

# The Price Florida Pays for Drug and Alcohol Abuse

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# Statement of Need

- Research demonstrates the pervasive detrimental effects of Alcohol and Drug Use (AAD) on the health of both individuals and communities.
- Despite this, discourse regarding the consequences of AAD is still largely confined to the clinical sphere, with very little emphasis placed on the ramifications to society as a whole.
- To date, there have been only a handful of studies examining the costs of AAD through a societal framework.

# Statement of Need

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- The consequences of AAD that spillover onto society occur in the form of: accidents, injuries, illness, and crime.
- Though costs of AAD have been estimated on a national level and a handful of studies exist on a state specific level, there has been no such study conducted for Florida.

# Statement of Need

- A confluence of factors exacerbates AAD in Florida:
  - Spatial location
  - Tourist hotspot
  - “Gateway to the Americas”
- Research suggests that entertainment cities have a thriving culture of alcohol use, abuse and drug use
- The Department of Children and Families estimates that current funding is meeting only 30% of prevention and treatment needs.

# Methodology

- Cases of adverse events causally linked to AAD were obtained from state and national databases.
- Methodology to isolate and estimate costs of adverse events incurred by AAD relied on previous studies (Rosen, Miller, & Simon, 2008).
- Though specific methodology differed, generally:  
*Incidents x Attributable Fraction x Cost per case.*

# Methodology

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- Examine the economic costs of alcohol use in the following domains:
  - Health Conditions
  - Injuries
  - Traffic Events
  - Crimes

# Methodology

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- Examine the economic costs of drug use in the following domains:
  - Health Conditions
  - Crime
  - Fatalities due to drug toxicity
- Costs were assigned based on published estimates and updated to 2008 dollars.

# Societal Costs of Alcohol Use

- Health Conditions

- Attributable

- Direct

- FASD

- Fatal Injuries

- Adverse Traffic Events

- Injuries

- Fatalities

- Crime

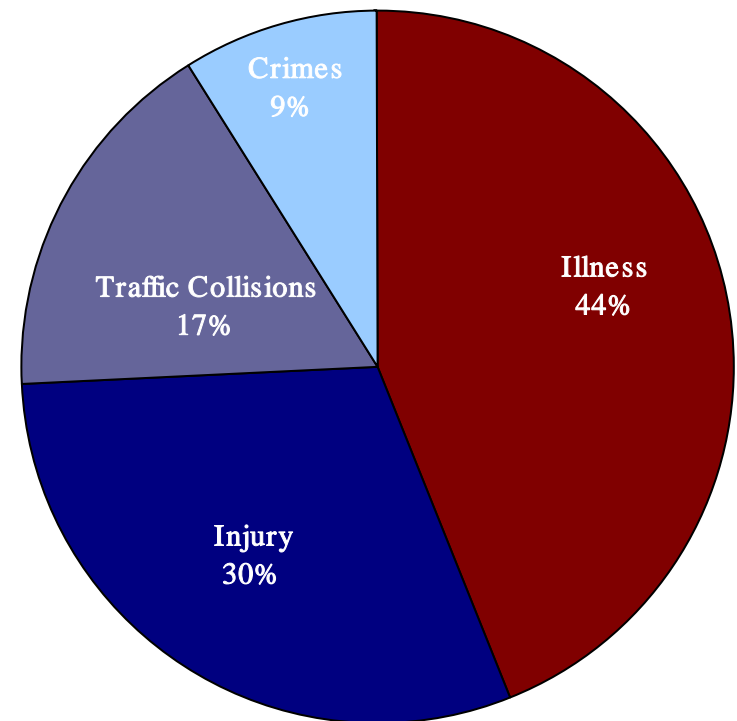
- Incarcerations

- Victims



# Alcohol Attributable Deaths

- Injury: 1,904
- Traffic Collisions: 1,051
- Illness: 2,757
- Violent Crimes: 564



# Alcohol Attributable Health Conditions

- Utilized the Alcohol Related Disease Impact (ARDI) Tool from the CDC to estimate the proportion of health conditions attributable to medium and high alcohol use.
- Costs were assigned based on hospital charges per case from the Agency of Healthcare Administration (AHCA).
- Work loss costs and Fetal Alcohol Spectrum Disorders (FASD) costs were estimated differently due to the nature of the costs.

# Alcohol Attributable Health Conditions

Health Conditions	Hospitalizations	Medical Costs	Work Loss Costs
Digestive Diseases	6,952.8	\$271,748,806	\$6,038,626.88
Malignant Neoplasms	217.2	\$13,600,001	\$215,941.44
Cardiovascular Diseases	3,777.1	\$112,129,720	\$2,046,833.36
Skin Diseases	.93	\$11,191	\$4,46.16
Other Illnesses	2,850.99	\$40,848,463	\$694,671.12
Illnesses caused by Alcohol	5,5019	\$572,683,320	\$15,945,758.40



# Alcohol Attributable Health Conditions

68,818 alcohol attributable hospitalizations resulted in a total of \$1,443,067,075 in hospital charges.

