

FLHealthCHARTS and CHD Medical Directors

...an overview

DIVISION OF PUBLIC HEALTH STATISTICS AND
PERFORMANCE MANAGEMENT

BUREAU OF COMMUNITY HEALTH ASSESSMENT



Goal

Demonstrate FLHealthCHARTS.com's key features

Audience

Public health professionals who want to use FLHealthCHARTS data to better understand their county's health status.

Key Messages

FLHealthCHARTS.com has lots of health statistics data to offer. This overview will show some key features and functions including:

- Basic CHARTS facts – data update frequency and sources
- Key features and functionality – from profile reports to query systems
- An overview of interpreting the statistical information in CHARTS reports (quartiles, types of rates, MOV).
- Specific data and information of interest to those providing public health.



What is CHARTS?

CHARTS stands for **Community Health Assessment Resource Tool Set**.

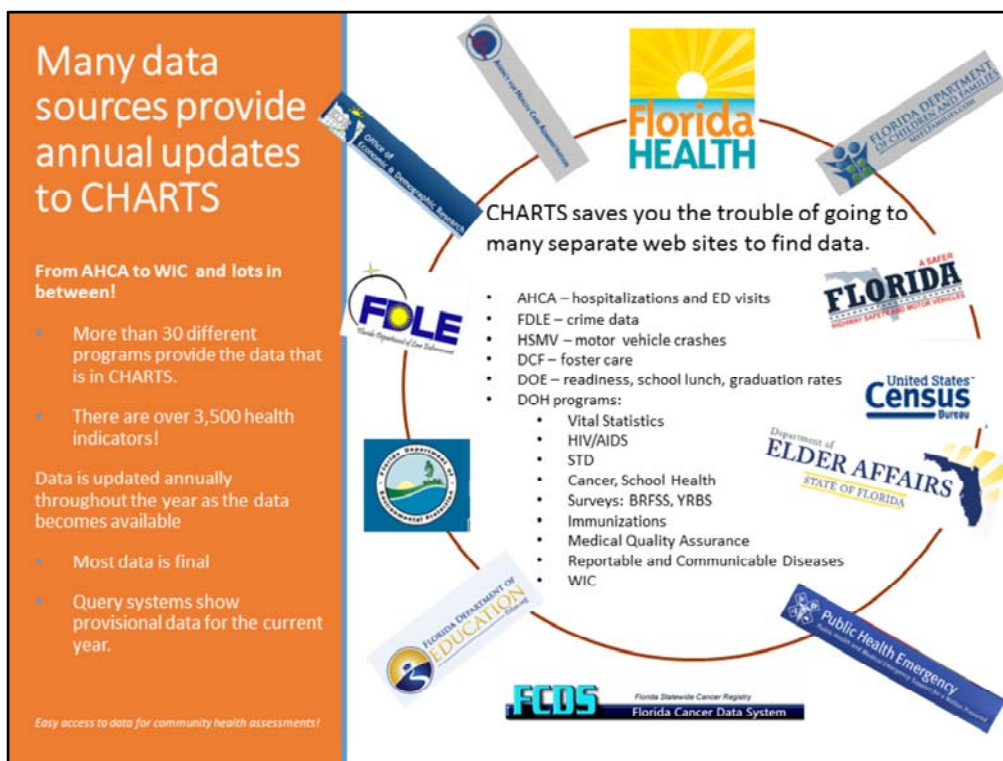
It was developed to help counties and communities get the data they need to work on community health plans and issues.

Our vision is to deliver Community focused Health statistics that are Available to everyone and which are Relevant, Timely and Statistically sound.

CHARTS was launched in 2005 and has been growing since.

You probably know that FloridaCHARTS.com provides data, but here is some data about FloridaCHARTS.com! Each year, there are about a quarter of a million visitors, 4 million page views, and 12 million hits on the site. Around 400 different web sites have links to CHARTS.

More than 1/3 of the pages viewed are in the maternal and child health section. Communicable disease, chronic disease and BRFSS are also very popular sections of CHARTS, together accounting for about 83% of CHARTS' use in 2016.

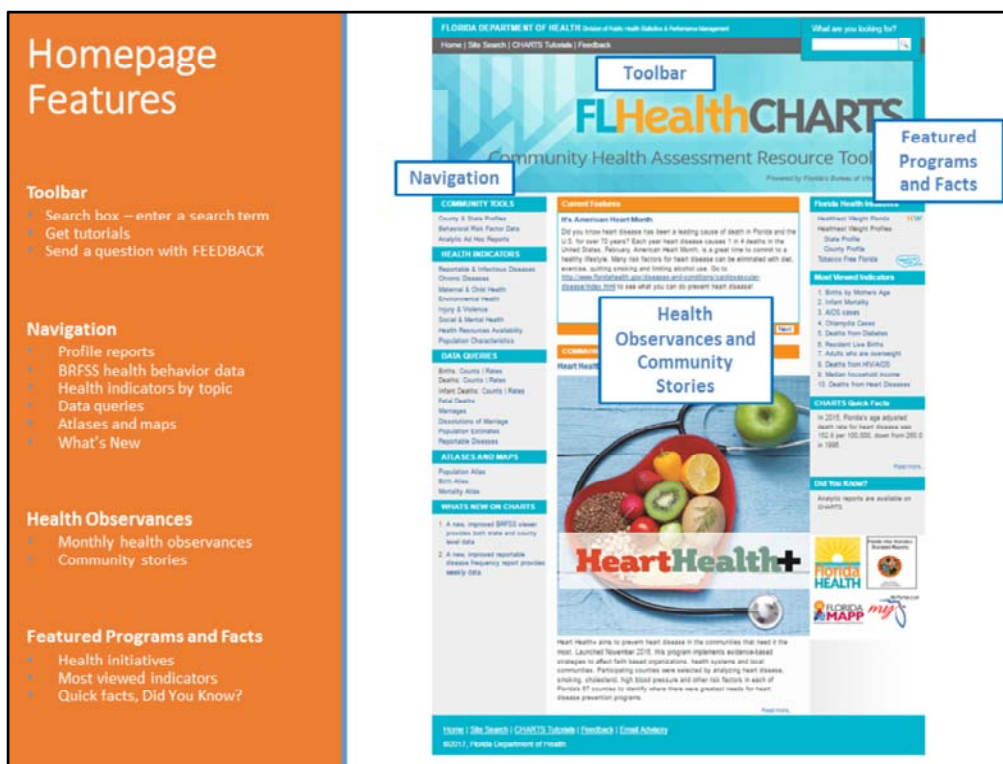


CHARTS is a single source for health and health-related data that comes from many different programs and agencies.

From AHCA to WIC and lots in between! More than 30 different programs or agencies provide data that is in CHARTS.

Hospitalizations, births, deaths, population behavioral risk factors, health care providers, reportable diseases and more – there are over 3,500 indicators! CHARTS saves you the trouble of going to many separate web sites to find data.

Each data source has its own schedule for providing data, so CHARTS is updated year around with different types of data. You can even find provisional data that is updated weekly in the query systems of CHARTS!



Major components on the homepage help you find what you need and provide a way to ask questions or give us feedback.

1. **Look at the Toolbar** at the top: it gets you to the SEARCH, Tutorials and Feedback.

- If you don't see what you need, type it in the search box.
- You can ask a question through the Feedback button or tell us what you like or don't like about CHARTS.
- Tutorials provide quick instructions about how to use different parts of CHARTS.

