SUBSTANCE USE IN DURHAM COUNTY

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Together for Resilient Youth and Duke Division of Community Health

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About Dr. Wanda Boone, Together for Resilient Youth, Founder and CEO

Dr. Wanda Boone has been a part of the public health and prevention landscape for 30 years. She has trained the Together for Resilient Youth (TRY) coalition membership to be assets and advocates to the entire Durham community and beyond. She founded TRY in 2003. TRY’s Mission is to prevent substance use among youth by addressing trauma and risky behaviors that can result in addiction, health challenges and lost productivity in adulthood. The added focus on adults is critically important. Children thrive when the adults that surround them are healthy and resilient.

Dr. Boone reaches beyond the Durham Community and is sought out for technical assistance, coaching and support throughout NC and the nation. She is an award winner – National Community Anti-Drug Coalitions of America Got Outcomes, General Arthur Dean, NC Dogwood Award, NC Attorney General Josh Stein, Ann Doolen Visionary Award, NC Alcohol Drug Council.

Dr. Boone is the program coordinator for the 2nd award of TRY’s Drug Free Community Support (DFC) program grant. She developed, Forward Together a Whole Health Community Peer to Peer initiative funded by Blue Cross Blue Shield of NC. She Co-Chairs the Durham County Substance Use Task Force (DJT) with County Commissioner Chair, Wendy Jacobs. TRY serves as the prevention provider for DJT.

Dr. Boone has been a forerunner in the field of Adverse Childhood Experiences (ACEs) and resilience. TRY’s Achieving Health Hand in Hand (AHHH!) created a resilient community safety net that benefits everyone. AHHH! gives special attention to low wealth communities that experience health disparities, a higher level of ACEs, community trauma, historical trauma, and environmental trauma. AHHH! reached over 6,000 men, women and children in 2018-2019. Dr. Boone is a founding member of the Durham County ACEs and Resilience Task Force, County Commissioner Ellen Reckhow.

Dr. Boone served as the NC Institutes of Medicine Healthy People NC 2030 Co-Chair Social and Economic Factors Task Force and is a member of NCIOM which seeks to find solutions for difficult health challenges for citizens of NC. Dr. Boone founded TRY Resilient Together, a social support group for parents that have lost children due to overdose or substance use.

Dr. Boone is a Master Developmental Asset Trainer. Dr. Boone provides technical assistance to new, emerging and advanced coalitions on grant writing, engaging communities of color, ACEs, resilience environmental strategies specific to individual communities and more. She believes the key for many people who struggle with physical and mental health issues is to be trauma-informed and know that resilience is key to living again. Boone says, “My lifelong dream is to make a difference in people’s lives, and that they have a chance to begin again after ACEs.”
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Acknowledgements

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# Table of Contents

Executive Summary .......................................................................................................................... 4
Introduction to Surveillance Networks ............................................................................................. 6
Demographics of Durham County ..................................................................................................... 9
Scope of the Problem in Durham County ......................................................................................... 11
Tracking the Problem: Health-Related Outcomes ....................................................................... 12
  - Emergency Department Visits .................................................................................................. 12
  - Drug Overdose-Related Deaths ............................................................................................... 16
  - HIV and Injection Drug Use .................................................................................................... 21
Substance Abuse and Social Services: Homelessness .................................................................. 25
Substance Use among Youth ............................................................................................................ 28
Alcohol and Marijuana Use on College Campuses ....................................................................... 34
  - Alcohol Use ............................................................................................................................... 34
  - Marijuana Use ............................................................................................................................ 37
Alcohol Use among Adults .............................................................................................................. 39
  - Prevalence of Binge and Heavy Drinking among Adults ............................................................ 39
  - Drinking and Driving in Durham ............................................................................................. 44
Smoking among Adults .................................................................................................................... 48
Substance Abuse and Law Enforcement ....................................................................................... 53
  - Arrests in Durham County Related to Alcohol and Illicit Substances ........................................ 53
  - Substance Abuse among Juveniles Prior to Adjudication .......................................................... 60
  - Arrests on College Campuses .................................................................................................. 63
Discussion ......................................................................................................................................... 65
  - Healthy NC 2020 Objectives ................................................................................................... 65
  - Mental Health Care Services .................................................................................................... 65
    - Alliance Health ....................................................................................................................... 65
    - Private Mental Health Care Providers ...................................................................................... 65
    - Together for Resilient Youth (TRY) ..................................................................................... 66
References ........................................................................................................................................ 66
Appendix A: Together for Resilient Youth Strategic Plan ............................................................... 1
Executive Summary

This report builds on the Durham County 2007, 2010, 2013, and 2015 reports.1,2,3,4 Following a description of who lives in Durham, this report examines various datasets that demonstrate how the Durham community has been affected by substance misuse and abuse.

Substance use not only impacts the individual and his/her family, but also the community. Using a strategy suggested by the National Institute of Drug Abuse for community surveillance, this report compiles information from a variety of agencies and sources on how substance use and abuse affect Durham County. A better understanding of the substance use problem in the community becomes apparent after examining information from multiple sources such as law enforcement agencies, treatment providers, and information on self-reported prevalence of use, drug seizures, and motor vehicle accidents.

Health-Related Outcomes

Statistics related to emergency department (ED) visits, drug overdose-related deaths, and HIV and injection drug use (IDU) are useful for tracking substance use trends. The top three substances for 2017 ED visits were opioids, heroin, and benzodiazepine. From 2016 to 2017, there was a 67% increase in the number of ED visits related to medication and drug poisoning. From 2015 to 2016, the number of overdose deaths doubled. The top three substances contributing to medication and drug overdose deaths are other synthetic narcotics, heroin, and cocaine. A small but significant percentage of HIV cases were related to IDU.

Homelessness

The percentage of people in Durham who are experiencing homelessness and have a substance use disorder is relatively small. However, the exact number of individuals in general – and consequently, the exact number of individuals with a substance use disorder – depends on counting methods, which have changed over the past five years.

Law Enforcement

Many individuals abusing substances come to the attention of law enforcement and the criminal court system. Arrests are markedly down in the past five years compared to earlier trends. On average, the number of arrests for sales of opium or cocaine since 2009 has been declining. Similar declining patterns were observed in arrests for possession of opium or cocaine and in arrests for marijuana sales, manufacturing, and possession. The data describing youth who were involved with juvenile justice indicate that youth are in need of treatment or further assessment.
Alcohol

While the rate of binge and heavy drinking in Durham is slightly lower than the NC rate, the consequences of the behavior seriously impact health. Binge drinking and heavy drinking occur at a higher percentage for males than females. For both the percent of total crashes and fatal crashes related to alcohol, Durham County percentages are lower than state averages. While drinking and driving is a problem in most communities, Durham numbers are slightly below NC averages. Overall, there has been a steady decrease from 2013-2017 in the percent of crashes related to alcohol for Durham County.

Smoking

In 2017, approximately 16.6% of Durham residents were current smokers, and 11.8% reported smoking every day. NC has seen a decline in smoking during pregnancy since 1998. The percent of women who smoke during pregnancy is lower in Durham than in the rest of the state. There is a growing concern for smoking among youth with the recent emergence of trendy electronic vapor products. However, there was a decrease in the number of Durham high school students who currently use electronic cigarettes from 2015 to 2017.

How to Use this Report

“Durham” is used to refer to Durham County. For the purposes of this report, “black” is used to mean black or African American. “White” is used to mean white or Caucasian.

For this report to be most useful in understanding how substance use is affecting Durham and for planning prevention and intervention efforts, it is important for community members to read, reflect, and communicate with others about the report. Community members will have additional information to contribute, such as changes in policies, programs, practices and funding that are causing shifts in trends. The authors of this report welcome feedback and insight from community members regarding the content of this report.
Introduction to Surveillance Networks

Substance abuse affects many aspects of society, including but not limited to health care, crime rates, unemployment, education, and family life. Many of us have seen unpleasant evidence of this relationship through our personal experiences and the experiences of family and friends. While agencies and individuals in our communities are making real strides in addressing issues related to substance abuse, our community’s responses are often hampered by our collective difficulty to view these issues comprehensively. Looking at each problem caused by substance abuse in isolation is often inadequate to capture the distinctions required to shape effective local strategies. It is a surveillance network’s desire that both citizens and agencies come to understand the full scope of problems associated with substance abuse – not just the problems plaguing “their” organization and/or community. The National Institute of Drug Abuse’s Community Epidemiology Work Group (NIDA-CEWG) developed a substance abuse surveillance network model to generate information that would help communities address the wide range of problems caused by substance abuse.

What are Surveillance Networks?

