

Asthma In North Carolina

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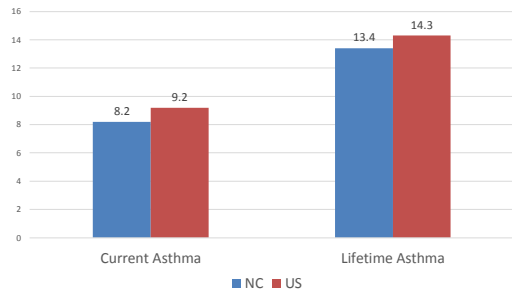
Interactive Poll

1. How many Brothers do you have?

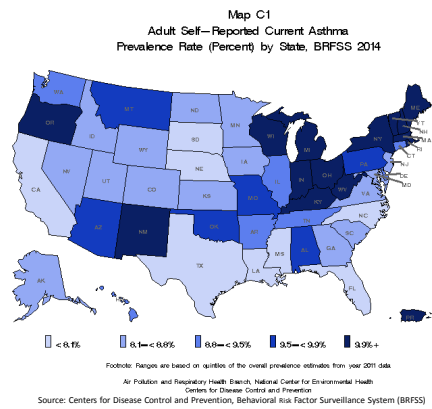
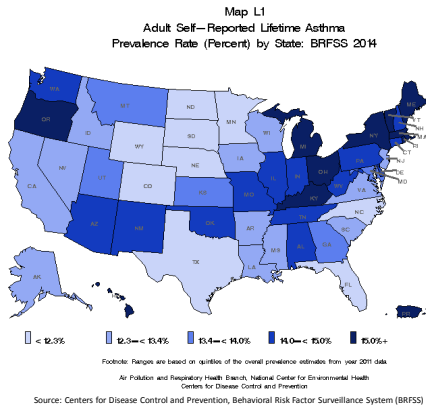
2. How many years have you been attending the asthma summit?

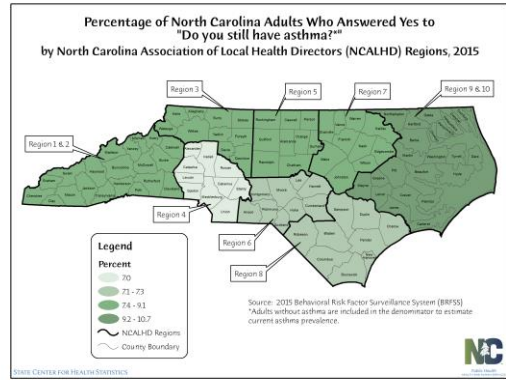
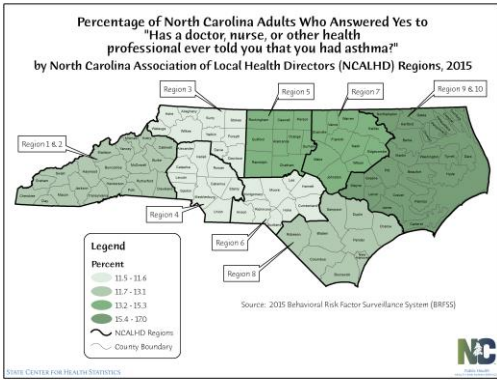
Adult Asthma Prevalence

2015 Adult Asthma Prevalence, Current & Lifetime: U.S. & N.C.

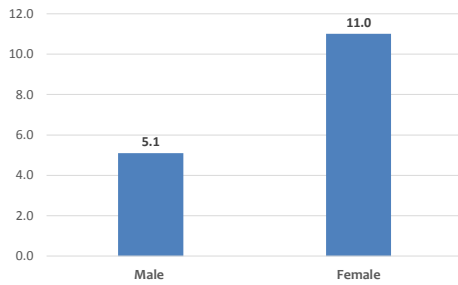


Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System (BRFSS)



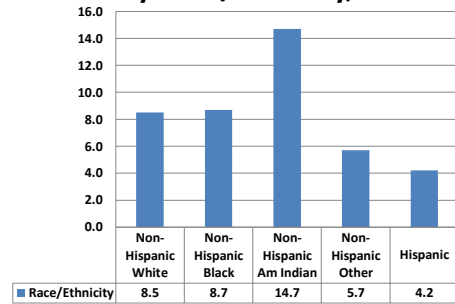


NC Adult Current Asthma Prevalence Rates by Gender, 2015



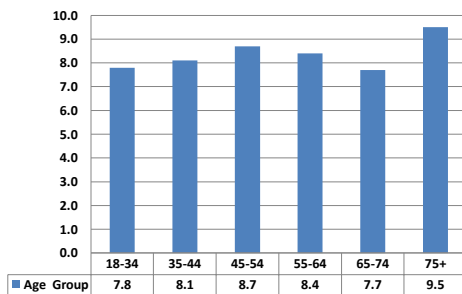
Source: North Carolina State Center for Health Statistics, NC Behavioral Risk Factor Surveillance System (NC BRFSS)

