six weeks. Each 2 ½ hour session is facilitated by 2 trained leaders (many of whom are volunteers living with chronic conditions themselves) who follow a detailed manual, so that each workshop is highly consistent.



Although *Living Healthy* does not replace disease-specific education (e.g. Better Breathers), it is designed to enhance regular treatment, and is appropriate for people with a wide variety of chronic health conditions. During one workshop, there may be several participants with arthritis, a few with diabetes, some with heart disease, and others who have been diagnosed with multiple chronic conditions. Each week, participants set small, achievable weekly goals & report back to the group on the outcome. If a participant faces challenges, the entire group is there to provide support and help problem solve.

Workshop topics by week

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Differences Between Acute & Chronic Conditions	Dealing with Difficult Emotions	Better Breathing	Future Plans for Health Care	Medication Usage	Working with Your Health Care Professional & the Health Care System
Using Your Mind to Manage Symptoms	Introduction to Physical Activity & Exercise	Muscle Relaxation	Healthy Eating	Making Informed Treatment Decisions	Looking Back & Planning for the Future
Distraction Techniques		Pain & Fatigue Management	Communication Skills	Depression Management	
		Endurance Activities	Problem Solving	Positive Thinking	
				Guided Imagery	

Ultimate goal of *Living Healthy*

Improve participants’ confidence in their ability to become positive “self-managers” who are able to manage their health and the many ways chronic health condition/s impact their lives.

For more information, please contact Nicole Miller at (919) 855-3423

OR visit:

www.ncdhhs.gov/aging/livinghealthy/livinghealthy.htm

Asthma Camps



Camp NoWheezin

- United States Coast Guard Base, Elizabeth City, NC
- Camp NoWheezin is a three day camp for seven, eight, and nine year olds in the Albemarle area. The cost of the camp is \$25 per child. Scholarships are available. The number of children is limited to thirty. Camp activities include swimming, arts and crafts, sports, and asthma education. Nurses, respiratory therapists, physicians, and other professionals are present throughout the three day camp.
- **Contact:** Arina Boldt
Albemarle Hospital,
Director of Community Outreach
(252) 384-4665

No Wheeze Asthma Camp

- Dover Foundation Family YMCA, Cherryville Road, Shelby, NC
- Sponsored by the Cleveland County Asthma Coalition, the Dover Foundation Family YMCA, Cleveland Regional Medical Center Respiratory Therapy Department, NC Cooperative Extension, and the Cleveland County Health Department.
- No Wheeze Asthma Camp uses the American Lung Association's Open Airways curriculum. No Wheeze is a day camp, targeting children between eight and twelve years of age. Asthma education is given for two hours in the mornings, and then children are mainstreamed into regular YMCA day camp activities. Two registered nurses are available at all times, and the

physician in charge is Dr. Christopher Cerjan. Cost is \$85 per camper. Financial aid is available.

- **Contact:** Pam Ellwood,
Camp Coordinator
(704) 484-5182

Camp Coast Fall Retreat

- Camp Don Lee – Arapahoe, NC
- Camp Coast is a camping program that serves children with asthma and their families. The fall retreat is designed to help parents and children improve their understanding of asthma and to enhance the lives of children who are coping with the condition. Campers enjoy a variety of recreational activities like canoeing, arts and crafts, hayrides, sailing, and swimming. The target audience is children five years of age and older, along with their families.
- www.campcoast.uhseast.com
- **Contact:** Lisa Johnson,
Pediatric Asthma Services
(252) 847-6834, ljohnso@pcmh.com

Victory Junction Camp: A serious Fun Camp

- Victory Junction has enriched the lives of more than 14,000 children and families since opening in 2004 and welcomed children from 50 states and four countries.
- The cost of sending a child to camp is valued at \$2,500, but no child or family incurs that cost thanks to generous donors.

CONTINUED

Asthma Camps, cont.

- Victory Junction serves 24 chronic medical conditions and serious illnesses such as, but not limited to, Autism, Cancer, Craniofacial Anomalies, Diabetes, Hemophilia, Sickle Cell and Spina Bifida. For a full list, please visit www.victoryjunction.org.
- Thirty hospitals partner with Victory Junction to deliver exceptional health care to campers with a variety of needs.
- The camp, located in Randleman, N.C., is built on 84 acres and donated by Richard and Lynda Petty. The future Kansas facility will be housed on approximately 71 acres.
- **Contact:** Chris Foster, (336) 495-2019, Chris.foster@victoryjunction.org

Willie Wheezer Asthma Camp

The camp is held at Camp Keyauwee in Sophia, NC.

