

Epidemiology as
Information for Action

From Broad Street to Your Street

Epidemiology as *Information for Action*

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Today's Topics

I. Epidemiology

- I. Definition

- II. History

- III. Behavioral Epidemiology

II. Sources of Data

- I. Florida Counties

- II. Sub-County Communities and Neighborhoods

- III. State, National, and International Sources

III. Applied Epidemiology

Epidemiology

- Epidemiology is the study of the
 - Distribution and
 - Determinantsof health-related conditions or events (including disease and wellness), in terms of
 - People,
 - Place, and
 - Time.

Determinant

- Determinant –

In English:

- An influencing or causal element or factor

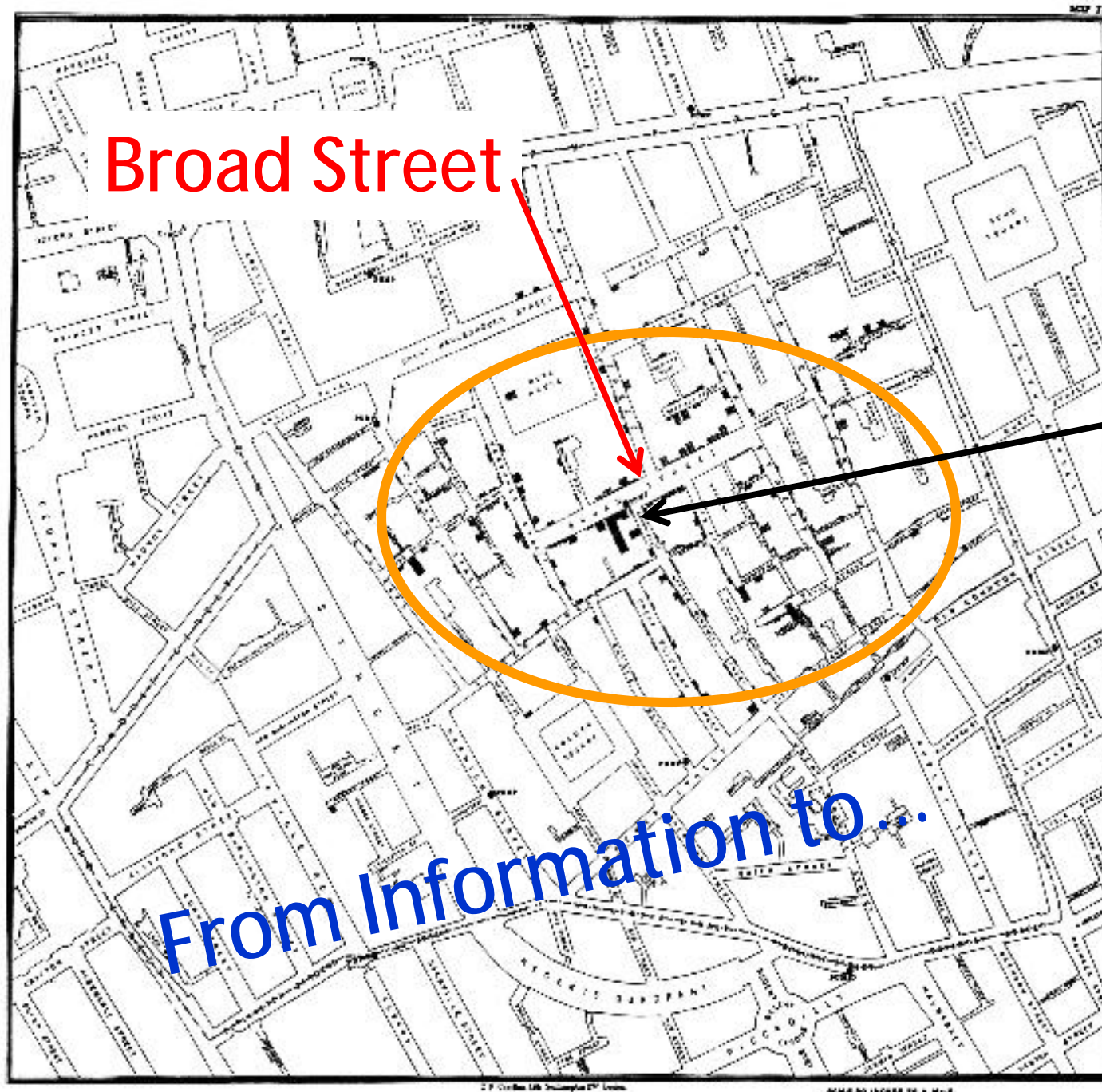
In Florida SARG speak:

- An “Intervening Variable”

History of Epidemiology



- 1854 London (*e.g.*, Charles Dickens)
- Dr. John Snow, English Physician
- Between August 31 and September 10, 1854
- Cholera Outbreak in Soho, London Killed 500
- Conventional Wisdom: Transmitted by Air
- Dr. Snow believed: Transmitted by Water
- Plotted the Cholera Deaths in Soho



Original map
by John Snow
showing the
clusters of
cholera cases
in the Soho,
London
epidemic of
1854

From Information to...

From Information to ...
...Action

John Smith Removed
The Broad Street Pump Handle
And the Cholera Epidemic Ended



What was Broad Street in 1854 is today Broadwick Street. Shown here is the John Snow Memorial and the John Snow Memorial Pub

Epidemiology

- Infectious – Spread by germ or virus
- Environmental – Air, Water, Climate
- Behavioral – What individual or others do
 - Smoke or breath 2nd Hand Smoke
 - Diet and Nutrition
 - Exercise
 - Trauma Victim
 - Alcohol and Other Drug Use

Substance Abuse Epidemiology

a) Consequences



b) Consumption Patterns



c) Contributing Factors



Substance Abuse Epidemiology

a) Consequences

1. Deaths
2. Medical Emergences
3. Addiction
4. Crime
 - a) Violent
 - b) Property

Substance Abuse Epidemiology

b) Consumption Patterns

1. Prevalence – Proportion of Given Population

- Use
- Frequency (Life, Annual, Past Month, Daily)
- Intensity (e.g., Bing Drinking, Heavy Use)

2. Incidence – New Cases

- Age of First Use (% by Age 13 or Younger)

