

# 2005 Georgia Behavioral Risk Factor Surveillance System Data Summary:

## CARDIOVASCULAR HEALTH



### BRFSS OVERVIEW

The Behavioral Risk Factor Surveillance System (BRFSS) is the primary source of information for the major health risk behaviors and the use of clinical preventive services among adults in Georgia. The BRFSS is an on-going statewide telephone survey, administered by the Georgia Department of Human Resources, Division of Public Health, in collaboration with the Centers for Disease Control and Prevention (CDC) since 1984.

### BRFSS CARDIOVASCULAR HEALTH TOPICS AND HIGHLIGHTS

#### Cardiovascular Events and Treatments

- 8% of Georgia adults have had a cardiovascular disease (CVD) event (heart attack, angina, coronary heart disease, or stroke).
  - 21% of Georgia adults reporting a prior CVD event take aspirin daily or every other day.
- 4% of Georgia adults have had a heart attack.
  - 28% went to outpatient rehabilitation following the heart attack.
- 4% of Georgia adults have had angina or coronary heart disease.
- 3% of Georgia adults have had a stroke.
  - 22% went to outpatient rehabilitation following the stroke.

#### Blood Pressure

- 27% have been told by a health professional that they have high blood pressure.
- Of those with high blood pressure, 88% were advised by a health professional to take hypertension medication.
- The majority of Georgia adults with high blood pressure are adopting lifestyle change recommendations.

#### Cholesterol

- 78% of Georgia adults have ever had their blood cholesterol checked.
- Of those ever checked, 32% have been told by a health professional that they have high blood cholesterol levels.

#### Knowledge of the Signs and Symptoms of Heart Attack

- The majority of Georgia adults were able to correctly identify a heart attack sign/symptom when read from a list.
- Of the 5 heart attack signs/symptoms:
  - 86% of Georgia adults identified 3 or more correctly.
  - 27% of Georgia adults correctly identified all 5 signs/symptoms of heart attack.

#### Knowledge of the Signs and Symptoms of Stroke

- The majority of Georgia adults were able to correctly identify a stroke sign/symptom when read from a list.
- Of the 5 stroke signs/symptoms:
  - 86% of Georgia adults identified 3 or more correctly.
  - 43% of Georgia adults correctly identified all 5 signs/symptoms of stroke.

#### Cardiovascular Disease Risk Factors

- Of the seven major modifiable risk factors for CVD<sup>1</sup>:
  - 5% of Georgia adults, or 350,000 Georgians, live with none.
  - 88% of Georgia adults, or 5.7 million Georgians, have 1 to 4 modifiable risk factors.
  - 7% of Georgia adults, or 468,000 Georgians, have 5 or more modifiable risk factors.
- The percent of adults experiencing a CVD event was higher among people who had several modifiable risk factors.

1. Modifiable Risk Factors include smoking, inadequate physical activity, poor diet, obesity, high blood pressure, high cholesterol, and diabetes

## CVD EVENTS AND TREATMENTS

Figure 1. Percentage of adults reporting a heart attack, angina, or stroke, Georgia, 2005

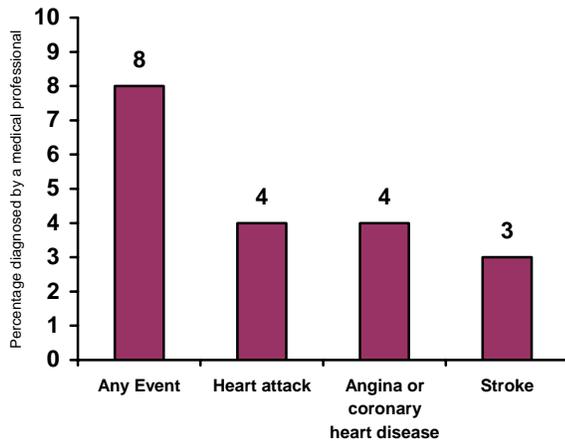
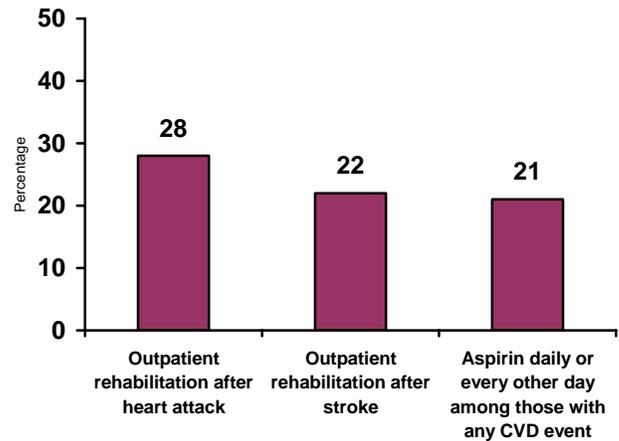