2. On the left is the key **navigation** by topic. Use this menu to quickly get profile reports or data about a particular topic

3. In the center are **health observances and community spotlights** showcasing the good work that is happening.

4. The right side features **health initiatives, most viewed indicators, and quick facts**.

Convenient ways to view statistics

Get profile reports here

Profile reports give you many statistics with one click

Get individual health indicator data here

Data viewers show health indicators with trend graphs, quartile maps and data tables

Query the statistics here

Query systems let you select data using the filters that you want to use

CHARTS has **three different presentations of data**. From the simplest to the complex, these are:

1. Standard one-click **profile reports**
2. Individual **health indicators** that show health data with trend graphs, quartile maps and data tables
3. **Query systems** that let you select the data using the filters that you want to use

Let's take a look at each of these and see how they work.

Profile Reports:
one click to
county
summary data!

Get profile reports here!

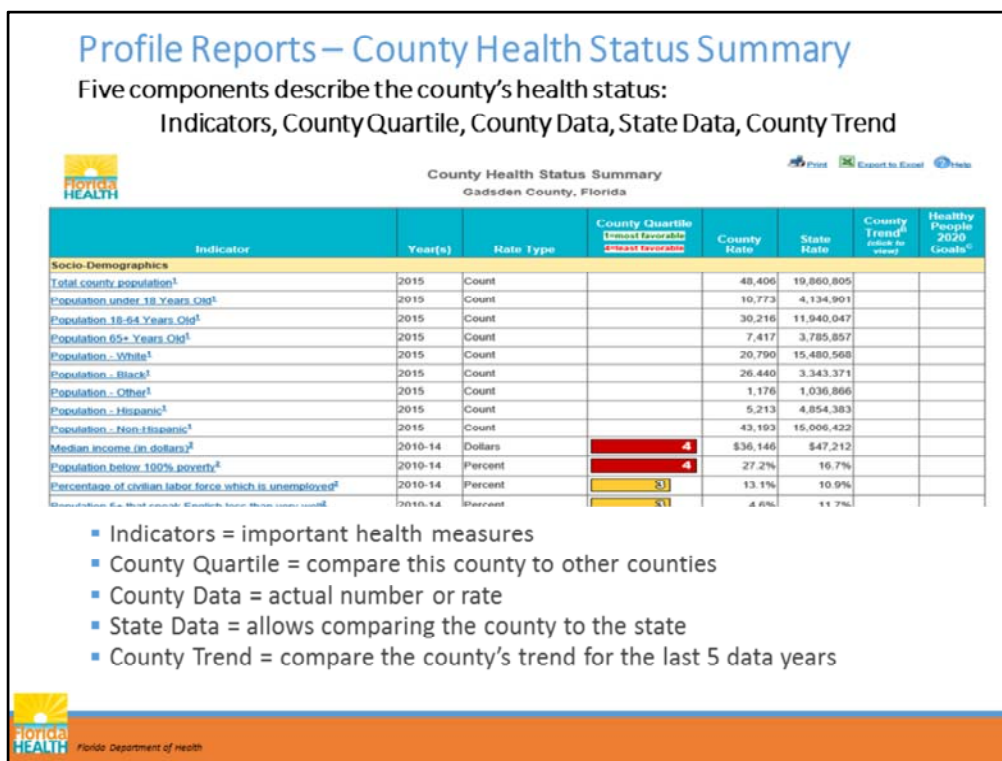
- Collections of data about a county
- Focused on themes
- Many reports to choose from

The screenshot shows the FL HealthCHARTS website interface. The header includes the Florida Department of Health logo and navigation links. The main content area is divided into several sections: 'COMMUNITY TOOLS' with links to County & State Profiles, Behavioral Risk Factor Data, and Healthy Air Now Reports; 'HEALTH INDICATORS' with links to Respirable & Infectious Diseases, Chronic Diseases, Maternal & Child Health, Environmental Health, Injury & Violence, Social & Mental Health, Health Resources Availability, and Population Characteristics; 'DATA SOURCES' with links to Birth, County & State, Deaths, County & State, Vital Deaths, County & State, Fetal Deaths, Marriages, Dissolutions of Marriage, and Population Estimates; 'ATLASES AND MAPS' with links to Population Atlas, Birth Atlas, and Mortality Atlas; and 'WHAT'S NEW ON CHARTS' with links to Measures of Variability (MOV) and Health Status Indicators (HSI). A blue arrow points from the 'Get profile reports here!' text to the 'County & State Profiles' link in the 'COMMUNITY TOOLS' section.

First, let's look at profile reports.

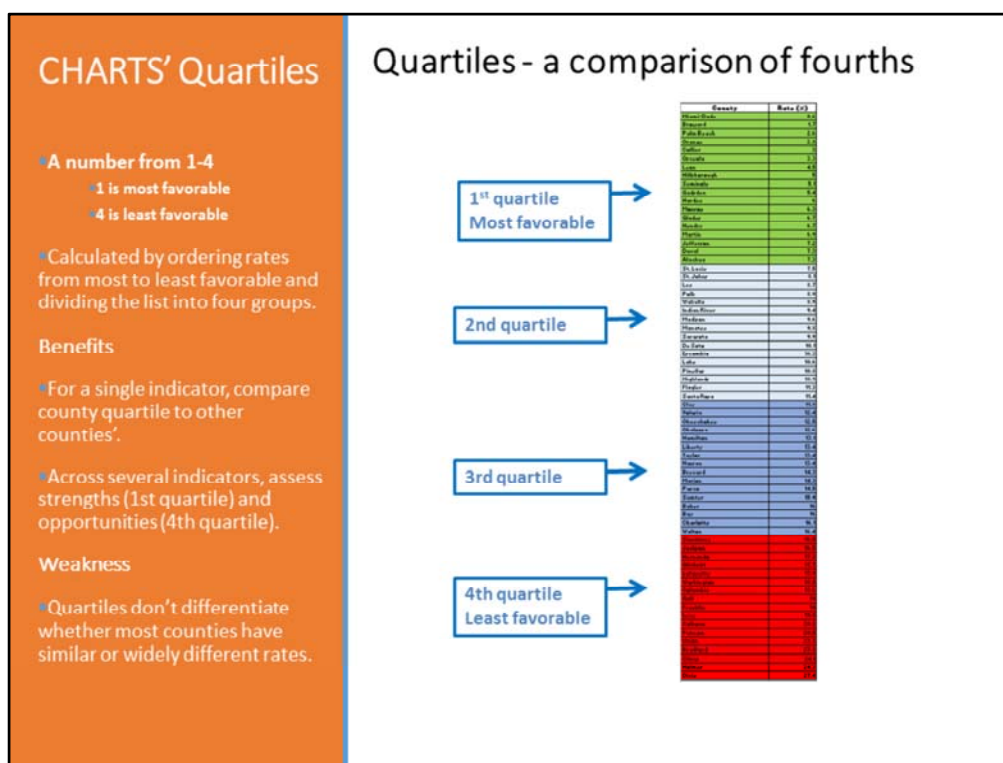
These reports were developed with teams of program experts including health department and other public health professionals who recommended the most useful measures to include.

- Most profiles include data from other agencies and a variety of health programs. There are currently 19 different profile reports to choose from.
- Each one focuses on a health issue or a specific population.
- With just one click, you'll get a whole collection of data.