Substance Abuse Epidemiology

c) Contributing Factors

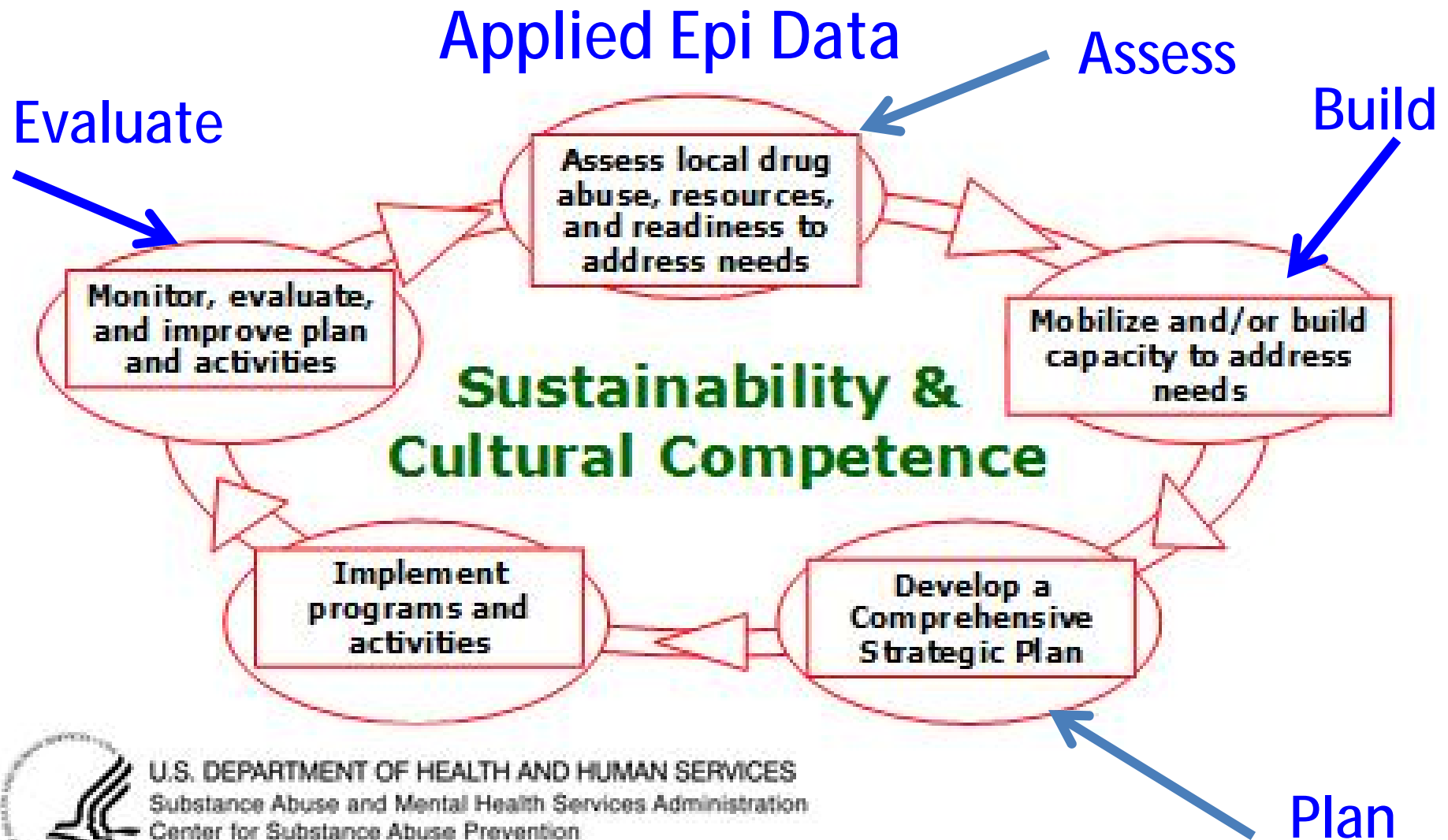
1. Risk Factors
2. Protective Factors

"Prevention as Protection"

