# OASIS – Online Analytical Statistical Information System

**https://oasis.state.ga.us**

*Using OASIS for community health assessment and policy decision-making*

**Gordon R. Freymann, MPH** | **Fabio Machado, MPH**
Office of Health Indicators for Planning (OHIP)
Epidemiology Program
Georgia Department of Public Health

OASIS

ONLINE ANALYTICAL STATISTICAL INFORMATION SYSTEM

Tools for Public Health and Public Policy Data Analysis

*Accessing the Georgia Department of Public Health's Data Warehouse*

## This tutorial consists of using OASIS to answer 6 questions:

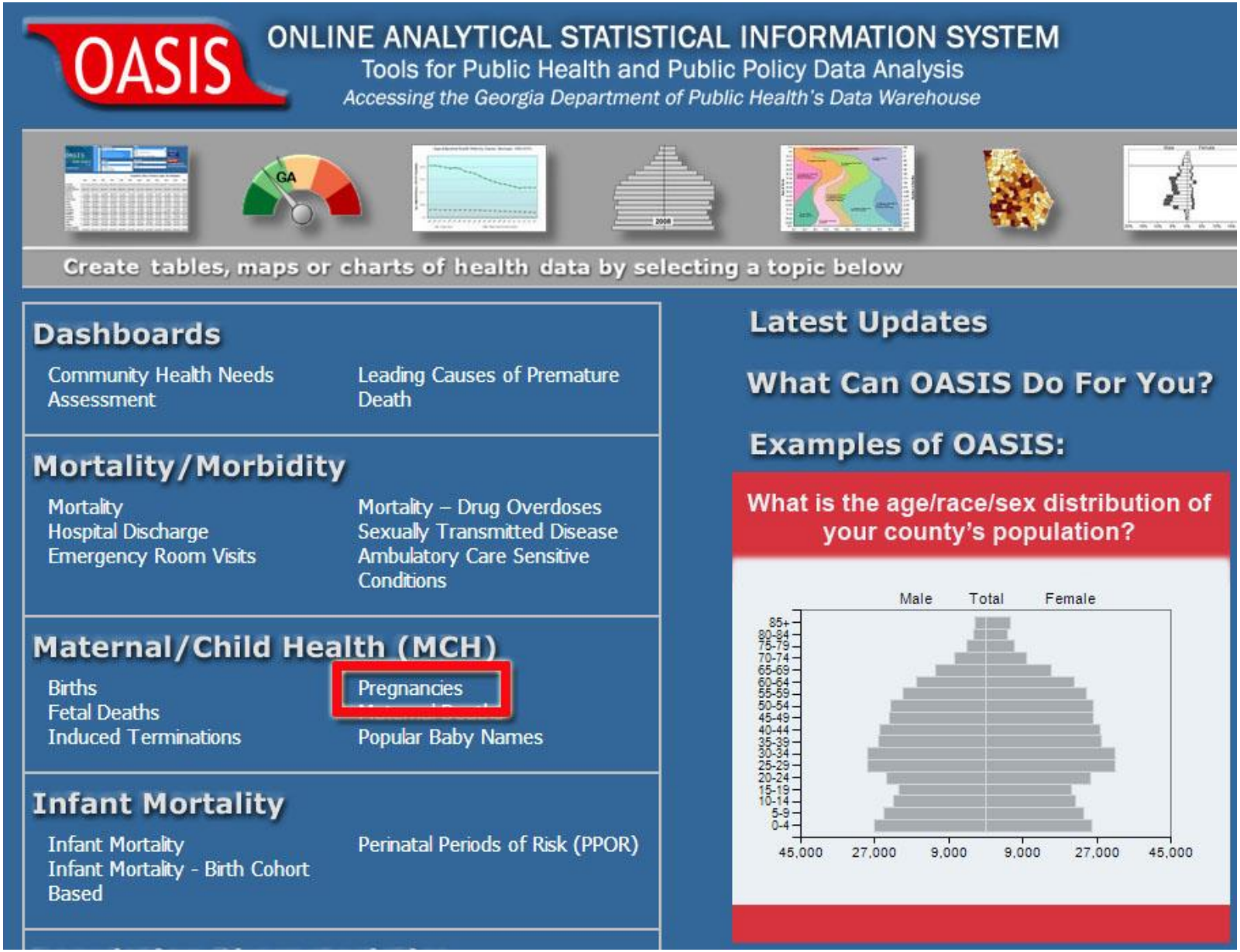
1. What is the teen pregnancy rate for each county?
2. How are low birthweight births distributed within DeKalb county?
3. What age group has the most ER visits due to falls?
4. What is the trend of drug overdoses and opioids?
5. What are the significant causes of death in Muscogee county?
6. What are the top causes of premature death in GA and how are they distributed among age, sex and race?

## Each question will be answered using a different tool of OASIS:

a) Web Query Tool
b) Mapping Tool
c) Animated Charting Tool
d) Trending Tool
e) Community Health Needs Assessment & Leading Causes of Premature Death Dashboards.

**1. Table: Age-specific Pregnancy Rates, 15-17 Years of Age, All Counties.**

Choose Pregnancies below:



Referrer page – choose Get Table…

OASIS

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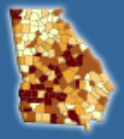
**Select the type of output you need**

Click icon to create Tables of various statistics and indicators.

Get Table

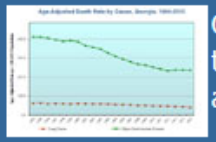

Click icon to create Animated Pyramid Charts that show the age / race / sex distribution of counts or percentages, including associated data tables.

Get Animated Pyramids



Click icon to create Maps by County, Region, or sub-county areas such as Census Tract.

Get Map



Click icon to create Line Charts to show trends of indicators over time; including associated data tables.

Get Trends

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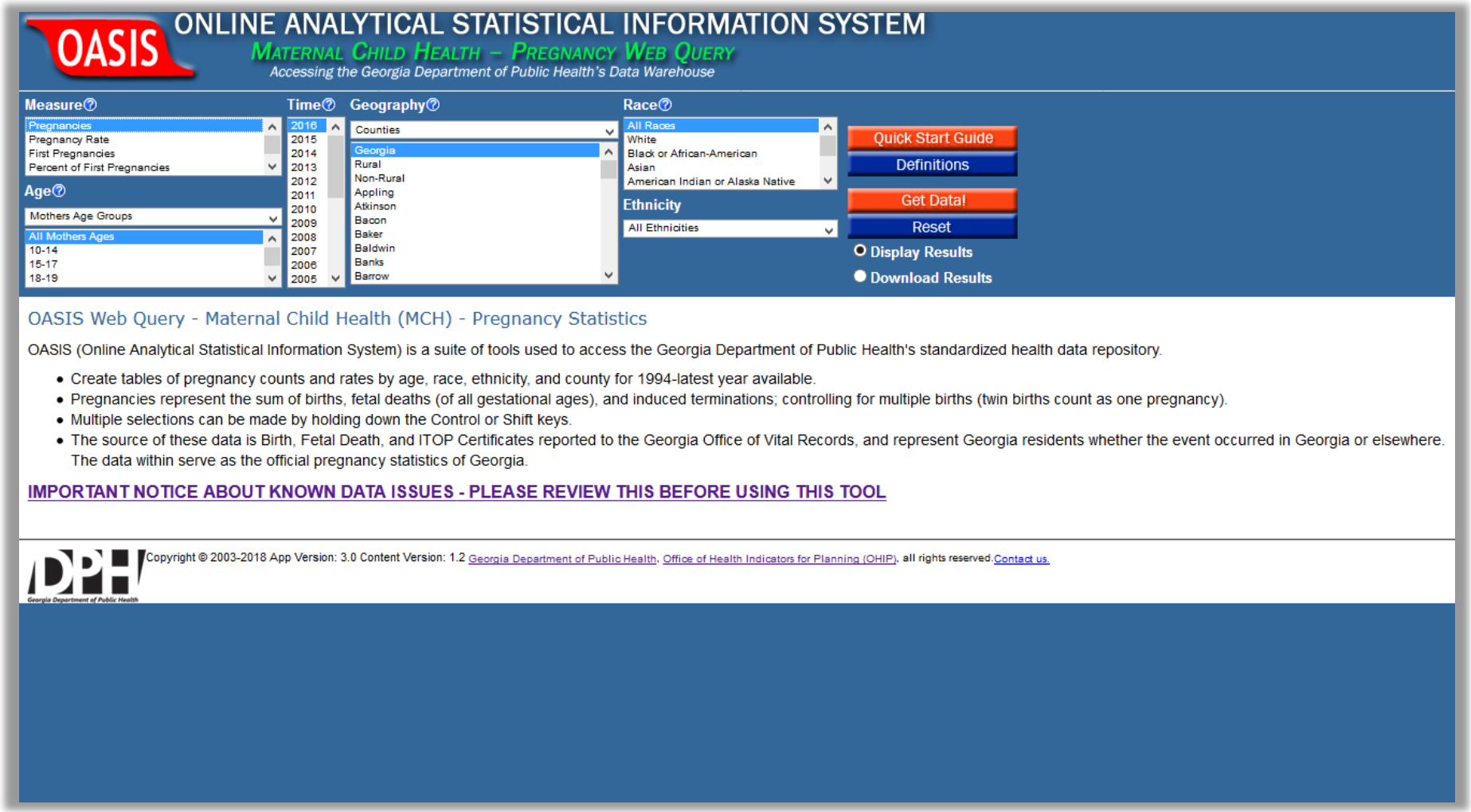
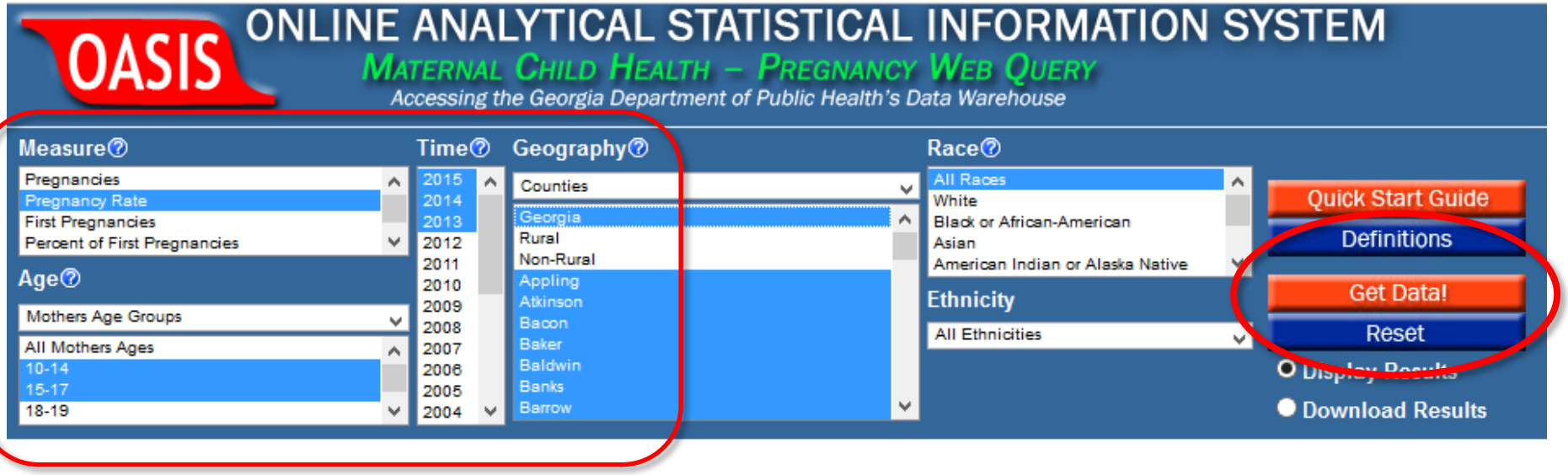
Page Version 3.3

# The Pregnancies Web Query



Make the following choices under Measure, Age, Time, and Geography…




…then click Get Data!

*You can use ctrl or shift or hold your mouse button to make multiple selections.*

This is what the table looks like. Hovering over a county name will show a small map highlighting the location of the county.

The table can be saved with the Save Data button at bottom of table (not shown).

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MATERNAL CHILD HEALTH – PREGNANCY WEB QUERY

*Accessing the Georgia Department of Public Health's Data Warehouse*

**Measure**: Pregnancies; **Pregnancy Rate**; First Pregnancies; Percent of First Pregnancies

**Age**: Mothers Age Groups — All Mothers Ages; **10-14**; **15-17**; 18-19

**Time**: **2015**; **2014**; **2013**; 2012; 2011; 2010; 2009; 2008; 2007; 2006; 2005; 2004

**Geography**: Counties — **Georgia**; Rural; Non-Rural; **Appling**; **Atkinson**; **Bacon**; **Baker**; **Baldwin**; **Banks**; **Barrow**

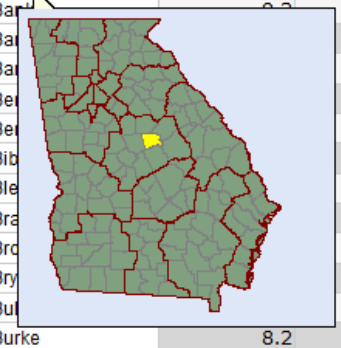
**Race**: **All Races**; White; Black or African-American; Asian; American Indian or Alaska Native