Here's an example of a profile report -- the County Health Status Summary Profile. Most profiles are set up similarly.

1. A list of measures on the left, followed by the type of measure (rate, percent, etc.).
2. Most profile reports present a quartile.
3. The county data -- counts, percents and rates -- is given for the list of measures.
4. You'll also see the state data
5. On the County Health Status Summary you will find a comparison of the county trend for the five latest data years



Quartiles are a simple tool we use to make comparisons. If we put data in order, then divide the list into four groups, we will have the “upper-most” (1st quarter or quartile of the), “middle” and “lowest” fourths of the data. and least favorable situations. The most favorable 25% are called quartile 1. The least favorable are called quartile 4.

Here is how quartiles are calculated and presented to you in CHARTS:

Example 1: births to mothers who smoked

We want fewer births to mothers who smoke, so less is good.

We take the data for all the all counties and put them in order, lowest to highest, based on their percents/rates. Then we divide that list into four groups.

The first group has the lowest percents/rates and they are assigned quartile 1. The next group will be quartile 2, and so on. So counties with the highest percents/rates are in quartile 4.

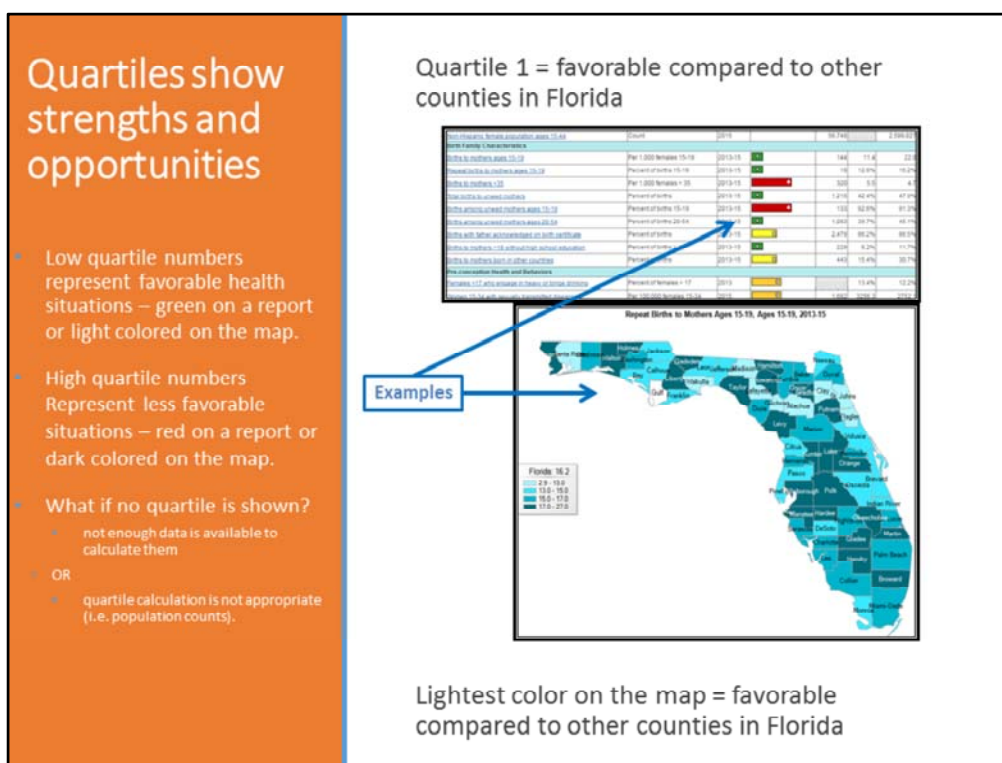
Example 2: Mothers who initiate breastfeeding.

This time, more is better. The more mothers who are breastfeeding their infants, the better.

So now we order the data from highest to lowest.

The first group of counties would be called quartile 1 – the counties with the highest/best rates. The last group will be called quartile 4, counties with the lowest rates.

The take home point is this: the 1st quartile always represents favorable health situations and the 4th quartile represents less favorable situations.



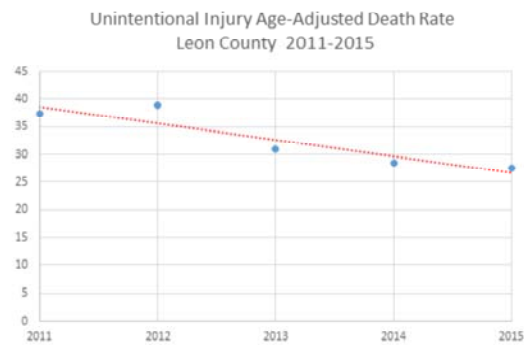
The trend shows county status

Calculation of the trend is based on single-year rates or percents occurring in the last 5 data years

Better = Trend is getting better and the improvement is statistically significant

Worse = Trend is getting worse and the change is statistically significant

No Trend = Trend is not statistically significant



2011	2012	2013	2014	2015
37.5	38.9	31	28.4	27.6

Statistical testing has been applied making it possible to state whether a change is statistically significant. For the data years shown in the graph and table, this county's trend is significantly better at the 95% confidence level.

CHARTS provides information about county trends and assesses whether the trend for single-year rates or percents are better, worse, or no trend could be determined for the last 5 data years.

Statistical testing has been applied making it possible to determine if a change is statistically significant at the 95% confidence level.

Click on a measure -- see its health indicator page

Click on a measure...

The screenshot shows a list of measures. The measure 'Resident Live Births to Mothers Who Smoked During Pregnancy' is highlighted. A callout box points to this measure with the text: 'Click "Births to mothers who smoked during pregnancy" for a detailed view of this measure.'

Click "Births to mothers who smoked during pregnancy" for a detailed view of this measure.

The detailed view for the measure 'Resident Live Births to Mothers Who Smoked During Pregnancy' is shown. It includes a line graph of the number of live births from 1990 to 2015, a map of Arizona showing birth rates by county, and a table of data.

Get trends, a map and data tables

Resident Live Births to Mothers Who Smoked During Pregnancy

Line Graph: Shows the number of live births from 1990 to 2015. The y-axis is 'Number of Live Births' (0 to 14,000). The x-axis is 'Year' (1990 to 2015). The graph shows a general downward trend with some fluctuations. A callout box points to the graph with the text: 'Get trends, a map and data tables'.

Map: Shows the number of live births by county in Arizona. The map is color-coded by birth rate per 100,000 females 15-44. A callout box points to the map with the text: 'Get trends, a map and data tables'.

Data Table: Shows the number of live births by county and year. The table has columns for Year, County, Live Births, and Birth Rate. The data is as of 2015.

