

# Community Health Status Indicators Project

National Center for Environmental Health  
Environmental Health Tracking Branch

Marilyn Metzler

National Center for Chronic Disease Prevention and Health Promotion  
Division of Adult & Community Health

July 24, 2006



# Indicators Landscape

- Brief history of indicators in US, globally
- Key National Indicators Project
- US community indicator projects
- Community Indicators Consortium
- Community Health Status Indicators Project



# Community Health Status Indicators Project (CHSI)

**Goal: To develop a resource for monitoring and analyzing community health status at the county level.**



# Community Health Status Indicators Project

- County-level profiles to monitor & address community health
- Easy to understand reports for all 3000+ U.S. counties
- Convey a breadth of community and public health issues
- HP 2010 objectives
- Peer counties



# CHSI Background

- **Pilot started by HRSA 1998**
- **Mailed and web-based PDF files for all 3082 US counties**
- **20,000 monthly visits to website**
- **Website d/c in 2000**





# CHSI II Partnership

- CDC – NCCD, NCHS
- HRSA
- National Library of Medicine
- ATSDR
- Public Health Foundation
- Johns Hopkins University
- Brookings Institute
- NACCHO, ASTHO, others



# CHSI II

- Update existing indicators, add a few new ones
- Develop GIS component
- Document history of partnerships, challenges, feedback
- Re-debut September 2007 – *Preventing Chronic Diseases* (CDC e-journal)
- Lay groundwork for CHSI III, sustainability



## Current Domains

- Health
- Medical
- Behavioral
- HRQOL, SRH
- Environment
- Employment
- Education
- Housing
- Economic

### Community Health Status Report

Fulton County  
Georgia

JULY 2000



U.S. Department of Health and Human Services



*Providing information for improving community health*

*Please refer to the CHSI companion document, "Community Health Status Report: Data Sources, Definitions, and Notes" for all sources, methods, and calculations.*

[www.communityhealth.hrsa.gov](http://www.communityhealth.hrsa.gov)

CDC

SAFER • HEALTHIER • PEOPLE™



## PUBLIC HEALTH IN AMERICA

### VISION

Healthy People in Healthy Communities

### MISSION

Promote Physical and Mental Health and Prevent Disease, Injury, and Disability

#### PUBLIC HEALTH

- Prevents epidemics and the spread of disease
- Protects against environmental hazards
- Prevents injuries
- Promotes and encourages healthy behaviors
- Responds to disasters and assists communities in recovery
- Assures the quality and accessibility of health services

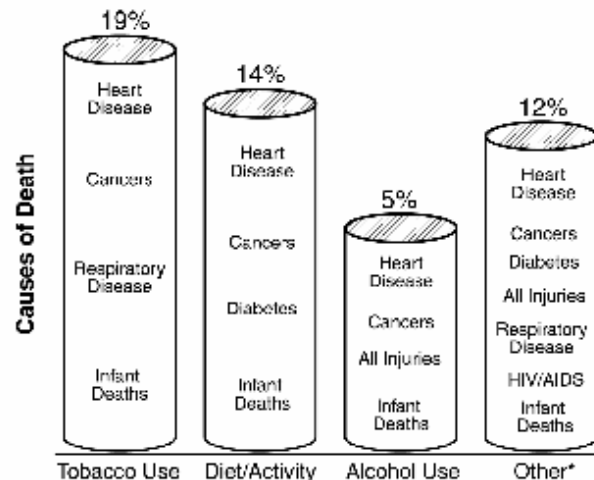
#### ESSENTIAL PUBLIC HEALTH SERVICES

- Monitor health status to identify community health problems
- Diagnose and investigate health problems and health hazards in the community
- Inform, educate, and empower people about health issues
- Mobilize community partnerships to identify and solve health problems
- Develop policies and plans that support individual and community health efforts
- Enforce laws and regulations that protect health and ensure safety
- Link people to needed personal health services and assure the provision of health care when otherwise unavailable
- Assure a competent public health and personal health care workforce
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services
- Research for new insights and innovative solutions to health problems

Source: Public Health Functions Steering Committee, Fall 1994.