**Ethnicity**: All Ethnicities

Quick Sta… | Definit… | Get D… | Rese… | Display Re… | Download

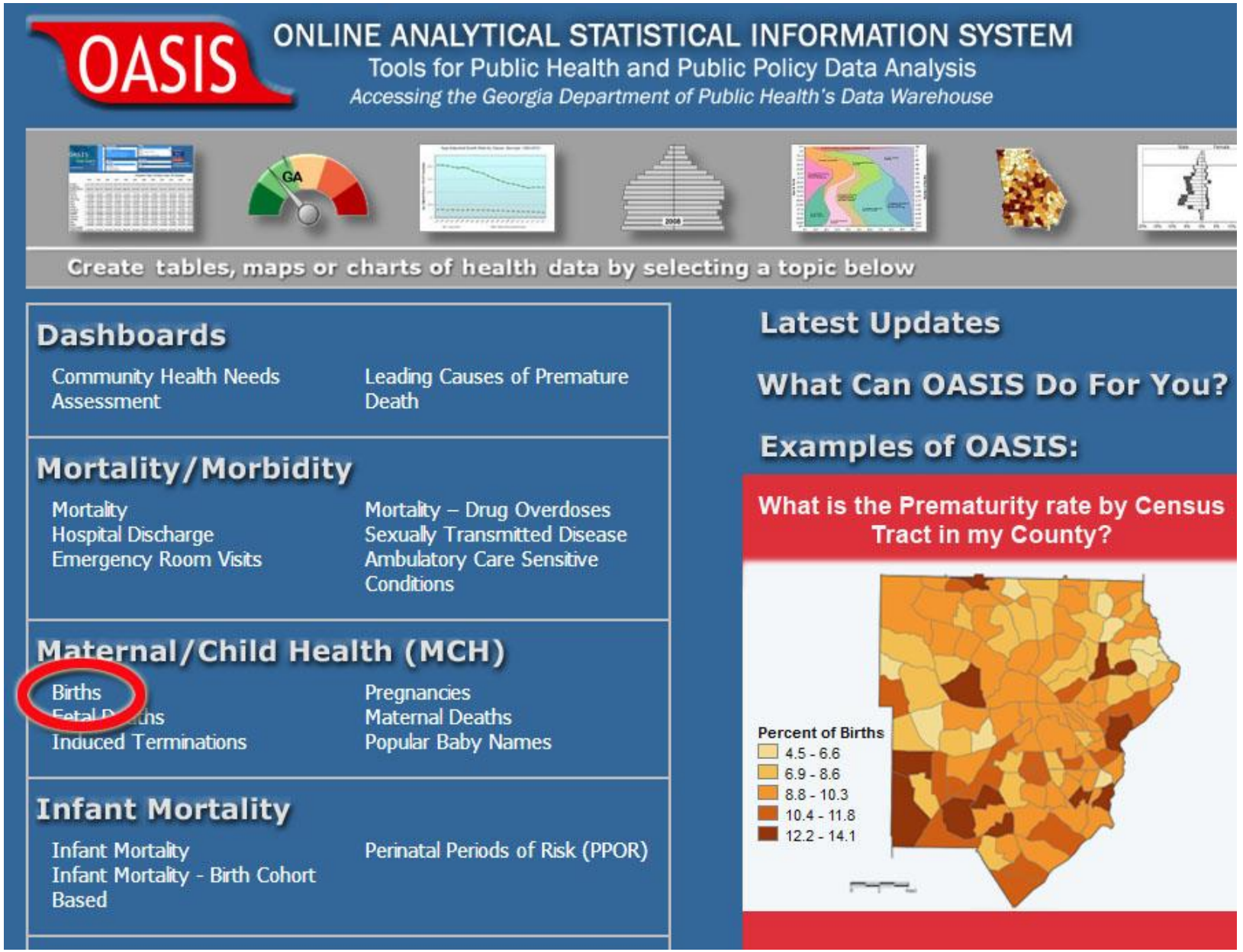
## Pregnancy Rate by Residence, 10-17 Years of Age

| | 2013 | 2014 | 2015 | Selected Years Total |
|---|---|---|---|---|
| | Pregnancy Rate | Pregnancy Rate | Pregnancy Rate | Pregnancy Rate |
| Georgia | 7.3 | 6.6 | 6.1 | 6.7 |
| Appling | 10.7 | 11.5 | 8.2 | 10.1 |
| Atkinson | 18.9 | 14.6 | 14.6 | 16.1 |
| Bacon | 9.5 | 9.2 | 7.7 | 8.8 |
| Baker | 0.0 | 0.0 | * | * |
| Baldwin | 8.0 | 11.5 | 4.6 | 8.1 |
| Ban… | | 5.2 | * | 6.2 |
| Bar… | | 4.8 | 5.5 | 5.8 |
| Bar… | | 6.6 | 5.0 | 6.0 |
| Ben… | | 10.2 | 20.8 | 12.9 |
| Ber… | | 9.7 | 6.7 | 7.1 |
| Bib… | | 13.4 | 10.3 | 12.0 |
| Ble… | | 11.3 | * | 8.3 |
| Bra… | | 9.5 | 13.4 | 11.8 |
| Bro… | | 11.7 | 8.5 | 11.0 |
| Bry… | | 3.7 | 2.2 | 3.0 |
| Bul… | | 8.4 | 7.8 | 8.3 |
| Burke | 8.2 | 10.0 | 9.2 | 9.1 |
| Butts | 9.0 | 6.2 | 6.2 | 7.1 |
| Calhoun | * | * | * | 7.4 |
| Camden | 4.1 | 4.1 | 2.8 | 3.7 |
| Candler | 14.6 | * | * | 9.2 |
| Carroll | 11.5 | 8.2 | 7.8 | 9.1 |
| Catoosa | 7.4 | 6.6 | 5.4 | 6.5 |
| Charlton | * | * | 0.0 | 5.2 |
| Chatham | 9.1 | 8.9 | 6.9 | 8.3 |
| Chattahoochee | * | * | * | * |
| Chattooga | 11.6 | 12.4 | 11.1 | 11.7 |
| Cherokee | 4.1 | 3.4 | 3.0 | 3.5 |
| Clarke | 7.2 | 7.8 | 6.6 | 7.2 |



**2. Map - Spatial Variation WITHIN County: Percentage Low Birthweight.**

Choose Births below:



Referrer page – choose Get Map…

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# ONLINE ANALYTICAL STATISTICAL INFORMATION SYSTEM

## Web-Based Tools for Public Health and Public Policy Data Analysis

*Accessing the Georgia Department of Public Health's Data Warehouse*

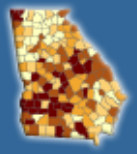
**Select the type of output you need**

Click icon to create Tables of various statistics and indicators.

Get Table

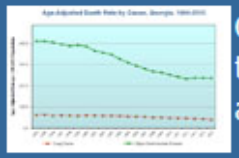

Click icon to create Animated Pyramid Charts that show the age / race / sex distribution of counts or percentages, including associated data tables.

Get Animated Pyramids



Click icon to create Maps by County, Region, or sub-county areas such as Census Tract.

Get Map



Click icon to create Line Charts to show trends of indicators over time; including associated data tables.

Get Trends

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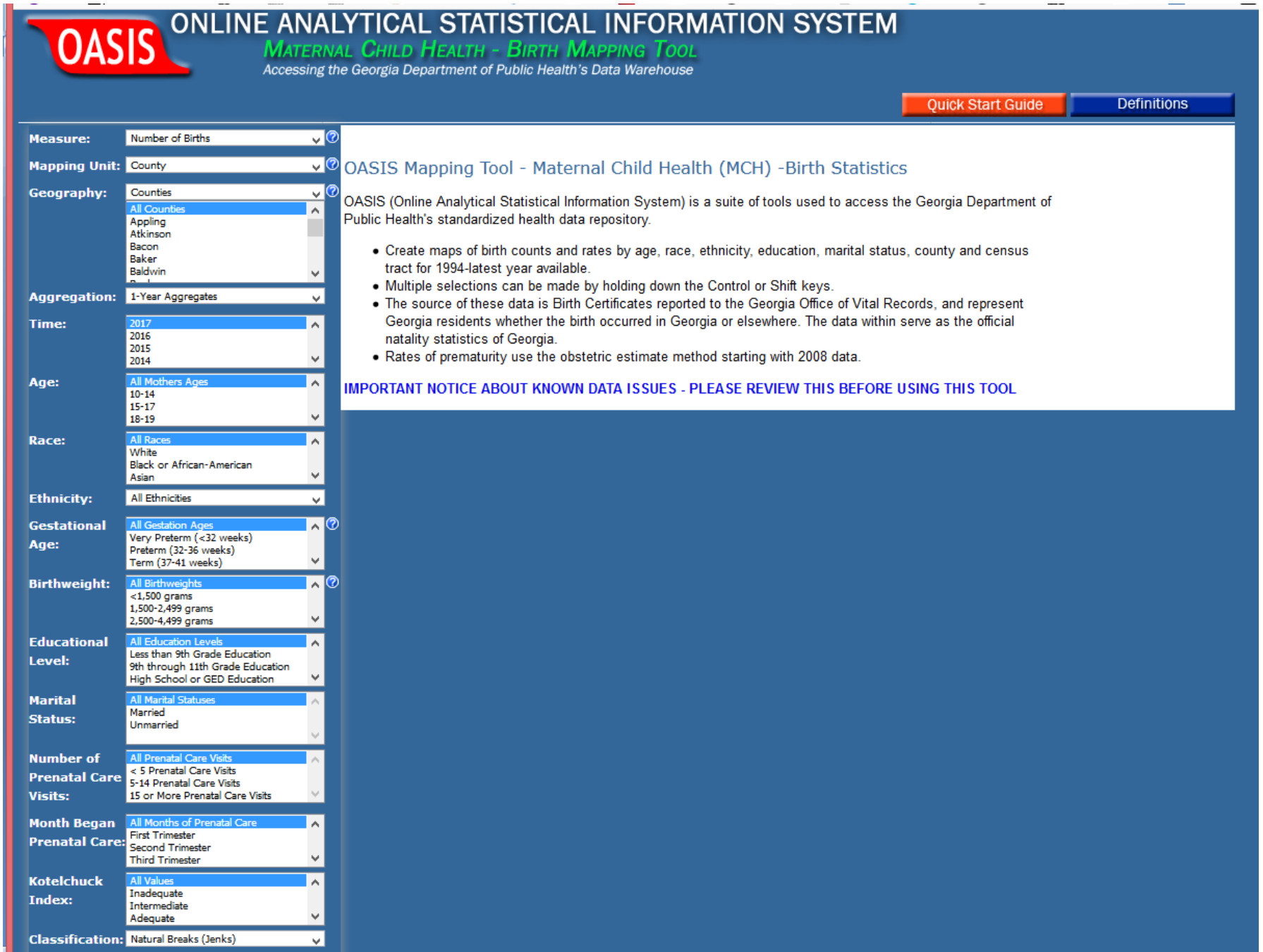
Page Version 3.3

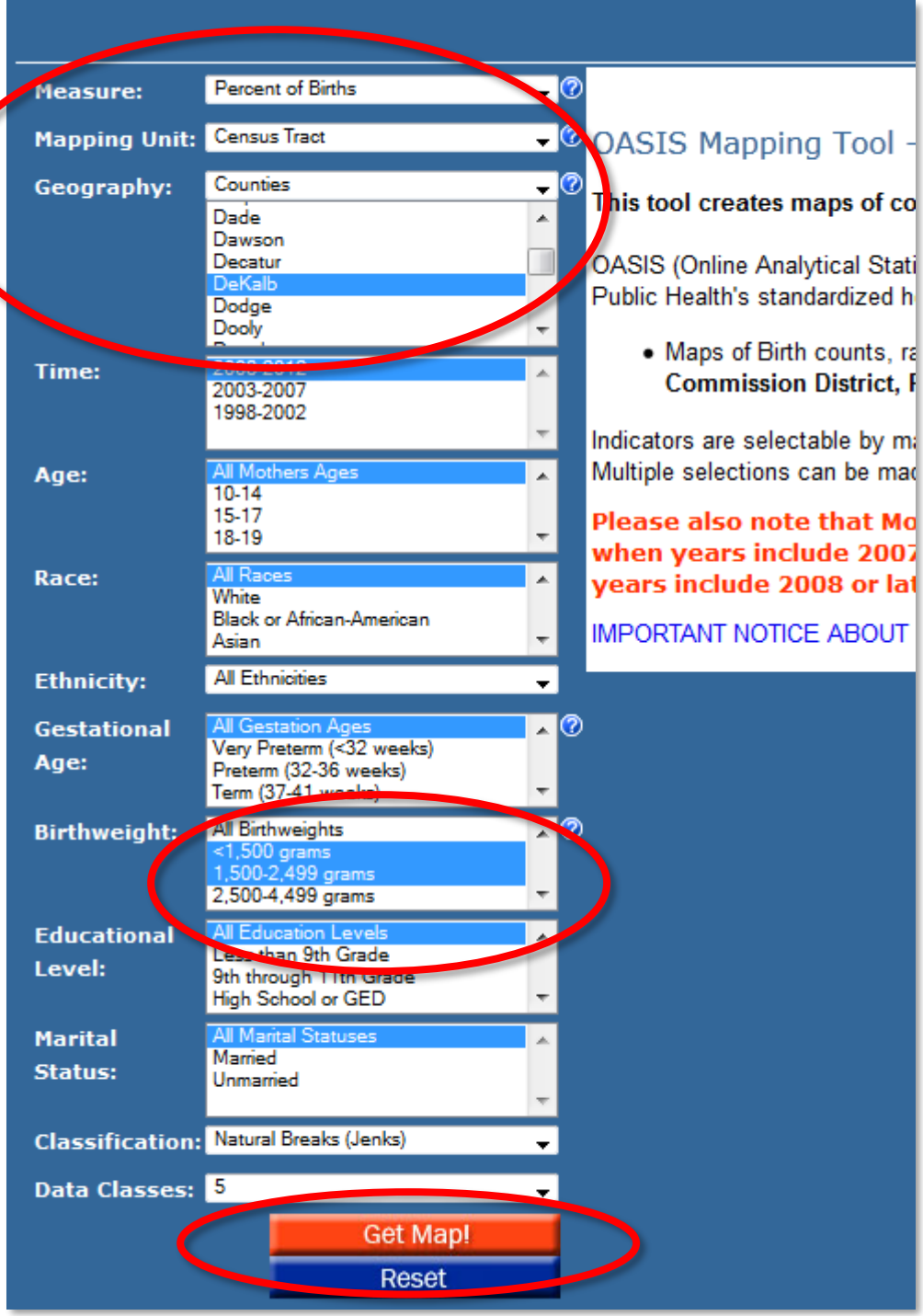
# The Births Mapping Tool:



Change Measure to Percent of Births, Mapping Unit to Census Tract, and choose a county.