Thomasville Medical Center Foundation hosts the Annual camp for children seven to twelve years of age in an effort to provide an environment for campers to experience outdoor adventure and to grow physically and mentally while increasing their ability to manage asthma. Campers begin and conclude the day camp at Thomasville Medical Center. The Cardio-pulmonary Department of Thomasville Medical Center provides medical expertise and serves as counselors for the “Willie Wheezer’s Asthma Week at Camp Keyauwee”. Transportation provided daily from Thomasville Medical Center. Scholarships are available. For more information call 476-2448, or email mdcrabb@nov-anthealth.org

Activities Include

- Arts and Crafts

- Canoeing and Paddle Boats
- Fishing
- Hiking
- Swimming
- Asthma Management Counseling

Camp Air Adventure

- Held at the Hickory Foundation YMCA in Hickory, NC
- Having asthma doesn’t keep anyone from having fun at Camp Air Adventure! The camp offers campers with asthma the opportunity to participate in a variety of fun indoor and outdoor activities. In the process, they learn how to manager their asthma – everything from identifying what triggers an asthma episode to taking their daily medications.
- Camp Air Adventure is staffed with Respiratory Therapists, RN’s, and respiratory therapy students. A physician provides medical oversight.
- **Contact:** Cheri Burton
(828) 315-5020

Camp Open Airways

- Held at the YMCA in Kannapolis, NC
- Camp Open Airways is hosted by Carolinas Medical Center Northeast and is sponsored by the Jeff Gordon Foundation and the Jeff Gordon Children’s Hospital, Community Care Plan, and the Speedway Children’s Charities.
- Two respiratory therapists, a pediatric pulmonologist, and four RNs are on staff at all times with nursing and respiratory students also helping teach and play with the children.
- **Contact:** Wanda Black,
(704) 403-4047

Asthma Camps, cont.

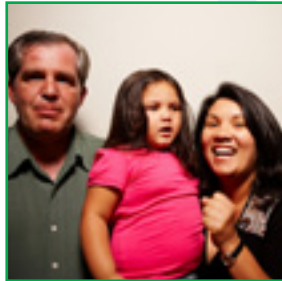
Asthma Day Camp of Cumberland County

- Offered yearly in the summer (one day)
J.P. Riddle Stadium, Fayetteville
Swamp Dogs Baseball Facility
- The Asthma Day Camp of Cumberland County is sponsored by the Cumberland County Asthma Action Group with support from area businesses and organizations. The Camp is an opportunity for children diagnosed with asthma, ages 8 to 12 years old, to participate in fun activities while learning about their asthma. The camp is staffed with medical professionals, including physicians, nurses, respiratory therapists and EMS providers to safely monitor the kids as they go through 6 different activity stations. The camp is free and is open to 60 children who are selected by an application/health evaluation process. The 60 kids are divided into teams of 10, with one team physician and one team medical volunteer (RN, RT, etc.) The parents also take advantage of some asthma education while the kids are having fun on the field.
- **Contact:** Holly Lawing,
(910) 615-3185,
hlawing@capefearvalley.com

A photograph of a field of tall grasses at sunset. The sun is low on the horizon, creating a warm, golden glow. The grasses are silhouetted against the bright sky. A semi-transparent green rectangular box is overlaid on the right side of the image, containing the text "Social Services for Asthma" in white, bold, sans-serif font.

**Social Services
for Asthma**

How to Apply for Medicaid



Mailing Your Application

If you are not able to apply in person, you may mail your completed Medicaid and Health Choice applications to your local DSS office. You may call 1-800-772-1213 and ask that an application be mailed to you, or you may visit www.ncdhhs.gov/dma/medicaid/apply.htm to download and print an application.

SOURCE:

North Carolina Division of Medical Assistance (NC DMA),
www.ncdhhs.gov/dma

NOTE: If you receive Supplemental Security Income (SSI), you are already covered for North Carolina Medicaid.

To Apply in Person

You may apply at your county's **Department of Social Services (DSS)** office. If you can, take the following items with you when you apply (if you do not have them, DSS can assist you in getting this information):

- Certified birth certificates or other proof of citizenship/alien status for each individual applying for Medicaid/NCHC
- Identity documents for each individual applying for Medicaid/NCHC
- Social security cards, social security numbers, or proof that you have made an application for a number from the Social Security Office, for each individual applying for Medicaid or NCHC
- A copy of all pay stubs for last month
- Copies of all medical or life insurance policies
- A list of all cars, trucks, motorcycles, boats, etc. you or anyone in your household own, including the year, make, model, and vehicle identification number (VIN) for each item
- Most recent bank statements
- A list of all real property you own
- Current financial statements/award letters from other sources of income, such as social security, retirement benefits, pensions, veteran benefits, and child support.