The NIDA defines a surveillance network as follows:

*Community Epidemiology Surveillance Networks are multi-agency work groups with a public-health orientation which study the spread, growth, or development of drug abuse and related problems. The networks have a common goal - the elimination or reduction of drug abuse and its related consequences.*

A network creates a resource-sharing system for different kinds of groups, including but not limited to public health officials, law enforcement agencies, hospitals, and schools. It could include businesses, churches, and other civic organizations. Information gathered from a network can be supplemented with the results of local household surveys that provide community estimates of specific behaviors among subpopulations. Representatives from all respective agencies meet regularly to discuss data implications and create a standard template for data reporting.

After completing the report from accumulated data, the team of representatives disseminates the results to vast audiences. In order to disseminate the results to the maximum number of stakeholders, the results should be distributed frequently in a format that is easily understandable. This includes providing both quantitative and qualitative information.

Surveillance networks have long been used by major cities in the U.S. such as Boston and New York City. These networks are able to identify current patterns of drug abuse and
emerging trends, such as the introduction of a new (or revival of an old) drug to a community.

A network’s objectives are designed to focus on problems specific to a particular area. The NIDA lists the following objectives in their model description:

1) Identify drug abuse patterns in specific geographic areas;
2) Identify changes in drug abuse patterns with the aim of finding patterns and trends over time;
3) Detect emerging substance abuse trends and consequences for the community; and
4) Distribute all acquired information to as many bodies as possible for policy use, research, general public knowledge, and prevention strategies.

The Benefits of Surveillance Networks

Substance abuse is a dynamic problem. Over time, changes occur in the types of substances used, the populations most affected by different drugs, and the locations where the drugs are bought and sold. Thus, in order to use community resources efficiently, it is important to identify the “problem” as precisely as possible and then choose the appropriate intervention strategy for the community. Surveillance networks are designed to help communities target resources as efficiently as possible.

Surveillance networks are particularly efficient at identifying trends as the problem is emerging. With substances, early detection is imperative, because addiction and dependency spread rapidly with time, furthering associated problems (health, crime, etc.). Early detection helps all sectors mobilize resources for prevention and provides treatment professionals, law enforcement, and medical professionals the time to gain more knowledge of the kinds of problems they are likely to face.

The other advantages of a network go beyond simply providing accurate data. For the most part, surveillance networks are inexpensive and self-sustaining. A few committed members from each organization can easily gather data for comparison and analysis. In addition, most network members are already likely to be engaged in prevention. Therefore, the network exposes members to more perspectives, information, and immediate feedback about changes that may be occurring.

As new members are added to the network, the community gains additional information. At the local level, sharing information across agencies allows for trends to be identified early and appropriate strategies to be developed in a timely fashion. On a broader level, networks can share information with other communities, such as effective interventions and strategies. For example, if a network established in Pleasantville had successfully
halted the introduction of drug “x” into its community, this approach becomes a case study when that drug is identified as an issue in Durham or other surrounding counties.

In summary, surveillance networks are inexpensive, efficient, and accurate. The initial implementation requires little, aside from a place to meet and community members’ time. Networks help identify problems that are endemic to a particular area and, in turn, provide exactly the form of data that is needed to address a problem as complex as drug and substance abuse.
Demographics of Durham County

Understanding the demographics of a community is helpful in understanding the population’s needs and in planning prevention and services. According to the 2010 U.S. Census, the estimated population of Durham County in 2017 was 311,640. The growth rate of Durham County over the past years has been 1.9%. Children under the age of 18 account for 22.1% of Durham’s population, while those over the age of 65 account for 14.2%. Following a national trend, Durham has an increasing aging population.

Durham is particularly diverse when compared to NC as a whole. According to projections of the 2010 Census, in 2017, a little more than half of Durham was white, relative to 71.1% of NC. Durham is 38.9% black, relative to 22.9% of the state. 13.5% of Durham’s population is of Hispanic or Latino origin, compared to 9.1% in NC. 5.6% of the population is Asian, relative to 3.2% in the state. Moreover, 14.7% of people in Durham reported being foreign-born which is nearly double the statewide figure. Within the foreign-born population in Durham, 44.6% were born in Latin America, and 34.4% were born in Asia. Among the foreign-born population, 71.2% are not a U.S. citizen.

Figure 1 shows how the population of Durham County has grown from 2000 to 2017. From 2000 to 2017, projections from the 2010 Census suggest that the population of Durham County grew by about 46.4%.
Figure 1: Durham County population growth by race/ethnicity, 2000 – 2017

Through the lens of some statistics, Durham is generally better educated and slightly wealthier than the rest of the state. However, the statistics on education create a more complex profile of the county. While a larger percent of Durham residents over the age of 25 have a Bachelor’s degree or higher (48.4% relative to 31.3% for the state), slightly more have not completed high school (12.6% relative to 12.2% for the state). While the median earnings in Durham is above the state average ($42,001 compared to $36,420 for the state), the percent of Durham residents living in poverty in 2017 was also slightly above the state average (16.1% vs. 14.7%). Following a state wide trend, the poverty percentages are higher among racial minorities in Durham. The percent of black or African Americans in Durham living in poverty in 2017 was 22.7% (22.0% for the state). Among Hispanic or Latino Durham residents, 29.1% (27.1% for the state) live in poverty. Among white Durham residents, 10.8% (11.6% for the state) live in poverty.
Scope of the Problem in Durham County

In 2016, the Durham County Health Department with Partnership for a Healthy Durham conducted the Community Health Assessment. Data was collected through a community health opinion survey that was completed by randomly selected Durham County households. In this survey, there were several questions which highlighted the prevalence of mental health and substance use issues. Specifically, respondents were asked, “Keeping in mind yourself and the people in your neighborhood, tell me the three community issues that have the greatest effect on quality of life in Durham County (Choose three).” Substance Abuse was the top choice chosen by the full county sample (32.9%), and the third top choice among the Hispanic and Latino sample (26.9%).
Tracking the Problem: Health-Related Outcomes
Emergency Department Visits

**Indicators:**

- Number of emergency department visits related to substance use by intent
- Number of emergency department visits related to substance use by drug type

**Relevance:**

- Most people will try to avoid going to the emergency department (ED) for drug-related issues because of the illegality of the substance used or because of the cost of the service. Thus, typically only severe cases are seen.

- A sharp change in ED visits can indicate that a new substance has been introduced into a community (and thus many people are trying it) or that the purity of a substance has changed (and experienced users are taking potentially life-threatening doses of the substance).

- In 2017, there were nearly 12,000 hospitalizations and over 25,000 ED visits related to medication and drug poisoning in NC.\(^1^7\)

- According to the Injury and Violence Prevention Branch of the North Carolina Department of Health and Human Services (NCDHHS), heroin or other synthetic narcotics (like fentanyl) were involved in nearly 80% of unintentional opioid deaths in 2017.\(^1^8\)

**Data:** Data was collected from the Poisoning Data Base from the Injury and Violence Prevention Branch within the Chronic Disease and Injury Section of the NCDHHS.\(^1^9\) ED data is provided for each county in NC. The data on ED visits collected and analyzed by The NC Injury and Violence Prevention Branch comes from the NC Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT).\(^2^0\) The tool is designed to provide timely statewide detection of public health events. Hospitals report information daily to the system to allow for early detection of potential epidemics or public health concerns. The following disclaimer is provided on their reports to account for the gap in data for the year 2015:

> *In October 2015, there was a change in the coding system used in administrative data sets that impacted the definition used to identify poisoning-related injury cases. Because of this change, data are unavailable for 2015, and data pre-2015 are not comparable to data collected after this change occurred. Case definitions in the new*
coding system are still under review and are therefore subject to change. For more information on the coding transition visit: http://www.injuryfreenc.ncdhhs.gov/DataSurveillance/ICD-10-Transition-1pg-Summary.pdf

**Findings:** Medication and drug poisoning ED visits can be examined in two ways: by intent and by substance.\(^2\) Figure 2 provides the total number of ED visits from 2008-2017 for Durham County, and of those visits, which were unintentional and self-inflicted. For ED visits, unintentional is defined by the NCDHHS as all ED visits related to substance use that were coded unintentional/accidental, while self-inflicted is defined as all ED visits related to substance use that were coded self-inflicted/suicide. After an average decline in ED visits from 2008-2014, there was an observed increase in all ED visits in 2017. Since 2014, unintentional ED visits have been higher than self-inflicted ED visits. In 2017, 60.9% of ED visits related to medication and drug poisoning were unintentional and 32.9% were self-inflicted.