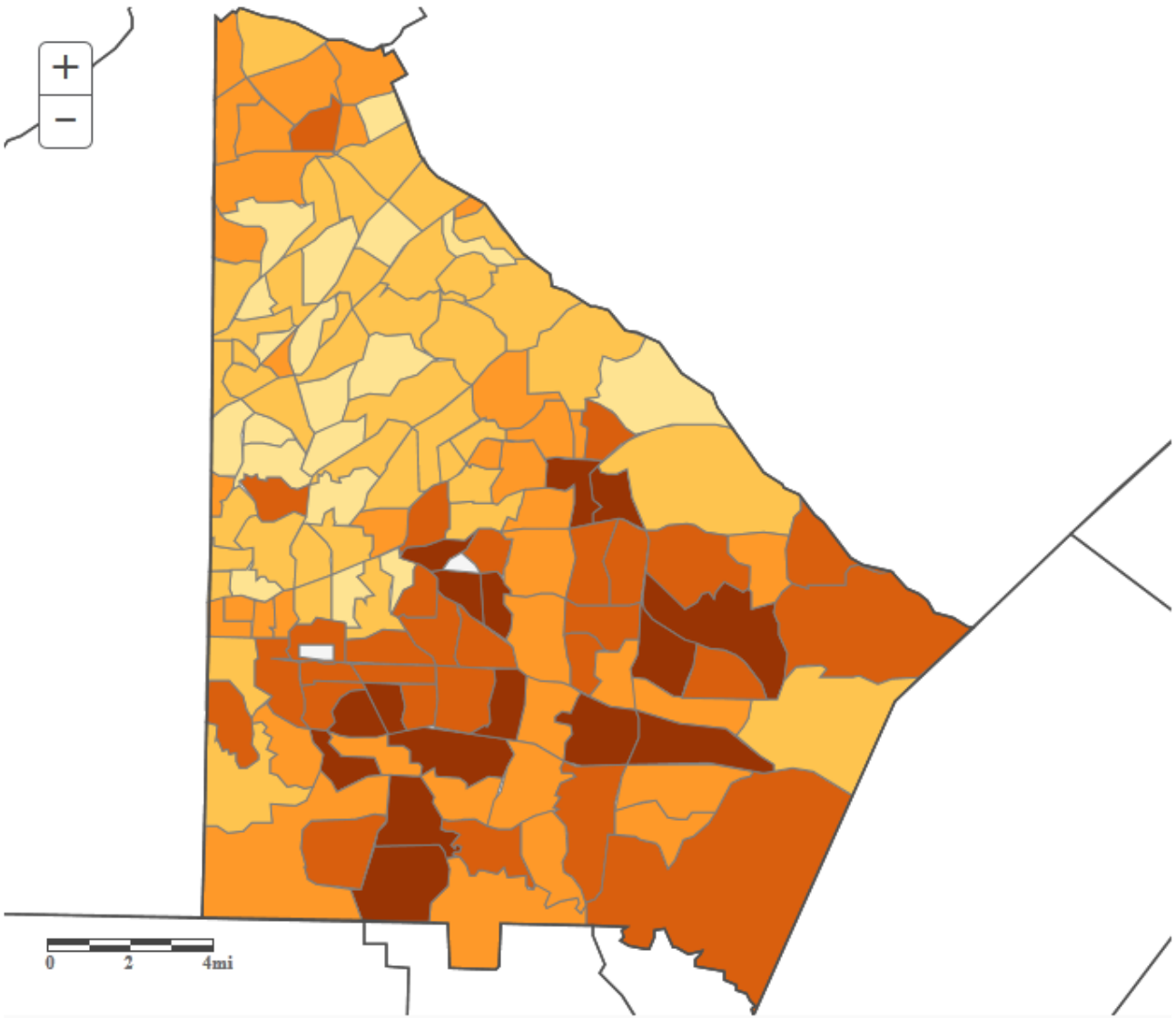
Select <2,500 grams.

Click Get Map.

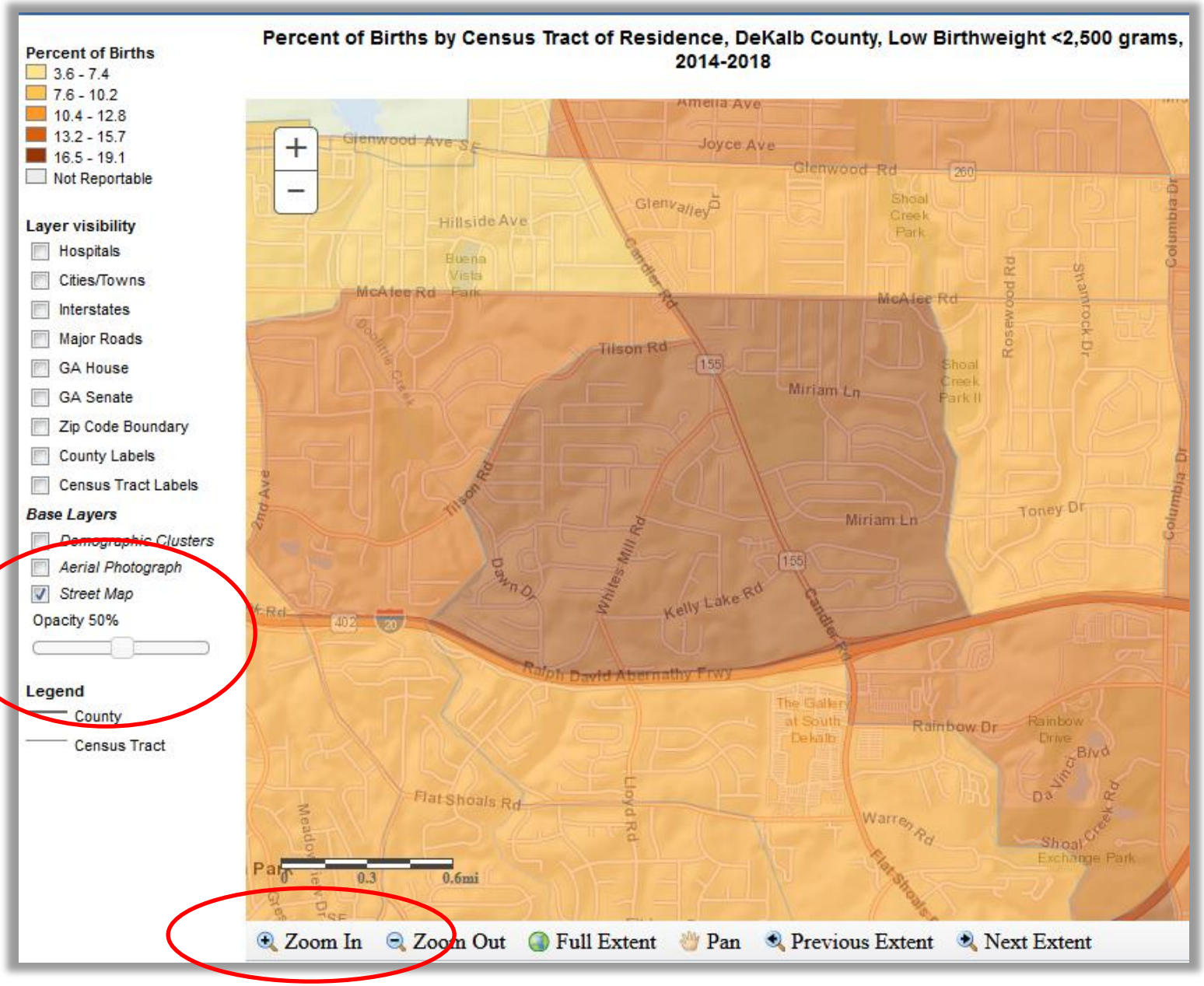


Quick Start Guide | Definitions | Print Preview

## Percent of Births by Census Tract of Residence, DeKalb County, Low Birthweight <2,500 grams, 2008-2012



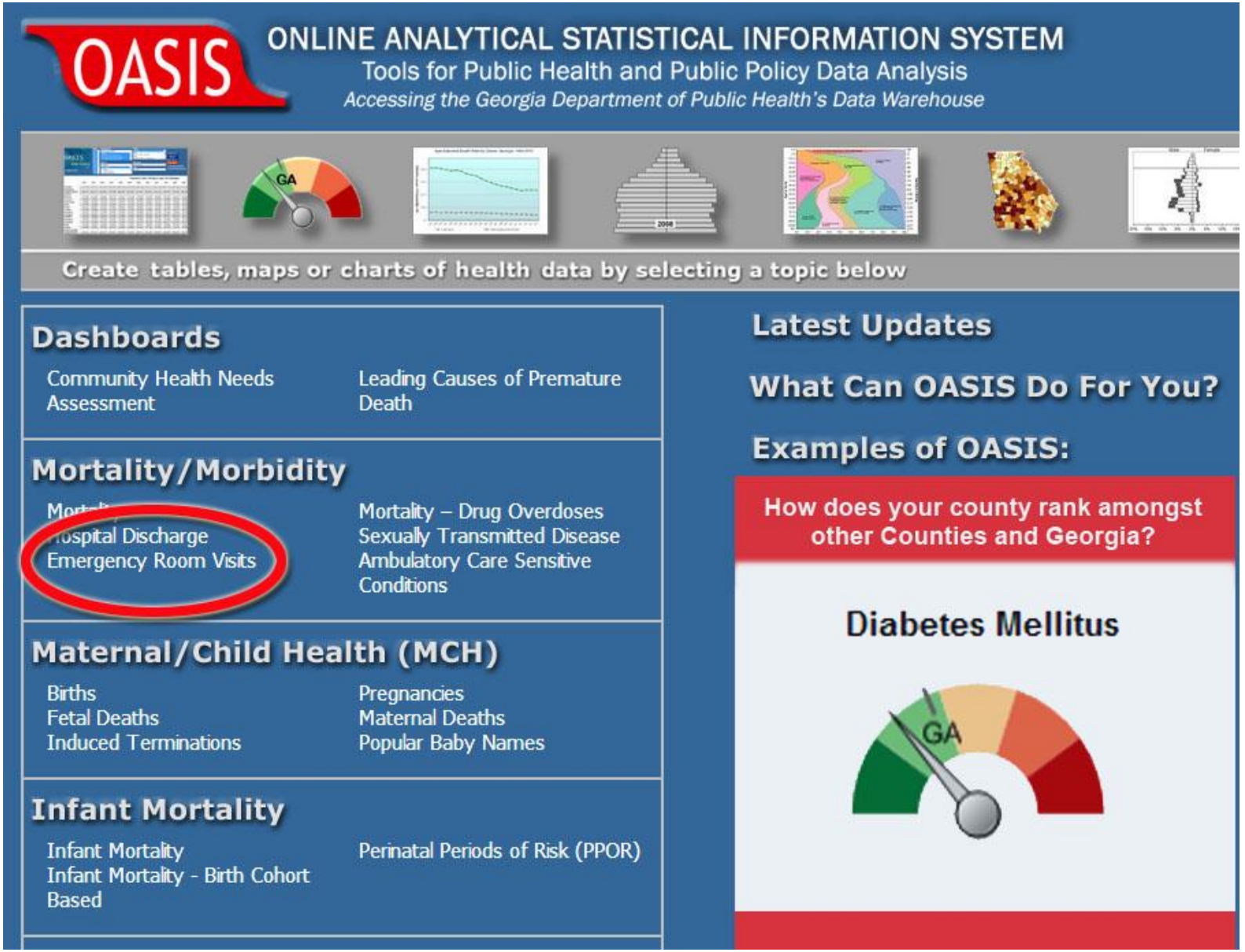
Zoom in, turn on Street Map, and adjust the Opacity slider…




Maps can be saved locally. Other features include creating maps that show trends over time.

**3. Charting: What age group has the most ER visits due to falls?**

Select Emergency Room Visits below:



Referrer page – Get Animated Pyramids…

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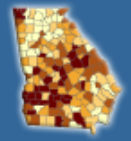
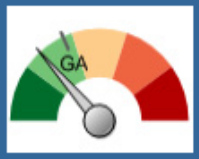
Get Animated Pyramids



Click icon to create Maps by County, Region, or sub-county areas such as Census Tract.

Get Map




Click icon to create a single report of the Top 15 causes of death, hospital discharge, or ER visits. Reports include trends and maps for each cause.

Get Dashboard

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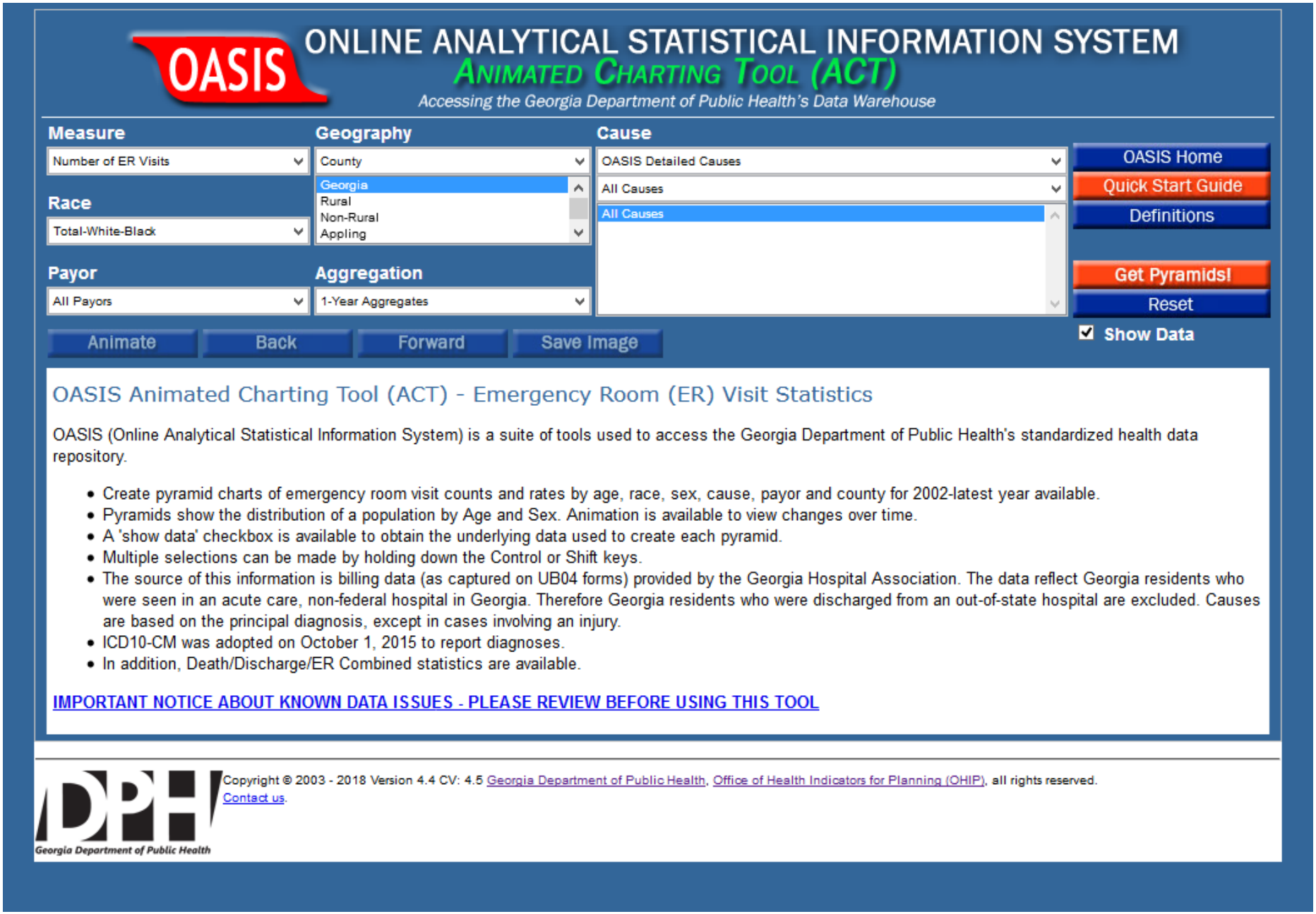
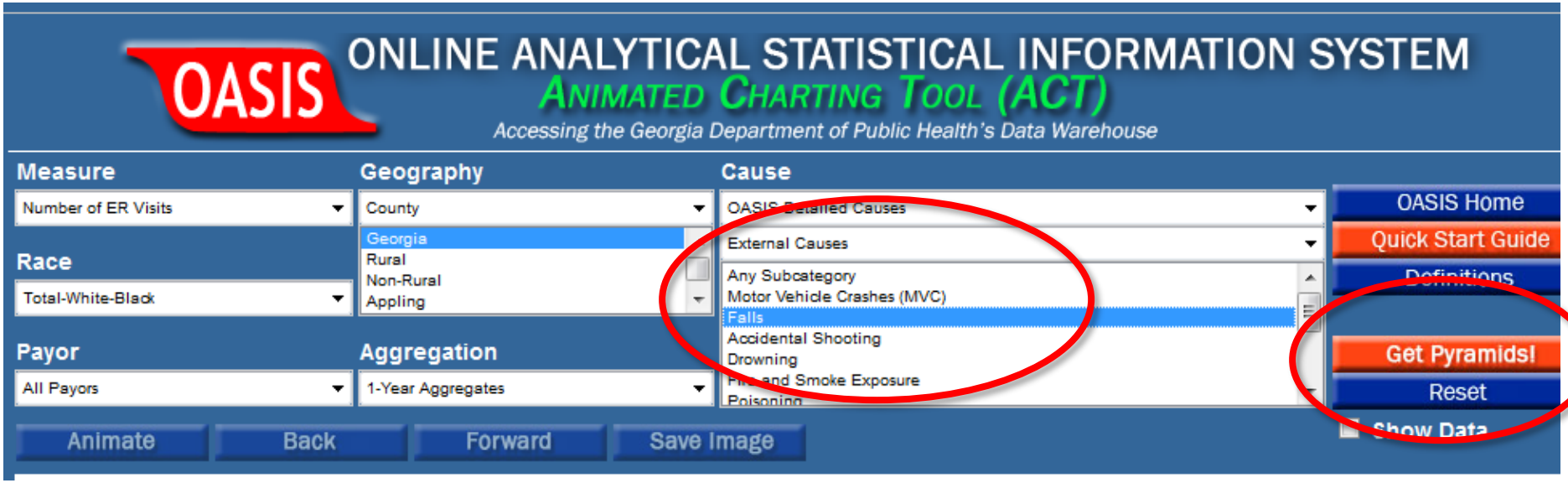
# The ER Visits Animated Charting Tool