FASD results in over \$432 million dollars spent in the form of healthcare, special education, etc.

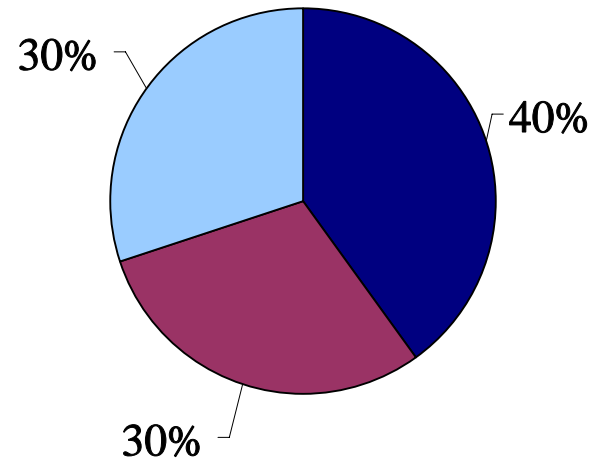
5 hospitalizations occur due to alcohol use every hour.



# Alcohol Attributable Health Conditions

The annual economic cost of alcohol attributable health conditions is \$1,468,009,352.

Over \$167,000 is lost every hour due to alcohol attributable health conditions.



- 100% caused by alcohol
- Partially attributable to alcohol
- FASD



# Alcohol Attributable Fatal Injuries

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- Injury cases were obtained from Florida Department of Health.
- Cost estimates were assigned using the value of a statistical life (VSL).
- VSL ranges from \$2.6 million to \$8.5 million. Current research indicates that the minimum VSL is at least \$4.3 million (Rosen et al., 2008).



# Alcohol Attributable Fatal Injuries

Injuries	Incidents	Costs
Drowning	120	\$561,245,776
Fall	533	\$2,492,866,653
Fire/Flame	45	\$210,467,166
Machinery	5	\$23,385,241
Poisoning	648	\$3,030,727,188
Suicide	553	\$2,586,407,616
<b>Total</b>	<b>1,904</b>	<b>\$8,905,099,640</b>

28% of all fatal injuries in Florida are attributable to alcohol use.

5 Floridians are killed every day consequent to alcohol related injuries.

# Alcohol Attributable Adverse Traffic Events

- Incidents of Adverse Traffic Events were obtained from the Florida Department of Highway Safety and Motor Vehicles.
- AAFs were obtained from ARDI.
- Costs were assigned based on published estimates by the National Highway Traffic Safety Administration.



# Alcohol Attributable Adverse Traffic Events

- Direct economic costs of adverse traffic events totaled an estimated \$3,616,617,906.
- Quality of Life costs resulted in an additional \$3,658,397,626.
- Economic costs of adverse traffic events totaled an estimated \$7,275,015,532.

## What does this mean?

- Over \$800,000 is spent every hour due to an alcohol attributable adverse traffic event.
- 9 injuries occur every hour due to alcohol use.
- Almost 3 fatalities occur every day due to alcohol use.

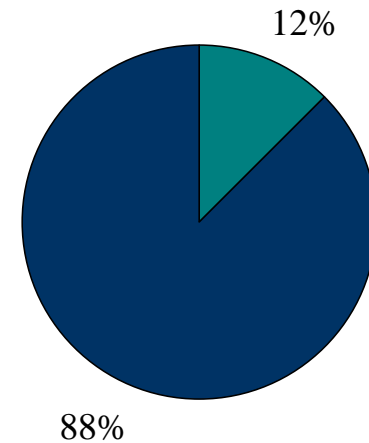
# Alcohol Attributable Crimes

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- Two types of crime costs were examined:
  - Incarceration Costs
  - Victim Costs
- Data obtained from Department of Corrections and Federal Bureau of Investigation's Uniform Crime Reports.
- Costs assigned based on published estimates.

# Alcohol Attributable Crimes

- Victim costs estimated to be \$3,011,586,828.
- Incarceration costs estimated to be \$425,645,691.
- Total crime costs estimated to be \$3,437,232,519.



