Patterns and Trends of Substance Use Within and Across the Regions of Florida

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This training is sponsored by Florida Alcohol and Drug Abuse Association
And State of Florida, Department of Children and Families.
Learning Objectives

By attending this webinar, participants are expect to:

- Gain an understanding of the current trends and levels of alcohol, tobacco and other substance use among youth and adults in Florida;
- Become aware of the within Florida and cross-Managing Entity Regions differences in adolescent substance use;
- Learn about current trends to help in developing and improving substance use prevention and treatment services in Florida.
Overview

Part 1

Section I. Introduction
Section II. Patterns and Trends of Alcohol Use
Section III. Patterns and Trends of Tobacco Use
Section IV. Patterns and Trends of Marijuana Use
Section V. Novel Psychoactive Substance Use
Section VI. Patterns and Trends of Opioids Use
Section VII. Patterns and Trends of Cocaine Use
Overview
Part 2

Section VIII. Patterns and Trends of Methamphetamine use
Section IX. Use of Rx. Benzodiazepines
Section X. Reference List
National Data Used

- Most recent national data were used for Florida-National comparisons

- Main data sources:
  - The Youth Risk Behavior Surveillance System (YRBSS)
  - The Behavioral Risk Factor Surveillance System (BRFSS)
  - The National Survey on Drug Use and Health (NSDUH)
Florida Data Used

- State data were used for detailed substance and within-state variations

- Main data sources:
  - Florida Estimates of Population by BEBR
  - Florida Youth Substance Abuse Survey (FYSAS)
  - Drugs identified in deceased persons (Florida Medical Examiners’ Annual Report)
  - 2018 Annual Report
I. Introduction - Population Density

Varying population density across the state with more people around the coastal lines.
Black population spread throughout the state of Florida with concentrations spotted in several areas.
Hispanic/Latino population concentrated in middle and southern Florida.
I. Introduction-Population 17 and Younger in Florida

Fewer young people living by the coastal regions in Florida.
Managing Entity Regions,
The State of Florida

MANAGING ENTITY
Big Bend Community Based Care, Inc.
Circuits: 1, 2, 3 and 14 - HQ: Tallahassee
Start Date: 4/1/2013

Lutheran Services Florida, Inc.
Circuits: 3, 4, 5, 7 and 8 - HQ: Jacksonville
Start Date: 7/1/2012

Central Florida Behavioral Health Network, Inc.
Circuits: 6, 10, 12, 13 and 20 - HQ: Tampa
Start Date: 7/1/2010

Central Florida Cares Health System, Inc.
Circuits: 9 and 18 - HQ: Orlando
Serving: Brevard, Orange, Osceola and Seminole counties.
Start Date: 7/1/2012

Southeast Florida Behavioral Health Network, Inc.
Circuits: 15 and 19 - HQ: Jupiter
Serving: Indian River, Martin, Okeechobee, Palm Beach and St. Lucie counties.
Start Date: 10/1/2012

Broward Behavioral Health Coalition, Inc.
Circuit: 17 - HQ: Fort Lauderdale
Serving: Broward county.
Start Date: 11/6/2012

South Florida Behavioral Health Network, Inc.
Circuits: 11, 16 - HQ: Miami
Serving: Dade and Monroe counties.
Start Date: 10/1/2010

Circuit Border
DCF Headquarters Offices

Northeast
Northwest
Central
Suncoast
Southeast
Southern
Populations Served by Managing Entity Regions

Data source: 2018 Report from the Bureau of Economic and Business Research
Large Differences in Population Served by Managing Entity Regions

Three Managing Entity Regions cover 61% of total Florida population

- Central Florida Behavioral Health Network (CFBHN) (28%)
- Lutheran Services Florida Health Systems (LSF) (19%)
- South Florida Behavioral Health Network (SFBHN) (14%)

The other four Managing Entity Regions cover less than 40%
II. Alcohol Use

- Underage drinking and binge drinking
- Underage binge drinking by Managing Entity Regions
- Adult drinking
II.1 Underage Alcohol Use

- Underage drinking
- Age of onset
- Underage binge drinking
Lifetime Alcohol Use
High School Students
Florida vs. U.S., 2001-2017

Rate of lifetime drinking (%)