Figure 2. Percentage of adults undergoing treatment after a CVD event, Georgia, 2005



## BLOOD PRESSURE

Table 1. High blood pressure prevalence and medication advisements among adults, Georgia, 2005

	Percentage
Of all adults, percentage ever told by a doctor, nurse or other health professional that blood pressure is high	27%
Of adults with ever high blood pressure, the percentage told on <u>two or more visits</u> to a doctor or other health professional that blood pressure is high	78%
Of adults with ever high blood pressure, percentage advised by a doctor, nurse, or other health professional to take medication to control blood pressure	88%

NOTE: blood pressure categories reflect BRFSS questionnaire wording of "ever high blood pressure"

## HIGH BLOOD PRESSURE LIFESTYLE MANAGEMENT

Table 2. Actions to control high blood pressure among adults with high blood pressure, Georgia, 2005

Lifestyle change	Advised by medical professional to change behavior	Of those advised, adopted lifestyle change
Change eating habits	63%	72%
Reduce salt intake	69%	76%
Reduce alcohol consumption	40%	54%
Exercise	74%	77%

NOTE: Self-reported lifestyle change response can be overestimated by individual's varying definitions of a significant behavior change

## CHOLESTEROL

Table 3. Cholesterol check frequency and high cholesterol prevalence among adults, Georgia, 2005

	Percentage
Ever had blood cholesterol checked	78%
Blood cholesterol checked within last year	71%
Blood cholesterol checked within last 5 years	74%
Ever been told by a doctor, nurse or other health professional that blood cholesterol is high (restricted to only those who have been checked)	32%

## KNOWLEDGE OF THE SIGNS AND SYMPTOMS OF HEART ATTACK

**Table 4. Individual heart attack sign/symptom awareness among adults, Georgia, 2005**

Heart attack signs/symptoms	Percentage of adults who correctly identified it
Chest pain or discomfort	96%
Shortness of breath	92%
Pain or discomfort in arms/shoulders	91%
Feeling weak, lightheaded, or faint	72%
Pain or discomfort in jaw, neck, or back	55%

**Table 5. Cumulative heart attack awareness among adults, Georgia, 2005**

Cumulative number of correctly identified heart attack signs/symptoms	Percentage of Georgia adults
0	2%
1	3%
2	8%
3	24%
4	35%
5	27%

} 86%

\*\*Percentages do not add up to 100 due to rounding

- Symptoms were asked in a prompted format to participants.
- The module included a false heart attack sign/symptom, “Sudden trouble seeing in one or both eyes”
  - 43% of Georgia adults identified this incorrectly as a heart attack sign/symptom.

## KNOWLEDGE OF THE SIGNS AND SYMPTOMS OF STROKE

**Table 6. Individual stroke sign/symptom awareness among adults, Georgia, 2005**

Stroke signs/symptoms	Percentage of adults who correctly identified it
Body numbness or weakness, especially on one side	97%
Sudden confusion or trouble speaking	95%
Sudden dizziness, trouble walking, or loss of balance	94%
Sudden vision trouble	86%
Severe unexplained headache	79%

**Table 7. Cumulative stroke awareness among adults, Georgia, 2005**

Cumulative number of correctly identified stroke signs/symptoms	Percentage of Georgia adults
0	2%
1	3%
2	8%
3	16%
4	27%
5	43%

} 86%

\*\*Percentages do not add up to 100 due to rounding

- Symptoms were asked in a prompted format to participants.
- The module included a false stroke sign/symptom, “Sudden chest pain or discomfort”
  - 48% of Georgia adults identified this incorrectly as a stroke sign/symptom.

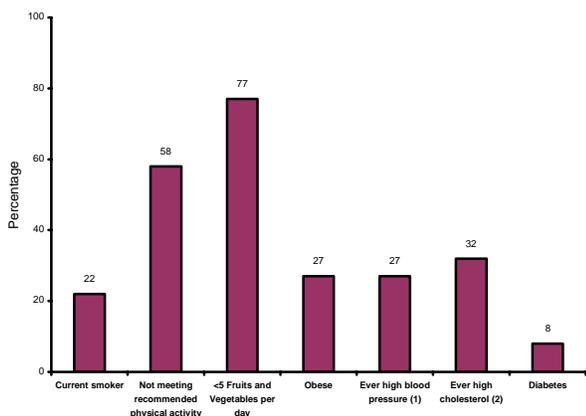
## SIGNS AND SYMPTOMS QUESTION FORMAT

- The BRFSS questions pertaining to awareness were asked in a prompted format. For example, “Do you think chest pain or discomfort are symptoms of a heart attack?”
- A stroke awareness survey conducted in 1999 among Georgia adults measured significantly lower awareness when respondents were asked open ended questions about signs and symptoms.<sup>2</sup>
- Awareness is likely overestimated by the prompted question format bias.<sup>2</sup>

2. Rowe AK, Frankel MR, Sanders KA: Stroke Awareness Among Georgia Adults: Epidemiology and considerations Regarding Measurement. *Southern Medical Journal* 2001; 94:613-618.