Figure 3 provides the total number of ED visits and breaks down the visits by drug type between the following categories: benzodiazepine, psychostimulant, heroin, methadone, commonly prescribed opioids, and all opioid poisonings. In 2016 and 2017, there was a large increase in heroin ED visits and opioid poisoning visits, and there was a decrease in psychostimulant ED visits. While it only accounted for 2.1% of ED visits in 2008, heroin accounted for 13.8% of ED visits in 2017.
Figure 2: Medication and drug poisoning ED visits - unintentional and self-inflicted – Durham County\textsuperscript{22}
Figure 3: Medication and drug poisoning ED visits by substance – Durham County²³
Drug Overdose-Related Deaths

**Indicators:**
- County medication and drug overdose deaths by intent
- Substances contributing to medication and drug overdose deaths
- County demographics of unintentional medication and drug overdose deaths

**Relevance:**
- From 1999-2017, the number of medication and drug poisoning deaths in North Carolina increased by more than 580%.
- Historically, prescription opioids have been the leading cause of high poisoning rates. However, more recently, the number of overdose deaths involving stimulants and illicit drugs, like heroin or other synthetic narcotics (fentanyl), are on the rise.
- Deaths investigated by the medical examiner provide insight into the types of drugs that individuals are accessing and abusing in the community and whether certain segments of the population are more at-risk of death from specific drugs.
- Changes in the number of substance use-related deaths in a community are especially likely when a drug is first introduced into a community or when there is a change in the purity or composition of a drug that is commonly used.

**Data:** Data was collected from the Poisoning Data Base from the Injury and Violence Prevention Branch within the Chronic Disease and Injury Section of the NCDHHS. Poisoning death data is provided for each county in North Carolina. The data reported by The North Carolina Injury and Violence Prevention Branch comes from the North Carolina State Center for Health Statistics, Vital Statistics Death Certificate Data. The following technical note is provided by the NC. Injury and Violence Prevention Branch:

_The fatal data provided here are part of the Vital Registry System of the State Center for Health Statistics (SCHS) and have been used to historically track and monitor the drug overdose burden in NC using ICD10 codes. The definitive data on deaths come from the NC Office of the Chief Medical Examiner (OCME). For the most recent data and data on specific drugs, please contact OCME at http://www.ocme.dhhs.nc.gov/annreport/index.shtml._

**Findings:** Figure 4 examines the number of medication and drug overdose deaths of Durham County residents from 2008-2017. In 2017, there were 54 medication and drug
overdose deaths among Durham residents. There was a spike in deaths in 2016 and 2017. The 54 overdose deaths in 2017 is more than double the number of overdose deaths in 2015 (25 deaths). Deaths were further sub-categorized into unintentional and self-inflicted. Unintentional drug poisoning deaths include cases where a drug was taken accidentally, too much of a drug was taken accidentally, the wrong drug was given or taken in error, or an accident occurred in the use of a drug(s) in medical and surgical procedures. Self-inflicted deaths are deaths coded as self-inflicted/suicide. From 2008-2017, there has been a consistent pattern that there are a greater number of unintentional overdose deaths than self-inflicted overdose deaths. In 2017, 92.6% of the overdose deaths were unintentional.

Figure 4: County Medication and Drug Overdose Deaths by Intent: Durham County Residents 2008-2017

Among the medication and drug overdose deaths reported, the substance(s) contributing to the deaths are recorded. Figures 5 and 6 show the substances contributing to medication and drug overdose deaths in NC. as a whole (Figure 5) and in Durham County (Figure 6). In NC., the top three substances are other synthetic narcotics, cocaine, and commonly prescribed opioid medications. In Durham County, the top three substances are other synthetic narcotics, heroin, and cocaine. In both Durham County and NC. as a whole, there has been a large increase in the number of overdose deaths related to other synthetic...
narcotics from 2015 to 2017. In Durham County, deaths due to other synthetic narcotics in 2017 were 4.2 times higher than deaths in 2016. In NC, deaths due to other synthetic narcotics in 2017 were 2.2 times higher than deaths in 2016.

**Figure 5: Substances contributing to medication and drug overdose deaths: North Carolina residents 2008-2017**

*These counts are not mutually exclusive. If the death involved multiple drugs it can be counted in multiple categories
Figure 6: Substances contributing to medication and drug overdose deaths: Durham County residents 2008-2017*31

*These counts are not mutually exclusive. If the death involved multiple drugs it can be counted in multiple categories

Unintentional overdose deaths can be examined by sex, age, and race (Table 1 and Table 2).32 The percentage of unintentional overdose deaths is higher among males (68%) than among females (32%) in Durham County despite demographic numbers showing Durham County consisting of 48% males and 52% females. The gender imbalance of overdose death percentages is similar in the state of North Carolina (63% males and 37% females). When broken down by age group, the highest percentage of overdose deaths is among individuals 25-44 in both Durham County (54%) and NC (49%) as a whole. Another demographic factor to consider is race. In Durham County, black residents have the highest percentage of overdose deaths (50%). This does not follow the state wide trend, where 85% of overdose deaths occur among white residents, and 11% occur among black residents.
<table>
<thead>
<tr>
<th>Sex</th>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>0-17</th>
<th>18-24</th>
<th>25-44</th>
<th>45-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durham County, Overall Population, 2012-2016</td>
<td></td>
<td>48%</td>
<td>52%</td>
<td>22%</td>
<td>11%</td>
<td>33%</td>
<td>24%</td>
<td>11%</td>
</tr>
<tr>
<td>Unintentional Overdose Deaths, Durham County Residents, 2012-2016</td>
<td></td>
<td>68%</td>
<td>32%</td>
<td>1%</td>
<td>5%</td>
<td>54%</td>
<td>38%</td>
<td>2%</td>
</tr>
<tr>
<td>Unintentional Overdose Deaths, North Carolina Residents, 2012-2016</td>
<td></td>
<td>63%</td>
<td>37%</td>
<td>0%</td>
<td>9%</td>
<td>49%</td>
<td>39%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Table 1: County demographics of unintentional medication and drug overdose deaths, by sex, age: 2012-2016

<table>
<thead>
<tr>
<th>Race</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>American Indian</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durham County, Overall Population, 2012-2016</td>
<td>43%</td>
<td>38%</td>
<td>5%</td>
<td>0%</td>
<td>13%</td>
</tr>
<tr>
<td>Unintentional Overdose Deaths, Durham County Residents, 2012-2016</td>
<td>43%</td>
<td>50%</td>
<td>1%</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Unintentional Overdose Deaths, North Carolina Residents, 2012-2016</td>
<td>85%</td>
<td>11%</td>
<td>0%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Table 2: County demographics of unintentional medication and drug overdose death, by race/ethnicity: 2012-2016
HIV and Injection Drug Use

**Indicator:**
- Number of newly diagnosed HIV cases

**Relevance:**
- One way that HIV is spread is through injection drug use (IDU). HIV rates in Durham County have been alarmingly high for well over the past decade.
- The Durham County rate has slightly increased over the last six years from 25.7 in 2011-2013.\(^{35}\)
- From 2009-2017, HIV was the seventh leading cause of death among Durham residents aged 20-39. In 2000-2004, it was the fourth leading cause of death.\(^{36}\)
- Blacks are disproportionately affected by HIV. The rate of new HIV infections per 100,000 people in 2017 for Region 6 residents was 143.3 for whites, and 957.5 for African Americans.\(^{37}\)

**Data:** Data on HIV incidence and rates in Durham County come from the NCDHHS, Division of Public Health, Communicable Disease Branch, NC HIV/STD/Hepatitis Surveillance Unit. In the 2017 NC HIV/STD/Hepatitis Surveillance Report, data is reported about newly diagnosed HIV rates by County.\(^{38}\) Despite having the overall HIV rate for each specific county, demographic information (gender, age, race/ethnicity, exposure method) for people diagnosed with HIV was only reported by the NCDHHS on a regional level. Region 6 includes the following counties: Chatham, Durham, Franklin, Granville, Johnston, Lee, Orange, Person, Vance, Wake, and Warren Counties in NC. Although previous reports included breakdowns of new HIV cases related to substance use by gender and race/ethnicity on a county level, these data are not available for recent years.