NC Adult Current Asthma Prevalence Rates by Race/Ethnicity, 2015



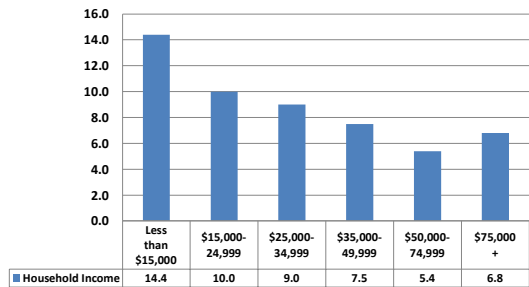
Source: North Carolina State Center for Health Statistics, NC Behavioral Risk Factor Surveillance System (NC BRFSS)

NC Adult Current Asthma Prevalence Rates by Age Group, 2015



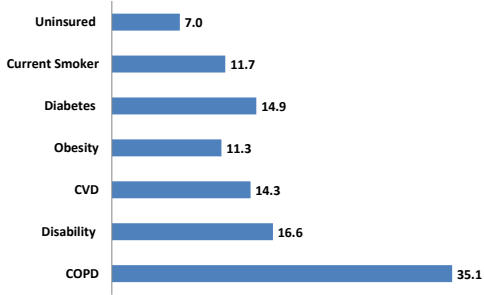
Source: North Carolina State Center for Health Statistics, NC Behavioral Risk Factor Surveillance System (NC BRFSS)

NC Adult Current Asthma Prevalence Rates by Household Income, 2015



Source: North Carolina State Center for Health Statistics, NC Behavioral Risk Factor Surveillance System (NC BRFSS)

NC Adult Current Asthma Prevalence Comorbid Conditions/Risk Factors, 2015



Source: North Carolina State Center for Health Statistics, NC Behavioral Risk Factor Surveillance System (NC BRFSS)

Asthma Mortality

NC Resident Deaths with Asthma Listed as a Primary Cause, CY2015

Total Asthma Deaths	96
Crude (unadjusted) Mortality Rate	9.6
Age-adjusted Mortality Rate	9.0

Source: North Carolina State Center for Health Statistics, Death Certificate Data

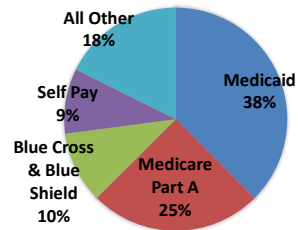
Asthma Hospitalizations

2014 NC Resident Inpatient Hospitalizations with A Primary Diagnosis of Asthma

Total Hospital Discharges	9,035
Discharge Rate per 100,000 Population	90.9
Average Length of Stay (in days)	3.2
Total Charges	\$139,306,354
Average Charge per Day	\$4,872
Average Charge per Hospitalization	\$15,420

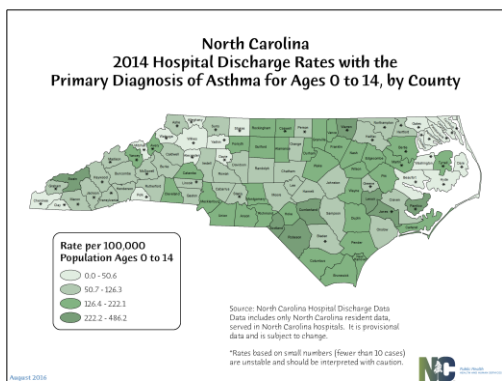
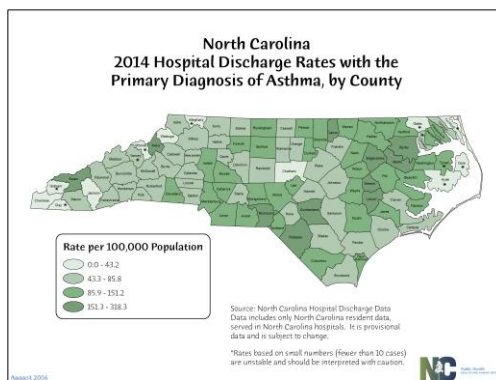
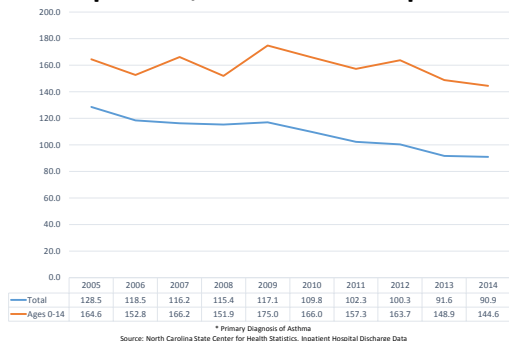
Source: North Carolina State Center for Health Statistics, Inpatient Hospital Discharge Data