Data source: 2001-2017 YRBS
National Comparison - Lifetime Use

Lifetime underage drinking in Florida

- Continues to decline
- Lower than national average
High School Students Initiated Alcohol Use by 13 Florida vs. U.S., 2005-2017

Data source: 2005-2017 YRBS
National Comparison-Alcohol Use Onset

- Alcohol use initiation by age 13 in Florida similar to the national average - continued to decline
- An increasing trend from 2015 to 2017
Past 30-Day Alcohol Use
Adolescents 12-17
Florida vs. U.S., 2006-2017

Rate of past 30-day alcohol use (%)

Data source: 2006-2017 NSDUH
National Comparison - Current Alcohol Use

- Current alcohol use in Florida similar to the national average - continues to decline

- An increasing trend from 2015 to 2017
Binge Drinking Among Adolescents 12-17 Florida vs. U.S., 2006-2017

Data source: 2006-2017 NSDUH
National Comparison- Underage Binge Drinking

- Binge drinking in Florida similar to the national average - continues to decline

- A slow increase from 2015 to 2017
II.2 Underage Drinking by Managing Entity Regions

- Lifetime use
- Use in the past 30 days
- Binge drinking
Lifetime Alcohol Use
Adolescents in Florida by
Gender & Managing Entity Regions, 2018

Data source: 2018 FYSAS
Difference in Lifetime Use by Managing Entity Regions

- Small differences in lifetime use across Managing Entity Regions (35% to 39%)
- Girls were more likely than boys to drink in all Managing Entity Regions, particularly South Florida Behavioral Health Network (SFBHN) (42% vs. 31%)
Past 30-Day Drinking Adolescents in Florida by Gender & Managing Entity Regions, 2018

Data source: 2018 FYSAS
Difference in Past 30 Day Alcohol Use by Managing Entity Regions

- Large differences in past 30-day use across Managing Entities Regions (13% to 17%)
- Girls were more likely than boys to drink in all Managing Entities Regions, particularly South Florida Behavioral Health Network (SFBHN) (18% vs. 13%)
### Binge Drinking (30 Days) Youth in Florida by Gender & Managing Entity Regions, 2018

<table>
<thead>
<tr>
<th>Region</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
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<td>The State</td>
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<tr>
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<td>8.0</td>
<td>7.2</td>
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<td>5.8</td>
<td>6.8</td>
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</tr>
<tr>
<td>CFBHN</td>
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<td>7.3</td>
<td>6.7</td>
</tr>
<tr>
<td>CFCHS</td>
<td>5.9</td>
<td>6.1</td>
<td>5.6</td>
</tr>
<tr>
<td>LSF</td>
<td>7.1</td>
<td>7.0</td>
<td>7.1</td>
</tr>
<tr>
<td>SFBHN</td>
<td>8.8</td>
<td>10.4</td>
<td>6.7</td>
</tr>
<tr>
<td>SEFBHN</td>
<td>6.3</td>
<td>5.9</td>
<td>6.7</td>
</tr>
</tbody>
</table>

Data source: 2018 FYSAS
Difference in 30-Day Binge Drinking by Managing Entity Regions

- Relative small differences in binge drinking across Managing Entity Regions (6% to 9%)
- Girls were more likely than boys to binge drink in all Managing Entity Regions, particularly South Florida Behavioral Health Network (SFBHN) (10% vs. 7%)
II.3. Adult Alcohol Use

Florida vs. the United States

- Use in past 30 days
- Binge drinking
Drinking in the Past 30 Days Among Adults Florida vs. U.S., 2006-2016

Rate of past 30-day drinking (%)

Data source: 2006-16 BRFSS
Binge drinking in Past 30 Days Among Adults Florida vs. U.S., 2006-2016

Data source: 2006-16 BRFSS
Difference in Alcohol Use in Adults between Florida and the U.S.