**Findings:** Table 3 shows the total number of newly reported cases and the newly diagnosed HIV rates of HIV for Durham County and NC between 2015-2017. HIV infection rate includes all newly reported HIV infected individuals by the year of first diagnosis, regardless of the stage on infection (HIV or AIDS), and rates are expressed per 100,000 population. Durham County is ranked sixth in the state for highest average HIV rate. The average rate in Durham County is 70% higher than the rate for the state. For both Durham County and NC as a whole, there was an increase in the rate in 2016 followed by a decrease in 2017. Figure 7 shows a map of HIV rates for each county in NC. Durham County is one of six counties in NC with a rate greater than 25.\(^{39}\)
<table>
<thead>
<tr>
<th></th>
<th>2015 Cases</th>
<th>2015 Rate</th>
<th>2016 Cases</th>
<th>2016 Rate</th>
<th>2017 Cases</th>
<th>2017 Rate</th>
<th>2015-2017 Average Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durham</td>
<td>59</td>
<td>23.4</td>
<td>82</td>
<td>31.8</td>
<td>66</td>
<td>25.2</td>
<td>26.8</td>
</tr>
<tr>
<td>North Carolina</td>
<td>1,333</td>
<td>15.9</td>
<td>1,392</td>
<td>16.3</td>
<td>1,310</td>
<td>15.2</td>
<td>15.8</td>
</tr>
</tbody>
</table>

Table 3: Newly diagnosed HIV rates among adults and adolescents in North Carolina by county of diagnosis, year of diagnosis, and rank order 2015-2017\textsuperscript{40}

Figure 7: Newly Diagnosed HIV Rates in North Carolina by County of Residence at Diagnosis, 2017\textsuperscript{41}

Certain groups are disproportionately impacted by HIV in NC. Table 4 shows selected demographics of the individuals diagnosed with HIV in NC and individuals living in Region 6 counties. Black individuals have the highest number of cases among a racial/ethnic group in both Region 6 and NC (62.8%). White individuals are the next highest percent group at 23.9% (Region 6) and 25.9% (NC). There are a higher number of cases reported for males than females. The age group with the highest number of cases is individuals 50-54 years old.\textsuperscript{42}

The NC Public Health Department also tracks newly reported cases by how the disease was acquired (men having sex with men (MSM), injection drug use (IDU), heterosexual transmission and "other" which can include blood products, pediatric cases, or cases where there is no identified risk). Some MSM also engage in injection drug use (MSM/IDU).
Among males in Region 6, the most common exposure category was MSM (74.0%) followed by heterosexual transmission (14.7) and IDU (6.0%). For females, 79.4% of cases are a result of heterosexual exposure and 14.7% are from IDU.43

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Region 6</th>
<th></th>
<th>North Carolina Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cases</td>
<td>%</td>
<td>Cases</td>
<td>%</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>5,535</td>
<td>73.9</td>
<td>25,327</td>
<td>72.3</td>
</tr>
<tr>
<td>Female</td>
<td>1,948</td>
<td>26.1</td>
<td>9,718</td>
<td>27.7</td>
</tr>
<tr>
<td><strong>Current Age (Year)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 13</td>
<td>32</td>
<td>0.4</td>
<td>93</td>
<td>0.3</td>
</tr>
<tr>
<td>13-14</td>
<td>7</td>
<td>0.1</td>
<td>20</td>
<td>0.1</td>
</tr>
<tr>
<td>15-19</td>
<td>32</td>
<td>0.4</td>
<td>171</td>
<td>0.5</td>
</tr>
<tr>
<td>20-24</td>
<td>216</td>
<td>2.9</td>
<td>1,118</td>
<td>3.2</td>
</tr>
<tr>
<td>25-29</td>
<td>527</td>
<td>7.1</td>
<td>2,750</td>
<td>7.8</td>
</tr>
<tr>
<td>30-34</td>
<td>625</td>
<td>8.4</td>
<td>2,932</td>
<td>8.4</td>
</tr>
<tr>
<td>35-39</td>
<td>648</td>
<td>8.7</td>
<td>3,245</td>
<td>9.3</td>
</tr>
<tr>
<td>40-44</td>
<td>757</td>
<td>10.1</td>
<td>3,426</td>
<td>9.8</td>
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<tr>
<td>45-49</td>
<td>1,035</td>
<td>13.8</td>
<td>4,801</td>
<td>13.7</td>
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<tr>
<td>50-54</td>
<td>1,240</td>
<td>16.6</td>
<td>5,725</td>
<td>16.3</td>
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<tr>
<td>55-59</td>
<td>1,075</td>
<td>14.4</td>
<td>4,929</td>
<td>14.1</td>
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<tr>
<td>60-64</td>
<td>672</td>
<td>9</td>
<td>3,149</td>
<td>9</td>
</tr>
<tr>
<td>65 and older</td>
<td>607</td>
<td>8.1</td>
<td>2,686</td>
<td>7.7</td>
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<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>13</td>
<td>0.2</td>
<td>209</td>
<td>0.6</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>70</td>
<td>0.9</td>
<td>238</td>
<td>0.7</td>
</tr>
<tr>
<td>Black/African American</td>
<td>4,692</td>
<td>62.8</td>
<td>22,020</td>
<td>62.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>737</td>
<td>9.9</td>
<td>2,606</td>
<td>7.4</td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>1,785</td>
<td>23.9</td>
<td>9,090</td>
<td>25.9</td>
</tr>
<tr>
<td>Multiple Race</td>
<td>176</td>
<td>2.4</td>
<td>879</td>
<td>2.5</td>
</tr>
<tr>
<td>Unknown/Unspecified</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

**Exposure Category by Gender**

**Male**

<table>
<thead>
<tr>
<th>Category</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual-All</td>
<td>814</td>
<td>14.7</td>
<td>4,548</td>
<td>18</td>
</tr>
<tr>
<td>IDU</td>
<td>331</td>
<td>6</td>
<td>1,710</td>
<td>6.8</td>
</tr>
<tr>
<td>MSM</td>
<td>4,087</td>
<td>74</td>
<td>17,681</td>
<td>69.8</td>
</tr>
<tr>
<td>MSM/IDU</td>
<td>215</td>
<td>3.9</td>
<td>1,071</td>
<td>4.2</td>
</tr>
<tr>
<td>Other Risks</td>
<td>78</td>
<td>1.4</td>
<td>317</td>
<td>1.3</td>
</tr>
</tbody>
</table>

**Female**

<table>
<thead>
<tr>
<th>Category</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Heterosexual-All</td>
<td>1,546</td>
<td>79.4</td>
<td>7,957</td>
<td>81.9</td>
</tr>
<tr>
<td>IDU</td>
<td>285</td>
<td>14.7</td>
<td>1,334</td>
<td>13.7</td>
</tr>
<tr>
<td>Other Risks</td>
<td>117</td>
<td>6</td>
<td>427</td>
<td>4.4</td>
</tr>
</tbody>
</table>

| Total              | 7,473    | 100    | 35,045 | 100    |

Table 4: Number of people diagnosed with HIV who resided in regional network of care and prevention region 6 by selected demographics

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*Table 4: Number of people diagnosed with HIV who resided in regional network of care and prevention region 6 by selected demographics*
Substance Abuse and Social Services: Homelessness

**Indicator:**
- Number of homeless individuals who are substance abusers

**Relevance:**
- Knowing the changing substance abuse patterns among the homeless population is essential when planning to meet the treatment and housing needs of this population. Both treatment and enforcement planners will be able to use this information.

**Data:** Across the United States, there are homeless services governing bodies known as Continuums of Care (CoC). In North Carolina, the NC Coalition to End Homelessness (NCCEH) compiles and maintains CoC. Funding for homeless services is provided from the U.S. Department of Housing and Urban Development (HUD). Homeless persons are counted though the Point-in-Time (PIT) Count that comprises physically counting all persons experiencing homelessness in a designated 24-hour period annually. Since it is difficult to reach all people experiencing homelessness, PIT data are considered low and rough estimates of the actual homeless population. Each year, the Durham Affordable Housing Coalition leads a concerted effort to count the homeless individuals in Durham County on a given day. This involves a) teams of individuals going out into the streets in the early hours of the morning to count homeless individuals (people living under viaducts and bridges, in the woods, in abandoned houses, etc.), and b) agencies that submit information regarding the number of homeless individuals receiving services for emergency relief and transitional shelter.

**Findings:** In the years 2011-2015, there was a 25% increase in homelessness in Durham (Figure 8). From 2015 to 2016, there was a significant decrease in the number of homeless individuals. In the 2015 report, there were 813 total homeless individuals in Durham. The most recent year data available for Durham County is from 2016. The 2016 PIT Count found a total of 354 homeless individuals in Durham County. Of this total, 216 were living in emergency shelters, 106 were living in transitional housing, and 32 were unsheltered. The substantial decrease between 2015 and 2016 can be attributed to a logistical change in homelessness reporting. In the number of homeless individuals, the Durham Continuums of Care (CoC) no longer includes Durham Rescue Mission (a transitional homeless assistance shelter) residents in the total homeless count.
The trends from 2011-2015 are presented in Figure 8. The comprehensive data for 2016 (after the reporting metrics changed) is presented in Table 5. Among the 354 homeless individuals in Durham in 2016, there were 3 adults with a serious mental illness, 7 adults with a SUD, and 2 adults with HIV/AIDS. Data from 2016 are excluded from Figure 8 due to the change in measurement. At the time of this report’s creation, Durham County-level data was not yet available for 2017 and 2018. It will take several years of data collection following the 2016 change to identify new trends in total homeless persons.