Year	County	Live Births	Birth Rate
1990	1	1,400	14.0
1990	2	1,400	14.0
1990	3	1,400	14.0
1990	4	1,400	14.0
1990	5	1,400	14.0
1990	6	1,400	14.0
1990	7	1,400	14.0
1990	8	1,400	14.0
1990	9	1,400	14.0
1990	10	1,400	14.0
1990	11	1,400	14.0
1990	12	1,400	14.0
1990	13	1,400	14.0
1990	14	1,400	14.0
1990	15	1,400	14.0
1990	16	1,400	14.0
1990	17	1,400	14.0
1990	18	1,400	14.0
1990	19	1,400	14.0
1990	20	1,400	14.0
1990	21	1,400	14.0
1990	22	1,400	14.0
1990	23	1,400	14.0
1990	24	1,400	14.0
1990	25	1,400	14.0
1990	26	1,400	14.0
1990	27	1,400	14.0
1990	28	1,400	14.0
1990	29	1,400	14.0
1990	30	1,400	14.0
1990	31	1,400	14.0
1990	32	1,400	14.0
1990	33	1,400	14.0
1990	34	1,400	14.0
1990	35	1,400	14.0
1990	36	1,400	14.0
1990	37	1,400	14.0
1990	38	1,400	14.0
1990	39	1,400	14.0
1990	40	1,400	14.0
1990	41	1,400	14.0
1990	42	1,400	14.0
1990	43	1,400	14.0
1990	44	1,400	14.0
1990	45	1,400	14.0
1990	46	1,400	14.0
1990	47	1,400	14.0
1990	48	1,400	14.0
1990	49	1,400	14.0
1990	50	1,400	14.0
1990	51	1,400	14.0
1990	52	1,400	14.0
1990	53	1,400	14.0
1990	54	1,400	14.0
1990	55	1,400	14.0
1990	56	1,400	14.0
1990	57	1,400	14.0
1990	58	1,400	14.0
1990	59	1,400	14.0
1990	60	1,400	14.0
1990	61	1,400	14.0
1990	62	1,400	14.0
1990	63	1,400	14.0
1990	64	1,400	14.0
1990	65	1,400	14.0
1990	66	1,400	14.0
1990	67	1,400	14.0
1990	68	1,400	14.0
1990	69	1,400	14.0
1990	70	1,400	14.0
1990	71	1,400	14.0
1990	72	1,400	14.0
1990	73	1,400	14.0
1990	74	1,400	14.0
1990	75	1,400	

You can also get more information about the measures in the profile reports.

If you click on a health indicator, it will open with a detailed view of that measure. Select the county you are interested in. You'll see a trend graph, a quartile map, and data tables with the trend and county data in them.

Health Indicator Page Features

- Return to the homepage – click the CHARTS banner or HOME
- A-Z list – see a list of available health indicators for this topic
- Select from a list of topics with the dropdown box
- Get links to related resources

FLHealthCHARTS
Community Health Assessment Resource Tool Set
Powered by Florida's Bureau of Vital Statistics

What are you looking for?

Home | Site Search | CHARTS Tutorials | Feedback

COMMUNITY TOOLS

- County & State Profiles
- Behavioral Risk Factor Data
- Analytic Ad Hoc Reports

HEALTH INDICATORS

- Reportable & Infectious Diseases
- Chronic Diseases
- Maternal & Child Health
- Environmental Health
- Injury & Violence
- Social & Mental Health
- Health Resources Availability
- Population Characteristics

DATA QUERIES

- Births: Counts | Rates
- Deaths: Counts | Rates
- Infant Deaths: Counts | Rates
- Fetal Deaths
- Marijuana
- Dissolutions of Marriage
- Population Estimates
- Reportable Diseases

ATLASES AND MAPS

- Population Atlas
- Birth Atlas
- Mortality Atlas

WHAT'S NEW ON CHARTS

1. A new, improved BRFS viewer provides both state and county level data
2. A new, improved reportable disease frequency report provides weekly data

Maternal & Child Health

Home > Maternal & Child Health

Find an indicator

You may find an indicator alphabetically using the A-Z list or by category.

Select a Maternal & Child Health category:

See an alphabetical list or select from a list of topics here

More CHARTS report views

- School-aged Child and Adolescent Profile
- Pregnancy and Young Child Profile
- Birth Counts Data Query
- Birth Data Viewer
- Infant Deaths Data Query
- Infant Deaths Data Viewer
- County Birth Data Comparison Report

Related resources

Infant Mortality Documents and Data

The Maternal and Child Health section's Infant Mortality website contains various publications that provide goals and objectives, guidelines, and data pertaining to activities that improve the health of mothers and babies in Florida. The Infant Mortality and Low Birth Weight Rates Compared to Expected Rates by County and Healthy Start Coalition Area reports provide expected statistics calculated to account for differences in maternal education, marital status, and race. Statistical tests are applied to identify the counties and Healthy Start Coalition areas that have statistically significantly higher or lower than expected infant death rates or low birth weight percentages.

Florida Vital Statistics Annual Report

This application makes it easy to access Florida Vital Statistics data. This report includes data on births, deaths, population, and life expectancy.

Pregnancy Risk Assessment Monitoring System (PRAAMS)

These reports provide local/regional data about women during pregnancy and the perinatal period, including health behaviors and access to care.

Data Resource Center for Child and Adolescent Health

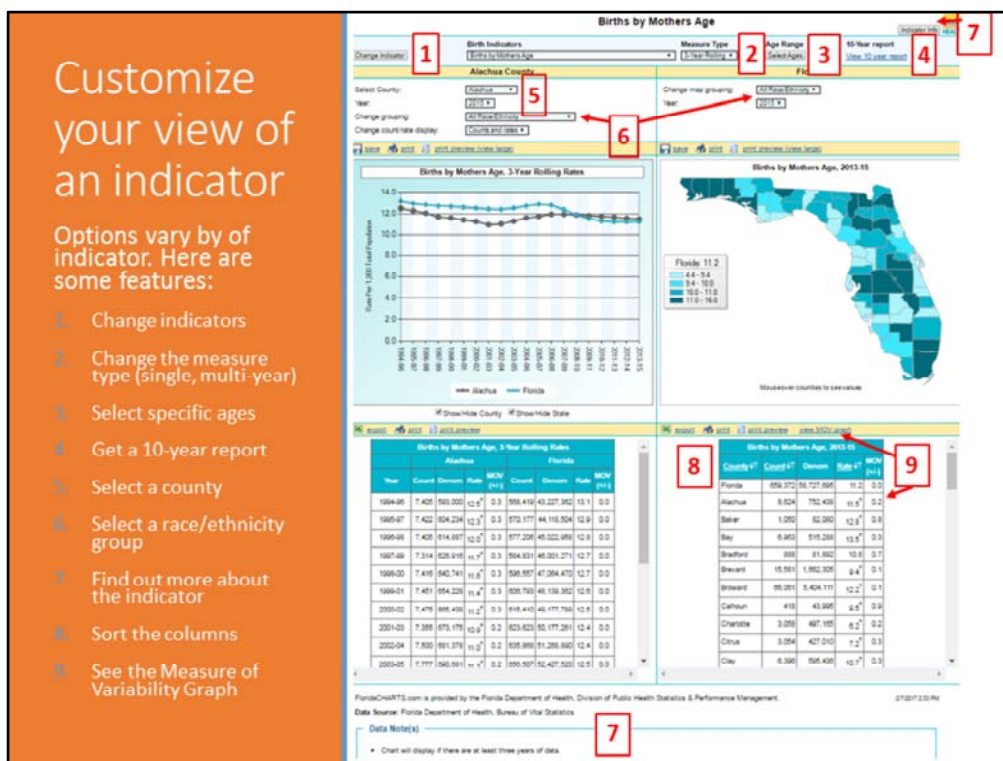
This site provides data, tips and tools to use with data for states and families to help guide improvements in