Strategic Prevention Framework



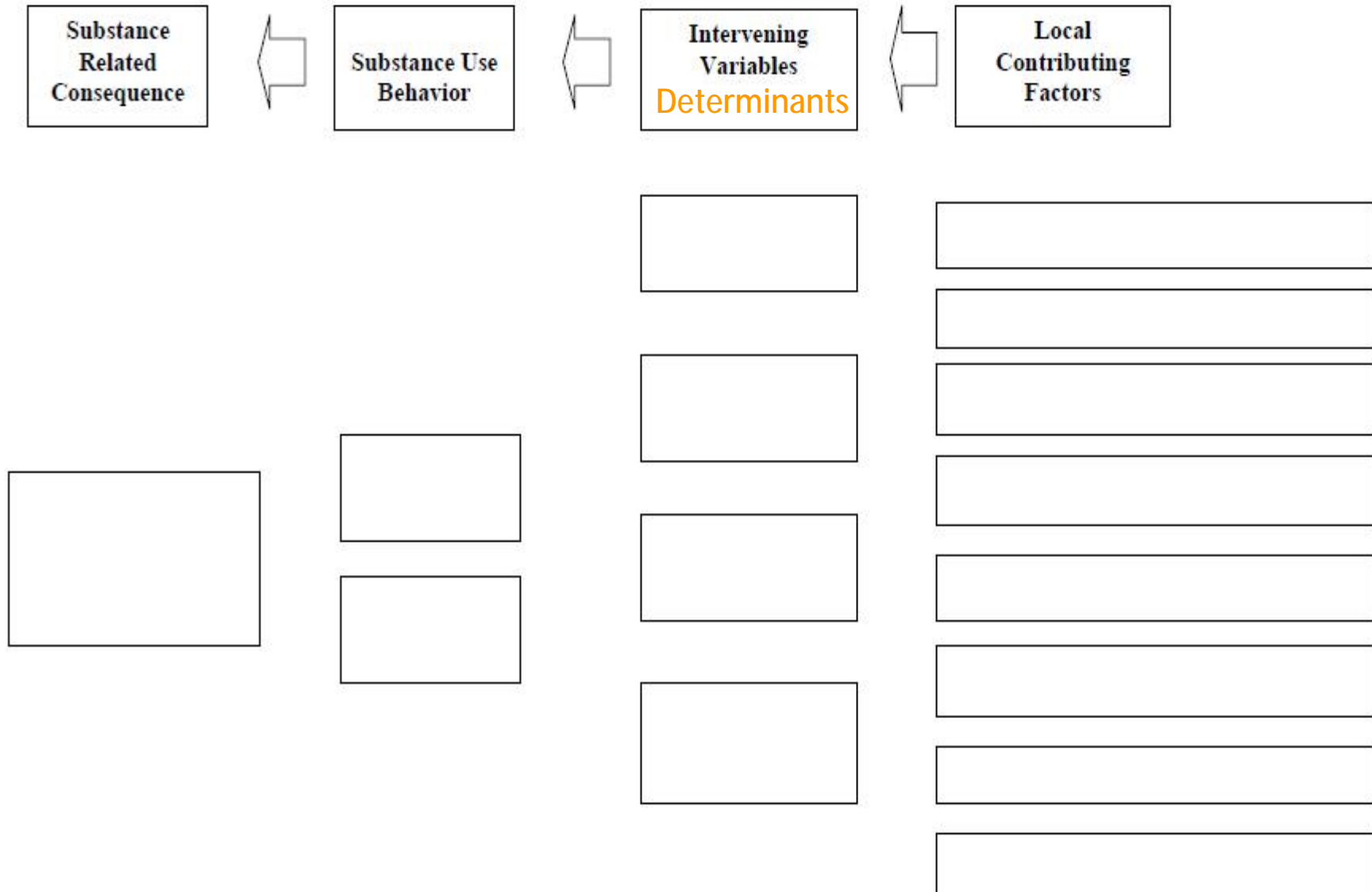
SAMHSA's Strategic Prevention Framework



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Prevention
www.samhsa.gov

SARG Needs Assessment Logic Model

Problem Statement



Today's Topics

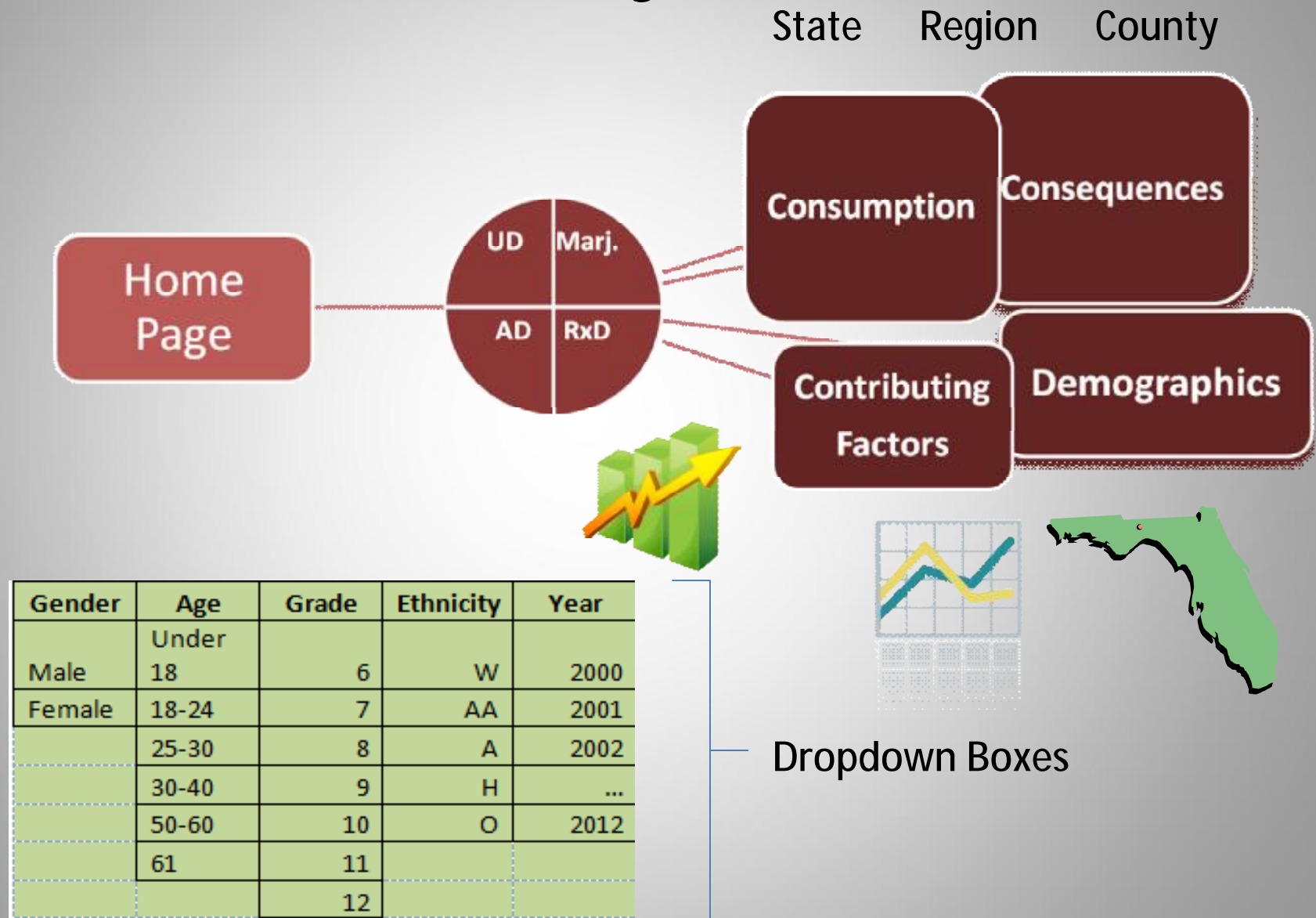
Sources of Data

- I. Florida Counties
- II. Sub-County Communities & Neighborhoods
- III. State, National, and International

Florida Community Health and Wellness Dashboard

Presented by:
Florida Center for Prevention Research

Dashboard Layout



Starting View:

Florida Community Health & Wellness Dashboard



Options
Choose from the options below to change the charts.

Consumption Consumption 1

Gender Both

Grade All

Age All

Ethnicity All

Year 2010

Alcohol

Marijuana

Drugs

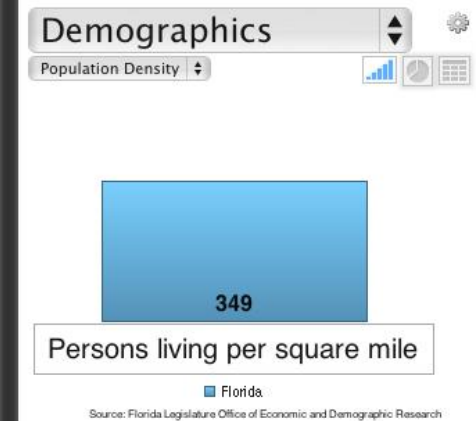
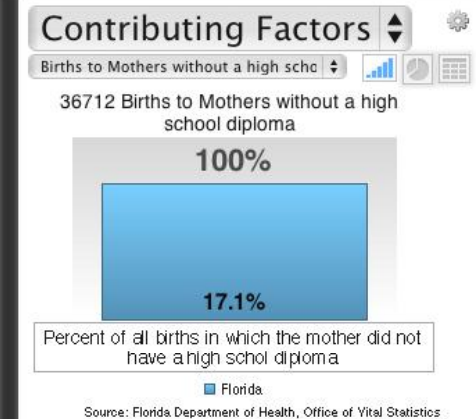
Underage Drinking

Current Level: State

View

Current data is aggregated to the state level. Explore the map to view data by regions or counties.

Florida



Drill to Region:

Florida Community Health & Wellness Dashboard



Northeast Region

View Compare

Options

Choose from the options below to change the charts.

Consumption Consumption 1
Gender Grade Age Ethnicity Year
Both All All All 2010



Alcohol



Marijuana



Drugs



Underage Drinking

Current Level: State / Region

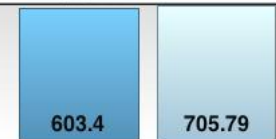


Consequences

Domestic Violence Offenses

18380 Domestic Violence Offenses

Florida Rate of domestic violence offenses per 100,000 population: 603.4



Rate of domestic violence offenses per 100,000 population

Florida Northeast

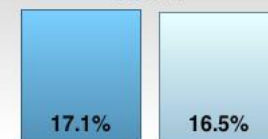
Source: Florida Department of Law Enforcement

Contributing Factors

Births to Mothers without a high school diploma

5022 Births to Mothers without a high school diploma

100%



Percent of all births in which the mother did not have a high school diploma

Florida Northeast

Source: Florida Department of Health, Office of Vital Statistics

Consequences

Violent Crime

14188 Violent Crime

100,000



Rate of violent crimes per 100,000 population

Florida Northeast

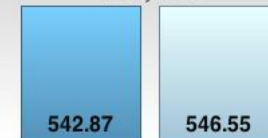
Source: Florida Department of Law Enforcement

Demographics

Population Density

14188 Violent Crime

100,000



Rate of violent crimes per 100,000 population

Florida Northeast

Source: Florida Department of Law Enforcement

Drill to County:

Florida Community Health & Wellness Dashboard



View Compare

Options

Choose from the options below to change the charts.