## WHAT'S REALLY KILLING US?

Half of all deaths can be attributed to these factors



#### Determinants of Health

\* Other lifestyle and personal behavior (nongenetic) risk factors include microbes, toxins, firearms, sexual behavior, motor vehicles, and drug use. Source: McGinnis, J.M., & Foegbe, W.H. (1993). Actual causes of death in the United States. JAMA, 270(18), 2207-2212.

*While we may measure deaths due to heart disease, cancers, or infant deaths, we should always keep in mind that factors such as tobacco, diet, activity, and alcohol use substantially contribute to these deaths. For example, as shown in the above graphic, tobacco use accounts for 19 percent of all U.S. deaths.*

## DEMOGRAPHIC INFORMATION

### Fulton County, GA

Population size:	722,540
Population density (people per square mile):	1,388
Individuals living below poverty level:	20.9%

#### Age distribution

Under Age 18:	24.2%
Age 65-84:	8.4%
Age 85+:	1.2%

#### Nonwhite population

Black:	54.1%
American Indian:	0.2%
Asian/Pacific Islander:	1.9%
Hispanic origin:	3.1%

## PEER COUNTIES

These peer counties (counties and county-like geographic areas) were grouped on the basis of frontier status, population size and poverty. There are 39 counties like Fulton County, GA. (See the next panel.) Below is the range of values represented by the peer areas.

Population size:	504,591 - 944,472
Population density (people per square mile):	77 - 15,581
Individuals living below poverty level:	10.9 - 42.2 %

#### Age distribution

Under Age 18:	17.1 - 36.1%
Age 65-84:	6.6 - 22.7%
Age 85+:	0.8 - 4.0%

#### Nonwhite population

Black:	0.3 - 65.4%
American Indian:	0.1 - 4.9%
Asian/Pacific Islander:	0.4 - 35.4%
Hispanic origin:	0.6 - 87.8%

Source: U.S. Census Bureau, 1997. These population figures are used for calculations throughout brochure, when appropriate.

## RISK FACTORS FOR PREMATURE DEATH

### Georgia

Communities may wish to obtain information about these measures, collected and monitored at the local level.

Sedentary	82.0%
Few Fruits/Vegetables	79.3%
Obesity	33.3%
High Blood Pressure	21.4%
Smoker	23.6%
Diabetes	5.9%

Prevalence estimates are from the Behavioral Risk Factor Surveillance System (BRFSS), (High Blood Pressure) 1997, (all others) 1998. For local estimates, contact your State BRFSS office.

## ACCESS TO CARE

### Fulton County, GA

In addition to use of services, access to care may be characterized by medical care coverage and service availability.

Uninsured individuals in the State (1998) <sup>1</sup> :	1,341,000
Medicare beneficiaries (1998) <sup>2</sup> :	
Elderly (Age 65+):	66,550
Disabled:	13,100
Medicaid beneficiaries: <i>The number of beneficiaries for each county is not available nationally, but may be obtained from your State.</i>	
Primary care physicians per 100,000 pop. (1998) <sup>3</sup> :	210.8
Dentists per 100,000 pop. (1998) <sup>3</sup> :	79.4
Community/Migrant Health Centers (1999) <sup>3</sup> :	Yes
Health Professional Shortage Area (12/17/99) <sup>3</sup> :	No

1 Estimate of uninsured individuals in the State was obtained from the U.S. Census Bureau, Current Population Survey, 1998.

2 Health Care Financing Administration.

3 Area Resource File, Health Resources and Services Administration.



## PREVENTIVE SERVICES USE

### INFECTIOUS DISEASE CASES

#### Fulton County, GA

These diseases respond to public health control efforts. The expected number (in parentheses) is based on the occurrence of cases among peer counties.

	Cases	Expected
AIDS	rna	rna
Haemophilus influenzae B	nnn	nnn
Hepatitis A	720	(347)
Hepatitis B	17	(144)
Measles	0	(1)
Pertussis	12	(64)
Congenital Rubella Syndrome	0	(0)
Syphilis	rna	rna
Tuberculosis	rna	rna

● Indicates a status favorable to peers.