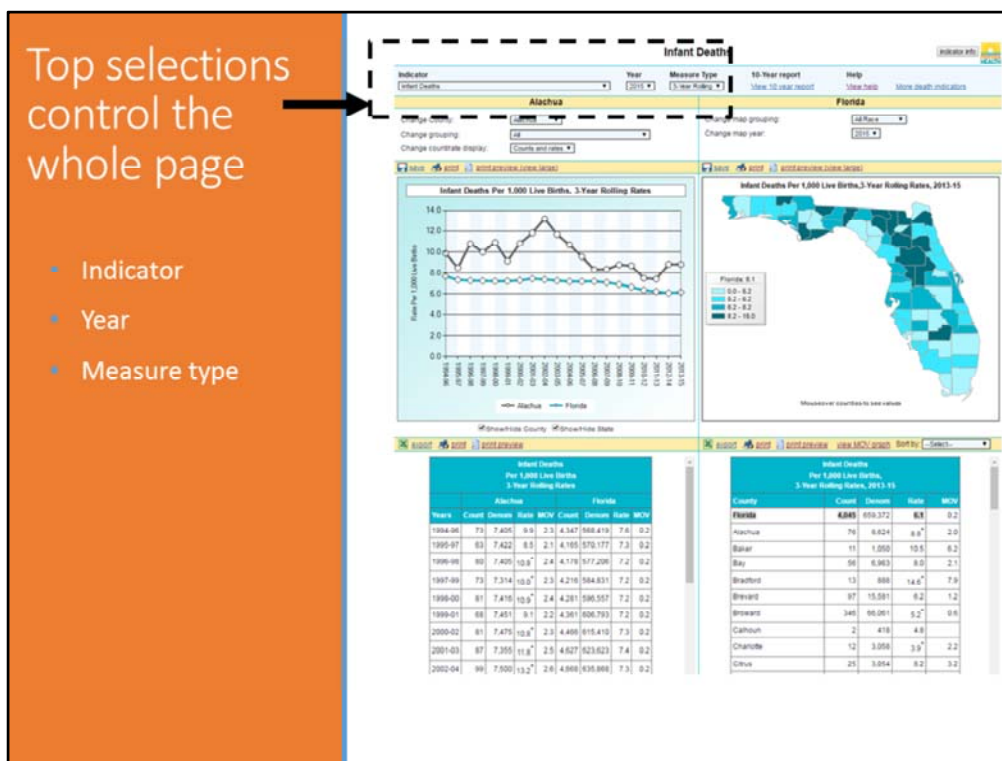
Let's look at the individual health indicators now. Indicators are health measures.

You might have reached them by clicking a row in a profile report, or by using the search, or by clicking on the health indicator topics.

Let's look at navigating through the topic section:

Just click the dropdown arrow to see the options. If you prefer, use the A-Z list to get quick links to all the health indicators in this section.





The indicator, year and measure type selections impact the whole view of the indicator. In the measure type, we have 3 year rolling rates and also single year. Why would we select one over the other?

Let's look at Births by mother's age.

I will remove the state rate from the trend graph so we can more clearly see the county rate.

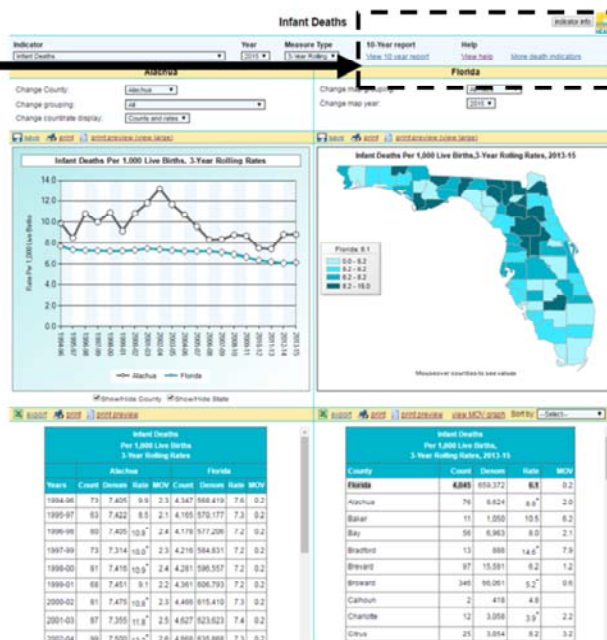
If there aren't many births in a count, I might look at the 3 year rolling rate rather than a single year rate. Let's look at a county with small numbers of births as an example:

1. Small Counties: Lafayette, Liberty, Glades, Franklin
 - View the trend graph using both the 3year rolling and the single year trend which illustrates smoothing.
2. Large Counties: Miami-Dade, Broward, Hillsborough, Orange
 - View the trend graph and rates for 3 yr rolling vs single year; observe differences in the trend line compared to the single year.

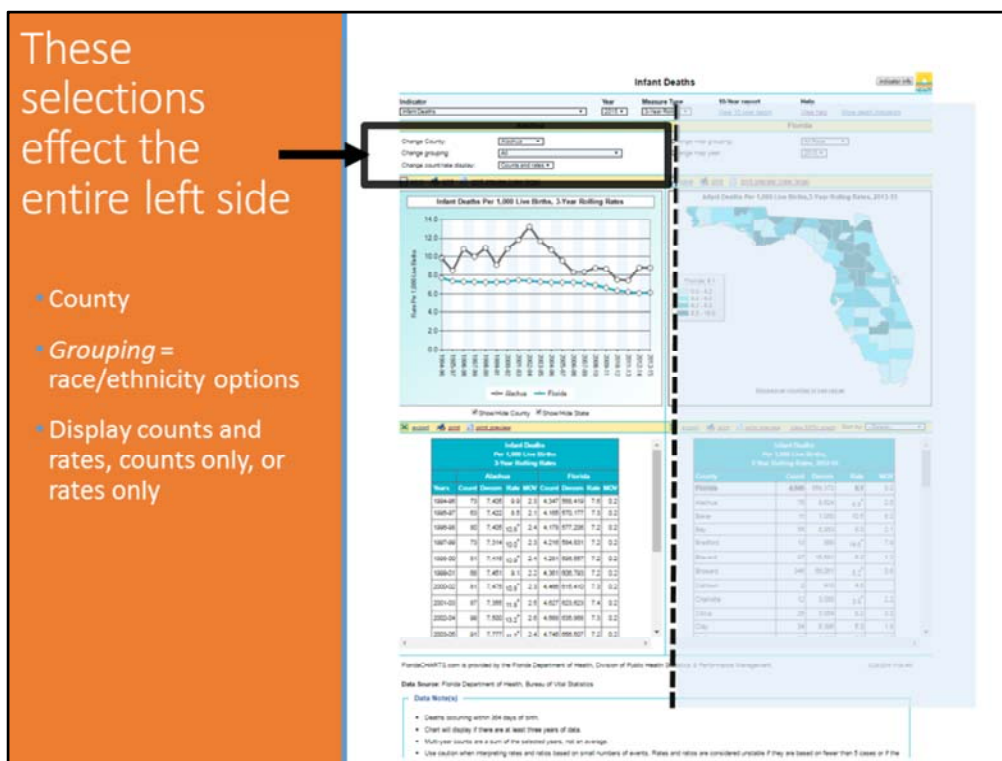
Observe that in large counties, where there are larger numbers of births, the differences in the trend line are not as variable over time as with the small counties, especially when using the single year rate.