Change All Causes to External Causes, and select Falls underneath:



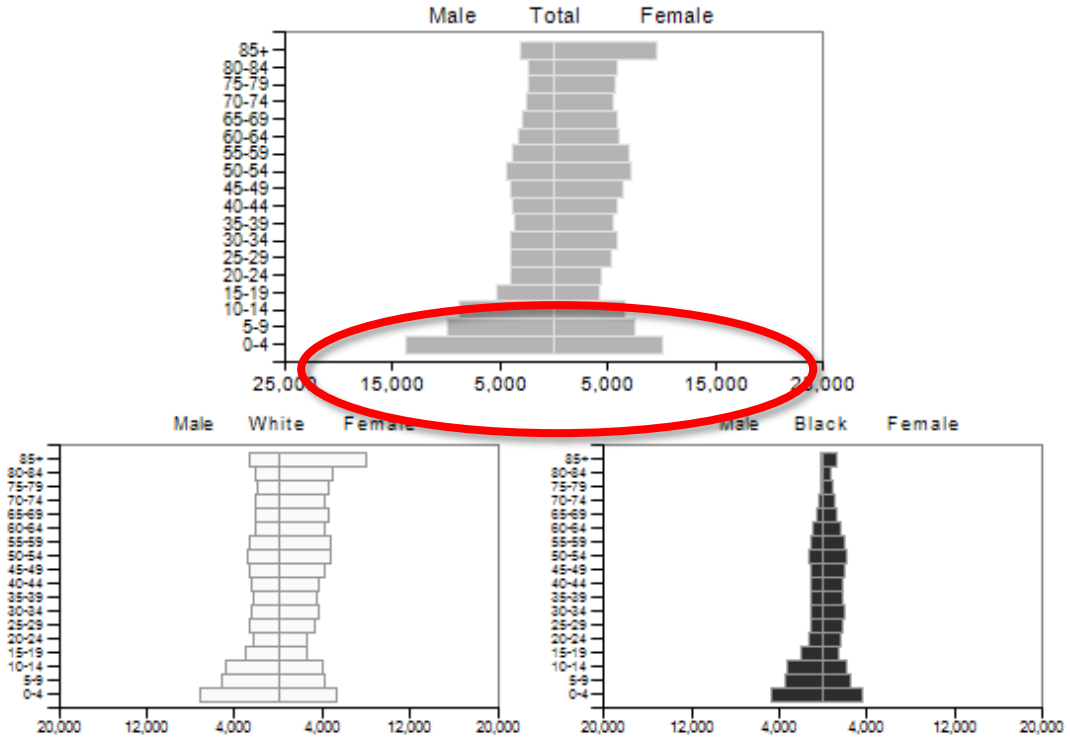

Click Get Pyramids!

Most ER Visits for Falls are among toddlers/young children:

Animate | Back | Forward | Save Image | Show Data

**Number of Emergency Room Visits, Falls, Total, White and Black or African-American**

Georgia, 2013



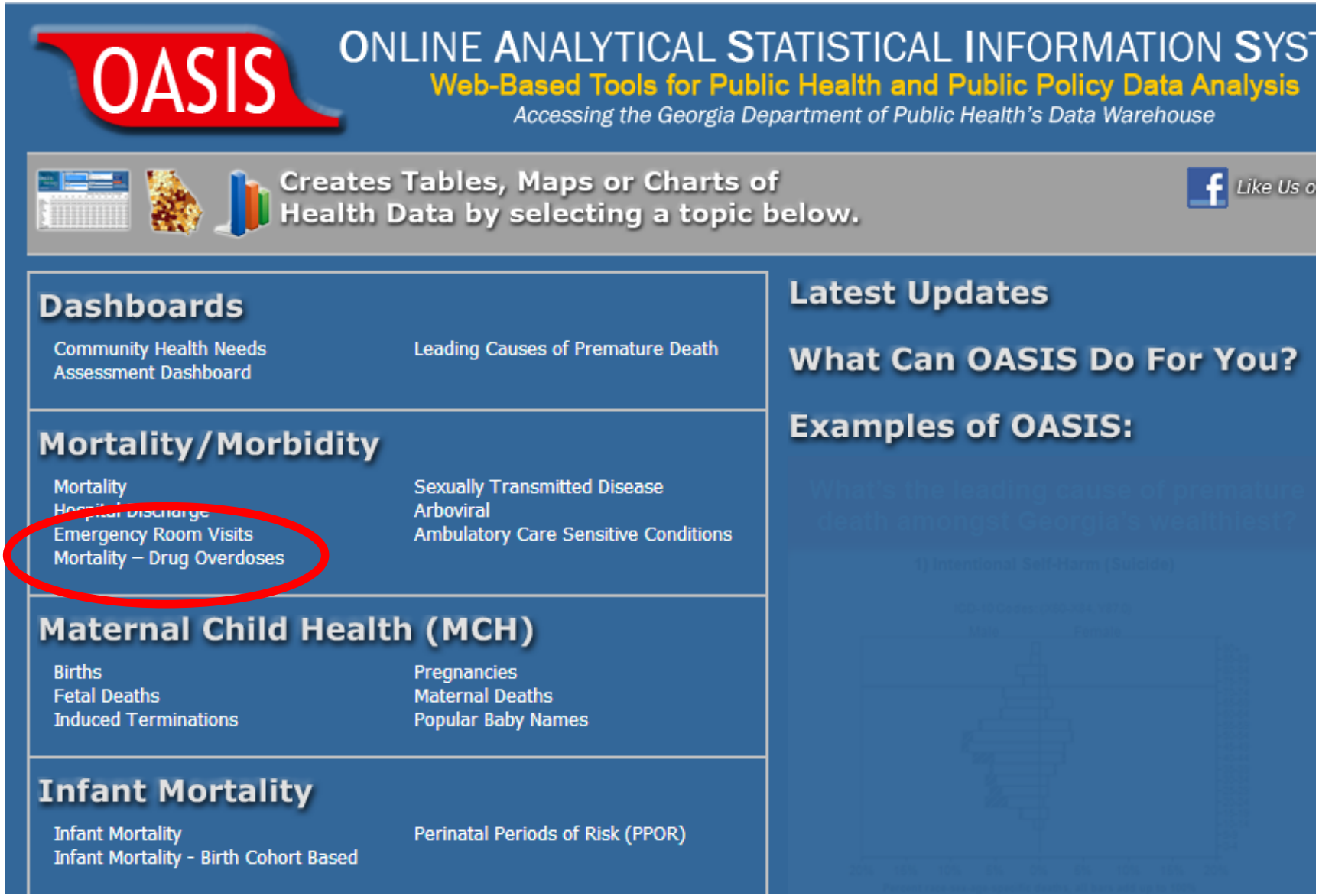

IMPORTANT NOTICE ABOUT KNOWN DATA ISSUES - PLEASE REVIEW BEFORE USING THIS TOOL



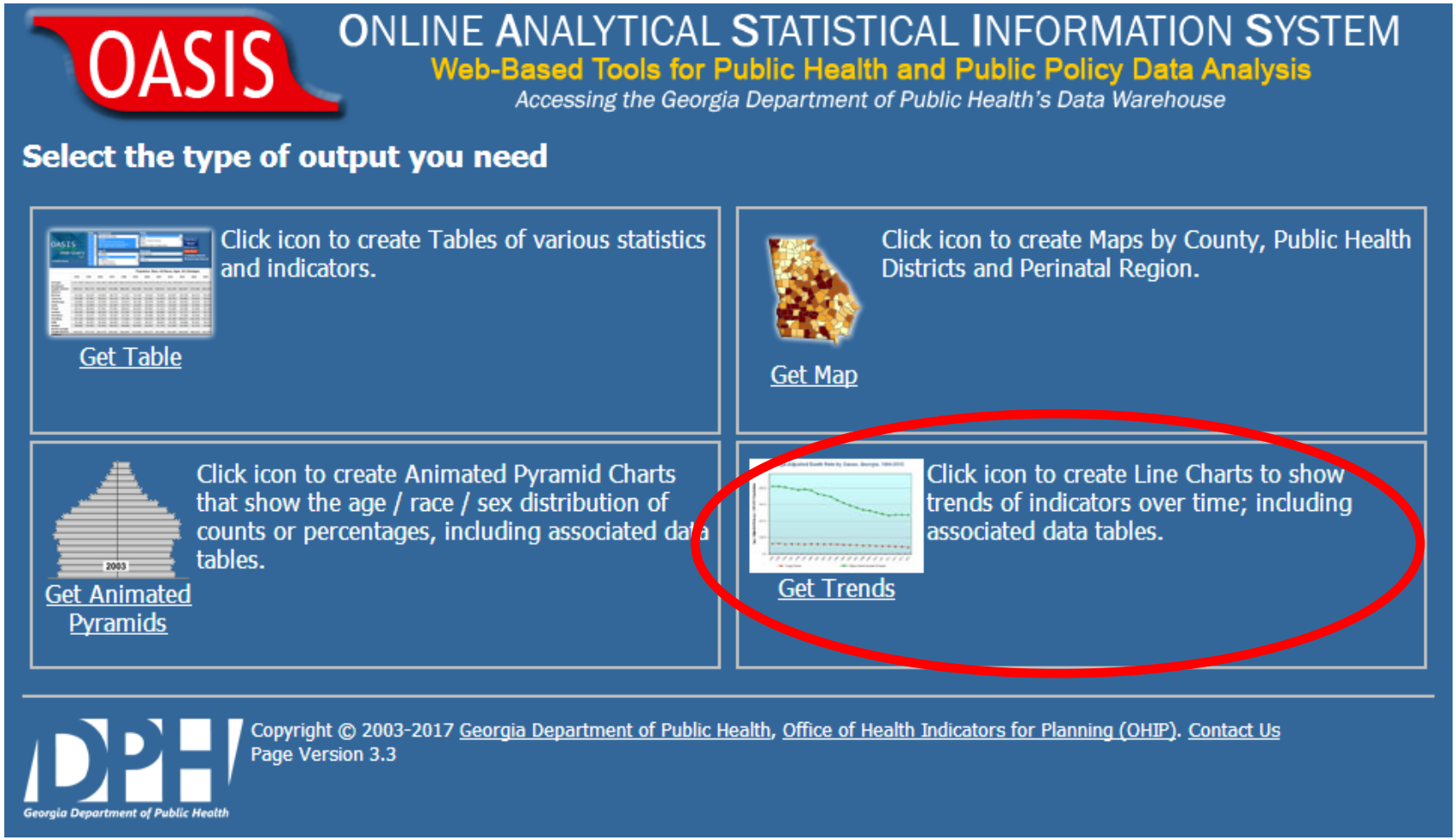
Georgia Department of Public Health

Both the chart and the data are shown, and both can be saved locally.