○ Indicates a status less than favorable.

rna The release of data for all counties has not been authorized.

nnn This was not a nationally notifiable condition for the entire time period.

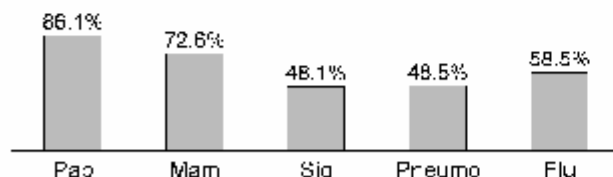
Source: Centers for Disease Control and Prevention, 1996-1998.

### CHILD PREVENTIVE SERVICES USE

Indicators such as immunizations, dental caries, and the prevalence of lead screening are not collected at the national level and must be obtained locally.

### ADULT PREVENTIVE SERVICES USE (%)

#### Georgia



Source: Behavioral Risk Factor Surveillance System.  
 Pap smears among women 18+, past three years, (1998).  
 Mammography screening among women 50+, past 2 years, (1998).  
 Sigmoidoscopy screening among adults 50+, past five years, (1997).  
 Pneumonia vaccine among adults 65+, ever, (1998).  
 Flu vaccine among adults 65 and older, past year, (1997).

## PEER COUNTIES

Jefferson County, AL	Hudson County, NJ
Pima County, AZ	Bernalillo County, NM
Fresno County, CA	Erie County, NY
Kern County, CA	Monroe County, NY
San Francisco County, CA	Mecklenburg County, NC
San Joaquin County, CA	Hamilton County, OH
The District of Columbia	Montgomery County, OH
Duval County, FL	Summit County, OH
Hillsborough County, FL	Oklahoma County, OK
Orange County, FL	Tulsa County, OK
Pinellas County, FL	Multnomah County, OR
DeKalb County, GA	Providence County, RI
Fulton County, GA	Davidson County, TN
Marion County, IN	Shelby County, TN
Jefferson County, KY	El Paso County, TX
Baltimore City MD	Hidalgo County, TX
Suffolk County, MA	Travis County, TX
Jackson County, MO	Pierce County, WA
Camden County, NJ	Milwaukee County, WI
Essex County, NJ	



.....  
*Healthy People 2010 Vision:*  
*Healthy People in Healthy Communities*  
 .....

## SUMMARY MEASURES OF HEALTH

*Healthy People 2010 Goal:  
Increase quality and years of healthy life*

### Fulton County, GA

#### AVERAGE LIFE EXPECTANCY (1990)<sup>1</sup>

71.0 years

- 🔍 Range among peer counties<sup>2</sup> (71.1 - 76.5)
- 🔍 Median for all U.S. counties [75.4]

#### ALL CAUSES OF DEATH (1993-97)<sup>3</sup>

1,086.7 deaths/100,000 population (Age-adjusted to year 2000 standard)

- 🔍 Range among peer counties<sup>2</sup> (843.3 - 1,086.7)
- 🔍 Median for all U.S. counties [923.2]

#### SELF-RATED HEALTH STATUS (1993-97)<sup>4</sup>

8.2 % (Percent of adults who report fair or poor health)

- 🔍 Range among peer counties<sup>2</sup> (10.7-17.9%)
- 🔍 Median for all U.S. counties [14.7%]

#### AVERAGE NUMBER OF UNHEALTHY DAYS IN PAST MONTH (1993-97)<sup>4</sup>

3.6 days (Average number of unhealthy days reported in a 30-day period)

- 🔍 Range among peer counties<sup>2</sup> (3.7-6.2)
- 🔍 Median for all U.S. counties [5.1]

🔍 Indicates a status favorable to peers.

🔍 Indicates a status less than favorable.

A blank indicates that no comparison was made.

n/rf No report, fewer than 10 deaths reported during the 5-year time period or fewer than 50 respondents to the survey.

1 Developed by Harvard University for the Health Resources and Services Administration's Bureau of Primary Health Care.

2 Eighty percent of the peer group values fall within this range.

3 National Center for Health Statistics.

4 Behavioral Risk Factor Survey; local estimates were developed by Centers for Disease Control and Prevention and are constructed from State-level data.