Figure 8: Substance use among the Durham homeless population: 2011-2015
<table>
<thead>
<tr>
<th>Summary of Homeless Count</th>
<th>Number of people</th>
<th>Percentage of total homeless population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Homeless People</td>
<td>354</td>
<td>100%</td>
</tr>
<tr>
<td>People in emergency shelter</td>
<td>216</td>
<td>61%</td>
</tr>
<tr>
<td>People in transitional Housing</td>
<td>106</td>
<td>30%</td>
</tr>
<tr>
<td>People who were unsheltered</td>
<td>32</td>
<td>9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subpopulations</th>
<th>Number of people</th>
<th>Percentage of total homeless population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults with a serious mental illness</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>Adults with a substance use disorder</td>
<td>7</td>
<td>2%</td>
</tr>
<tr>
<td>Adults with HIV/AIDS</td>
<td>2</td>
<td>1%</td>
</tr>
</tbody>
</table>

Table 5: Summary of homeless count 2016 data\textsuperscript{50}
Substance Use among Youth

**Indicators:**

- Percent of middle school and high school students who have smoked cigarettes and/or electronic vapor products
- Other substance use among middle school and high school students

**Relevance:**

- There are numerous health risks inherent with alcohol and drug use, which have particularly strong effects on the developing brains of youth.\(^{51}\)
- Early substance use and abuse is often linked with risky behaviors such as delinquency, violence, mental health problems, academic difficulty, and early sexual activity.\(^{52}\)
- People are more likely to develop an addiction if they start abusing drugs at a young age.\(^{53}\)
- Recognizing substance use trends among youth can help educate teachers, parents, and health professionals, and guide effective prevention strategies and methods.

**Data:** Data on youth’s smoking and other substance use habits come from the Durham County YRBS reports. The YRBS was developed by the Centers for Disease Control to monitor health-risk behaviors as well as various conditions, such as obesity and asthma. This survey is conducted at the national, state, and local levels. In Durham, the YRBS is administered every other year by Durham Public Schools. Since 2007, Durham has conducted the YRBS with middle and high school students. 2015 and 2017 data were provided by the Durham County Public Health Department (DCoDPH).

**Findings:**

*Smoking in Youth*\(^{54,55}\)

The Durham County YRBS data report that there has been a decrease in high school students who currently use electronic cigarettes from 2015 to 2017. There was also a decrease among middle school students who use electronic vapor products from 2015 to 2017. On the other hand, there has been a slight increase among Durham middle school and high school students who smoke cigarettes from 2015 to 2017. Among middle school students, there was not a significant difference between genders in regards to those who reported current cigarette use, but Latinx students were more likely than their peers to
report current cigarette use. Among the high school students surveyed, males (11%) were more likely than females (8%) to report current cigarette use, and differences by race and ethnicity were not significant in the high school survey. In 2017, the percentage of Durham high school students who have smoked cigarettes and those who have used electronic vapor products is statistically significantly lower than NC high school students (Table 6 and Table 7).

<table>
<thead>
<tr>
<th></th>
<th>2015 (% yes)</th>
<th>2017 (% Yes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Durham</td>
<td>North Carolina</td>
</tr>
<tr>
<td>Students who have smoked cigarettes in the past 30 days</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Students who have used electronic vapor products in the past 30 days</td>
<td>13%</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Table 6: Prevalence of smoking among Durham middle school students

*Statistically significant difference from statewide result

<table>
<thead>
<tr>
<th></th>
<th>2015 (% yes)</th>
<th>2017 (% Yes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Durham</td>
<td>North Carolina</td>
</tr>
<tr>
<td>Students who have smoked cigarettes in the past 30 days</td>
<td>9%</td>
<td>21%</td>
</tr>
<tr>
<td>Students who have used electronic vapor products in the past 30 days</td>
<td>24%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Table 7: Prevalence of smoking among Durham high school students

*Statistically significant difference from statewide result

In Durham, electronic cigarette (“e-vape”) product use varies significantly by race and sex (Figure 9 and Figure 10). Among both middle school and high school students, males were more likely than females to report current E-Vape use. In 2017, e-vape use was highest among Latinx high school (19%) and middle school students (11%). Reasons for these
inequities is that the density of vape shops is higher in census tracts with larger proportions of people of color which, in turn, contributes to more access and higher exposure to vaping ads among people of color in the U.S. vape shops in Latinx communities also use “ethnic-specific marketing materials” more than other communities, which may contribute to increased e-vaping among youth of color.

Figure 9: Percent of electronic vapor product use by race and gender among high school students\textsuperscript{60,61}
Additional substance use outside of smoking cigarettes and electronic vapor products was examined by the YRBS. Data from 2015 and 2017 is reported in Table 8 and Table 9. From 2015 to 2017, there was an increase in the percent of middle school students who have smoked marijuana and the percent of students who have ever taken a prescription drug without a prescription. For marijuana use, differences by gender were not significant for middle school and high school students. Differences by race and ethnicity among middle school students were statistically significant, whereby black and Latinx students were tied for the highest rates of usage (14%). However, racial/ethnic differences were not significant among high school students. For prescription drug use, the sample size for middle school students was too small to look for differences by gender, race, and ethnicity. Among high school students, black students were significantly less likely than their peers to have misused a prescription medication. Differences by gender were not significant. In regards to reasons for the inequities, black children (like black adults) are less likely to receive pain medications and opioids for severe pain compared to white children. Since black patients are less likely than white patients to get appropriate pain medication even for severe pain, they may have less access to prescription pain medications and prescription pills in general compared to people of other races.

There has also been a decrease among students who have ever had more than a few sips of alcohol and students who have ever used cocaine. Among Durham high school students, from 2015 to 2017, there was a decrease among students who have had one or more drinks.
of alcohol and students who have ever used cocaine. White students were significantly more likely than their peers to report drinking alcohol within the past month, but differences by sex were not significant. For the middle school population, students who are black, Latinx, and of other races were significantly more likely than white students to have tried alcohol during their lifetime. Differences by sex were not statistically significant. In regards to cocaine use, the number of middle school students who had tried cocaine was too small to compare differences by sex, race, or ethnicity. The sample size for high school students was also too small to look at differences by race and ethnicity, but it was large enough to look at differences by sex. Males (8%) were significantly more likely to have tried cocaine compared to females (3%).

Durham County percentages that were statistically significant from NC statewide results were reported in the 2017 YRBS. There were no statistically significant differences for middle school substance use indicators. Among high school students, the percent of student who have one or more drinks of alcohol in the past 30 days and students who have ever taken a prescription drug without a prescription were statistically significantly lower than state percentages. The percent of Durham high school student who have smoked marijuana in the past 30 days was statistically significantly higher than statewide percentages.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students who have smoked marijuana in the past 30 days</td>
<td>9%</td>
<td>6%</td>
<td>12%</td>
<td>7%</td>
</tr>
<tr>
<td>Students who have ever had more than a few sips of alcohol</td>
<td>30%</td>
<td>n/a</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>Students who have ever used cocaine, including powder, crack or freebase</td>
<td>4%</td>
<td>2%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Students who have ever taken a prescription drug without a prescription</td>
<td>4%</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>Students who have ever sniffed glue, breathed the contents of spray cons or inhaled any paints or sprays to get high</td>
<td>8%</td>
<td>7%</td>
<td>not asked in 2017 survey</td>
<td>not asked in 2017 survey</td>
</tr>
</tbody>
</table>

Table 8: Prevalence of substance use among Durham middle school students65,66
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students who have smoked marijuana in the past 30 days</td>
<td>20%</td>
<td>22%</td>
<td>22%*</td>
<td>19%</td>
</tr>
<tr>
<td>Students who have one or more drinks of alcohol in the past 30 days</td>
<td>25%</td>
<td>30%</td>
<td>21%*</td>
<td>27%</td>
</tr>
<tr>
<td>Students who have ever used cocaine, including powder, crack or freebase</td>
<td>7%</td>
<td>7%</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Students who have ever taken a prescription drug without a prescription</td>
<td>15%</td>
<td>19%</td>
<td>13%*</td>
<td>15%</td>
</tr>
<tr>
<td>Students who have ever sniffed glue, breathed the contents of spray cons or inhaled any paints or sprays to get high</td>
<td>10%</td>
<td>10%</td>
<td>not asked in 2017 survey</td>
<td>not asked in 2017 survey</td>
</tr>
</tbody>
</table>

Table 9: Prevalence of substance use among Durham high school students\(^{67,68}\)

*Statistically significant difference from statewide result*
Alcohol and Marijuana Use on College Campuses

Alcohol Use

**Indicators:**

- Percentage of undergraduate students who have consumed alcohol for a certain number of days in the past month
- Percentage of undergraduate students who report consuming up to five or more drinks in past two weeks
- Percentage of undergraduate students who engage in negative behaviors while under the influence of alcohol
- Percentage of undergraduate students who engage in behaviors to mitigate potential harm caused by alcohol consumption

**Relevance:**

- Excessive drinking is not only a major health concern in the long-term, it can also lead to immediate tragedies such as assault, injury, arrest and even death.\(^6^9\)
- Adverse consequences of marijuana use include:\(^7^0\)
  - Impaired short-term memory, judgment, and motor coordination;
  - Negative academic outcomes, such as performing poorly on exams, achieving lower grade point averages, and dropping out of school; and
  - Long-term effects such as increased risk for chronic cough and bronchitis
- Marijuana is the illicit drug most frequently found in the blood of drivers who have been involved in vehicle crashes, including fatal ones.
- Studies suggest that 9% of people who use marijuana will become dependent on it, increasing to approximately 17% in those who start using it in their teens.