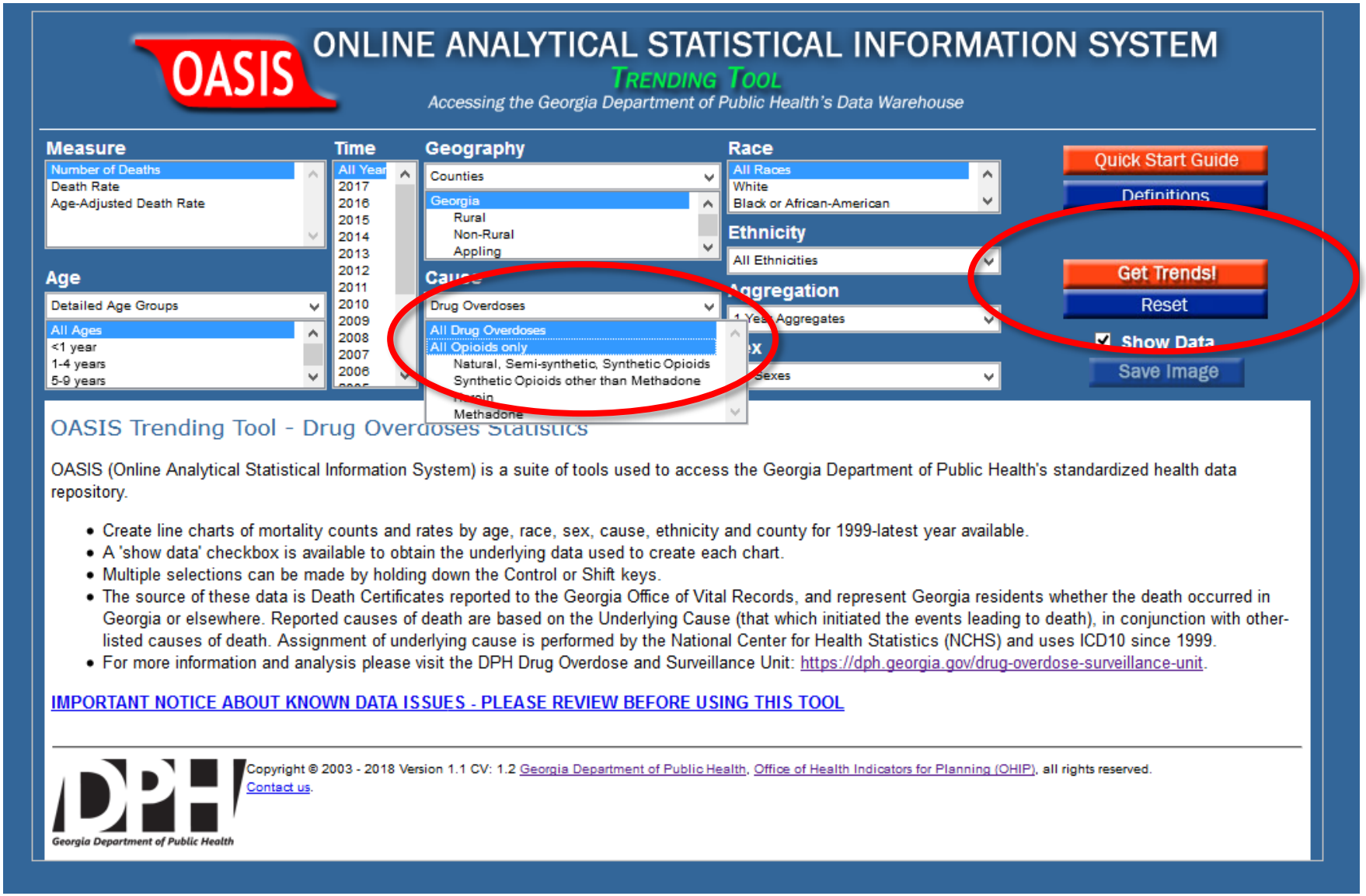
# 4. Trending Tool: What is the Trend of Drug Overdoses, and Opioids specifically? Choose Mortality-Drug Overdoses below:

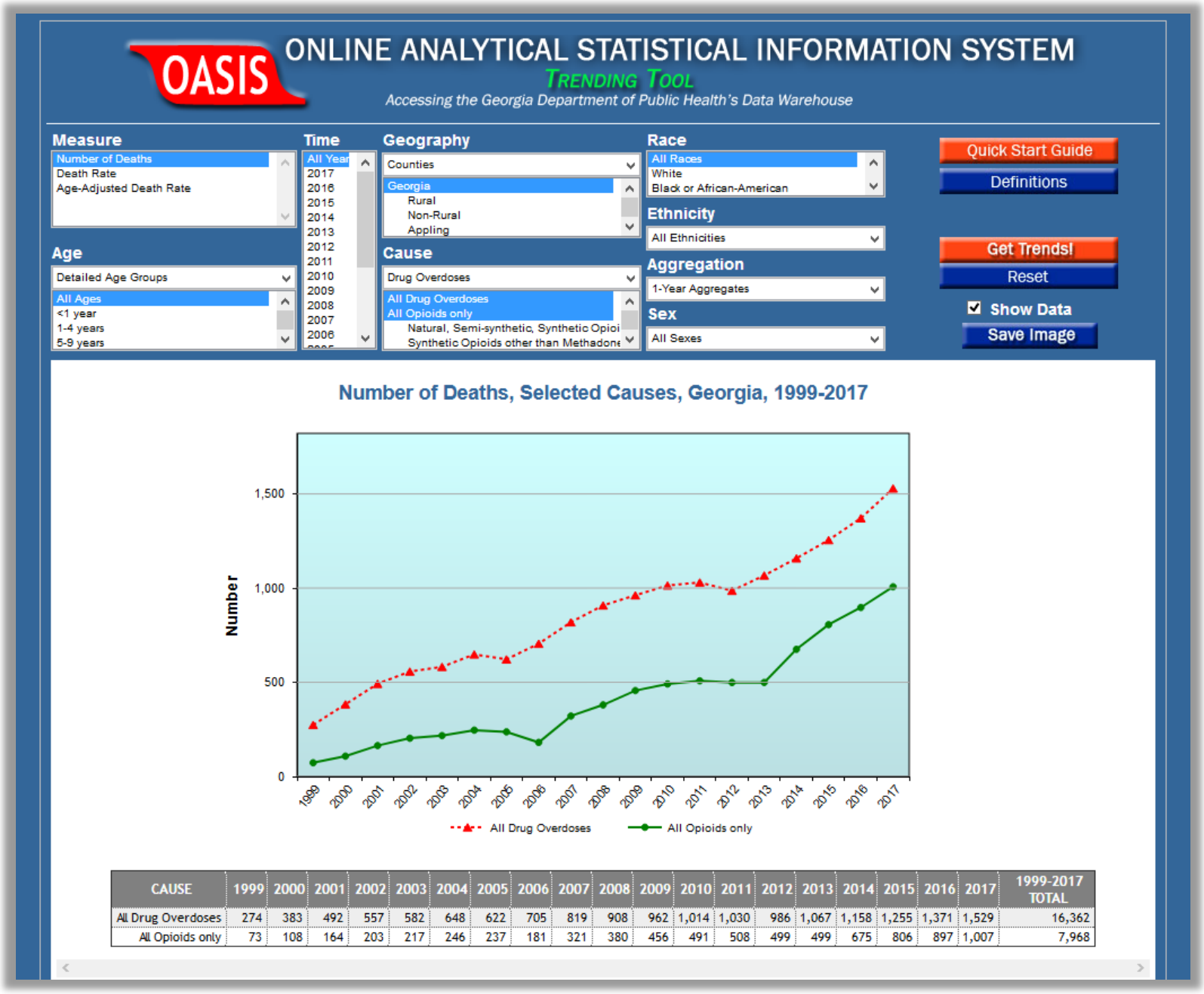


# Referrer Page – Get Trends:



# Under “Cause”… choose the two shown, then Get Trends!






| CAUSE | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 1999-2017 TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| All Drug Overdoses | 274 | 383 | 492 | 557 | 582 | 648 | 622 | 705 | 819 | 908 | 962 | 1,014 | 1,030 | 986 | 1,067 | 1,158 | 1,255 | 1,371 | 1,529 | 16,362 |
| All Opioids only | 73 | 108 | 164 | 203 | 217 | 246 | 237 | 181 | 321 | 380 | 456 | 491 | 508 | 499 | 499 | 675 | 806 | 897 | 1,007 | 7,968 |

Both the chart and the data are shown, and both can be saved locally.

# 5. Community Health Needs Assessment – Ranked Cause Report for Muscogee County.

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Create tables, maps or charts of health data by selecting a topic below

## Dashboards

- Community Health Needs Assessment
- Leading Causes of Premature Death

## Mortality/Morbidity

- Mortality
- Hospital Discharge
- Emergency Room Visits
- Mortality – Drug Overdoses
- Sexually Transmitted Disease
- Ambulatory Care Sensitive Conditions

## Maternal/Child Health (MCH)

- Births
- Fetal Deaths
- Induced Terminations
- Pregnancies
- Maternal Deaths
- Popular Baby Names

## Infant Mortality

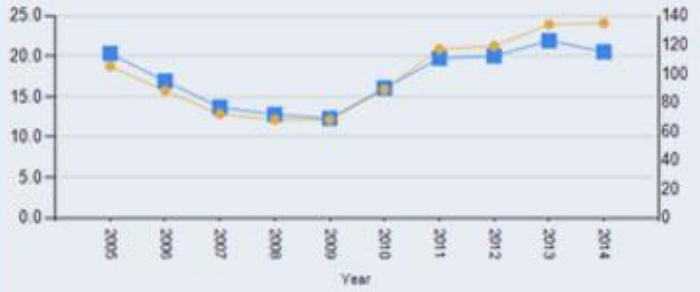
- Infant Mortality
- Infant Mortality - Birth Cohort Based
- Perinatal Periods of Risk (PPOR)

## Latest Updates

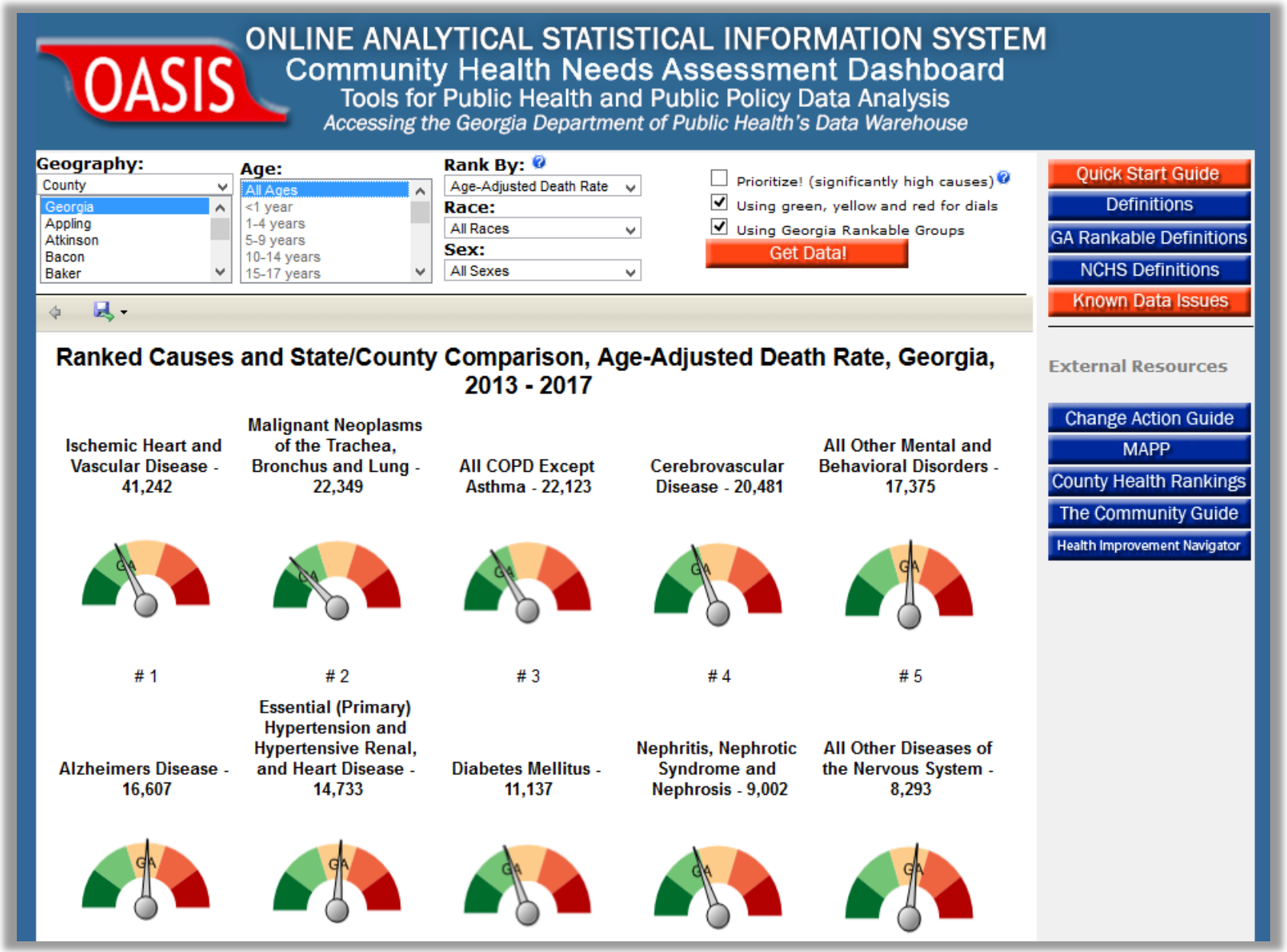
## What Can OASIS Do For You?

## Examples of OASIS:

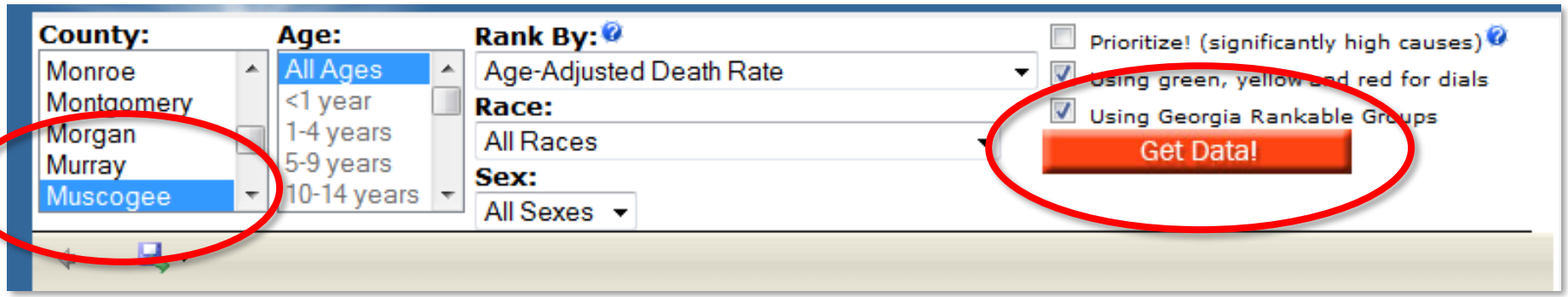
**What is the Trend in your county? And is it significant?**



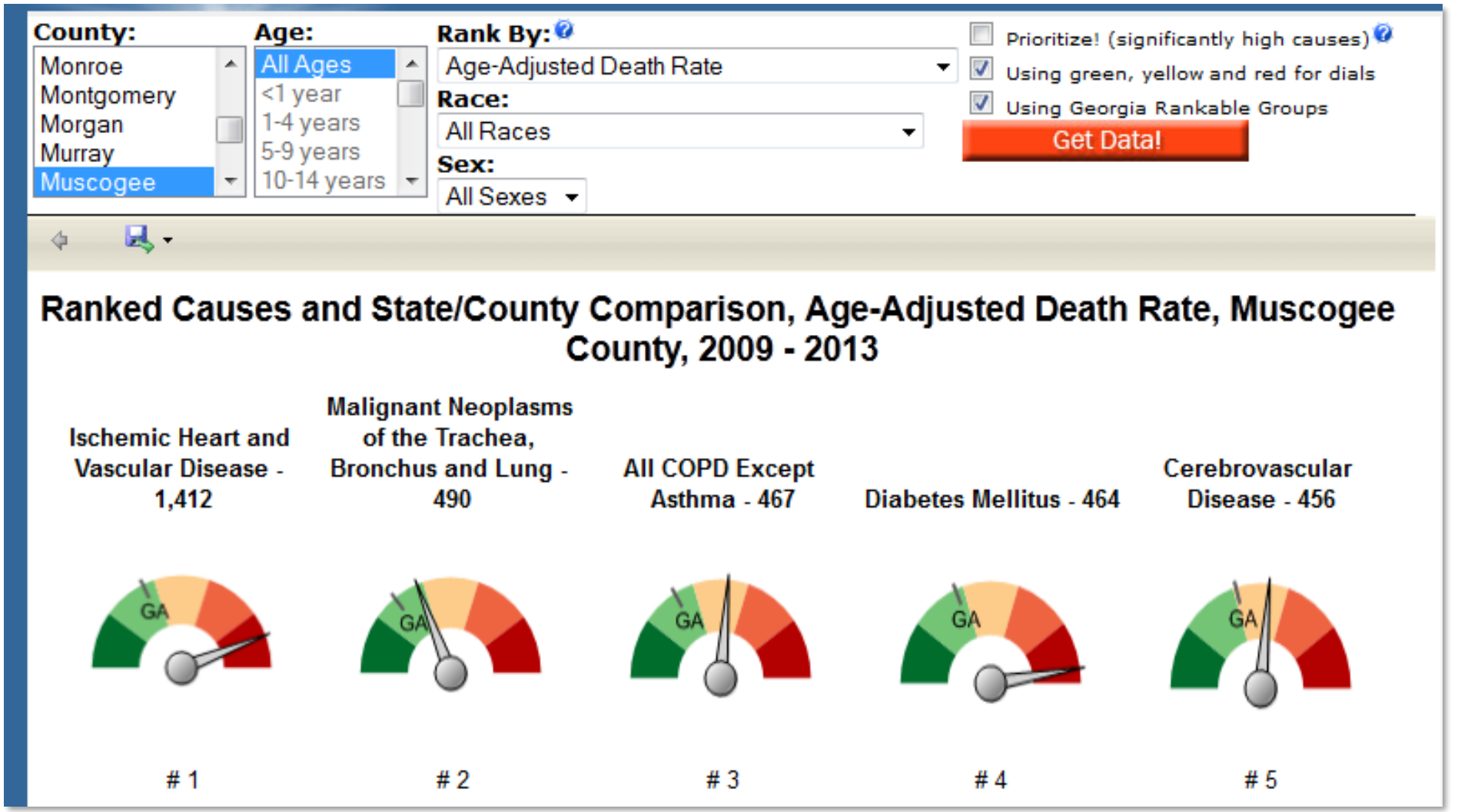
Initial Dashboard page shows Georgia as a whole:



Choose a county, and Get Data!