Consumption Consumption 1
Gender Both Grade All Age All Ethnicity All Year 2010



Current Level: State / Region / **County**



Duval County

Consequences

Domestic Violence Offenses

7798 Domestic Violence Offenses



Rate of domestic violence offenses per 100,000 population

Florida Northeast Duval

Source: Florida Department of Law Enforcement

Consequences

Violent Crime

5842 Violent Crime



Rate of violent crimes per 100,000 population

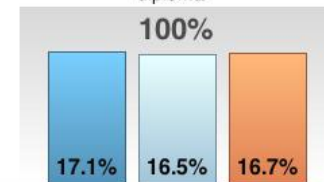
Florida Northeast Duval

Source: Florida Department of Law Enforcement

Contributing Factors

Births to Mothers without a high school diploma

2112 Births to Mothers without a high school diploma



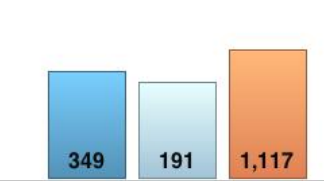
Percent of all births in which the mother did not have a high school diploma

Florida Northeast Duval

Source: Florida Department of Health, Office of Vital Statistics

Demographics

Population Density



Persons living per square mile

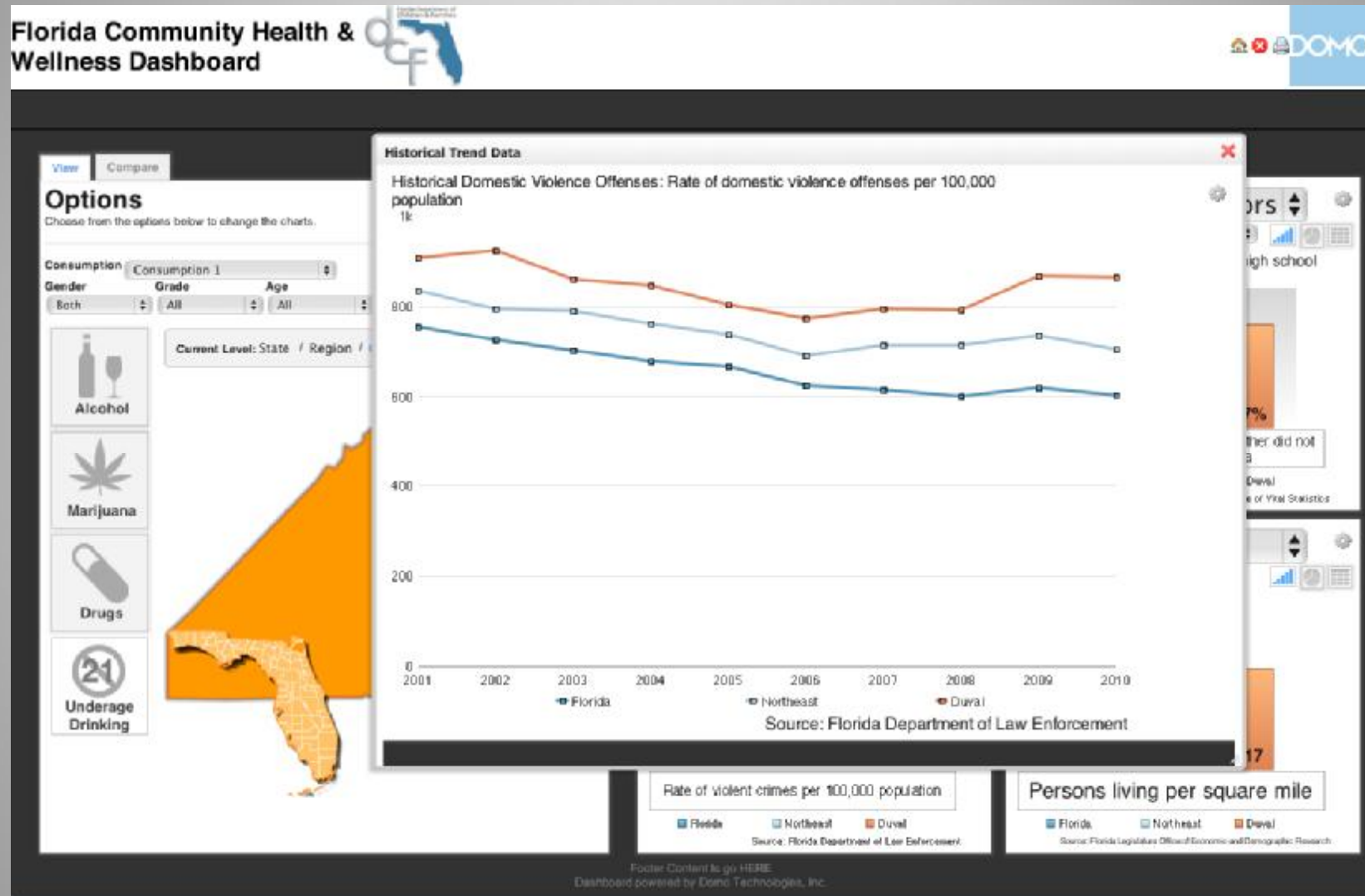
Florida Northeast Duval

Source: Florida Legislature Office of Economic and Demographic Research

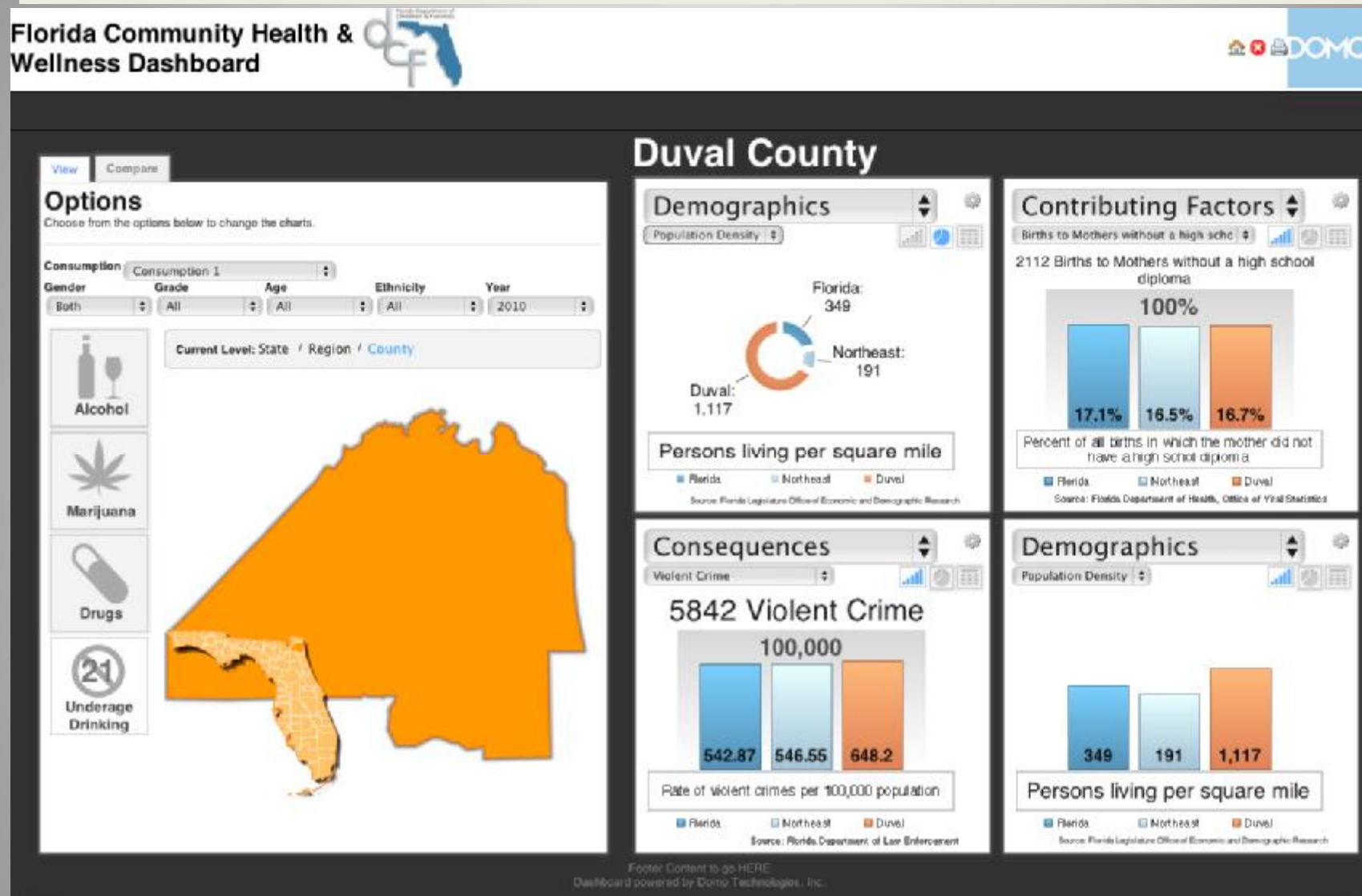
Footer Content to go HERE

Dashboard powered by Domo Technologies, Inc.