North Carolina Health Choice (NCHC) for Children



What is NCHC?

North Carolina Health Choice for Children is a free or reduced price health care program for North Carolina children. If your family makes too much money to be eligible for Medicaid but too little to afford other health care premium costs, your child or children may qualify for Health Choice.



What does NCHC cover?

NCHC covers hospitalization and outpatient costs, including:

- Physician and clinic services
- Laboratory and radiology services
- Surgical services
- Prescription drugs
- Dental
- Vision
- Hearing
- Durable medical equipment and supplies (such as wheelchairs)
- Physical, Occupational, and Speech therapy
- Hospice care
- Home health care (limited)
- Inpatient and outpatient mental health services (requires precertification)
- Substance abuse treatment (requires precertification)

SOURCE:

www.ncdhhs.gov/DMA/healthchoice/index.htm

Organizations Helping People with Limited Resources

- Community Care of North Carolina**
 Resources for the management of care for the Medicaid population in North Carolina.
 (919) 715-1453
www.communitycarenc.com

- North Carolina Association of Free Clinics**
 Nonprofit organization that conducts advocacy, research, public relations, resource development, training, and technical assistance on behalf of free clinics in North Carolina
 (336) 251-1111
www.ncfreeclinics.org

- North Carolina Community Health Center Association**
 Provides resource information and a directory/location information for community health centers in North Carolina.
 (919) 469-5701
www.ncchca.org

- North Carolina Division of Medical Assistance**
 The mission of the NC Division of Medical Assistance is to provide access to high quality, medically necessary health care for eligible North Carolina residents through cost-effective purchasing of health care services and products.
www.ncdhhs.gov/dma



- North Carolina Health Care Help**
 (a service of the North Carolina Institute of Medicine)
 Assists in finding free and reduced cost health services by area. Search for providers by location, hours of operation, insurance accepted, and service provided.
www.nchealthcarehelp.org
- North Carolina Health Choice for Children**
 NC Health Choice for Children is a free or reduced price health care program for children.
www.ncdhhs.gov/DMA/healthchoice/index.htm
- North Carolina Partnership for Prescription Assistance**
 Offers point of access to more than 475 public and private assistance programs
 1-888-477-2669
www.ncpparx.org

CONTINUED

Organizations Helping People with Limited Resources, cont.

- **North Carolina's careLINK**
Information on programs and services for North Carolina families, seniors, adults, and youth.
www.nccarelink.gov
- **Rx Assist**
Informational website and database designed to help individuals find low cost or free medications.
www.rxassist.org/default.cfm
- **RxHope**
1-877-267-0517
customerservice@rxhope.com
www.rxhope.com



North Carolina Free Clinics



For more information about free clinics, free clinic services, and locating a clinic, visit www.ncfreeclinics.org, or call 1-336-251-1111.

Free clinics provide medical care at little or no charge to low income, uninsured, and underinsured persons. North Carolina has more than 77 free clinics, more than any other state in the U.S. Free clinics are non-profit organizations in communities that depend largely on volunteer support.

Free clinics are located in the following N.C. counties:

- Alamance
- Ashe
- Bladen
- Brunswick
- Buncombe
- Burke
- Cabarrus
- Caldwell
- Carteret
- Catawba
- Chatham
- Craven
- Cumberland
- Dare
- Davidson
- Davie
- Durham
- Forsyth
- Franklin
- Guilford
- Haywood
- Henderson
- Iredell
- Jackson
- Lee
- Lincoln
- Macon
- Mecklenburg
- McDowell
- Moore
- Nash
- New Hanover
- Northampton
- Onslow
- Orange
- Pamlico
- Pasquotank
- Pitt
- Richmond
- Rockingham
- Rowan
- Rutherford
- Scotland
- Stanly
- Surry
- Transylvania
- Union
- Wake
- Warren
- Watauga
- Wayne

SOURCE:

North Carolina Free Clinics, www.ncfreeclinics.org

North Carolina County Dental Clinics



- [Alamance](#)
- [Alexander](#)
- [Alleghany](#)
- [Anson](#)
- [Ashe](#)
- [Avery](#)
- [Beaufort](#)
- [Bertie](#)
- [Bladen](#)
- [Brunswick](#)
- [Buncombe](#)
- [Burke](#)
- [Cabarrus](#)
- [Caldwell](#)
- [Camden](#)
- [Carteret](#)
- [Caswell](#)
- [Catawba](#)
- [Chatham](#)
- [Cherokee](#)
- [Chowan](#)
- [Clay](#)
- [Cleveland](#)
- [Columbus](#)
- [Craven](#)
- [Cumberland](#)
- [Currituck](#)
- [Dare](#)
- [Davidson](#)
- [Davie](#)
- [Duplin](#)
- [Durham](#)
- [Edgecombe](#)
- [Forsyth](#)
- [Franklin](#)
- [Gaston](#)
- [Gates](#)
- [Graham](#)
- [Granville](#)
- [Greene](#)
- [Guilford](#)
- [Halifax](#)
- [Harnett](#)
- [Haywood](#)
- [Henderson](#)
- [Hertford](#)
- [Hoke](#)
- [Hyde](#)
- [Iredell](#)
- [Jackson](#)
- [Johnston](#)
- [Jones](#)
- [Lee](#)
- [Lenoir](#)
- [Lincoln](#)
- [Macon](#)
- [Madison](#)
- [Martin](#)
- [McDowell](#)
- [Mecklenburg](#)
- [Mitchell](#)
- [Montgomery](#)
- [Moore](#)
- [Nash](#)
- [New Hanover](#)
- [Northampton](#)
- [Onslow](#)
- [Orange](#)
- [Pamlico](#)
- [Pasquotank](#)
- [Pender](#)
- [Perquimans](#)
- [Person](#)
- [Pitt](#)
- [Polk](#)
- [Randolph](#)
- [Richmond](#)
- [Robeson](#)
- [Rockingham](#)
- [Rowan](#)
- [Rutherford](#)
- [Sampson](#)
- [Scotland](#)
- [Stanly](#)
- [Stokes](#)
- [Surry](#)
- [Swain](#)
- [Transylvania](#)
- [Tyrrell](#)
- [Union](#)
- [Vance](#)
- [Wake](#)
- [Warren](#)
- [Washington](#)
- [Watauga](#)
- [Wayne](#)
- [Wilkes](#)
- [Wilson](#)
- [Yadkin](#)
- [Yancey](#)

Patient Assistance for Medicines

- **The Partnership for Prescription Assistance** program offers a single point of access to more than 275 public and private patient assistance programs, including more than 150 programs offered by pharmaceutical companies. Please call 1-888-4PPA-NOW (1-888-477-2669) or visit www.pparx.org.
- **Rx Outreach** offers patient assistance for generic medicines to treat a wide range of conditions including diabetes, asthma, heart disease, and depression. People may take advantage of the program even if they receive medicines through another discount program. Please call 1-800-769-3880, email rxoutreach@express-scripts.com or visit www.rxoutreach.com/en/default.aspx.

Specific Programs

- **3M Pharmaceuticals** has donated \$1,000,000 in safety, medical and cleaning products.
 - [Maxair Autohaler®](#)
 3M Patient Assistance Program:
1-800-328-0255 or 1-651-733-1110
- **AstraZeneca** is making product donations to national and local disaster relief organizations providing aid to hurricane-affected areas along with free medicines to patients and

clinics through AZ Patient Assistance Programs.

[Accolate®](#)

[Pulmicort Respules®](#)

[Pulmicort Turbuhaler®](#)

[Rhinocort Aqua®](#)

[Rhinocort® Nasal Inhaler](#)

AZ Foundation Patient Assistance Program: 1-800-424-3727, Katrina

Product Donation Contact: Suzanne Mitchell-Delaney at 1-302-886-8351

- **Boehringer Ingelheim** is donating up to \$600,000 in cash and additional product donations as needed.

[Alupent®](#)

[Atrovent®](#)

[Atrovent® Nasal Spray](#)

[Combivent®](#)

BI Cares Foundation Patient Assistance Program (c/o Express Scripts):
1-800-556-8317

- **Dey Inc.**

[AccuNeb®](#)

[Epi-Pen®](#)

Dey Branded Generics:

[Albuterol Sulfate](#)

[Ipratropium Bromide](#)

[Cromolyn Sodium](#)

General Phone Number:
1-707-224-3200

- **Forest Labs**

[Aerobid®](#)

[Aerochamber®](#)

Patient Assistance Program:
1-800-851-0758 or 1-314-493-7000

CONTINUED

Patient Assistance for Medicines, cont.

- **Genentech**

Xolair®

Genentech Access to Care Foundation:
1-800-530-3083

- **GlaxoSmithKline** is donating medicines and health products as needed.

Advair Diskus®

Beconase AQ®

Flonase®

Flovent®

Serevent®

Ventolin®

GSK Bridges to Access Program:
1-888-825-5249 or 1-866-728-4368

- **IVAX Labs** pharmaceutical product contribution will be made in collaboration with five major pharmacy chains to provide products at no cost to those individuals living in the areas affected by Hurricane Katrina who are in need and have no prescription drug coverage.