Helpful links
give more info

- 10-year report
- Help document
- More indicators
- Indicator info
- Return to CHARTS homepage

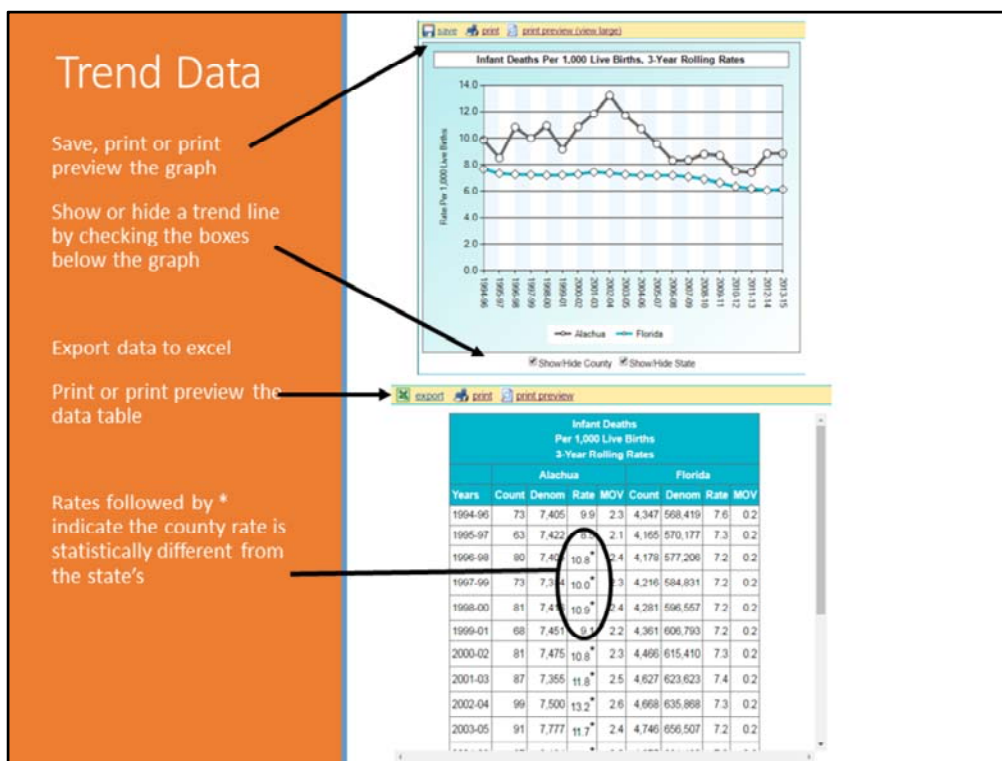


At the top we see links to a 10-year report, help document, more indicators and indicator info.



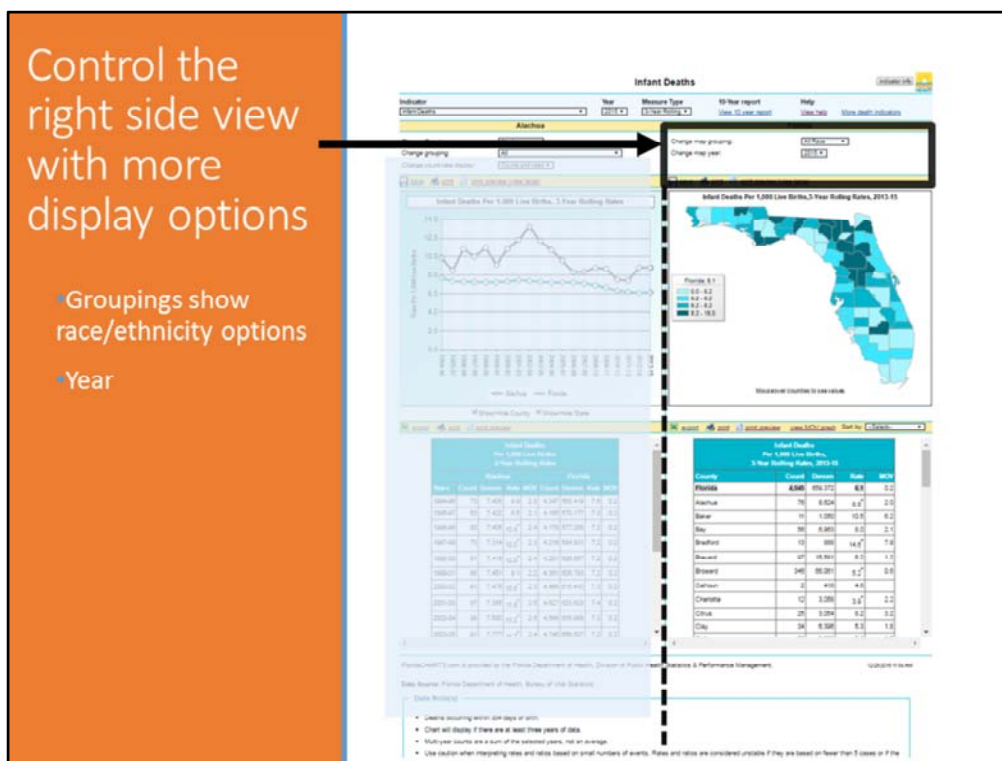
On the left are trend data. If we make changes here, they impact the left side of the viewer – the trend graph and the trend table will change.

We can change the county, the grouping, and the type of data we see.



Some features here include

- the ability to print and export
- checkboxes to turn on or off the trend line for either the state or the county
- and in the table, we can see if the county rate is statistically, significantly different than the state rate by looking for an asterisk.



The right side shows statewide data for the year selected.
With the tools at the top of that section, we can control the right side of the display too.

- We can Save, print or print preview the quartile map
- In the map, the dark colored counties represent the least favorable outcomes (quartile 4).
- Move your mouse over any county on the map to see its numeric value.

Below the map, we see each county's data.

The Quartile Map and table can show

- Race/ethnicity and sometimes gender (depending upon the indicator)
- Year

Data Table Features

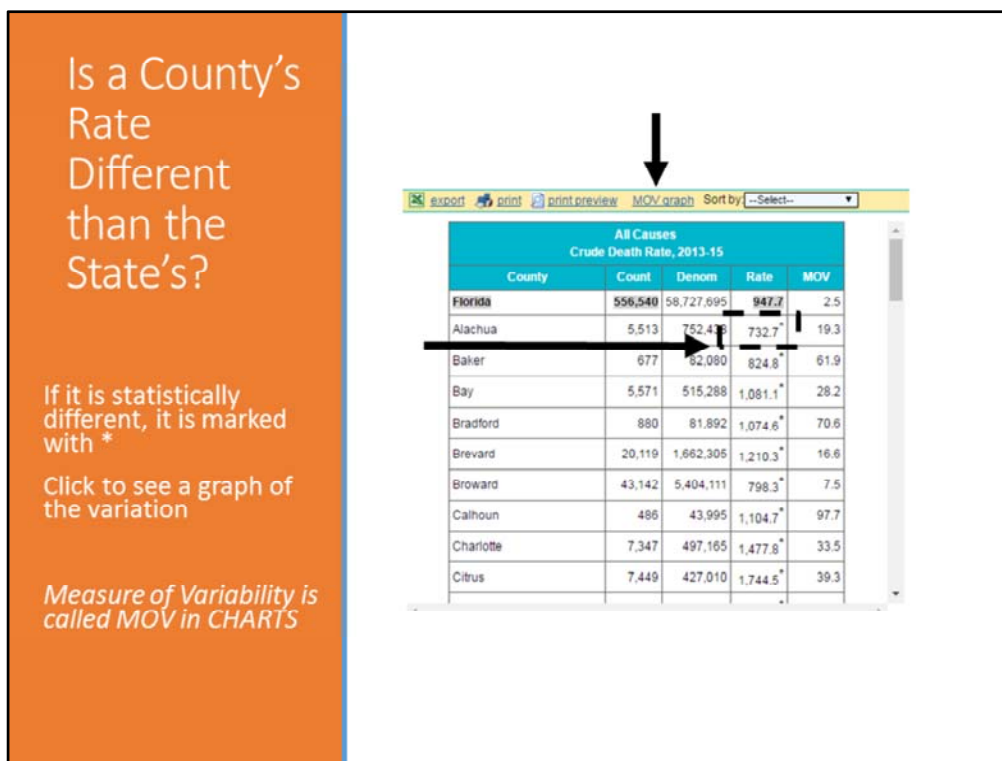
- 1 Export, print or print preview the data table
- 2 The MOV graph displays the state rate compared to county rates with a measure of variability
- 3 Sort by – sort ascending, descending or alphabetically by county