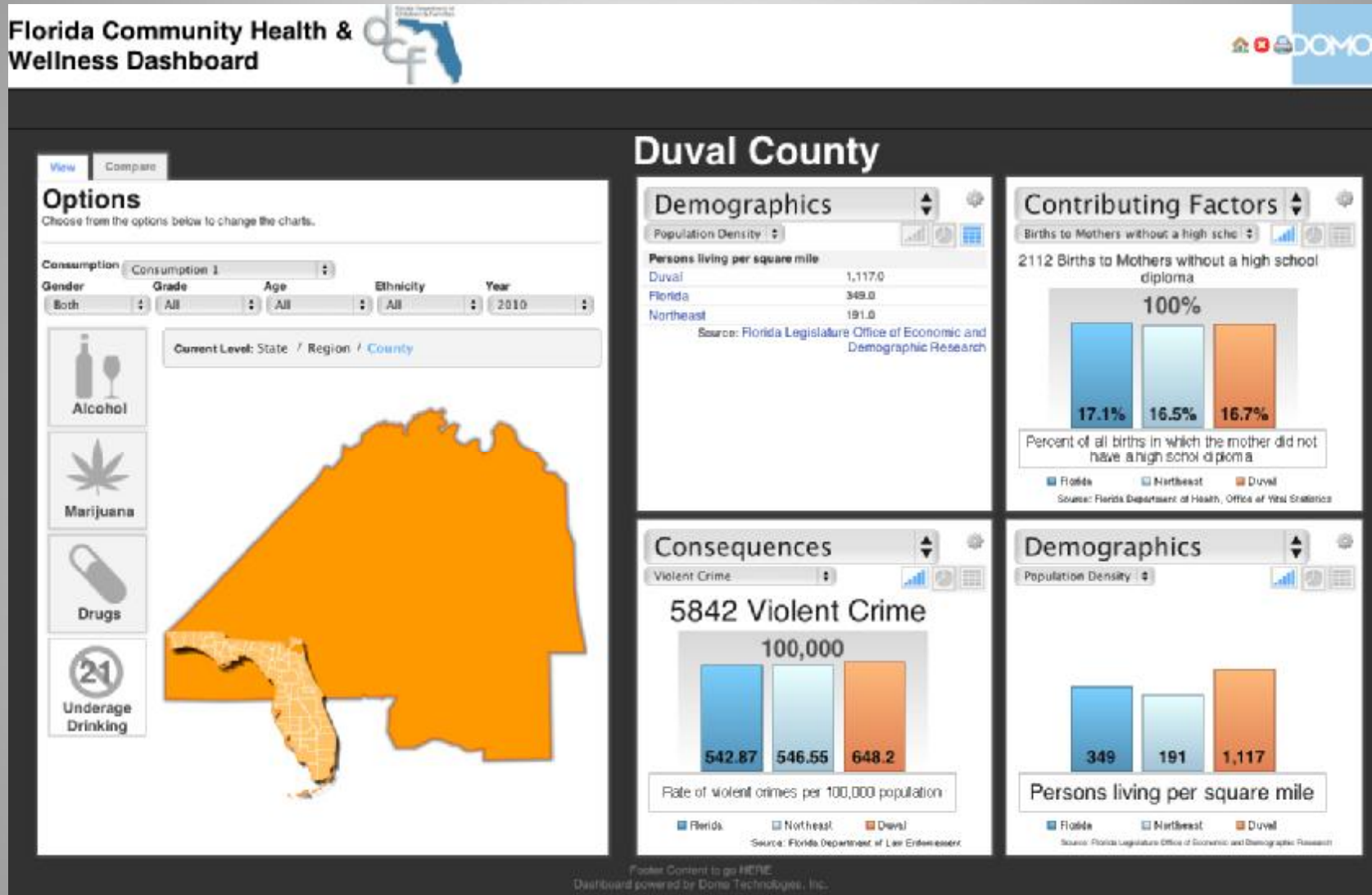
Drill to Trend:



Changing Chart types:



Changing Chart Type:



Drill out to Source:

The screenshot shows the website of the Office of Economic & Demographic Research. The header includes the logo, the office name, a Google Desktop Search bar, and navigation links for Home, About Us, Calendar, and Contact Us. A left sidebar contains a list of menu items with expand/collapse icons. The main content area is titled 'Population and Demographic Data' and includes sections for Population Overview, Methodology, Data from the Florida Demographic Estimating Conference, and State and County Projections. Each section contains a list of links to various reports and data sets, many of which are in PDF or Excel format.

Office of Economic & Demographic Research

Home About Us Calendar Contact Us

Expand All Collapse All

- Consensus Estimating Conferences
- Revenues
- Long-Range Financial Outlook
- Economy
- Population & Demographics
- Resource Demand
- Local Government
- Presentations
- Special Research Projects
- Constitutional Amendments
- Statewide Policy Analysis Tools
- Related Sites
- BP Conferences

Population and Demographic Data

Population Overview

- Florida Population Estimates for Counties and Municipalities: April 1, 2011 [\[xlsx\]](#) [\[pdf\]](#) (Posted - 11/11)
- Population and Population Change for Metropolitan Statistical Areas in Florida: April 1, 1980, 1990, 2000, 2010, & 2011 [\[pdf\]](#)
- Florida Population: Census Summary 2010 [\[xls\]](#) [\[pdf\]](#)
- [Florida 2010 Census Data](#)
- Historical Estimates
 - [Revised Intercensal Population Estimates by County](#) [\[pdf\]](#)
 - Florida Population Estimates for Counties - [Countywide](#), [Unincorporated](#), and [Incorporated Totals: 1972-2011](#) [\[xls\]](#)
 - Florida Population Estimates - [Municipalities: 1979-2011](#) [\[xls\]](#)

Methodology

- [Estimates of Total Population for Cities and Counties in Florida](#) [\[pdf\]](#)
- [Projections of Florida Population by County](#) [\[pdf\]](#)
- [Population Projections by Age, Race Sex, and Hispanic Origin for Florida and Its Counties](#) [\[pdf\]](#)