■ Incarceration Costs ■ Victim Costs

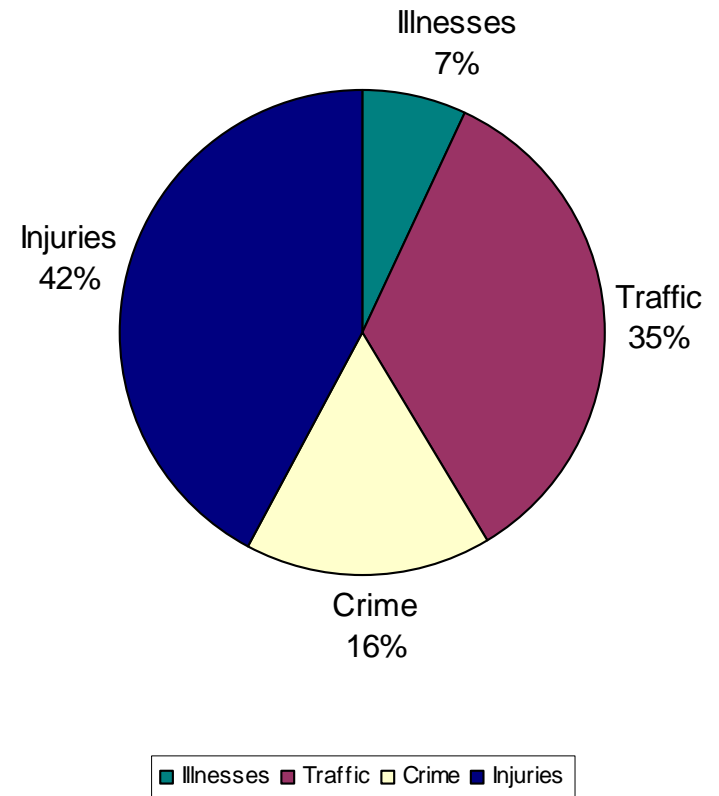
# Alcohol Attributable Crimes

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- What does this mean for Floridians?
  - 7 crime incidents every hour.
  - 7 incarcerations every day.
  - 47 deaths every month.
  - Almost \$400,000 in incarceration and victim costs spent every hour.

# Alcohol Attributable Costs

The total annual economic cost of alcohol in Florida is \$21,085,357,042.



# Alcohol Attributable Costs

- This translates to:
  - \$2,407,004 spent every hour consequent to alcohol use in Florida.
  - 17 deaths every day consequent to alcohol use.

3 times as many people died from alcohol use than were killed in Hurricane Katrina.

The economic impact of alcohol use exceeds the amount Medicare & Medicaid pay for smoking attributable health conditions across the nation.



# Drug Attributable Adverse Events

- Health Conditions
- Crimes
  - Victim
  - Incarcerations
- Fatalities due to drug toxicity

# Drug Attributable Health Conditions

- Health conditions and costs resultant of drug use were obtained from AHCA.
- Drug attributable health conditions result in an estimated \$103,427,447 in hospital charges and work loss costs.

This translates to:

- 2 hospitalizations every hour consequent to drug use.
- \$11,807 spent every hour due to hospital charges resultant of drug use.



# Drug Attributable Crimes

- Drug Attributable Crimes were estimated for:
  - Incarceration Costs
  - Victim Costs
- Incarceration costs totaled: \$1,118,762,980.
- Victim costs totaled \$1,277,857,330.

## This causes:

- 18 victims of drug attributable crimes every hour.
- 40 incarcerations due to drug attributable crimes every day.
- Over \$273,000 spent every hour due to drug attributable crimes.

# Drug Fatalities due to Toxicity

- Total annual drug attributable fatalities due to toxicity were obtained from the Florida Medical Examiner's Report.
- Approximately \$20,181,462,681 is lost due to drug toxicity.
- Over \$10 billion of this is for deaths caused by prescription opioids.

This means:

- 12 deaths occur every day due to drug use.
- Approximately half of these deaths occur solely due to prescription opioids.

# Drug Attributable Costs

- The total economic cost of drug attributable adverse events is \$22,681,284,691.
- This means:
  - \$2,589,188 is spent every hour due to drug use.
  - Annual economic drug costs account for approximately 3% of Florida's Gross Domestic Product.
  - \$1,237 spent per capita due to drug attributable adverse events.

# Total Economic Impact of AAD

The total annual economic costs of AAD is estimated to be \$43,766,641,733.

Consequences of alcohol  
and drug use cost  
Floridians \$4,996,192  
every hour.

Approximately 30 deaths  
occur every day due to  
AAD.

# Limitations

- Data limitations occlude a comprehensive analysis. Costs excluded from this analysis:
  - Prevention, treatment, and research
  - Prescription costs
  - Quality of Life costs due to nonfatal injuries
  - High risk sex, HIV transmission, child abuse and neglect
- Data availability is especially problematic for drugs due to their illegal status.

# Limitations

- Methodological limitations include:
  - Utilizing VSL to obtain cost estimates for lives lost.
  - Quality of life estimates based on jury verdicts to assign costs.
  - The use of attributable fractions
    - ARDI does not take into account all illnesses attributable to alcohol.
    - Lack of attributable fractions for drug attributable health conditions.

# Policy Implications

- Clearly, the economic costs and human toll of alcohol and drug use create a significant burden within Florida.
- The total economic costs of AAD translate to over \$2,300 per capita.
- Costs account for 6% of Florida's Gross Domestic Product.

# Policy Implications

## Key Issues

- High costs of societal consequences
  - Approach AAD through a public health framework.
  - Formulate macro level policies that reduce overall access to alcohol and drugs.
  - Invest in prevention and treatment programs.
  - Link prevention and treatment programs to other health & safety programs.





# Policy Implications

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- High costs of drug attributable deaths due to prescription drug use
  - Monitor prescription drug transactions.
  - Set strategies aimed at reducing overall drug use.
  - Implement policies designed to curb off label use.

# Thank You