**Data:** Data on alcohol behaviors among Duke University undergraduate students was extracted from the National Collegiate Health Assessment that Duke administers to its students every year.
Findings: In 2018, approximately 51% of respondents reported consuming up to 9 days per month (Figure 11). In Figure 12, about one-third of students reported taking part in binge drinking (having up to 5 or more drinks) at least once every two weeks.

Figure 11: Percentage of Duke undergraduate students who had consumed alcohol, for certain number of days, in the past month (2018)\textsuperscript{71}

Figure 12: Percentage of Duke undergraduate students who report consuming up to five or more drinks in past two weeks\textsuperscript{72}

In Table 10, student alcohol consumption-related behaviors were reported. Nearly 45% of students reported that they did something they later regretted while they were under the influence of alcohol. Nearly one-third of students reported that they forgot where they were or what they were doing while enebriated. Approximately 14% were physically injured, and 13% had unprotected sex while intoxicated.
Table 10: Percentage of Duke undergraduate students who engage in unsafe/negative behaviors while under the influence of alcohol.\textsuperscript{73}

In Table 11, nearly all students reported engaging in some behavior that may, arguably, mitigate the harm of consuming alcohol – potentially signifying an awareness that alcohol consumption can be dangerous and that certain safeguards should be in place. Even so, only 18% decided to abstain from drinking as a strategy to avoid negative consequences.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|}
\hline
Questionnaire Statements & Percent (%) Responded Yes \\
\hline
Did something you later regretted & 44.7 \\
Forgot where you were or what you did & 31.2 \\
Got in trouble with the police & 1.6 \\
Someone had sex with me without my consent & 2.8 \\
Had sex with someone without their consent & 0.0 \\
Had unprotected sex & 12.6 \\
Physically injured yourself & 13.8 \\
Physically injured another person & 0.4 \\
Seriously considered suicide & 1.6 \\
Reported one or more of the above & 56.1 \\
\hline
\end{tabular}
\caption{Percentage of Duke undergraduate students who engage in behaviors which can possibly mitigate potential harm caused by alcohol consumption.\textsuperscript{74}}
\end{table}
Marijuana Use

**Indicators:**

- Percentage of undergraduate students who used marijuana or hashish in past month
- Percentage of undergraduate students who think people who smoke marijuana once or twice a week harm themselves physically or in other ways

**Relevance:**

- A study released in December 2016 found that THC content in marijuana has changed dramatically over the past 20 years.\(^75\)
- Daily or near-daily use of marijuana is associated with the development of psychotic disorders, such as schizophrenia in adulthood.\(^76\)
- Marijuana use among full-time students remains a top concern for college campuses,\(^77\) and marijuana usage is the most widely used illicit drug among college students.\(^78\)
- The proportion of adolescents and young adults who perceive risk associated with smoking marijuana has been decreasing quite dramatically over the past ten years.\(^79\)

**Data:** NCCU undergraduate students (n=202) responded to a survey regarding marijuana use and perceptions of risk in early 2019.

**Findings:** Figure 13 indicates that a little over half of NCCU students have not used marijuana in the past 30 days, while slightly less than half reported using marijuana in the past 30 days. In terms of risk perception (Figure 14), 34% of students believed that there is no risk associated with smoking marijuana once or twice a week compared to 14% of students who reported believing there was great risk associated.
**Figure 13:** Number of NCCU students who used marijuana or hashish in past 30 days.

**Figure 14:** Number of NCCU students who believe that people who smoke marijuana once or twice per week are at risk of harming themselves physically or in other ways.
Alcohol Use among Adults

Prevalence of Binge and Heavy Drinking among Adults

**Indicators:**

- Number and percent of individuals who have participated in binge drinking in the past 30 days
- Number and percent of individuals who report heavy drinking

**Relevance:**

- Alcohol abuse is associated with binge drinking (defined as males having five or more drinks on one occasion and females having four or more drinks on one occasion), and heavy drinking (defined as males having more than two drinks per day and females having more than one drink per day).\(^{82}\)

- Alcohol consumption during pregnancy has been shown to have serious consequences for young children.\(^{83}\)

**Data:** Survey research on alcohol consumption in Durham County comes from the Behavioral Risk Factor Surveillance System (BRFSS), which is published by the Center for Disease Control and Prevention (CDC) and available from the NC State Center for Health Statistics. Data should be interpreted with caution as the number of respondents to the BRFSS Alcohol questions was small, and some answers had fewer than 50 respondents answer “yes”.

Findings from the 2017 BRFSS are not comparable to 2016 and earlier years due to changes in Durham County’s classification. The 2013 BRFSS provided statistics on Durham County specifically, but in 2014, 2015, and 2016, the findings of the BRFSS were subcategorized by NC Region. For 2014, 2015, and 2016, Region 5 data was reported. Region 5 counties include: Alamance, Caswell, Chatham, Durham, Guilford, Orange, Person, Randolph, Rockingham counties. In 2017, Region 3 and 5 data was combined. Please note that Durham County was classified as Region 6 in other sections of this report. Region 3 and 5 counties include: Alamance, Alleghany, Ashe, Caswell, Chatham, Davidson, Davie, Durham, Forsyth, Guilford, Orange, Person, Randolph, Rockingham, Stokes, Surry, Watauga, Wilkes, Yadkin counties. In this report, data is presented from the 2017 BRFSS data for Regions 3 and 5.

**Findings:** Using binge drinking and heavy drinking as measures to assess potentially unhealthy behaviors, there are only slight differences between Region 3 and 5 residents
(including Durham residents) and the rest of the state (Table 12 - Binge drinking and Table 13 - Heavy drinking). Binge drinking among Region 3 and 5 residents was slightly lower than the rest of the state (14.6% vs. 15.5%). Binge drinking is 3.4 times more prevalent among Region 3 and 5 residents aged 18-44 compared to residents aged 45-64 years. Heavy drinking is 2.1 times more prevalent among Region 3 and 5 residents aged 18-44 years compared to residents aged 45-64 years. For both binge drinking and heavy drinking, there is a higher percentage of males than females (Figure 11).\textsuperscript{84,85}
<table>
<thead>
<tr>
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<th>Total Respond.</th>
<th></th>
<th>No</th>
<th>%</th>
<th>C.I.(95%)</th>
<th>Yes</th>
<th>%</th>
<th>C.I.(95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>C.I.(95%)</td>
<td>N</td>
<td>%</td>
<td>C.I.(95%)</td>
<td></td>
<td></td>
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<tr>
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<td>4,512</td>
<td>3,930</td>
<td>84.5</td>
<td>83.1-85.9</td>
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<td>Region 3 &amp; 5</td>
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<td>740</td>
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<td>14.6</td>
<td>11.9-17.7</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>355</td>
<td>291</td>
<td>79.7</td>
<td>74.2-84.3</td>
<td>64</td>
<td>20.3</td>
<td>15.7-25.8</td>
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<tr>
<td>Female</td>
<td>491</td>
<td>449</td>
<td>90.6</td>
<td>87.0-93.3</td>
<td>42</td>
<td>9.4</td>
<td>6.7-13.0</td>
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<tr>
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<td></td>
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<td>Non-Hispanic White</td>
<td>588</td>
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<td>81.5-88.5</td>
<td>73</td>
<td>14.7</td>
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<td>139</td>
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<td>81.0-93.4</td>
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<td>11.4</td>
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<td>Other</td>
<td>102</td>
<td>86</td>
<td>80.7</td>
<td>69.2-88.7</td>
<td>16</td>
<td>19.3</td>
<td>11.3-30.8</td>
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</tr>
<tr>
<td>18-44</td>
<td>296</td>
<td>221</td>
<td>73.8</td>
<td>67.5-79.2</td>
<td>75</td>
<td>26.2</td>
<td>20.8-32.5</td>
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<tr>
<td>45-64</td>
<td>308</td>
<td>284</td>
<td>92.2</td>
<td>88.1-95.0</td>
<td>24</td>
<td>7.8</td>
<td>5.0-11.9</td>
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<tr>
<td>65+</td>
<td>236</td>
<td>229</td>
<td>97.4</td>
<td>94.4-98.8</td>
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<td>***</td>
<td>***</td>
<td></td>
</tr>
</tbody>
</table>