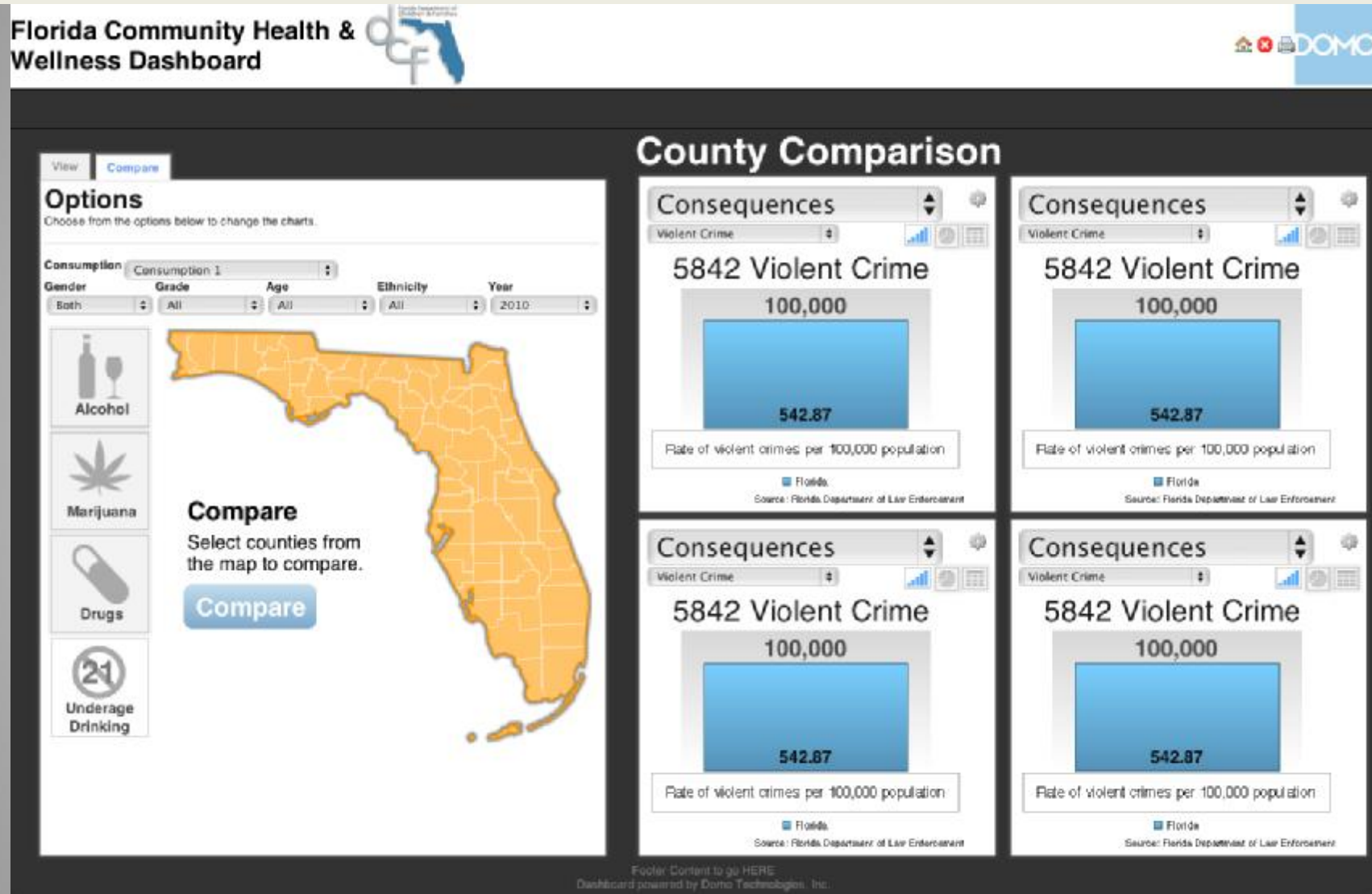
Data from the Florida Demographic Estimating Conference, July 2011 and the Florida Demographic Database, January 2012:

- [Florida Census Day Population: 1970-2030](#) [\[pdf\]](#)
 - Number of Persons by Age Group
 - Numeric Change by Age Group
 - Percentage Change by Age Group
 - Percentage Age Distribution

State and County Projections

- [Medium Projections of Florida Population by County, 2015-2030](#) [\[pdf\]](#)
- [2010 Census Counts and Projections of Florida Population by County and Age, Race, Sex, and Hispanic Origin, 2015-2030](#) [\[pdf\]](#)
- [Florida Population by County, 1970 through 2030](#) [\[pdf\]](#)

Starting Comparison View:



Comparing Counties:

Florida Community Health & Wellness Dashboard



County Comparison

Options
Choose from the options below to change the charts.

Consumption: Consumption 1
Gender: Both
Grade: All
Age: All
Ethnicity: All
Year: 2010

Alcohol
Marijuana
Drugs
Underage Drinking

Compare
Select counties from the map to compare.

Compare



Export Options:

Florida Community Health & Wellness Dashboard



County Comparison

View Compare

Options

Choose from the options below to change the charts.

Consumption Consumption 1

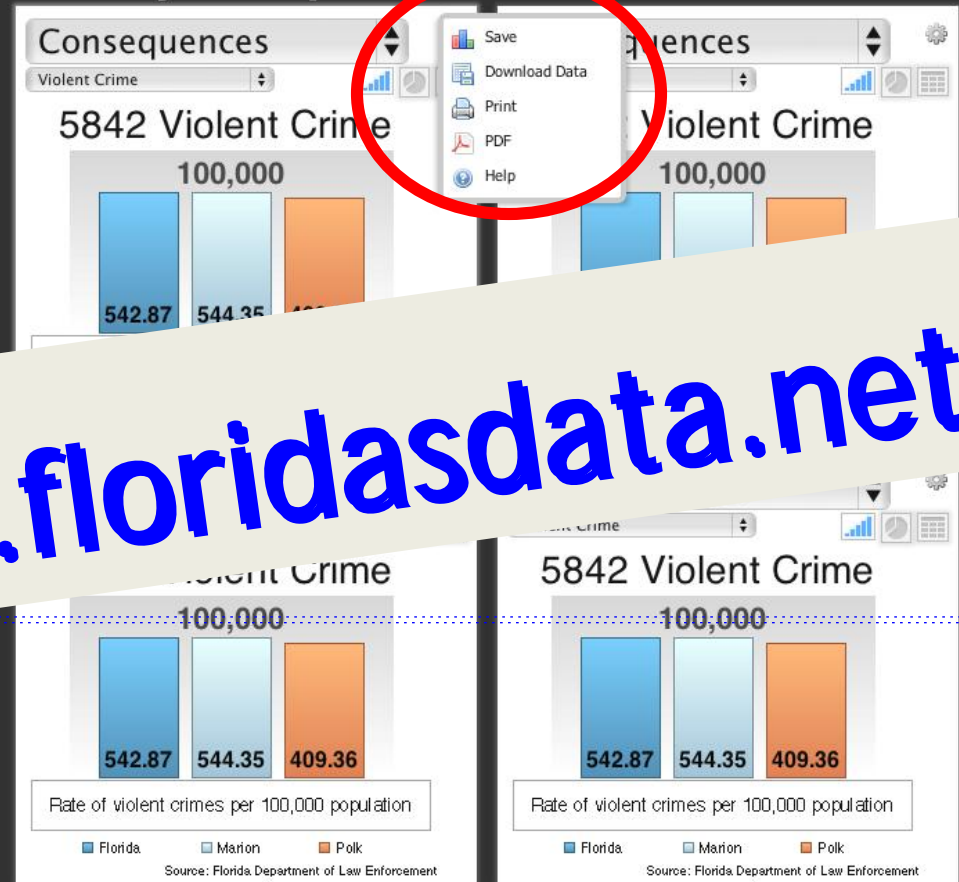
Gender Grade Age Ethnicity Year

Both All All All 2010

Alcohol

Marijuana

Drinking



- Save
- Download Data
- Print
- PDF
- Help

<http://www.floridasdata.net>



Welcome to the Florida Community Health & Wellness Dashboard

HOME BACKGROUND METHODOLOGY INDICATORS/MEASURES CAUTIONS HOW TO USE ENTER DASHBOARD CONTACT US

slideshow
paused

<http://www.floridasdata.net>

DASHBOARD

Florida Community Health and Wellness

Enter

About Us

The Florida Community Health and Wellness Dashboard

was supported by funding from the Florida Department of Children and Families Substance Abuse and Mental Health Program Office. The Florida Community Health and Wellness Dashboard is a tool intended to capture epidemiology data profiles related to the four state priority problems including:

History

Project Background

In 2005, the Florida Department of Children and Families was awarded the Strategic Prevention Framework State Incentive Grant (SPF SIG) a five

Epidemiology Work Groups

National Institute on Drug Abuse: Community Epidemiology Work Group

NIDA Community Epidemiology Work Group



National CEWG Drug Trends Update June 2012

- Cocaine declines reported across all 21 sites
- Heroin maintains presence,
 - Expands to new areas including small towns
 - Fueled by young adult Rx opioid abusers
- Prescription opioid nonmedical use escalates
- Emerging synthetic drug consequences most pronounced in the Central US and Florida
- Marijuana is ubiquitous
- Methamphetamine rising in the West again

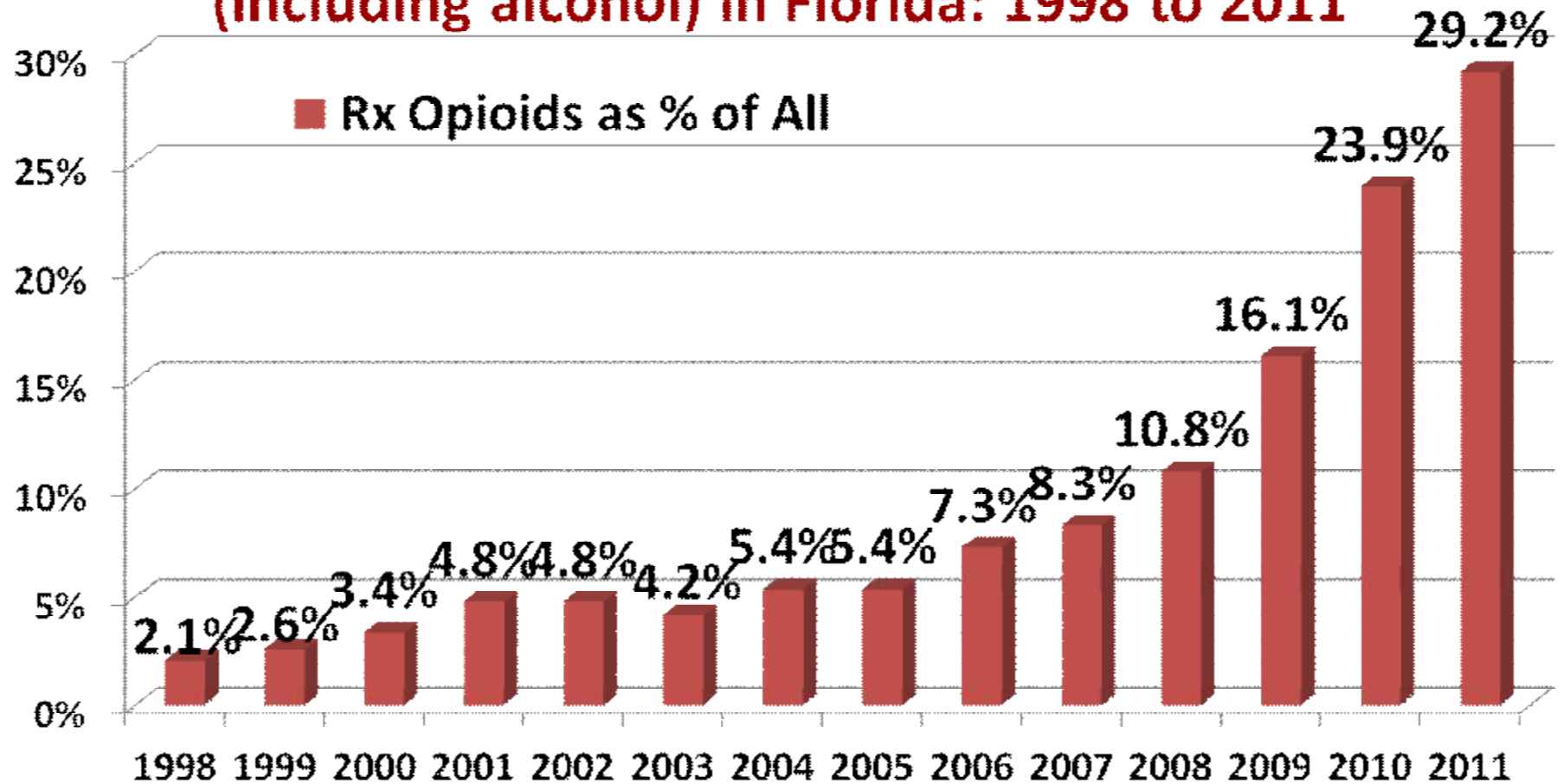


Epidemiology Work Groups

National CEWG – NIDA

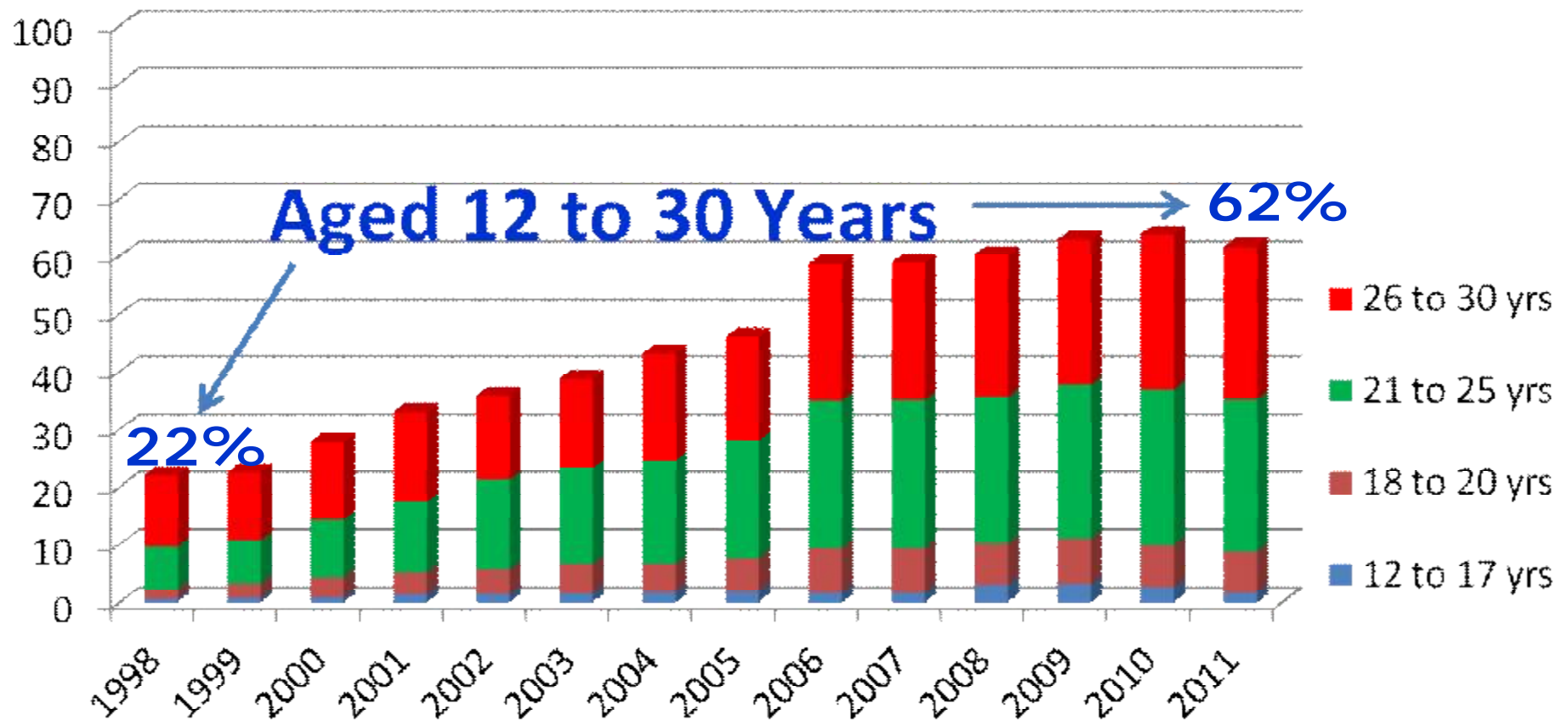
**Florida Behavioral Health Epidemiology
Work Group**