- Slightly lower past 30-day alcohol use among Florida adults than the nation (52.7% vs. 53.5%)

- Adults in Florida were less likely to engage in binge drinking in the past 30 days than U.S. adults in general (15.5% vs. 16.9%)
III. Tobacco Use

- Combustible cigarettes
- Electronic cigarettes
III.1 Combustible Cigarettes Adolescents

- Life time for national comparison
- Past 30-day smoking by Managing Entity Regions
Lifetime Cigarette Smoking
High School Students
Florida vs. U.S., 2001-2017

Data source: 2001-17 YRBSS
Lifetime Smoking Rate Comparison with National Average

- Lifetime smoking rate continues to decline in Florida as in the nation.
- The rate of smoking was lower in Florida than in the Nation (18.6% vs. 28.9%).
- The rate of 18.6% remains high in 2017.
Past 30-Day Cigarette Smoking Youth in Florida by Gender & Managing Entity Regions 2018

The State

Data source: 2018 FYSAS
Comparison Across Managing Entity Regions

- Very low rates of past 30 day smoking
  (1-4% with 2.5% statewide)
- Large variations across Managing Entity Regions
Past 30-Day Cigarette Smoking Adults (18+)
Florida vs. the U.S., 2006-2017

Data source: 2006-16 BRFSS
Rate and time trend of adult smoking in Florida were similar to those of the nation—keep going down.

The rate for Florida adults continues to decline compared to the national average in 2017 (15.5% vs. 16.3%)
III.2. Use of Electronic Cigarettes

- Adolescents
- Adults
Changes in Past 30-Day E-Cigarette Use among Youth in Florida, 2016-2018

Data source: 2018 FYSAS
Increase in E-Cigarette Use in Youth

- Both lifetime and past 30-day use increased from 2017 to 2018
- Increased more in girls than in boys
- Increased more in older youth than younger youth
Past 30-Day E-Cigarette Use Youth in Florida by Gender & Managing Entity Regions 2018

Data source: 2018 FYSAS
Managing Entity Regions Differences

- 13.7% of youth throughout Florida reported having used e-cigarettes in the past 30 days

- Three Managing Entity Regions with higher rates: Big Bend Community Based Care (BBCBC), Central Florida Cares Health Systems (CFCHS) and Southeast Florida Behavioral Health Network (SEFBHN) and One Managing Entity Region Broward Behavioral Health Coalition (BBHC) with relatively lower rate (11.1%)
E-Cigarette Use Among Adults

- The level in Florida is similar to the national average with a slightly higher lifetime use
E-Cigarette Use Among Adults (18+)
Florida vs. the United States

Data source: 2016 BRFSS
IV. Marijuana Use

- Adolescent use and adult use
- Florida and US comparison
- Differences Across Managing Entity Regions
- Synthetic marijuana
Lifetime Marijuana Use
High School Students

Data source: 2007-17 YRBSS
Lifetime Marijuana Use
High School Students
National Comparison

- Long-time trend similar to national average
- Slightly lower than national level in lifetime use
- Slower decline relative to the national trend
Past 30-Day Marijuana Use
Adolescents (12-17)
Florida vs. U.S. 2006-2017

Data source: 2006-17 NSDUH
Current Marijuana Use
High School Students
National Comparison

- Long-time trend similar to national average: Around 6.5 to 7.5%
- Continued increase from 6.8% in 2014-15 to 7.0% in 2015-16, further to 7.5% in 2016-17
Lifetime Marijuana Use
Youth in Florida by Gender & School Grade, 2006-2018

Data source: 2018 FYSAS
Past 30-Day Marijuana Use Youth in Florida by Gender & School Grade, 2006-2018

Data source: 2018 FYSAS
Age and Gender Patterns

- Converging gender differences in past 30-day marijuana use in recent years
- Gender difference in *lifetime* use crossover from 2016 to 2018 (more girls than boys used marijuana)
Cross-Managing Entity Regions Comparison

- Age of onset of use
- Use in the past 30 days
Initiated Marijuana Use by Age 13 by Gender & Managing Entity Regions, 2018

Data source: 2018 FYSAS
Past 30-day Marijuana Use
Youth in Florida by Gender & Managing Entity Regions 2018

Data source: 2018 FYSAS
Cross-Managing Entity Regions Comparison

- Boys were more likely than boys to initiate marijuana use in 2018.
- Girls were also more likely to use marijuana in the past 30 days.
- Differences in both the rate of initiation and use in the past 30 days with higher rates in three Managing Entity Regions (Central Florida Behavioral Health Network (CFBHN), Lutheran Services Florida Health Systems (LSF) and Southeast Florida Behavioral Health Network (SEFBHN)).
Synthetic Marijuana Use

- Florida and national comparisons
Synthetic Marijuana Use
High School Students in Florida, 2012-2018