1↓
2↓
3↓

Infant Deaths Per 1,000 Live Births, 3-Year Rolling Rates, 2013-15				
County	Count	Denom	Rate	MOV
Florida	4,045	659,372	6.1	0.2
Alachua	76	8,624	8.8*	2.0
Baker	11	1,050	10.5	6.2
Bay	56	6,963	8.0	2.1
Bradford	13	888	14.6*	7.9
Brevard	97	15,581	6.2	1.2
Broward	346	66,061	5.2*	0.6
Calhoun	2	418	4.8	
Charlotte	12	3,058	3.9*	2.2
Citrus	25	3,054	8.2	3.2
Clay	34	6,396	5.3	1.8
Collier	56	9,698	5.8	1.5

Below the map, the data table displays the corresponding data.
We can sort the data by clicking on the column headings.

If we see an asterisk * beside a rate, we know that that rate is statistically significantly different than the state's rate. How is this measured? Let's look at the measure of variability (MOV) now.



Measure of Variability is called MOV in CHARTS.

It addresses the question: *Is the county's rate statistically significantly different from the state's rate?*

MOV is calculated for crude rates in FLHealthCHARTS.com

Select CRUDE rate from the Rate Type dropdown to view the table.

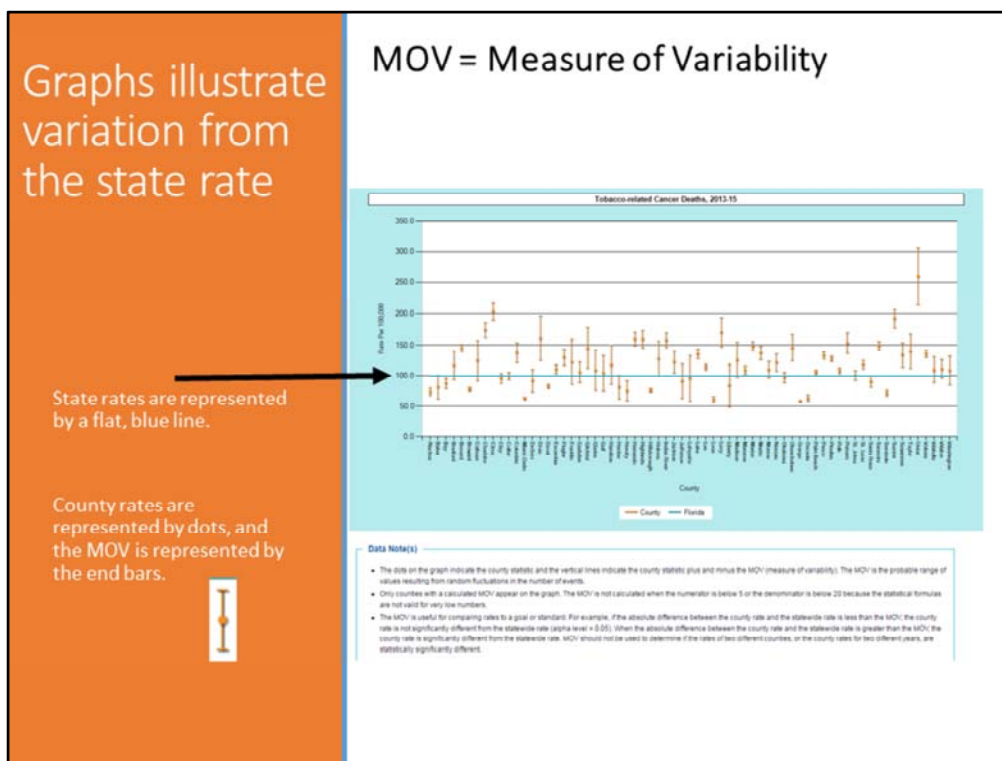
The MOV is not calculated when numerator is below 5 or denominator is below 20 because the statistical formulas are not valid for very low numbers.

In this example, the probable crude death rate for Alachua County is 732.7 plus or minus 19.3, which would mean the crude death rate could be expected to be between 713.4 and 752.0.

Technical notes:

The MOV is the probable range of values resulting from random fluctuations in the number of events.

- If the absolute difference between the county rate and the statewide rate is less than the MOV, the county rate is not considered to be significantly different from the statewide rate (alpha level = 0.05).
- When the absolute difference between the county rate and the statewide rate is greater than the MOV, the county rate is significantly different from the statewide rate.

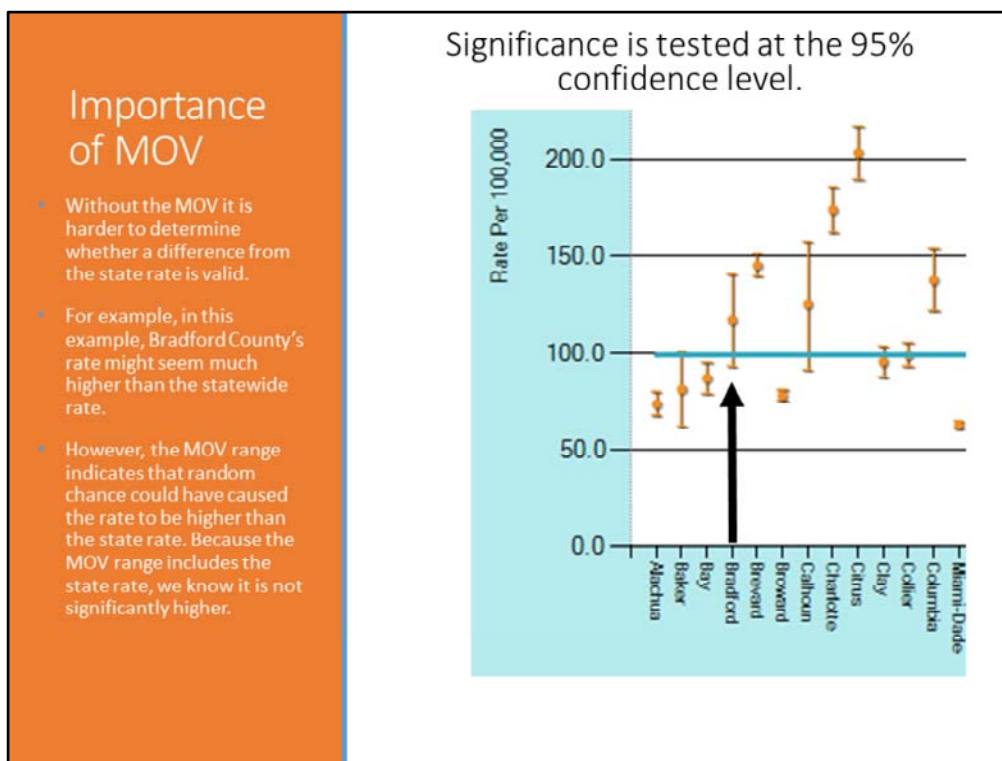


On the MOV graph, we see the numbers displayed in a picture.