QVAR®

IVAX Phone Number: 1-800-327-4114
or 1-305-575-6000

- **Kos Pharmaceuticals**

Azmacort®

Medical Inquiries: 1-888-454-7437

- **MedPointe Pharmaceuticals**

Astelin®

Corporate Development and External Affairs: (732) 564-2233

- **Merck** is working closely with affected states and relief agencies to donate

requested medicines and vaccines and to replace lost prescription medicines for victims, hospitals and clinics.

Singulair®

Merck Patient Assistance Program:
1-800-994-2111 or 1-800-727-5400

- **Novartis** is making product donations and working with local government officials and third party organizations to ship products to the gulf region.

Elidel®

Information on Novartis products for Hurricane victims can be found through AmeriCares: 1-800-486-4357

- **Pfizer** is donating medicines and over the counter consumer health products.

Zyrtec®

Pfizer Connection to Care:
1-866-706-2400, 1-800-707-8990,
or 1-800-438-1985

- **Sanofi-Aventis** is securing medicines to donate to the relief effort.

Allegra®

Nasacort®

Sanofi-Aventis Patient Assistance Program: 1-800-221-4025 or
1-800-207-8049

- **Schering-Plough** has made an initial product donation of \$2,000,000.

Claritin®

Clarinex®

Foradil® Aerolizer

Nasonex®

Proventil®

Proventil® HFA

CONTINUED

Patient Assistance for Medicines, cont.

Schering-Plough Patient Assistance
Program: 1-800-656-9485 or
1-800-222-7579

■ **Sepracor**

Xopenex® Inhalation Solution

Xopenex® HFA

Customer Assistance Center:
1-888-394-7377, Medical Information:
1-800-739-0565

■ **Wyeth** is donating needed consumer health care and pharmaceutical products.

Alavert®

Primatene®

Wyeth Patient Assistance Program and
Customer Service: 1-800-666-7248

www.aafa.org/display.cfm?id=7&sub=92&cont=507

Directory of Senior Centers in North Carolina



- Alamance
- Alexander
- Alleghany
- Anson
- Ashe
- Avery
- Beaufort
- Bertie
- Bladen
- Brunswick
- Brunswick
- Buncombe
- Burke
- Cabarrus
- Cabarrus
- Caldwell
- Camden
- Carteret
- Caswell
- Catawba
- Chatham
- Cherokee
- Chowan
- Clay
- Cleveland
- Columbus
- Craven
- Craven
- Currituck
- Dare
- Davidson
- Davie
- Duplin
- Durham
- Edgecombe
- Forsyth
- Franklin
- Gaston
- Gates
- Graham
- Granville
- Greene
- Guilford
- Halifax
- Haywood
- Hertford
- Hoke
- Hyde
- Iredell
- Jackson
- Johnston
- Jones
- Lee
- Lenoir
- Lincoln
- Macon
- Madison
- Martin
- McDowell
- Mecklenburg
- Mitchell
- Montgomery
- Moore
- Scotland
- Stanly
- Stokes
- Surry
- Swain
- Transylvania
- Tyrrell
- Union
- Vance
- Wake
- Warren
- Washington
- Watauga
- Wayne
- Wilkes
- Wilson
- Yadkin
- Yancey

<http://www.ncdhhs.gov/aging/scenters/srcenter.pdf>

Community Care of North Carolina stands on a single principle: the best health care delivery system is rooted in the communities it serves. At the heart of that effort is a partnership that's directed by doctors, focused on patients and beneficial to providers, payers, patients and taxpayers alike.



WHAT WE DO

Community Care brings together regional networks of health care providers, hospitals, health departments, social service agencies and other community organizations. We create medical homes, matching each patient with a primary care provider who leads an interdisciplinary care team – professionals who coordinate seamless medical services for better outcomes. CCNC's 14 networks include more than 1,500 practices and serve more than a million Medicaid and Medicare recipients, NC Health Choice enrollees and private sector employees.

THE MEDICAL HOME MODEL

- Puts the patient at the center of care
- Empowers the patient team to make critical care decisions
- Personalizes care, encouraging patient follow-through
- Streamlines care and curbs waste
- Focuses on keeping patients healthy

Through Community Care, physician leaders from participating networks come together to design and develop clinical improvement programs. The most successful initiatives are then rolled out statewide.