## VULNERABLE POPULATIONS

### Fulton County, GA

Vulnerable populations may face unique health risks and barriers to care, requiring enhanced services and targeted strategies for outreach and case management.

#### Vulnerable populations include:



People with no high school diploma <sup>1</sup> (among adults age 25 and older):	104,080
Unemployed individuals (1998):	16,220
People who are severely work disabled <sup>1</sup> :	18,980
Those suffering from major depression <sup>1</sup> :	32,680
Recent drug users <sup>1</sup> (within past month):	35,000

## ENVIRONMENTAL HEALTH

### Fulton County, GA

Infectious diseases<sup>2</sup> (1996-1998):

	<b>Cases</b>	<b>Reported</b>	<b>Expected</b>
🔍 E. coli	14		(16)
🔍 Salmonella	330		(355)
🔍 Shigella	350		(313)

Toxic chemicals released annually<sup>3</sup> (EPA, 1996): 1,956,947 pounds

National air quality standards met by county<sup>3</sup> (1998):

<b>Carbon Monoxide</b>	<b>Nitrogen Dioxide</b>	<b>Sulfur Dioxide</b>	<b>Ozone</b>	<b>Particulate Matter</b>	<b>Lead</b>
Yes	Yes	Yes	No	Yes	Yes

🔍 Indicates a status favorable to peers.

🔍 Indicates a status less than favorable.

n/n This was not a nationally notifiable condition for the entire time period.

1 The most current estimates of prevalence, obtained from various sources, (see the companion document for details), were applied to 1997 county population figures.



2 Prevention of these diseases is linked to having clean water, and proper hygiene and food handling. The expected number (in parentheses) is based on the occurrence of cases among peer counties. Source: Centers for Disease Control and Prevention.

3 Environmental Protection Agency (Toxic Chemical Release Inventory, AIRSData).

## RELATIVE HEALTH IMPORTANCE

Fulton County, GA

### Your Health Status Compared to Peers

		Unfavorable	Favorable
Your County's Health Status Compared to the U.S. Rate	Unfavorable	 Low Birth Wt. (<2500 g), Very Low Birth Wt. (<1500 g), Premature Births (<37 weeks), Older Mothers, 40+, Unmarried Mothers, Infant Mortality, Neonatal Infant Mortality, Post-neonatal Infant Mortality, Breast Cancer (Female), Homicide, Motor Vehicle Injuries, Stroke, Suicide	No Care in First Trimester, Black Infant Mortality, Colon Cancer
	Favorable	Teen Mothers, <18, Unintentional Injury	 White Infant Mortality, Coronary Heart Disease, Lung Cancer

The Relative Health Importance table creates four categories of relative concern by simply comparing a county to its peers and to the U.S.

A county's indicators in the upper left-hand box (🔍) are higher than the U.S. and its peers and may warrant more attention. Conversely, indicators in the lower right-hand box (🍏) of the table compare favorably to both peers and the U.S. The other boxes represent intermediate levels of health where a county's rate is higher than either its peers or the U.S., but not both.

Source: Death Rates and Birth Measures Tables from pages 6-7.

Methodology: Studnicki, J. et al. (1997). Community health report card: Comprehensive Assessment for Tracking Community Health (CATCH), Best Practices and Benchmarking in Healthcare, Vol 2(3), 196-207.

## NATIONAL LEADING CAUSES OF DEATH

Healthy People 2010 Goal: Eliminate Health Disparities

### Fulton County, GA

	White	Black	Other	Hispanic
<b>Under Age 1</b>				
Complications of Pregnancy/Birth	15%	13%	nrf	nrf
Birth Defects	27%	12%	nrf	nrf
<b>Ages 1-14</b>				
Injuries	53%	38%	nrf	nrf
Cancer	nrf	nrf	nrf	nrf
Homicide	nrf	nrf	nrf	nrf
<b>Ages 15-24</b>				
Injuries	56%	17%	nrf	nrf
Homicide	14%	48%	nrf	nrf
Cancer	nrf	nrf	nrf	nrf
<b>Ages 25-44</b>				
Injuries	14%	nrf	nrf	28%
Cancer	12%	nrf	nrf	nrf
Suicide	nrf	nrf	nrf	nrf
Heart Disease	nrf	nrf	nrf	nrf
HIV/AIDS	34%	36%	nrf	19%
Homicide	nrf	11%	nrf	26%
<b>Ages 45-65</b>				
Cancer	33%	25%	36%	nrf
Heart Disease	22%	24%	23%	nrf
<b>Ages 65+</b>				
Heart Disease	34%	32%	33%	29%
Cancer	21%	21%	23%	27%