Data source: 2018 FYSAS
IV.2 Adult Marijuana Use

- Florida and national comparisons
Marijuana Use in the Past 30 Days
Adults (18+)
Florida vs. U.S., 2006-2017

Data source: 2006-2017 NSDUH
Florida and U.S. Differences in Adult Marijuana Use

- Past 30-day marijuana use among adults increased progressively in Florida as well as in the Nation since 2006.
- Adults in Florida were less likely to use marijuana in the past 30 days since 2006.
V. Novel Psychoactive Substance Use

- FYSAS data indicate low rate of use of tryptamines (LSD, DMT, Psilocybin, 5-MeO-DiPT) in adolescents in 2018

- Tryptamine was detected only in 4 deceased persons from 2017 Medical Examiners data
VI. Use of Opioids

- Use of fentanyl analogs
- Nonmedical use of opioids
- Heroin use
Increases in Fentanyl Use Among Florida Residents From 2016 to 2017

Data source: Florida Medical Examiners Commission Report, 2016 and 2017
Nonmedical Opioid Use During 2016-2017

Note: Fentanyl analogs and heroin were excluded
Data source: Florida Medical Examiners Commission Report, 2016 and 2017
Opioid Use in Florida during 2016-17
Data From the Medical Examiners Report

- There was a big increase in fentanyl use in Florida
- There was a reduced rate of nonmedical use of opioids from 2016 to 2017
Changes in Nonmedical Use of 11 Specific Opioids in Florida 2013-2017

Three Groups of Specific Opioids Data From the Medical Examiners Report

- Rapid growth with high levels of recent use (3):
  - Fentanyl: quickest increase with highest level
  - Hydromorphone, high level and slow down in increase
  - Oxycodone, high level, first to slow down in increase among the three
- Relatively stable (5)
- Low but increasing (2): Buprenorphine and meperidine
Fentanyl and Morphine
Two Most Frequently Used Opioids
in Florida, 2017

Deaths with opioids
Deaths caused by opioids
% Deaths caused by the drug

Data source: Florida Medical Examiners Commission Report, 2017
Trends in Heroin Use in Florida 2013-2017

Data source: Florida Medical Examiners Commission Report, 2013-17
The number of deaths with heroin detected increased from 2016 to 2017 at a lower rate than before.

The number of deaths attributed to heroin use declined during the same period.

Both indicators remained at high level in 2017 (1057 for the former and 944 for the later).

Very high rates of drug attributed death in 2017 (89%).
VII. Cocaine Use

- National comparison
- Age, gender and school grade differences
Cocaine Use Among Youth (12-17)
Florida vs. U.S., 2013-2017

Data source: 2006-2017 NSDUH
Lifetime Cocaine Use Among Youth (11-18) in Florida by Gender & School Grade

Data source: 2010-18 FYSAS
Characteristics of Adolescent Cocaine Use

- Historical trends similar to the national average
- Current level of use remained low in 2018
- Obvious gender (boys more likely than girls to use) and school grade differences
Managing Entity Regions and Gender Difference in Past 30-day Cocaine Use Youth (11-18) in Florida, 2018

Data source: 2018 FYSAS
Managing Entity Regions

Differences in Adolescent Cocaine Use

- Large variation in adolescent cocaine use based on FYSAS data
- No adolescents in Broward reported past 30-day cocaine use
- Higher rate of cocaine reported in past 30-day use in four Managing Entity Regions
  - Big Bend Community Based Care (BBCBC)
  - Lutheran Services Florida Health Systems (LSF)
  - South Florida Behavioral Health Network (SFBHN)
  - Southeast Florida Behavioral Health Network (SEFBHN)
The Growth in Cocaine Use Among Florida Residents Slowed in 2016-2017

Cocaine use grew:
- by 10.5% from 2014 to 2015
- by 16.5% from 2015 to 2016
- by 4.7% from 2016 to 2017 (slower growth)

Data source: Florida Medical Examiners Commission Report, 2017
Historical Trends and Recent Change in Cocaine Use by Managing Entity Regions in Florida

Data source: Florida Medical Examiners Commission Report, 2017
Continuous Increase in Cocaine Use from Medical Examiners’ Data

- Both the number of deaths with cocaine detected and the deaths attributed to the drug increased from 2016 to 2017