ASTHMA • DIABETES • EMERGENCY DEPARTMENT USE • PHARMACY MANAGEMENT • CHRONIC CARE PROGRAM • BEHAVIORAL INTEGRATION • CHRONIC PAIN INITIATIVE • CHRONIC OBSTRUCTIVE PULMONARY DISEASE • CONGESTIVE HEART FAILURE • PREGNANCY MEDICAL HOME • CARE COORDINATION FOR CHILDREN (CC4C)

CCNC NETWORKS

If you're covered by Medicaid, Medicare, or the State Health Plan, you may be eligible to work with a CCNC Care Manager. For more information, go to CCNC's website at <https://www.communitycarenc.org/our-networks/> or find your county in the list below and contact the local CCNC network serving that area.

AccessCare

(919) 380-9962 - *Alamance, Alexander, Alleghany, Ashe, Avery, Burke, Caldwell, Caswell, Catawba, Chatham, Cherokee, Clay, Graham, Haywood, Iredell, Jackson, Macon, Orange, Robeson, Sampson, Swain, Watauga and Wayne*

Carolina Collaborative Community Care

(910) 485-1057 - *Cumberland*

Northern Piedmont Community Care

(919) 681-4420 - *Durham, Franklin, Granville, Person, Vance and Warren*

Community Care of Wake and Johnston Counties

(919) 792-3626 - *Wake and Johnston*

Community Care of Eastern Carolina

(252) 8476696-2668 - *Beaufort, Bertie, Camden, Carteret, Chowan, Craven, Currituck, Dare, Duplin, Edgecombe, Gates, Greene, Halifax, Hertford, Hyde, Jones, Lenoir, Martin, Nash, Northampton, Pamlico, Pasquotank, Perquimans, Pitt, Tyrrell, Washington and Wilson*

Community Care of Western North Carolina

(828) 348-2818 - *Buncombe, Henderson, Madison, McDowell, Mitchell, Polk, Transylvania, and Yancey*

Community Care of Southern Piedmont

(704) 262-1041 - *Cabarrus, Rowan and Stanly*

Community Care of the Lower Cape Fear

(910) 763-0200 - *Bladen, Brunswick, Columbus, New Hanover, Onslow and Pender*

Community Care of the Sandhills

(910) 246-9806 - *Harnett, Hoke, Lee, Montgomery, Moore, Richmond, and Scotland*

Carolina Community Health Partnership

(704) 484-5216 - *Rutherford and Cleveland*

Community Care Partners of Greater Mecklenburg

(704) 512-2289 - *Anson, Mecklenburg and Union*

Community Health Partners

(704) 853-5069 - *Gaston and Lincoln*

Northwest Community Care

(336) 716-5654 - *Davie, Davidson, Forsyth, Stokes, Surry, Wilkes, and Yadkin*

Partnership for Community Care

(336) 235-0930 - *Guilford, Randolph and Rockingham*



**Important Asthma
Contacts**

Asthma Coalitions



Alamance County Asthma Coalition

- **Initiatives:** IAQ brochures and education; Air Quality Flag program; Air Quality magnets; Anti-Idling program; Nebulizer Loaner Program; Asthma Education for Childcare Providers; Open Airways; Tools for Schools; Coaches' Clinics; Love My Lungs; Pediatric Asthma Center that offers asthma management education and support to children with asthma and their families
- **Contact Information:**
Kenneth Greene,
Environmental Health Specialist
Alamance County Environmental Health
(336) 570-6367, ext. 318
Kenneth.greene@alamance-nc.com
Kelley Kimrey
Health Educator II
Alamance County Health Department
336-570-6273
Kelley.kimrey@alamance-nc.com

Albemarle Pediatric Asthma Coalition

(represents Pasquotank, Perquimans, Camden, Chowan, Currituck, Bertie, and Gates counties)

- **Initiatives:** Coaches' Clinics; Pinwheel Program at schools for World Asthma Day; Camp No Wheezin; asthma support groups; dispensing asthma medications to uninsured children
- **Contact Information:**
Gayle Olson, RN
Albemarle Regional Health Services
Pediatric Asthma Care Manager
(252) 338-4369
golson@ppcc.dst.nc.us

Alexander County Asthma Coalition

- **Initiatives:** Coaches Clipboard Project, First Aid Kit Project, Air Quality Flag Program
- **Contact Information:**
Holly Powell
(828) 632-9074

Caldwell County – Healthy Caldwellians

- **Initiatives:** Coaches Clipboard Program, Cultural Competency Training
- **Contact Information:**
Jan Pritchard
Executive Director,
Healthy Caldwellians
(828) 426-8519
healthycaldwellians@caldwellcountync.org