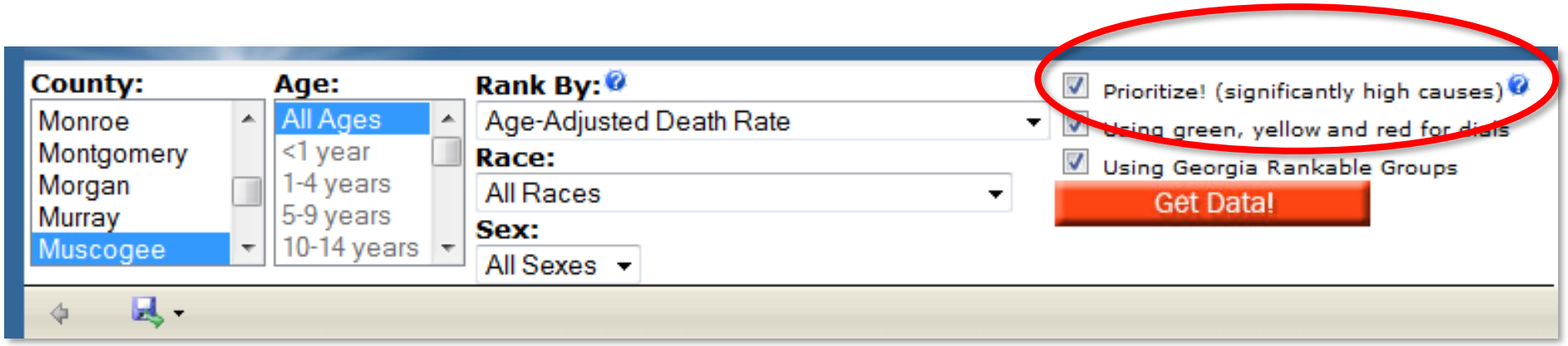


The top 15 causes of mortality and how they compare to the state and other counties will be shown. Top 5 below:

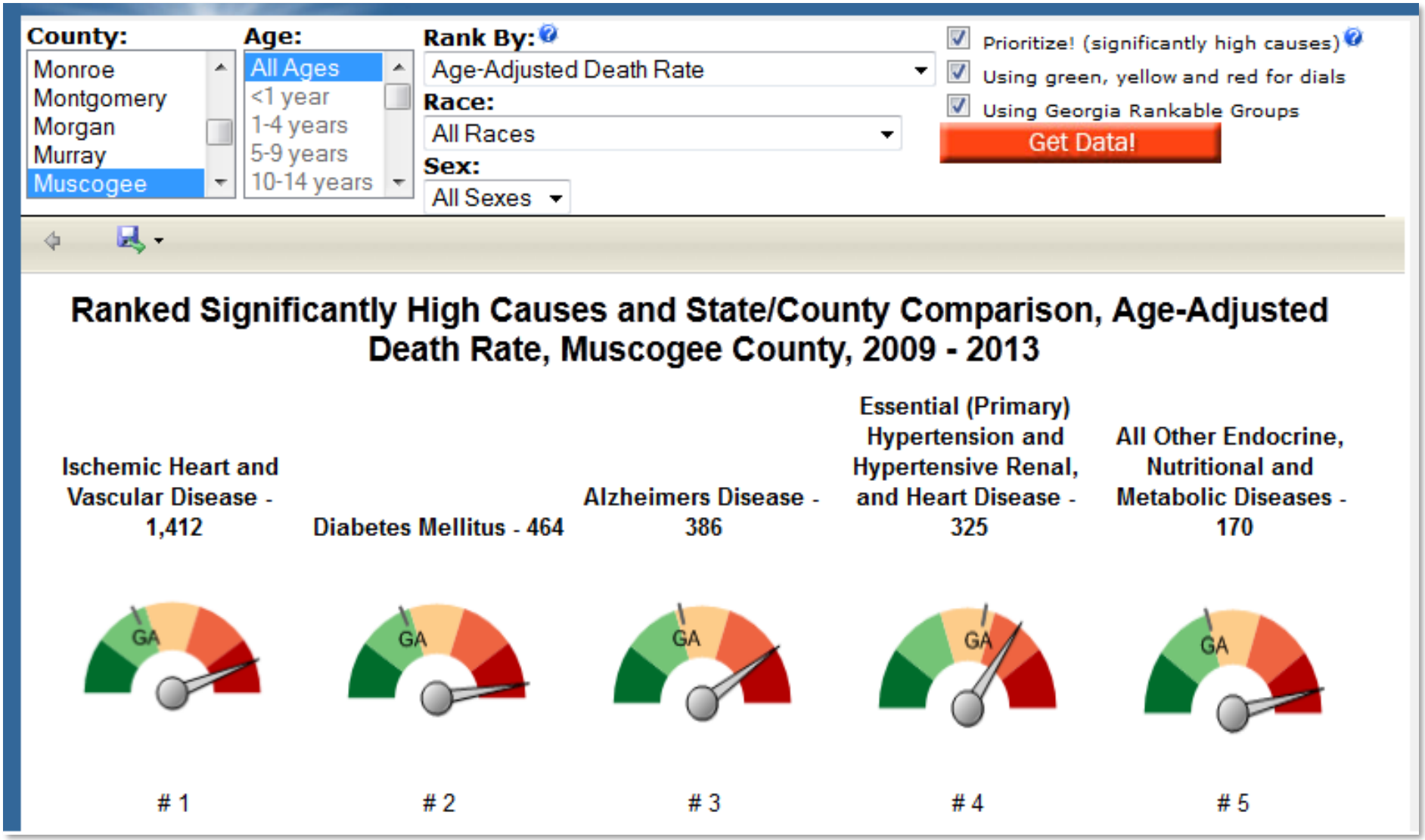



**Note: Lung Cancer is #2, and Diabetes is #4…..**

# This time, check the Prioritize! Box and Get Data!….




*"Prioritize" will change the output from the top 15 causes, to only the top causes that occur significantly higher than expected as compared to the state as a whole.*

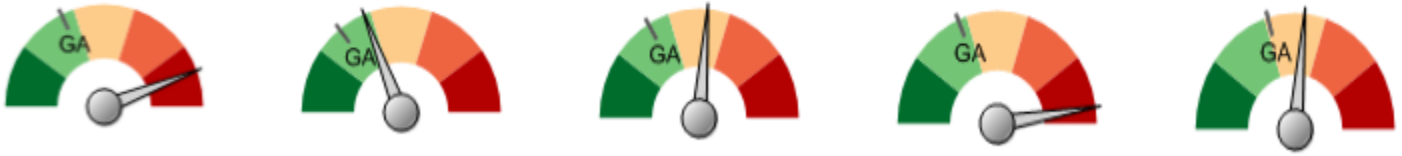



**Now, Diabetes is #2, Lung Cancer gone, & Alzheimer's moved to #3!**

**Review**: Comparing the Top 5 causes vs the Top 5 **Significantly High** causes:

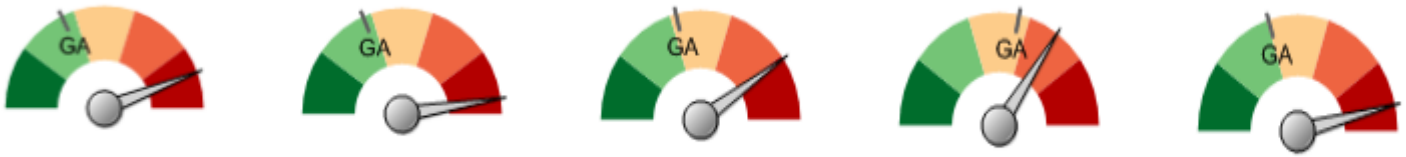
## Ranked Causes and State/County Comparison, Age-Adjusted Death Rate, Muscogee County, 2009 - 2013

| # 1 | # 2 | # 3 | # 4 | # 5 |
|---|---|---|---|---|
| Ischemic Heart and Vascular Disease - 1,412 | Malignant Neoplasms of the Trachea, Bronchus and Lung - 490 | All COPD Except Asthma - 467 | Diabetes Mellitus - 464 | Cerebrovascular Disease - 456 |

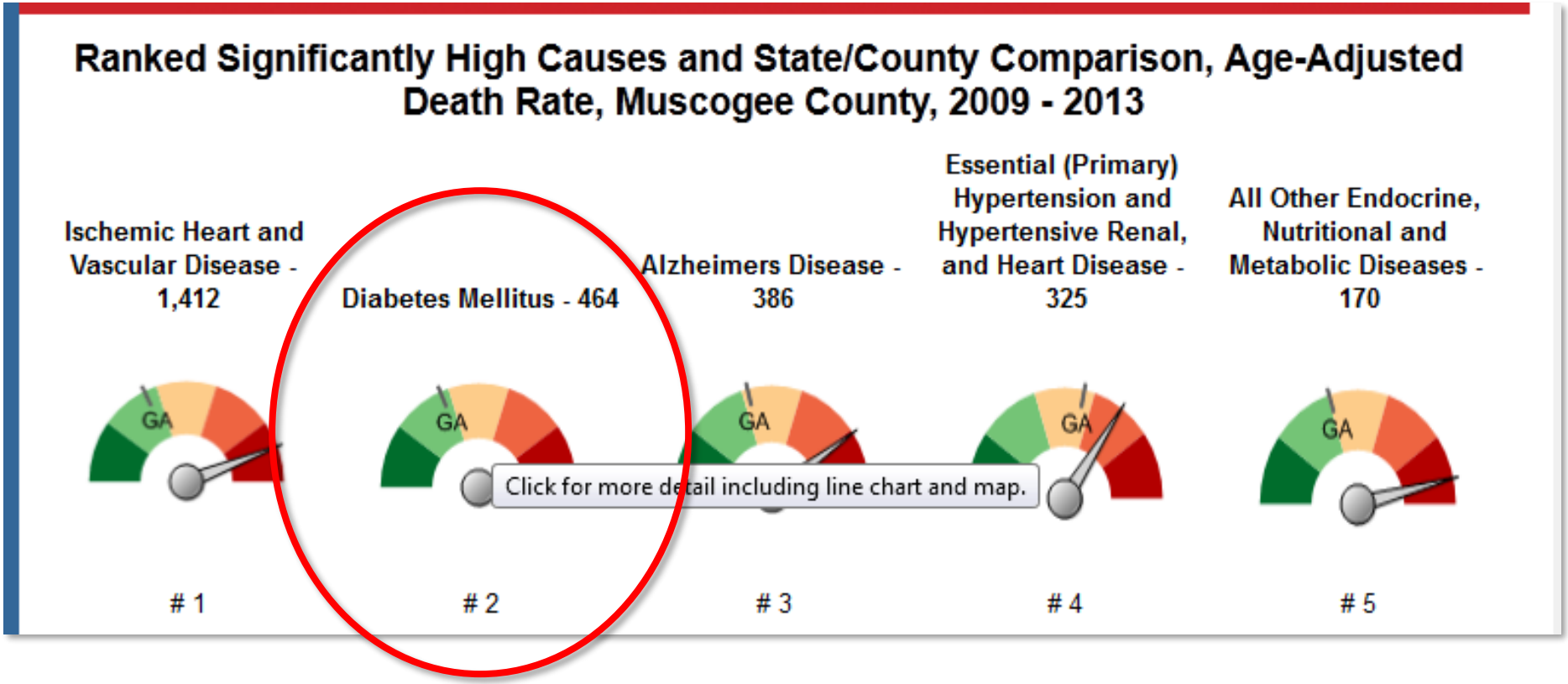



## Ranked Significantly High Causes and State/County Comparison, Age-Adjusted Death Rate, Muscogee County, 2009 - 2013

| # 1 | # 2 | # 3 | # 4 | # 5 |
|---|---|---|---|---|
| Ischemic Heart and Vascular Disease - 1,412 | Diabetes Mellitus - 464 | Alzheimers Disease - 386 | Essential (Primary) Hypertension and Hypertensive Renal, and Heart Disease - 325 | All Other Endocrine, Nutritional and Metabolic Diseases - 170 |



# Get a ‘Details Report’ for a specific cause by clicking on it:

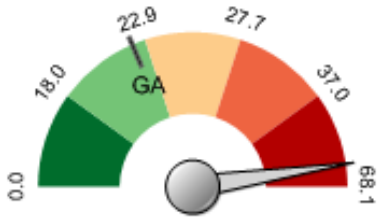



*After clicking on the dial, a page will appear that shows detailed information about that cause, divided into 3 parts (shown in next 3 slides).*