- Substantial Managing Entity Regions-differences in cocaine use since last report

  - Three Managing Entity Regions with highest level and fast rate of increase:
    - Central Florida Behavioral Health Network (CFBHN)
    - Central Florida Cares Health Systems (CFCHS)
    - Lutheran Services Florida Health Systems (LSF)

  - The one Managing Entity Region with lowest level and no increase: Big Bend (BBCBC)
VIII. Methamphetamine Use

- Use among youth from FYSAS data
- Results from Medical Examiners data
Low Rates of Lifetime and Past 30-Day Use of Methamphetamine Youth in Florida

Data source: Updated with 2018 FYSAS
VIII.1 Methamphetamine Use Among Florida Youth

- Both lifetime and past 30-day use remained at low levels from 2017 to 2018
Continued Increases in Methamphetamine Use In Florida from 2016 to 2017

Data source: Florida Medical Examiners Commission Report, 2017
VIII.2 Data from the Medical Examiners Report

- There was a rapid increase in deaths detected with methamphetamine from 2016 to 2017.
- There was also an increase in deaths attributed to the drug during the same period.
- Potential underreport of methamphetamine use among Florida adolescents.
IX. Medical Use of Rx Benzodiazepines

- Benzodiazepines less likely as a cause of death relative to many other drugs
- Stabilization of deaths detected with Rx benzodiazepines and attributed deaths from 2016 to 2017
Slow Down in Rx Benzodiazepines Use and Related Deaths Due to Use in Florida, 2016-2017

Data source: Florida Medical Examiners Commission Report, 2017
3 Most Used Rx Benzodiazepines in 2017
Alprazolam, Nordiazepam and Diazepam

Data source: Florida Medical Examiners Commission Report, 2017
Three Most Commonly Detected Rx Benzodiazepines

- Alprazolam (37%)
- Nordiazepam (13%)
- Diazepam (12%)
## Changes in Alprazolam and Diazepam Across Managing Entity Regions in Florida During 2016-17

<table>
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<tr>
<th>ME Regions</th>
<th>Alprazolam</th>
<th>Diazepam</th>
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<tr>
<td></td>
<td>2016</td>
<td>2017</td>
</tr>
<tr>
<td>State total</td>
<td>1851</td>
<td>1889</td>
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<tr>
<td>By ME Regions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBC BC</td>
<td>118</td>
<td>100</td>
</tr>
<tr>
<td>BBHC</td>
<td>169</td>
<td>162</td>
</tr>
<tr>
<td>CFBH</td>
<td>562</td>
<td>502</td>
</tr>
<tr>
<td>CFCHS</td>
<td>220</td>
<td>242</td>
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<tr>
<td>LSF</td>
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<td>360</td>
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<tr>
<td>SFBH</td>
<td>251</td>
<td>247</td>
</tr>
<tr>
<td>SEFBH</td>
<td>219</td>
<td>276</td>
</tr>
</tbody>
</table>

Managing Entity Regions
Differences in Rx Alprazolam
During 2016-17

- Statewide, a declining trend in Rx. Alprazolam
- Four Managing Entity Regions with a declining trend, particularly the Big Bend Community Based Care (BBCBC) (-15.3%)
- Four with an increasing trend, particularly the Southeast Florida Behavioral Health Network (SEFBHN) (+26%)
Managing Entity Regions Differences in Rx Diazepam During 2016-17

- Statewide, an increase in Rx. Diazepam
- Three Managing Entity Regions with an increasing trend with the largest increase for the Central Florida Behavioral Health Network (CFBHN)
- Four Managing Entity Regions with a declining trend with the largest decline in the Big Bend Community Based Care (BBCBC) (42.9%)
Summary

Differences across Managing Entity Regions suggest potential improvements in substance abuse prevention and treatment in Florida.

Remaining challenges

- Prevent e-cigarettes and marijuana use
- Prevent girls from trying and using alcohol and marijuana
- Curb increases in use of opioids (particularly heroin), fentanyl and fentanyl analogs
- Reduce differences in Benzodiazepine access and use across the Managing Entity Regions
X1. References Cited


• Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance System (YRBSS). Youth Online Data Analysis Tool.

• Patterns and Trends of Substance Use within and Across the Regions of Florida, May 2018.


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thank you