Cleveland County Asthma Coalition

- **Initiatives:** Coaches Clipboard project; Air Quality Flag program; Trigger House; Asthma Games; Nebulizer Loan Program; training for coalitions
- **Contact Information:**
Pam Ellwood, Co-chair
Pam.Ellwood@clevelandcounty.com
(704) 484-5182
Anne Short
Anne.Short@clevelandcounty.com

Asthma Coalition of Eastern Carolina

- **Initiatives:** Asthma management education and support to children with asthma and their families; Asthma Management Workshop 16 times per year;

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Asthma Coalitions, cont.

cloth bags in participating local doctor's offices and health clinics, with allergen-barrier pillow covers, educational materials and forms, including asthma action plan, program referral form, and peak flow meter diary; kites for Asthma Day

■ **Contact Information:**

Debra Yarbrough, RS, Environmental Health Program Specialist,
Craven County Health Department
(252) 636-4936, ext. 3783
dyarbrough@co.craven.nc.us

Cumberland County Asthma Action Team

- **Initiatives:** Annual Asthma Action Fair, one day every May (for over 10 years now!). The Asthma Action Fair is open and free to everyone. The event includes (3) physician-led asthma education classes as well as a vendor fair with products and services directly related to asthma. Historically, the event is from 9:00 am to 12:00 noon, staffed with physicians, nurses, pharmacists, respiratory therapists and other healthcare providers available to those who attend.

■ **Contact Information:**

Holly Lawing, RRT, RCP, AE-C
Pediatric Asthma Coordinator,
Cape Fear Valley Health System
(910) 609-4370
hlawing@capefearvalley.com

Dare County Asthma Coalition

- **Initiatives:** Fall 2008 Meeting scheduled for October 7, 2008 (info sent for Coalition Corner)
- **Contact Information:**
Cynthia Huscroft
252-411-1111
huscroftcy@daretolearn.org

Davidson County Asthma Coalition

■ **Initiatives:**

- Comprehensive Air Quality Program: expansion of anti-idling campaign to medical practices and local churches with child care drop off areas.
- Medical Office Asthma Awareness Program: participating pediatric practices will receive asthma color wheels, education packets, and anti-idling signage.
- Asthma Resource Guide will be printed by the health department and distributed to local health care providers, day care centers, senior citizen centers, recreational facilities, schools, etc. in an effort to raise awareness.
- Asthma Patient Home Visit/Environmental Assessment Program- intended to reduce the number of subsequent hospital visits in those patients under age 18 who present to the ED with asthma related complications. Will be continued through Lexington Memorial Hospital and expanded to Thomasville Medical Center ED patients

■ **Contact Information:**

Jen Hames, Health Education
Supervisor/Health Promotion Coordinator,
Davidson County Health Department
(336) 242-2354
jenhames@davidsoncountync.gov

Guilford County Asthma Coalition

- **Initiatives:** Asthma Education, Outreach to Physicians
- **Contact Information:**
Diane Mueller
dianemueller@triad.rr.com
(336) 317-2263

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Asthma Coalitions, cont.

Harnett County Asthma Coalition

- **Initiatives:** Started as a result of Coalition Building Project in Summer '06; working on funding for Air Quality Flag program
- **Contact Information:**
Jeanmarie Koehn, CRT/RCP
vrcllc@aol.com
Tara Lucas, tlucas@harnett.org

Lenoir-Greene Asthma Coalition

- **Initiatives:** asthma education and awareness, kite decorating/coloring contest with the schools, asthma action plans
- **Contact Information:**
Joy Brock, Human Services Planner II
Greene County Health Department
227 Kingold Boulevard, Suite B
Snow Hill, NC 28580
(252) 747-8183
jspence@co.greene.nc.us

Mecklenburg County Asthma Coalition

- **Initiatives:** Asthma Friendly Schools (working under grant from ALA). Carolinas Clean Air Coalition- air quality flag program.
- **Contact Information:**
Jackie Butch, RN, MSN
Jacquelyn.Butch@carolinashealthcare.org
(704) 804-9134

New Hanover County Asthma Coalition

- **Initiatives:** Air quality flag program and promoting smoke-free public places policy implementation.
- **Contact Information:**
Erin Morrissette
Tobacco Prevention Educator,
New Hanover County Health Dept.
(910) 798-6658
emorrissette@nhcgov.com

Pitt County Asthma Coalition

- **Contact Information:**
Lisa Johnson, RRT, RCP, BAS
(252) 847-6834
lcjohnso@pcmh.com

Union County Asthma Coalition

- **Initiatives:** Recently formed
- **Contact Information:**
Jackie Butch, RN
(704) 446-1508
Jacquelyn.Butch@carolinashealthcare.org