Table 12: Binge drinking[^86][^87]
<table>
<thead>
<tr>
<th>Total Respond.^</th>
<th>No</th>
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</tr>
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<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
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<tr>
<td>North Carolina</td>
<td>4,498</td>
<td>4,254</td>
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<tr>
<td>Region 3 &amp; 5</td>
<td>846</td>
<td>805</td>
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</table>

**GENDER**

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<tr>
<th></th>
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<th>%</th>
<th>C.I.(95%)</th>
<th>N</th>
<th>%</th>
<th>C.I.(95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>354</td>
<td>334</td>
<td>93.9</td>
<td>90.1-96.3</td>
<td>20</td>
<td>6.1</td>
</tr>
<tr>
<td>Female</td>
<td>492</td>
<td>471</td>
<td>95.9</td>
<td>93.2-97.5</td>
<td>21</td>
<td>4.1</td>
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**RACE**

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<th>%</th>
<th>C.I.(95%)</th>
<th>N</th>
<th>%</th>
<th>C.I.(95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic White</td>
<td>586</td>
<td>556</td>
<td>94.6</td>
<td>92.1-96.4</td>
<td>30</td>
<td>5.4</td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>158</td>
<td>152</td>
<td>95.4</td>
<td>87.6-98.4</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Other</td>
<td>102</td>
<td>97</td>
<td>96.2</td>
<td>90.0-98.7</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

**AGE**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
<th>C.I.(95%)</th>
<th>N</th>
<th>%</th>
<th>C.I.(95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-44</td>
<td>296</td>
<td>276</td>
<td>92.6</td>
<td>88.1-95.5</td>
<td>20</td>
<td>7.4</td>
</tr>
<tr>
<td>45-64</td>
<td>310</td>
<td>296</td>
<td>96.4</td>
<td>93.7-98.0</td>
<td>14</td>
<td>3.6</td>
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<tr>
<td>65+</td>
<td>235</td>
<td>228</td>
<td>97.2</td>
<td>93.9-98.7</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

Table 13: Heavy drinking[^88][^89]
Figure 15: Reported binge drinking and heavy drinking by gender⁹⁰,⁹¹
Drinking and Driving in Durham

**Indicators:**

- Percent of motor vehicle accidents involving alcohol
- Number and percent of fatal crashes involving alcohol
- Percent of non-fatal motor vehicle accidents involving alcohol
- Rate of impaired driving convictions

**Relevance:**

- In 2016 in NC.:
  - Nearly one-third of all fatal crashes involved alcohol.
  - Crashes involving injury were 4.4 times more likely to include a fatality if alcohol was involved.
  - While one of every 25 crashes involved alcohol, 2 of every 7 fatal crashes and one of every 15 non-fatal injury crashes involved alcohol.

**Data:** The data come from the Connect NCDOT website. Within the website’s Traffic Safety Information and Resources, there is Crash Data for each NC. county. Crash data is collected and maintained by the Transportation Mobility and Safety division within the Department.

**Findings:** While drinking and driving is a problem in most communities, Durham is slightly below NC. averages. In 2017 in Durham County, 2.8% of all reported crashes were related to alcohol compared to 4.1% in NC. Overall, there has been a steady decrease from 2013-2017 in the % of crashes related to alcohol for both Durham County and NC. Table 14 shows the number of total and fatal crashes related to alcohol. Figure 12 shows the percent of total crashes and fatal crashes related to alcohol. For both the percent of total crashes and fatal crashes related to alcohol, Durham County percentages are lower than state averages.
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Durham</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Crashes</td>
<td>8,193</td>
<td>8,626</td>
<td>9,333</td>
<td>10,199</td>
<td>10,539</td>
<td>9,378</td>
</tr>
<tr>
<td>Total Crashes Related to alcohol</td>
<td>288</td>
<td>290</td>
<td>282</td>
<td>254</td>
<td>298</td>
<td>282</td>
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<tr>
<td>Fatal Crashes</td>
<td>24</td>
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<td>25</td>
<td>22</td>
<td>26</td>
<td>24</td>
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<tr>
<td>Fatal Crashes Related to alcohol</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>% of total crashes related to alcohol</td>
<td>3.5%</td>
<td>3.4%</td>
<td>3.0%</td>
<td>2.5%</td>
<td>2.8%</td>
<td>3.0%</td>
</tr>
<tr>
<td>% of fatal crashes related to alcohol</td>
<td>8.3%</td>
<td>25.0%</td>
<td>24.0%</td>
<td>27.3%</td>
<td>19.2%</td>
<td>20.7%</td>
</tr>
<tr>
<td>North Carolina</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Crashes</td>
<td>220,271</td>
<td>226,552</td>
<td>251,638</td>
<td>267,494</td>
<td>275,067</td>
<td>248,204</td>
</tr>
<tr>
<td>Total Crashes Related to alcohol</td>
<td>10,769</td>
<td>10,808</td>
<td>11,487</td>
<td>11,264</td>
<td>11,342</td>
<td>11,134</td>
</tr>
<tr>
<td>Fatal Crashes</td>
<td>1,158</td>
<td>1,181</td>
<td>1,380</td>
<td>1,441</td>
<td>1,287</td>
<td>1,248</td>
</tr>
<tr>
<td>Fatal Crashes Related to alcohol</td>
<td>324</td>
<td>344</td>
<td>372</td>
<td>376</td>
<td>339</td>
<td>351</td>
</tr>
<tr>
<td>% of total crashes related to alcohol</td>
<td>4.9%</td>
<td>4.8%</td>
<td>4.6%</td>
<td>4.2%</td>
<td>4.1%</td>
<td>4.5%</td>
</tr>
<tr>
<td>% of fatal crashes related to alcohol</td>
<td>28.0%</td>
<td>29.1%</td>
<td>29.2%</td>
<td>28.1%</td>
<td>26.3%</td>
<td>28.1%</td>
</tr>
</tbody>
</table>

Table 14: Total crashes and fatal crashes in Durham County related to alcohol, 2013-2017.
In NC, drinking-driving charges are recorded by the NC Judicial Branch. The NC Judicial Branch published yearly reports on impaired driving charges. The report displays county-level and statewide counts of the total number of filed and disposed charges in a given fiscal year that fall into the broad categories of impaired driving and implied consent. The charges fall into six categories in the judicial system:

- Felony habitual impaired driving;
- Misdemeanor aid and abet impaired driving;
- Misdemeanor consuming alcohol while operating a commercial vehicle (second subsequent offense);
- Misdemeanor driving after consuming alcohol;
- Misdemeanor driving while impaired; and
- Misdemeanor driving while impaired (commercial vehicle)

Each impaired driving charge is a cost to the judicial system in Durham County. After seeing a rise in the number of disposed cases from 2008-2013, there has been a downward trend through 2014-2016. In 2016, the number of disposed cases reached a 12-year low of
885 cases (Figure 17). With the recent innovation of ridesharing and ride service hailing apps like Uber and Lyft, it is easier to access safe, convenient, affordable rides home. An increase in people using Uber and Lyft services could explain the recent decrease in impaired driving cases. More research is needed and encouraged to explore this possible trend.

Figure 17: Disposed impaired driving cases in Durham County, 2004-2016

Source: NC Judicial Branch Impaired Driving Reports
Smoking among Adults

**Indicators:**

- Number of adults (individuals age>18) who smoke
- Percent of pregnant women who smoke
- Rate of lung and bronchial cancer deaths (long-term indicator)

**Relevance:**

- Smoking is the leading cause of preventable death.\(^9\) According to the CDC, “more deaths are caused each year by tobacco use than by all deaths from human immunodeficiency virus (HIV), illegal drug use, alcohol use, motor vehicle injuries and firearm-related incidents combined.”\(^1\)
- Cancer is a leading cause of death in the U.S., NC, and Durham.\(^1\)
  - Smoking is an attributing factor in the majority of lung cancer deaths, causing 9 out of 10 of all lung cancer deaths.
  - Smoking increases the risk of a variety of cancers, including cancer of the oral cavity, larynx, esophagus, lung, bladder, stomach, cervix, kidney, and pancreas, as well as acute myeloid leukemia.
  - Among cancer patients and survivors, smoking increases the risk of dying from additional cancer and diseases.
- Smoking leads to reproductive health problems, including:\(^2\)
  - Reduced fertility in women.