nrf No report, fewer than 20 deaths in the race/ethnicity and age group or less than 10% of the deaths.

Local data are presented for the Nation's top leading causes of death in each age group. Columns, within age categories, do not total 100% because all causes of death are not listed.

The most complete ethnicity data available are reported.

Source: National Center for Health Statistics, Vital Statistics Reporting System, 1991-1997.



## MEASURES OF BIRTH AND DEATH

### Fulton County, GA

County Percent	Peer County Range <sup>1</sup>	Birth Measures	U.S. Percent 1997	Healthy People 2010 Target	
9.8	9	6.4-10.8	Low Birth Wt. (<2500 g)	7.5	5.0
2.0	9	1.1-2.4	Very Low Birth Wt. (<1500 g)	1.4	0.9
12.9	9	9.8-15.6	Premature Births (<37 weeks)	11.4	7.6
7.3	9	4.4-7.8	Teen Mothers, <18	12.7	No objective
2.3	9	1.4-2.6	Older Mothers, 40+	2.1	No objective
45.5	9	29.7- 48.3	Unmarried Mothers	32.4	No objective
17.2	9	12.9-35.1	No Care in First Trimester	17.0	10.0

County Rate	Peer County Range <sup>1</sup>	Infant Mortality <sup>2</sup>	U.S. Rate 1997	Healthy People 2010 Target	
10.4	9	5.4-11.3	Infant Mortality	7.2	4.5
5.5	9	5.0-7.8	White Infant Mortality	6.0	4.5
14.6	9	9.6-18.8	Black Infant Mortality	13.7	4.5
6.3	9	3.3- 7.9	Neonatal Infant Mortality	4.8	2.9
4.1	9	1.7-4.1	Post-neonatal Infant Mortality	2.5	1.5

County Rate	Peer County Range <sup>1</sup>	Death Measures <sup>3</sup>	U.S. Rate 1997	Healthy People 2010 Target	
38.0	9	24.0-38.8	Breast Cancer (Female)	28.6	22.2
22.3	9	17.9-26.2	Colon Cancer	21.6	13.9
203.5	9	170.7-283.9	Coronary Heart Disease	216.0	166.0
21.0	9	5.8-21.0	Homicide	7.2	3.2
55.9	9	45.3-72.9	Lung Cancer	58.1	44.8
16.2	9	7.7-21.8	Motor Vehicle Injuries	15.8	9.0
70.5	9	49.9-75.9	Stroke	62.0	48.0
12.2	9	6.4-16.8	Suicide	11.4	6.0
24.7	9	12.6-28.1	Unintentional Injury	33.3	20.8

The total number of births during this time period was 35,972 and the total number of deaths was 18,991.

9 Indicates a status favorable to peer county median value and 9 indicates that a closer look and perhaps reduction of the percent or rate may be needed. (A blank indicates that no comparison was made).  
 n/rf No report, fewer than 500 births and 3 events (birth measures and infant mortality) or fewer than 10 events (death measures) occurred during the specified time period.

- 1 Eighty percent of the peer group values fall within this range.
- 2 Infant Mortality: deaths per 1,000 live births (Neonatal: = 29 days; Post-neonatal: 1 - 12 months).
- 3 Rates are age-adjusted to year 2000 standard, per 100,000 population.

Source: National Center for Health Statistics, Vital Statistics Reporting System, 1995-1997.

.....  
*Healthy People 2010 is grounded in science, built through consensus, and designed to measure progress.*  
 .....