# A. Details page: How Do We Compare to the State?

## Age-Adjusted Death Rate - Diabetes Mellitus for Muscogee County, 2009 - 2013

### How Do We Compare to the State?

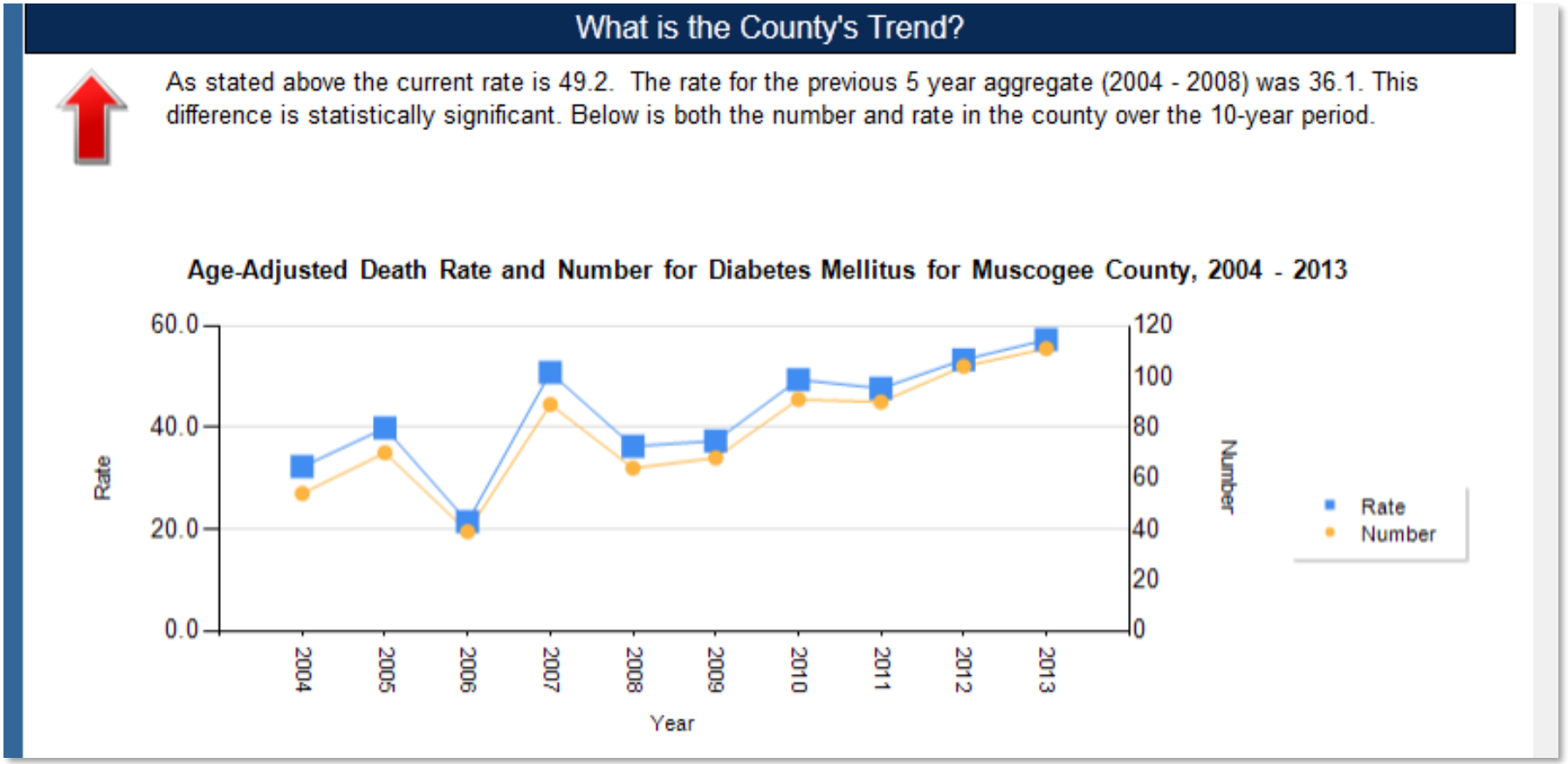



The dial above shows the Georgia Age-Adjusted Death Rate to be 22.0. The Age-Adjusted Death Rate for Muscogee County is 49.2. Additional values on the gauge represent percentiles from the lowest county rate to the highest county rate. The table shows the top 10 causes in Muscogee County, and how each compare in rank to the same causes for the State.

**County Comparison with Georgia**

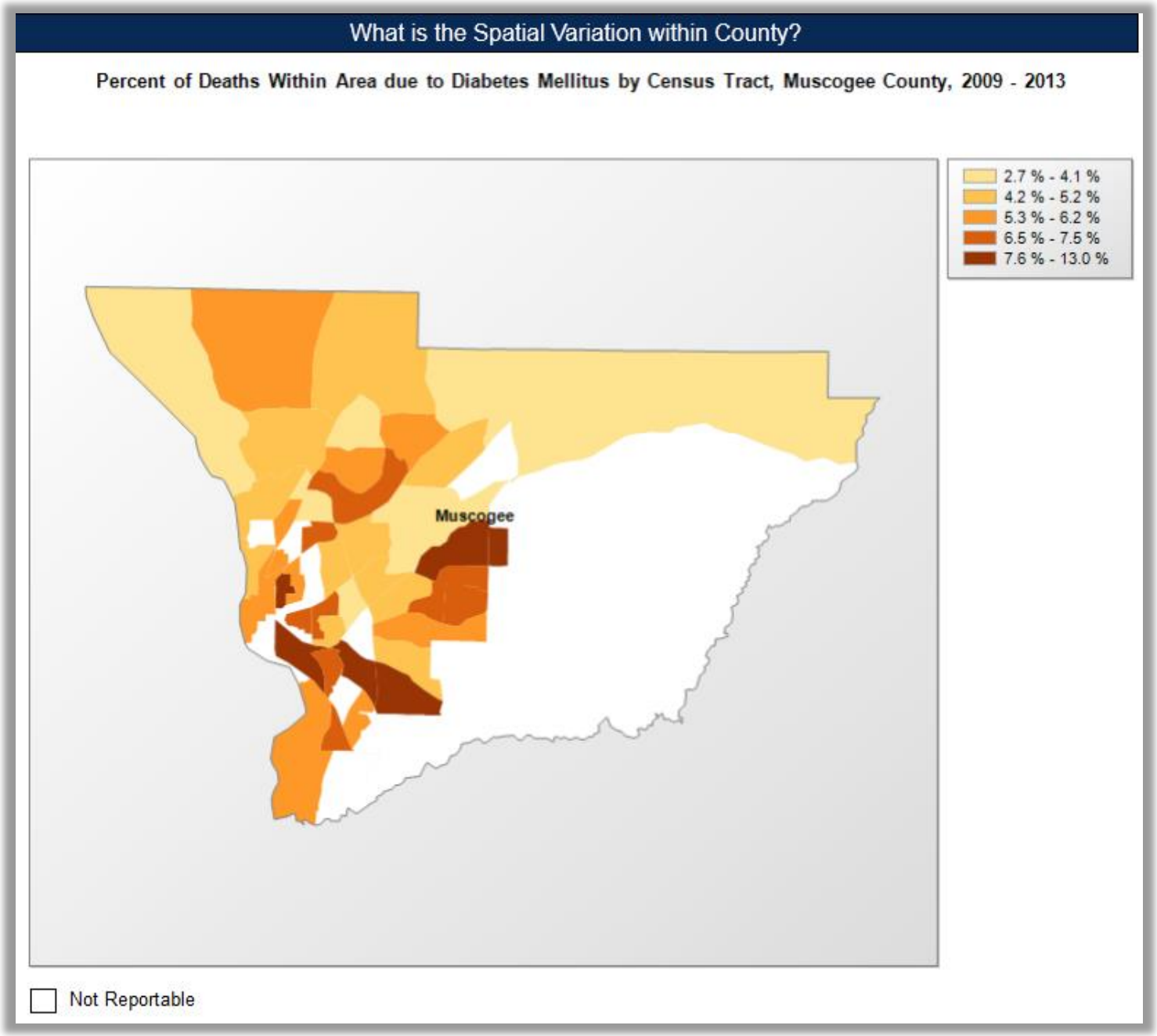
| Cause | Selected Geography Rank | Georgia Rank |
|---|---|---|
| Ischemic Heart and Vascular Disease | 1 | 1 |
| Malignant Neoplasms of the Trachea, Bronchus and Lung | 2 | 2 |
| All COPD Except Asthma | 3 | 3 |
| Diabetes Mellitus | 4 | 8 |
| Cerebrovascular Disease | 5 | 5 |
| Alzheimers Disease | 6 | 7 |
| Essential (Primary) Hypertension and Hypertensive Renal, and Heart Disease | 7 | 6 |
| All Other Mental and Behavioral Disorders | 8 | 4 |
| Malignant Neoplasms of Colon, Rectum and Anus | 9 | 11 |
| Pneumonia | 10 | 12 |

# B. Details page: What is the County's Trend?

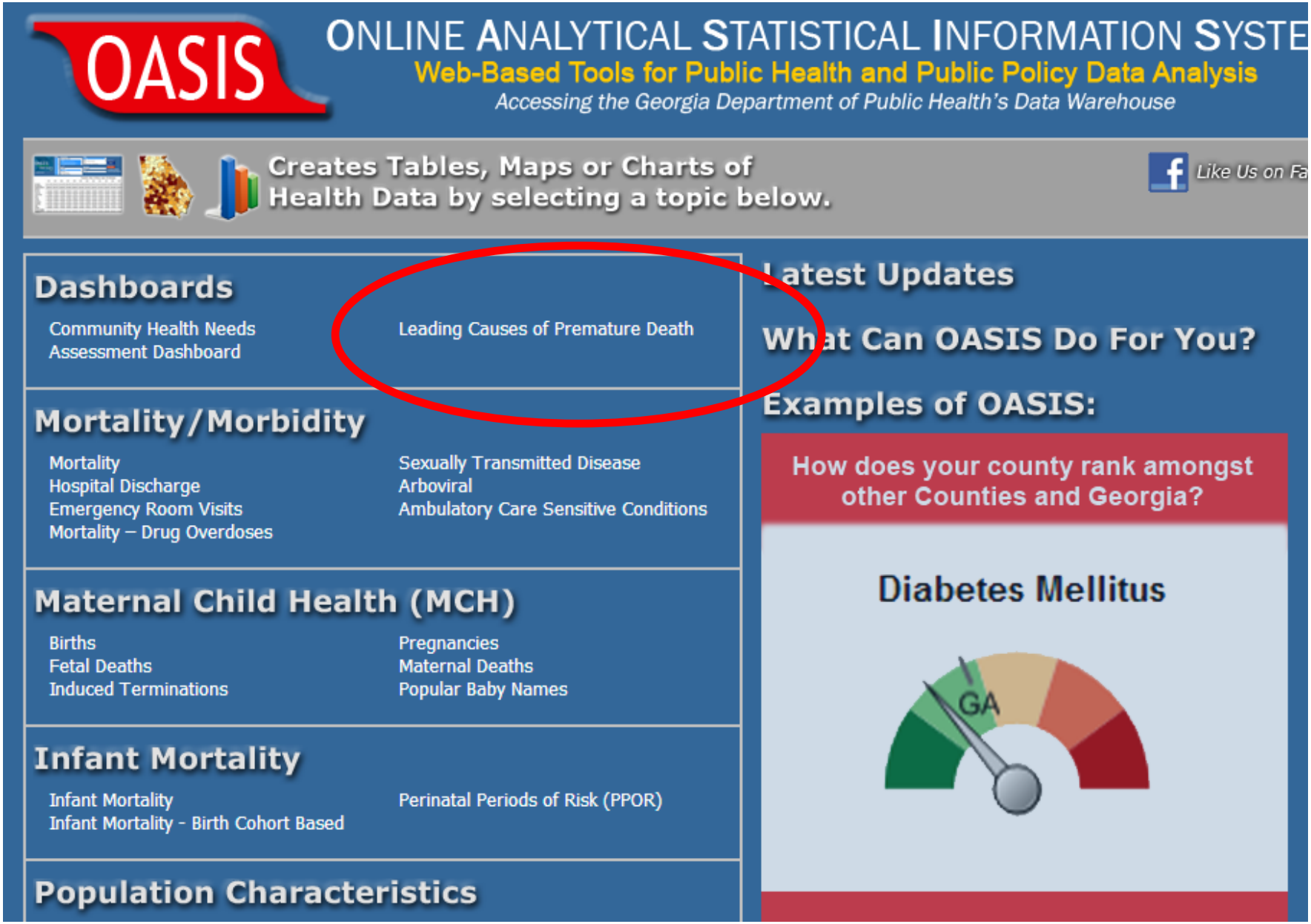



*Note that a test of significance is applied automatically to the trend.*

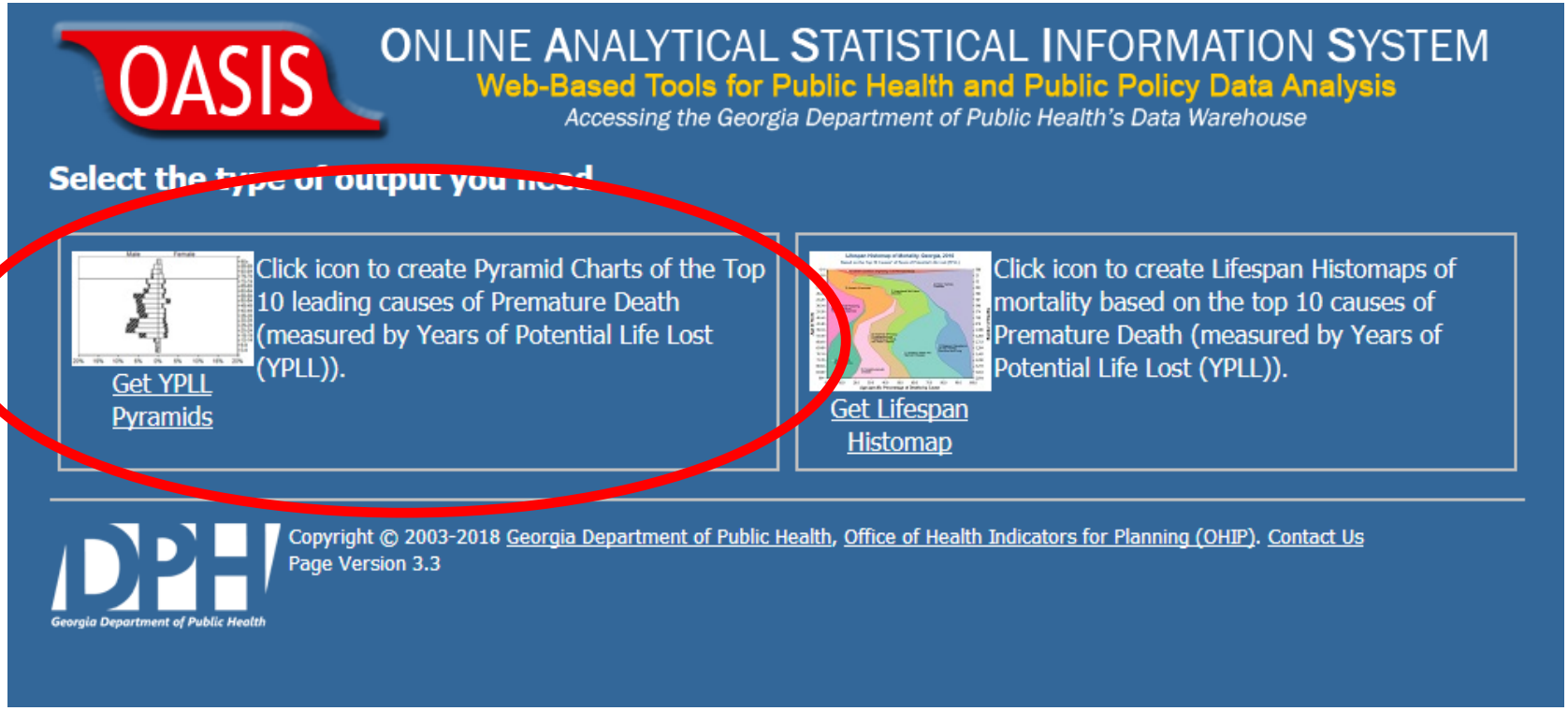
# C. Details page: What is the spatial variation within County?