**Percent of Primary Addiction Treatment
Admissions for Rx Opioids among all substances
(including alcohol) in Florida: 1998 to 2011**



Source: SAMHSA - Treatment Episode Data Sets Submitted by the Florida Dept. of Children and Families as of April 5, 2012

Percent of Primary Rx Opioid Addiction Treatment Admissions By Age Groups (12-30 years) in Florida: 1998 to 2011



Source: SAMHSA - Treatment Episode Data Sets Submitted by the Florida Dept. of Children and Families as of April 5, 2012

Epidemiology Work Groups

National CEWG – NIDA

Florida Behavioral Health Epidemiology
Work Group

Drug Epidemiology Networks (DENs)

Regional

County or Coalition

Sub-County Community or Coalition

NIDA NATIONAL INSTITUTE
ON DRUG ABUSE

Assessing Drug Abuse Within and Across Communities

Community Epidemiology
Surveillance Networks
on Drug Abuse

<http://www.drugabuse.gov/pubs/assessing>



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL INSTITUTES OF HEALTH

Sub-County Data Sources

- SARG Appendix I –
Guideline for Local Data Collection

Focus Groups

Appendix I: Guidelines for Qualitative Data Collection¹

Focus Groups

Focus groups can be used to gather qualitative information from your community about issues and attitudes. They are typically led by a facilitator who presents a small number of targeted questions and facilitates the discussion. Participants share ideas and observations that can clarify issues for you or present new perspectives. Compared with surveys and other methods, focus groups allow you to delve more deeply into a topic area or to probe for more information. Focus groups also can lead you to topics or points that you had not considered. Recruiting and conducting effective focus groups can be challenging and time consuming.

The purpose of your SARG focus groups is generally to gain the community's perspective on the local conditions that contribute to a given intervening variable.

Your focus groups may be targeted to different age groups (see box for tips on holding youth groups) or you may wish to bring people from certain geographic areas or community sectors together. Your assessment committee will be especially useful in making decisions about who to invite and how to encourage them to participate.

Focus Groups with Youth

You will need to obtain parental permission for youth to participate in your focus group. To make this easier, consider asking the parents of your youth participants to be in your parent group. Then hold the youth and parent focus groups concurrently in order to facilitate participation.

Developing Focus Group Questions

When developing a focus group protocol and questions, there are some

Environmental Scans

Environmental Scans

Environmental scans are observations of various aspects of your community. For example, you could examine the practices businesses use to promote and sell alcohol products. Or you could review the use of public spaces and advertisements in print, radio and television to get an idea of the number of promotion versus prevention messages that are in the community. While an environmental scan is not required and is not particularly useful for substances other than alcohol, it can be particularly useful to obtain more information about retail availability and promotion. Remember, whether or not you conduct a scan and what information you collect should be directly linked to the knowledge gaps that you identified.

An environmental scan can be difficult to conduct in a way that represents your entire county, particularly if it covers a wide geographic region. Because you likely do not have the resources to conduct a countywide scan, one way to focus your efforts is to target areas with a high density of alcohol outlets. Appendix N provides a list of the number of active liquor licenses within each county, broken out by town.

Finally, if you want to find out the extent of advertising and how much of it promotes substance use and how much of it is dedicated to prevention messages, you may want to do a scan of local media coverage, advertising and public service announcements in print, radio and television advertising. Contact the department for a ready-made scan survey.

Sub-County Data Sources

- SARG Appendix J – Data Collection Tools

Data Collection Tools for Local Contributing Factors 2012

RA19c. If alcohol buying by adults for minors is a problem in your community, please describe the problem(s).

COMMUNITY NORMS: The next several questions ask about the availability of alcohol at community events. Please convene at least one community meeting to complete the following questions. For the questions that require a Yes/No response or provide a range of responses, please circle the most appropriate answer.

Describe from whom and how you collected this information _____

	Is it acceptable to get drunk at:		Do people drive home drunk from:		Is it acceptable for underage youth to drink at:	
CN1. High school graduations	Yes	No	Yes	No		
CN2. Baptisms	Yes	No	Yes	No		No
CN3. Births/funerals	Yes		Yes	No	Yes	No
CN4. Festivals/fairs			Yes	No	Yes	No
CN5. _____		No	Yes	No	Yes	No
CN6. _____	Yes	No	Yes	No	Yes	No
CN7. Other (please describe):						
CN8. Other (please describe):						
CN9. Other (please describe):						

<http://www.dcf.state.fl.us/programs/samh/substanceAbuse/sarg.shtm>

[http://www.dcf.state.fl.us/programs/
samh/substanceAbuse/sarg.shtml](http://www.dcf.state.fl.us/programs/samh/substanceAbuse/sarg.shtml)

Applied Epidemiology

**Example:
Information Dissemination**

Radio Ads



Keeping our kids away from alcohol and other drug use is a serious matter.

Too many children and teens make the choice to use alcohol or other drugs. What's more...they have no idea how harmful these can be to a developing brain. And, their parents don't know either.

It is proven that parents who enjoy at least 4 family mealtimes per week and make time for continuous conversation with their children and teens, raise kids who make better choices.



It's equally important for parents **NOT** to allow alcohol or other drugs to be used in their home.



In Broward County, there are many kids who do not use alcohol and other drugs.

Kids tell us time and time again that their parents are the **#1 influence** in their lives.



An adolescent's brain doesn't fully develop until about 23-25 years old. Introducing alcohol or other drugs to this still developing brain too often adversely impacts development and dramatically increases the likelihood of substance abuse and addiction in the child's adult life.

Please try to do your best as a parent to prolong the age of first time use. To learn how to prevent underage drinking and other drug use, visit us at:



www.drugfreebroward.org

Epidemiology as
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