# DRAFT CHSI II Website

## CommunityHealth.gov



Home  
Questions?  SEARCH  
Order Publications

HEALTH PROFESSIONS | HEALTHCARE SYSTEMS | HIV/AIDS | MATERNAL & CHILD HEALTH | PRIMARY HEALTH CARE | RURAL HEALTH

*Our Mission...Promote Physical and Mental Health and Prevent Disease, Injury, and Disability*

### CHSI

Community Health  
Status Indicators

Select State & County

Select a State

Select a County

Display Data

[Ideas for Using the Report](#)

[What's Really Killing Us?](#)

[Glossary of Terms](#)

[Contact Us](#)

### Community Health Status Report

The Community Health Status Report provides health indicator definitions, sources, and methods. To view a particular report, first select a State and County from the dropdowns to the left, then click Display Data.

The Community Health Status Report is a collection of nationally available indicators for counties representing areas of roughly equal population size. While for many of the indicators there may be more than one definition of the same problem, or source, the descriptions that follow are the choice made for this project and the means for ensuring that the indicators must be comparable and consistent and not based on differing definitions or methodologies.

The estimates presented here rely on various data sources, methods, and calculations, and are intended to be a proposal for particular analyses and purposes. Users should be aware of the limitations of these estimates. Those data that are estimated do not represent official Department of Health and Human Services data. We hope that the indicators included in the CHSI Reports will be useful to communities and request feedback and comments.



### Data Sources, Definitions, and Notes

The Community Health Status Report provides each indicator definition, source, and methods used in the Community Health Status Reports created by the Community Health Status Indicators (CHSI) Project. Some are listed in the following table as a reference for the user of the county health profile provided for every U.S. County.

The Community Health Status Report is a collection of nationally available indicators and indicators presented in a particular geographic area. While for many of the indicators there may be more than one method for calculating rates or percentages as well as more than one definition of the same problem or source, the descriptions that follow are the choice made for this project and the means for ensuring that the indicators must be comparable and consistent and not based on differing definitions or methodologies.

### Public Health

- Prevents epidemics and the spread of disease
- Protects against environmental hazards
- Prevents injuries
- Promotes and encourages healthy behaviors
- Responds to disasters and assists communities in recovery
- Assures the quality and accessibility of health services

### Public Health Services

- Monitor health status and the spread of disease
- Diagnose and investigate health problems and health hazards in the community
- Inform, educate and empower people about health issues
- Mobilize community partnerships to identify and solve health problems
- Develop policies and plans that support individual and community health efforts
- Enforce laws and regulations that protect safety
- Assure a competent public health and personal health care workforce



SAFER • HEALTHIER • PEOPLE™

# New Features of CHSI II

- **GIS component**
- **Searchable database (criteria for use)**
- **New partners**
- **Resources to build capacity for action**
- **Reframing some indicators to focus on conditions for health (social determinants)**



# Public Health

is what we, as a society, do collectively to  
assure the conditions in which  
people can be healthy.

Institute of Medicine 1988, 2003



# Social Determinants of Health

are life enhancing resources, such as food supply, economic and social relationships, transportation, education, and health care, whose distribution across populations effectively determines length and quality of life.

Sherman James, PhD  
UNC Minority Health Conference  
March 1, 2002



# Healthy People 2010

“...recognizes that communities, States, and national organizations will need to take a multidisciplinary approach to achieving health equity – an approach that involves improving health, education, housing, labor, justice, transportation, agriculture, and the environment, as well as data collection itself.”

Healthy People 2010, p. 16





# Key Determinants of Community Health





# Opportunities

- Encourage increased collecting and monitoring of county-level data
- Contribute to the development of SME methods
- Increase our understanding of health and conditions for health *as experienced by communities*
- Bring emphasis to the need to address conditions for health in order to eliminate health disparities



# Challenges

- Acquire resources to add indicators & tools
- Disseminate to previous & new users
- Evaluation
- Keep up with the technology
- Small area estimation challenges
- Make useful to communities, as well as to researchers
- Sustain via institutionalizing, new partners



**What gets counted, counts.**



**SAFER • HEALTHIER • PEOPLE™**