# 6. Ranked Causes of Premature Death, with charted age/race/sex distributions?



Referrer page – Get YPLL Pyramids…




*"YPLL" stands for Years of Potential Life Lost and is a measure of premature death. Each death before age 75 is included, and their years of potential life lost (e.g. a death at age 55 would be 20 YPLL) are summed. Compared with leading causes of death, YPLL directs focus on causes that occur at younger ages. In doing so, YPLL highlights causes that are more likely to be attributable to preventable causes and therefore subject to prevention and intervention.*

Click Get Causes!

# OASIS ONLINE ANALYTICAL STATISTICAL INFORMATION SYSTEM

## LEADING CAUSES OF PREMATURE DEATH

*Accessing the Georgia Department of Public Health's Data Warehouse*

**Geography**

County

Georgia
Rural
Non-Rural
Appling
Atkinson
Bacon
Baker
Baldwin
Banks
Barrow

**Time**

2017
2016
2015
2014
2013
2012

Save Images

Show Data

Prioritize! (significantly high causes only)

Georgia Rankable Causes. Uncheck box to use NCHS Rankable Causes.

*Choose a Geography, a Time, and click Get Causes!*

Definitions
GA Rankable Definitions
NCHS Definitions

Get Causes!
Reset

## OASIS Leading Causes of Premature Death Tool - Mortality Pyramids

**This tool ranks the top 10 causes of Premature Death (measured by Years of Potential Life Lost (YPLL)), and displays Mortality Pyramid Charts for each.**

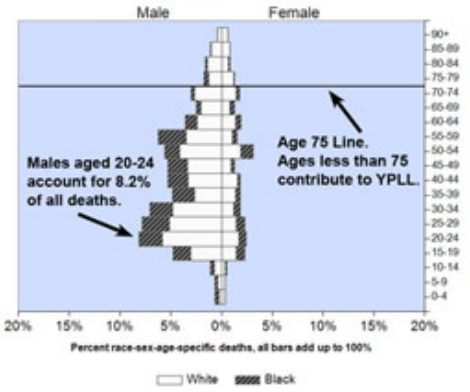
**YPLL represents the sum of years of life lost before age 75. For example, a death at age 65 would be 10 years of potential life lost.**

**The Mortality Pyramids show the percentage of deaths by Race, Sex, and Age, with a focus on those that occurred at ages less than 75 years.**

Data are available for 1994-current year by State, Public Health District, County, and Demographic Cluster.

*OASIS is a suite of tools used to access the Georgia Department of Public Health's standardized health data repository.*

Example




Georgia Department of Public Health

The top 10 causes of premature death (YPLL) are shown in a list:

Geography

County

Georgia
Rural
Non-Rural
Appling
Atkinson
Bacon
Baker
Baldwin
Banks
Barrow

Time

2017
2016

Prioritize! (significantly high causes only)

Georgia Rankable Causes. Uncheck box to use NCHS Rankable Causes.

**Top 10 Causes of YPLL and % Total YPLL:**

1) Ischemic Heart and Vascular Disease 7.28% (55,544)
2) Motor Vehicle Crashes 6.37% (48,611)
3) Accidental Poisoning and Exposure to Noxious Substances 6.19% (47,280)
4) Intentional Self-Harm (Suicide) 5.57% (42,520)
5) Certain Conditions Originating in the Perinatal Period 4.66% (35,610)
6) Assault (Homicide) 4.39% (33,498)
7) Malignant Neoplasms of the Trachea, Bronchus and Lung 3.75% (28,644)
8) Essential (Primary) Hypertension and Hypertensive Renal, and Heart

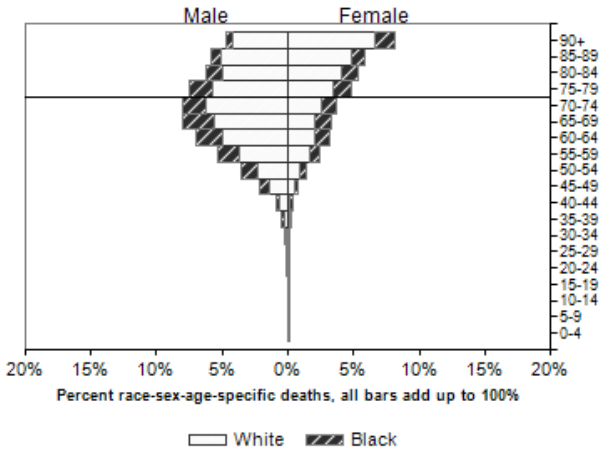
GA Rankable Definitions
NCHS Definitions
Reset

Show Data

## Mortality Pyramids of the Top 10 Causes of Years of Potential Life Lost (YPLL), Georgia, 2017

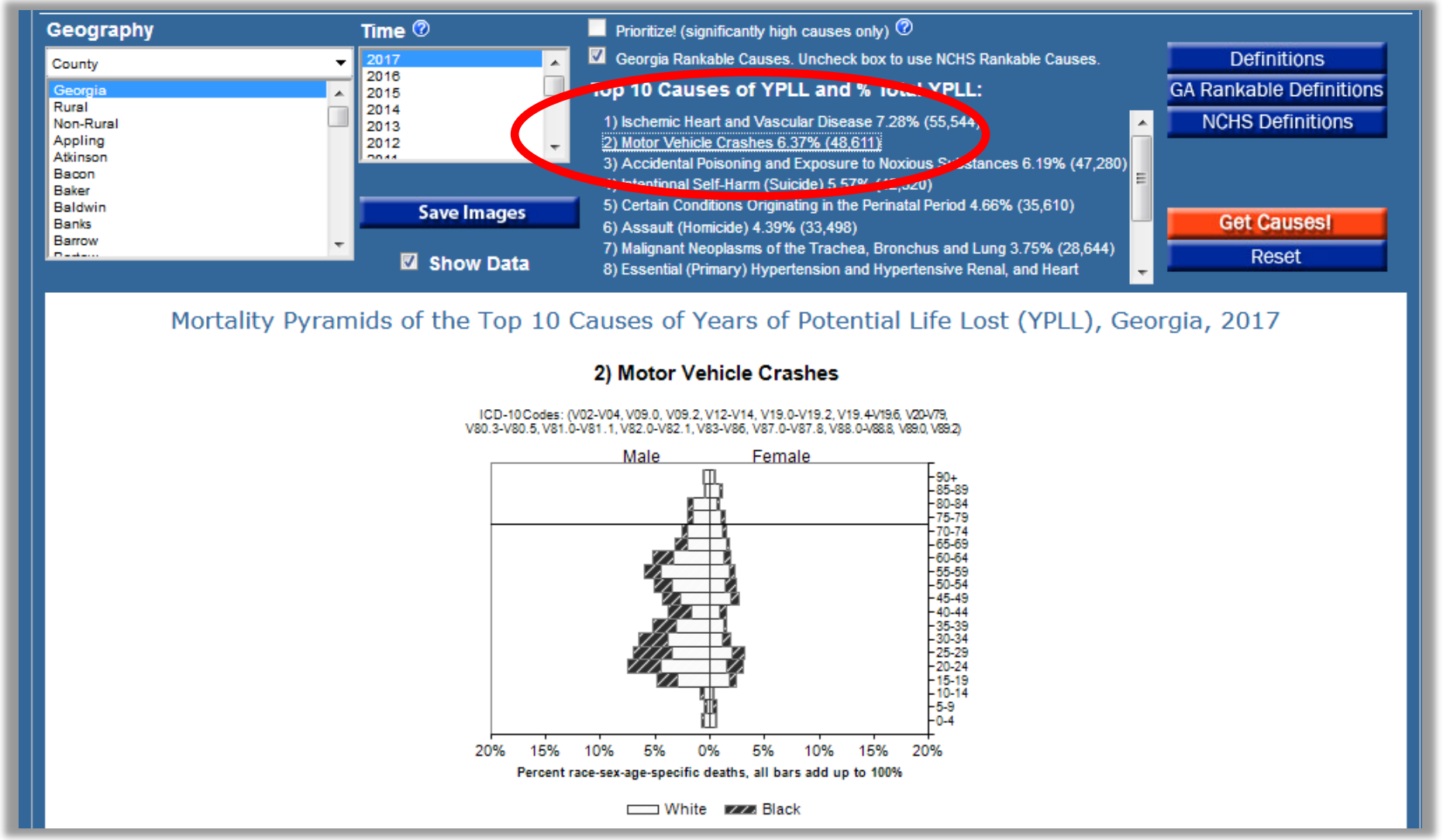
### 1) Ischemic Heart and Vascular Disease

ICD-10 Codes: (I20-I25, I70-I78.99)

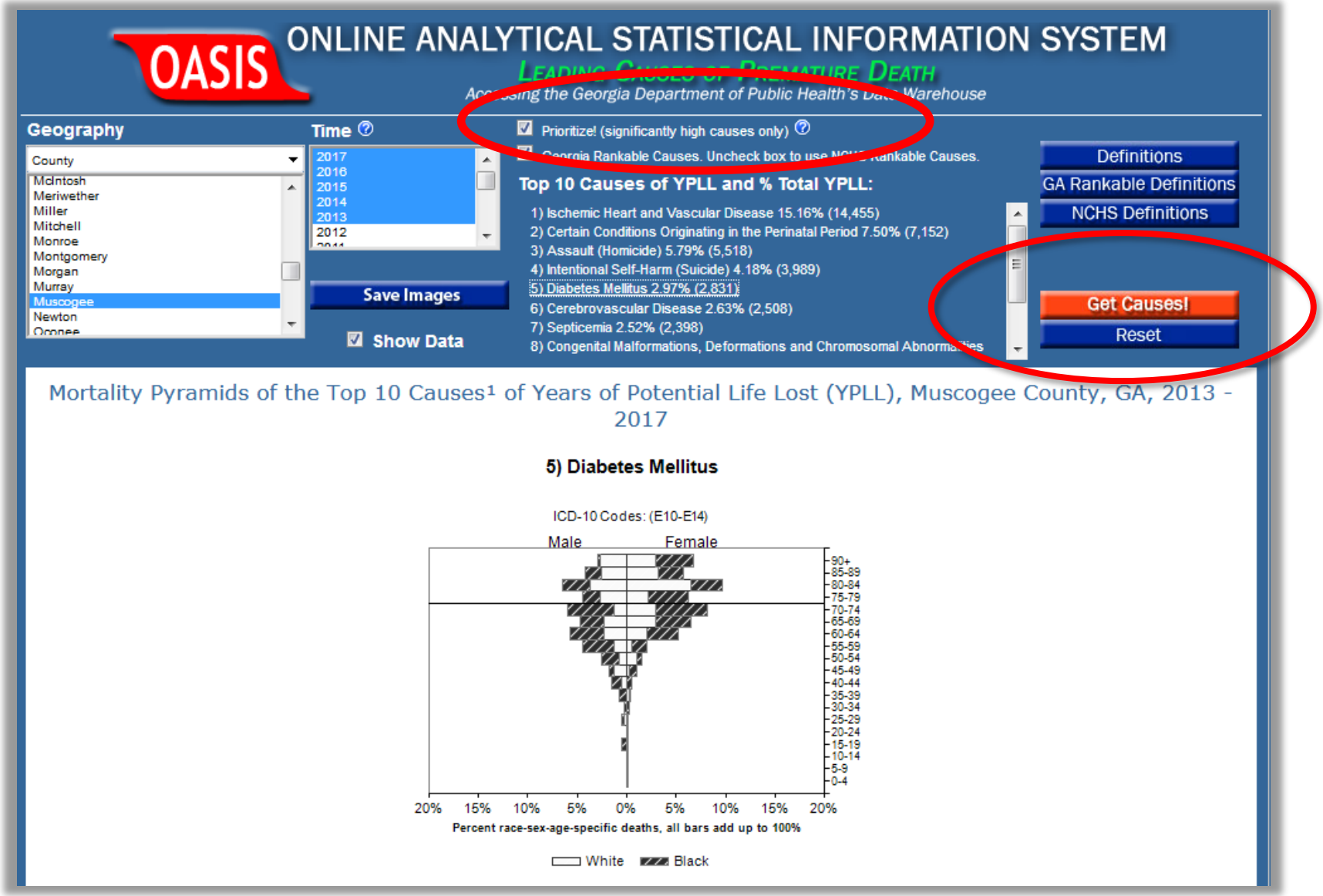



| AGE | BLACK MALE | WHITE MALE | MALE TOTAL# | WHITE FEMALE | BLACK FEMALE | FEMALE TOTAL# | TOTAL# |
|---|---|---|---|---|---|---|---|
| 0-4 years | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 5-9 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10-14 years | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 15-19 years | 1 | 0 | 1 | 1 | 1 | 2 | 3 |

Click each cause to see their mortality pyramid.



**Are there causes of premature death that occur significantly more than they should?** Check the Prioritize! checkbox, and Get Causes!



# …that concludes this overview. Other notes:

- All OASIS tools have a Quick Start Guide.
- All tools:  results can either be exported to Excel or saved as an image.
- CHNA Dashboard:  Results can be exported directly into Word format.
- OASIS is developed in-house.
- All queries are done on-the-fly = Over $10^{100}$ possible combinations.
- If it’s not on OASIS, just ask!

# We hope this helps – please feel free to contact us with questions or for more info.


***Gordon R. Freymann, MPH***

Director,

Office of Health Indicators for Planning (OHIP)

Epidemiology Program

Georgia Department of Public Health

10th floor - 10.230

gordon.freymann@dph.ga.gov

***Fabio Machado, MPH***

Data Quality Specialist & OASIS trainer,

Office of Health Indicators for Planning (OHIP)

Epidemiology Program

Georgia Department of Public Health

10th floor - 10.228

fabio.machado@dph.ga.gov


**https://oasis.state.ga.us**

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