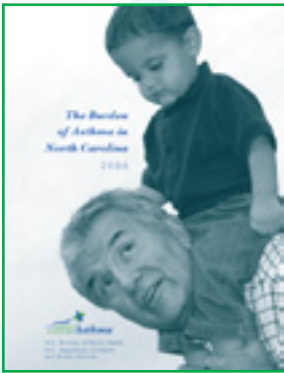
Wake County Asthma Coalition

- **Initiatives:** Planning spring kick-off (also for professionals)
- **Contact Information:**
Debbie Godwin, RN
WakeMed Pediatric Asthma Program
Children's Center
3000 New Bern Avenue
Raleigh, NC 27610
(919) 350-7979
DGODWIN@wakemed.org

North Carolina Asthma Program



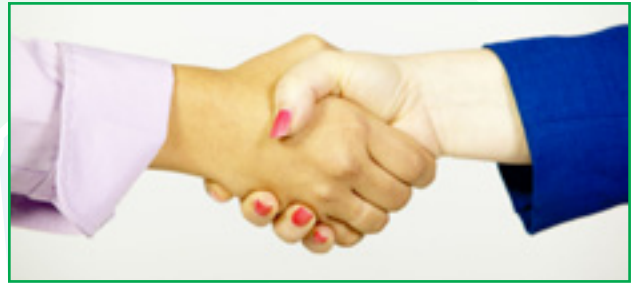
Phone: (919) 707-5213
www.asthma.ncdhhs.gov



For asthma information, educational materials, and the following:

- The North Carolina Asthma Plan (2007 – 2012)
- The Burden of Asthma in NC Report
- School Asthma Action Plan
- Asthma Coalition Update newsletters
- Asthma Epidemiology Update newsletters
- Fact Sheets
- Asthma Education Curriculum for Child Care Providers
- Asthma Coalition Corner
- Information on NC Air Quality Forecasts
- Asthma Alliance of North Carolina (AANC) web page
- And More!!!

Resource Organizations



American Lung Association of North Carolina

- Resource information on programs and services offered to help people with asthma better manage their condition.
(800) 892-5650
(919) 719-9960
www.lungnc.org

Better Breathers Clubs in North Carolina

- www.lungusa.org/lung-disease/copd/connect-with-others/better-breathers-clubs

North Carolina Division of Aging and Adult Services

- Provides resource services and support including housing, long term care, nursing, health programs, caregiver support, legal rights, and employment for the aging population.
(919) 733-3983
www.ncdhhs.gov/aging

NC Health Info

- Information and resources on diseases and conditions; treatment; medications; and healthy living are available. Asthma and Asthma in Children may be selected as topics.
NC Health Info Project Manager
Health Sciences Library, CB #7585
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7585
www.nchealthinfo.org

North Carolina Housing Coalition

- Non-profit membership organization working for decent, safe, and affordable housing that promotes self-determination and stable communities for low income North Carolinians.
www.nchousing.org

North Carolina Occupational and Environmental Epidemiology Branch (OEEB)

- Works to protect public health through dealing with environmental and occupational conditions (such as asbestos, lead, mold, mildew, indoor air, chemicals, etc.) and dangers that may cause risks to human health.

North Carolina Office of Minority Health and Health Disparities (OMHHD)

- Promotes the elimination of health disparities among all racial and ethnic minorities and other underserved populations in North Carolina.
(919) 707-5040
www.ncminorityhealth.org/omhhd/OMH_Initiatives/OMHInitiativesPage.htm

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Resource Organizations, cont.

North Carolina Tobacco Prevention and Control Branch

- Provides information on ways to reduce the toll of tobacco use in N.C. communities and to promote tobacco free living.
(919) 707-5400
www.tobaccopreventionandcontrol.ncdhhs.gov

North Carolina Tobacco Use Quitline

- Provides free, one-on-one support for people who are ready to quit smoking.
1-800-QUIT-NOW (1-800-784-8669)
www.quitlinenc.com

University of North Carolina Environmental Resource Program (ERP)

- The ERP is the outreach and public service unit of the UNC Institute for the Environment; it helps North Carolinians make informed decisions that protect the environment and public health.
www.ie.unc.edu/erp

Asthma Emergency Contact Information

Name _____

Address _____

Telephone Number _____

Doctor's Name _____

Doctor's Telephone Number _____

Doctor's Address _____

Hospital Name _____

Current Medicines _____

Medicine Allergies _____

Asthma History and Triggers _____

If you need help right away, CALL 911!!!



State of North Carolina • Pat McCrory, Governor
Department of Health and Human Services
Aldona Z. Wos, M.D., Secretary
Division of Public Health • North Carolina Asthma Program
www.ncdhhs.gov

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