The state's rate is represented by a horizontal blue line. Each county's rate is also graphed. The dot represents the actual rate and the upper and lower boundaries represent the plus/minus measure of variability.

Where the lines overlap the state rate, there is NOT a statistically significant difference between the county and state rates. If they don't overlap the state rate, they are statistically different than the state's.

If you don't find your county on the MOV graph, it is because there were too few events (<5 events or denominator <20) for it to be tested for significance.



Here's a closer look.

- In this example, Bradford's rate overlaps the state rate while Broward's does not. We may think that Bradford's rate is high, but the MOV tells us it is not statistically different from the state. However, we can see several counties where rates are different: Alachua, Bay, Brevard, Broward and more.
- To summarize: for counties where the MOV range does not include the statewide percentage (these are indicated with * in the table), the difference between the county percentage and the statewide percentage may be due to factors other than random fluctuation.
- If this continues for more than one year it may warrant further investigation to determine what factors are associated with unusually high or low percentages/rates.

Query Systems

Build your own reports

Query Systems

- » Birth
- » Death
- » Fetal death
- » Infant death
- » Marriage
- » Divorces
- » Population
- » Reportable Diseases

There are several different query systems in CHARTS.

Query systems let you get specific information you need.

Provisional data is available in query systems if you select the current year. Provisional data are updated weekly.

Just click the navigation link to open the query system you are interested in.

Query Systems

All have similar functions

1. Feedback, Data Dictionary, Help
2. Quick standard reports
3. Selections you can use to change the reports
4. Your current report

The screenshot shows the 'Florida Birth Rates Query System' interface. It includes a top navigation bar with links for Feedback, Data Dictionary, and Help. A 'Select Standard Report' list is on the left, and a 'Modify Standard Report/Custom Report' section is on the right. Below these are sections for 'Current Selections' (Rows, Columns, Measures, Filters) and a 'Current Report' section at the bottom displaying a table of birth rates.

	2015	2016
Florida	11.6	11.4
State	12.2	12.2
US	13.6	13.6

Common features of all the query systems include

(Section 1) Feedback link, a data dictionary that tells you what data is available in the query system, and a help document are common links across the top. The data dictionary gives definitions and data years for the fields included in the query system.

(Section 2) There are several standard reports listed. These are commonly requested data components. Click them to easily get that report. You can modify standard reports or filter to get specific data you need.

(Section 3) More options for you to customize data are available through the rows, columns and filters selections. Note that there are a set limit to the number of measures that can be included in each area.

(Section 4) At the bottom is the report resulting from your selections.

How to Change the Year

This example uses the first standard report.

Click on the unchecked box at the top to unselect all.

If we select the year 2015, then we will only see the data for 2015.

Select different years or multiple years by checking the boxes.

This example uses the first standard report and we will change the year.

Once you open a dropdown, you'll see a "select all" and "unselect all" icon. Click on the unchecked box at the top to unselect all.

If we select the year 2015, then we will only see the data for 2015.

Select different years or multiple years by checking the boxes.

How to Change the County

In this example, we will select Miami-Dade County.

Click on the unchecked box at the top to unselect all.

Select the county or counties you want by checking the boxes.

Now the report shows only Miami-Dade County

Similarly, we can change the county.

Unselect all, then select the county you want. In this example, we've selected Miami-Dade.

How to Use the Filter

Select the age group 15-19 by opening the Mother's Age filter.

Click the unchecked box at the top to unselect all.

Click the + to view more ages

Select the ages you want by checking the boxes

The screenshot shows the Florida Birth Query System interface. On the left, a list of filters is shown, including 'Mother's Age'. The 'Mother's Age' filter is expanded, showing a list of age groups: 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, and 45-49. The '15-19' age group is selected. A callout box highlights the '15-19' age group with the text 'Now the report shows only ages 15-19'.

Birth Rate For 1000 Female Population by Year of Birth by County of Residence (Mother's Age 15-19 and Birth Resident)	Year	Rate
2010	14.7	14.7
2009	14.8	14.8
2008	14.9	14.9
2007	15.0	15.0
2006	15.1	15.1
2005	15.2	15.2
2004	15.3	15.3
2003	15.4	15.4
2002	15.5	15.5

When a filter is applied, only the data that meet the condition specified will get displayed. For example, if we filter by race and select “Black”, we will not see the total or data for any other race except “Black”.

In this example, we will filter to see only data for those ages 15-19. Note that sometimes the detail is nested in larger groups. You simply click the + to get to more detail.

Customize the Report

Make the selections you want by changing rows, columns or filters.

Limits to the number of fields in each area are stated on the screen.

In this example:

ROW: County=Broward, Miami-Dade

COLUMN: Year of Birth=2015, Mother's Education Level (all)

FILTERS: Mother's Age selections are made for age 20 - 44

Florida Birth Query System

Modify Standard Report/Custom Report

1. Select Measure: Births (Count)

2. Add Measure Row Variables: Add Measure Row Variable...

3. Add Measure Column Variables: Add Measure Column Variable...

4. Add Measure Filter: Add Measure Filter...

5. Select Report Type: Frequencies Only, Percent Only, Frequencies and Percent

Current Selections (You drag and drop items between rows, columns or filters, observing the limits stated)

Rows (Maximum 3 items): County of Residence (Mother)

Columns (Maximum 4 items): Measure, Year of Birth, Mother's Education Level

Filters (Once 5 items to avoid results Maximum 5 items): Mother's Age (20-24, 25-29, 30-34, 35-39, 40-44 and Birth-Resident)

Current Report

Births (Count)	2015	High School	High School Graduate or Higher	Unknown	Total
Broward	2,040	18,187	221	21,437	21,437
Miami-Dade	2,372	28,434	298	31,094	31,094
Total	4,412	47,621	519	52,551	52,551

You can use the Rows, Columns and Filters at the upper right side of the query window to add or remove fields.

Also you can move selected fields by dragging and dropping them (in the center section of the query window).

Be sure to limit number of fields that can be used in each area according to what is displayed on the screen.


You can even get city, zip code or census tract data using the query systems. If you do, you will need to first select only one county.

Questions?

This overview of CHARTS is complete

Remember help is a click away using CHARTS feedback

Use Feedback on CHARTS to ask questions or provide suggestions



CHARTS Feedback

Note: If you have a medical condition requiring treatment, or questions about health insurance or prescription drugs, please contact your [local county health department](#) or primary care physician.

Feedback form

Name*

Organization

Email*

Phone

Was the data on this site easy to find and understand?
☐ Yes ☐ No ☐ Don't Know

CHARTS section

Type of comment

Comments*

This ends our overview of CHARTS.

Remember the feedback link when you have questions or comments.