# CARDIOVASCULAR DISEASE RISK FACTORS

**Figure 3. Prevalence of risk factors for CVD among adults, Georgia, 2005**



(1) The percentage of Georgians who reported having been told they had high blood pressure  
 (2) Of persons who had their blood cholesterol level checked, the percentage told that they have high cholesterol

**Table 8. Percent of adults by number of modifiable risk factors\*, Georgia, 2005**

Number of risk Factors	Number of adults	Percent of adults
0	350,000	5%
1	1,382,000	21%
2	2,150,000	33%
3	1,453,000	22%
4	761,000	12%
5	365,000	6%
6	93,000	1%
7	10,000	<1%

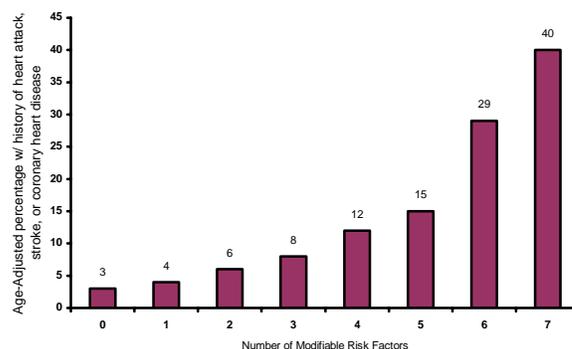
88% (for 1-4 risk factors)  
 7% (for 5-7 risk factors)

\* Modifiable Risk Factors include smoking, inadequate physical activity, poor diet, obesity, high blood pressure, high cholesterol, and diabetes

\*\*Percentages do not add up to 100 due to rounding

- Some CVD risk factors are modifiable. Individuals can change their behavior to prevent and decrease their risk of having a heart attack or stroke.
- Modifiable risk factors among adults include smoking, inadequate physical activity, poor diet, obesity, high blood pressure, high blood cholesterol, and diabetes (Figure 3).
- Only 5% of Georgia adults have no modifiable risk factors (Table 8).
- 88% of Georgia adults have 1 to 4 modifiable risk factors (Table 8).
- 7% of Georgia adults have 5 or more modifiable risk factors (Table 8).
- There is a strong association between modifiable risk factors and a history of CVD event. The percent experiencing a CVD event was higher among people who had several modifiable risk factors (Figure 4).

**Figure 4. Age-adjusted percentage of adults reporting history of heart attack, stroke or coronary heart disease by number of modifiable risk factors\*, Georgia, 2005**



\* Modifiable Risk Factors include smoking, inadequate physical activity, poor diet, obesity, high blood pressure, high cholesterol, and diabetes

## METHODOLOGY

The BRFSS has a core set of questions which are asked of all states and territories participating in the BRFSS. The core questions vary from year to year; certain topics are usually asked annually whereas other topics are asked on alternating years. Some of the core question topics related to cardiovascular disease are:

### Cardiovascular Disease Prevalence

- Prevalence of CVD events among Georgians (heart attack, angina, coronary heart disease, or stroke)

### Cholesterol Awareness

- Cholesterol check frequency
- Cholesterol status

### Hypertension Awareness

- Hypertension status
- Hypertensive management via medication

### Other Risk Factor Variables

- Diabetes, Physical Activity, Fruit and Vegetable Consumption, Obesity

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Visit <http://www.health.state.ga.us/epi/cdiee/cardio.asp> for more information about cardiovascular disease in Georgia.

THE BRFSS has optional modules which CDC offers to states to include based on funding and program needs. Georgia has included cardiovascular disease-related modules in its BRFSS data collection when offered. Some of the modules related to cardiovascular disease are:

### Cardiovascular Health

- Rehabilitation after strokes or heart attacks
- Aspirin usage

### Actions to Control High Blood Pressure

- Questions asked to those individuals self-reporting ever being hypertensive
- Health professional recommendations to control hypertension
- Lifestyle modifications to control hypertension

### Heart Attack and Stroke

- Knowledge of the signs and symptoms of heart attack and stroke