2014 NC Resident Inpatient Hospitalizations with A Primary Diagnosis of Asthma by Payer



Source: North Carolina State Center for Health Statistics, Inpatient Hospital Discharge Data

2005-2014 Asthma Hospital Discharge Rates per 100,000 Resident Population

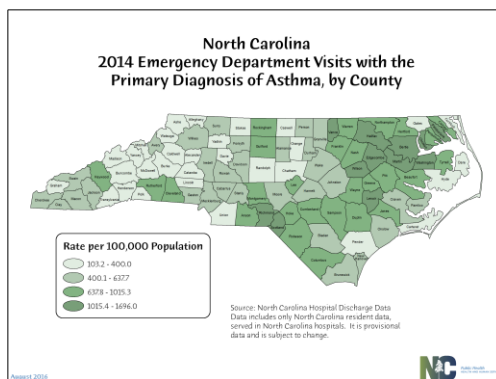


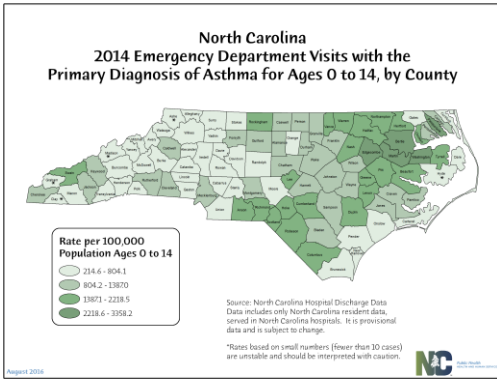
Emergency Department Visits for Asthma

2014 NC Emergency Visits for Asthma (as a Primary Diagnosis) by Age Group

Age Group	# ER Visits	Rate per 10,000
0-14	19,762	103.8
15-44	22,854	119.8
45-64	11,642	44.6
65+	3,958	28.2
Total	58,216	58.5

Source: North Carolina State Center for Health Statistics, Emergency Department Data





Asthma & NC Children

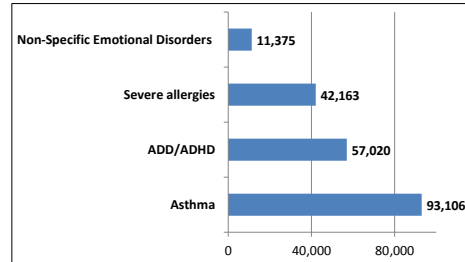
Prevalence of Asthma Among NC Resident Children

	Ever Asthma	Current Asthma
Total	17.9%	10.5%
Male	22.4%	11.4%
Female	13.1%	9.5%
White	15.1%	6.9%
African American/Black	28.8%	21.5%
Other Minorities	12.1%	7.0%
Hispanic	9.8%	7.2%

*Statistically unreliable estimate.

Source: North Carolina State Center for Health Statistics, Child Health Assessment Monitoring Program (CHAMP)

Most Common Chronic Health Conditions Reported to School Nurses, 2014-15



Source: North Carolina Annual School Health Services Report: 2014-2015

School Nurse Asthma Case Management Outcomes

Outcomes	% of Asthmatic Students Demonstrating Improvement
1. Consistently verbalized accurate knowledge of the pathophysiology of their condition	78%
2. Consistently demonstrated correct use of asthma inhaler and/or spacer	83%
3. Accurately listed his/her asthma triggers	62%
4. Remained within peak flow/pulse oximeter plan goals	66%
5. Improved amount and/or quality of regular physical activity	77%
6. Improved grades	64%
7. Decreased number of school absences	70%

Source: North Carolina Annual School Health Services Report: 2014-2015

Asthma & Environmental Health

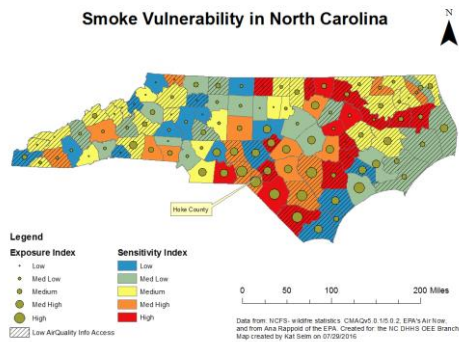
Environmental Public Health Tracking Program: NC Trends Data



<http://ephracking.cdc.gov/showHome.action>

Agriculture and Air Quality

- Exposure: Hazardous or toxic air pollutants, odorants (Aneja 2008, 09; Erisman 2008)
- Health Impacts
 - Increased likelihood of death from asthma (Kravchenko & Lyerly, unpublished)
 - Decreased immune function from stress (Avery 2004)
 - Higher rates of wheezing among children & adults (Mirabelli 2006)
 - Impaired pulmonary functions (Keil 2011)
 - Acute blood pressure increase (Kilburn 2012)



Questions?

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