**Data:** Survey research on smoking behavior in Durham County comes from the BRFSS, published by the CDC, and made available by the NC State Center for Health Statistics.\(^3,4\)

Data on a mother’s smoking during pregnancy come from the NC Vital Statistics, Volume 1: Population, Births, Deaths, Marriages, Divorces and is accessed from the NC State Center for Health Statistics. These data are collected from birth certificates of all babies born who are residents of Durham County. Additional information on mother’s smoking status comes from the Basic Automated Birth Yearbook (BABY Book), various maternal and infant variables such as age, race,
birth order, birth weight, and number of prenatal visits, as well as medical conditions of the mother, the labor/delivery, and the newborn.\textsuperscript{105}

**Findings:**

**Smoking in Adults**

The 2017 BRFSS data show that approximately 16.6\% of Regions 3 and 5 residents over the age of 18 were current smokers in 2017 (Table 15). In the same year, 11.8\% of respondents reported smoking every day. Region 3 and 5 counties include: Alamance, Alleghany, Ashe, Caswell, Chatham, Davidson, Davie, Durham, Forsyth, Guilford, Orange, Person, Randolph, Rockingham, Stokes, Surry, Watauga, Wilkes, Yadkin counties. According to the Durham County Health Ranking, 16\% of adults are current smokers, which is in line with the BRFSS reported region data.\textsuperscript{106}

\begin{table}
\begin{tabular}{|l|l|l|l|l|}
\hline
                               & Region 3 & \& 5 & \& including Durham County & NC. \hline
\hline
Adults who are current smokers (%) & 16.6     & 13.7-19.8 & 17.2 & 15.8-18.7 \hline
Four levels of smoking status (%) &          &           &      &               \hline
Smoke every day                & 11.8     & 9.4-14.7  & 11.9 & 10.7-13.3 \hline
Smoke some days                & 4.8      & 3.3-6.8   & 5.3  & 4.4-6.2 \hline
Former smoker                  & 23.0     & 19.9-26.3 & 25.9 & 24.3-27.5 \hline
Never smoked                    & 60.5     & 56.6-64.3 & 56.9 & 55.0-58.8 \hline
\hline
\end{tabular}
\end{table}

**Table 15: Smoking status of adults in Durham and NC, 2017**\textsuperscript{107,108}

**Smoking-Related Cancer Deaths**

According to data from the 2019 County Health Data Book, cancer was the leading cause of death for Durham residents between 2013 and 2017.\textsuperscript{109} The leading type of cancer was lung cancer (trachea, bronchus, and lung) with an overall rate of 46.5 (Table 16). The next leading type of cancer was breast cancer in females and prostate cancer in males (breast
cancer rate=22.9; prostate cancer rate=20.3). Lung cancer rates were 1.7 times higher among males than females.

<table>
<thead>
<tr>
<th></th>
<th>White, non-Hispanic rate</th>
<th>African American, non-Hispanic rate</th>
<th>Hispanic rate</th>
<th>Male rate</th>
<th>Female rate</th>
<th>Overall rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cancer</td>
<td>161.2</td>
<td>215.2</td>
<td>59.8</td>
<td>218.2</td>
<td>149.3</td>
<td>176.5</td>
</tr>
<tr>
<td>Trachea, bronchus, and lung</td>
<td>44.6</td>
<td>53.5</td>
<td>N/A</td>
<td>61.6</td>
<td>35.8</td>
<td>46.5</td>
</tr>
</tbody>
</table>

**Table 16: Cancer death rates in Durham County by race/ethnicity, 2013-2017 average**

**Smoking in Pregnant Women**

Whether the mother smoked during pregnancy is recorded on the newborn's birth certificate and is available through Vital Records from the NC State Center for Health Statistics. In 2010, NC revised the birth records, making tobacco use not comparable with prior years. In 2011, the NC State Center for Health Statistics began reporting more categories of races and ethnicities; Table 17 reports data from 2013-2017. In 2017, 3.5% of pregnant women in Durham smoked compared to 8.7% of pregnant women across the state. There has been a decrease in the percent of mothers who smoked during pregnancy from 2013 to 2017 in both Durham and NC.
<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
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<tbody>
<tr>
<td>Durham-Total</td>
<td>5.2%</td>
<td>4.9%</td>
<td>4.5%</td>
<td>3.5%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Durham-White, non-Hispanic</td>
<td>4.6%</td>
<td>3.9%</td>
<td>2.9%</td>
<td>2.3%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Durham-African-American, non-Hispanic</td>
<td>9.3%</td>
<td>9.5%</td>
<td>9.4%</td>
<td>7.7%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Durham-Other, non-Hispanic</td>
<td>0.4%</td>
<td>1.3%</td>
<td>1.1%</td>
<td>0.3%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Durham-Hispanic</td>
<td>1.4%</td>
<td>0.4%</td>
<td>0.9%</td>
<td>0.3%</td>
<td>0.4%</td>
</tr>
<tr>
<td>NC-Total</td>
<td>10.3%</td>
<td>9.8%</td>
<td>9.3%</td>
<td>8.9%</td>
<td>8.7%</td>
</tr>
<tr>
<td>NC-White, non-Hispanic</td>
<td>13.0%</td>
<td>12.5%</td>
<td>11.8%</td>
<td>11.4%</td>
<td>11.3%</td>
</tr>
<tr>
<td>NC-African-American, non-Hispanic</td>
<td>9.8%</td>
<td>9.3%</td>
<td>9.2%</td>
<td>8.5%</td>
<td>7.9%</td>
</tr>
<tr>
<td>NC-Other, non-Hispanic</td>
<td>7.8%</td>
<td>7.1%</td>
<td>6.4%</td>
<td>6.0%</td>
<td>6.1%</td>
</tr>
<tr>
<td>NC-Hispanic</td>
<td>1.7%</td>
<td>1.7%</td>
<td>1.8%</td>
<td>1.5%</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Figure 18 shows the percent of pregnant women who reportedly smoked during pregnancy from 2011 to 2017. Over time, there has been a decline in the percentage of pregnant women smoking in NC.

Figure 18: Percent of mothers who smoked during pregnancy in Durham and NC, 2011-2017

Figure 18: Percent of mothers who smoked during pregnancy in Durham and NC, 2011-2017
Substance Abuse and Law Enforcement

Arrests in Durham County Related to Alcohol and Illicit Substances

**Indicators:**

- Number of arrests for possession and sales of illicit substances
- Number of arrests for liquor law violations
- Number of arrests for driving under the influence

**Relevance:**

- It is important to note that the number of arrests may fluctuate based on real changes to the number of violations being committed and/or on the resources that are devoted to policing a particular issue. To make the best use of information from arrests, it is desirable to have qualitative information from local law enforcement agents who can help explain if policing strategies have varied during the time frame of observation or if there are real changes occurring in the number of violations being committed.

**Data:** Data are provided by the State Bureau of Investigation. Local law enforcement agencies voluntarily report information. Data are available online from the NC Department of Justice and from the NC Uniform Crime Reporting (UCR) Program. Arrests related to substance use include the following:

- Possession or sales/manufacturing of
  - Marijuana
  - Opium or cocaine
  - Synthetic narcotics
  - Other dangerous drugs

- Driving under the influence
  - Liquor law violations
**Findings:**

*Arrests for possession and sales of illicit substances over time*

Arrests are markedly down in the past five years compared to earlier trends. It appears that, on average, the number of arrests for sales of opium or cocaine since 2009 has been declining (273 in 2009 compared to 21 in 2016 and 27 in 2017) (Figure 19). Similar to the pattern observed in sales, arrests for possession of opium or cocaine have been declining since 2009 on average, with a slight increase in 2012 and 2013. (Figure 20). A similar decline is seen in arrests for marijuana sales/manufacturing and possession. 2016 was the year with the lowest number of arrests for sales of opium or cocaine, marijuana, and the number of arrests for possession of opium or cocaine, marijuana, and synthetic narcotics. There was a slight increase in arrests for sales and possession of opium or cocaine in 2017 (27 and 92 arrests respectively). Given the attention opioid regulation, policy, and prescribing has had recently on the state and federal levels, it will be interesting to observe data in the following years to see if the increase in 2017 becomes a reoccurring trend.

![Figure 19: Arrests for sale of drugs in Durham County, 2000-2017](image)

114,115

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**Figure 19: Arrests for sale of drugs in Durham County, 2000-2017**
Arrests among Juveniles and Adults over time

In Durham County in 2017, possession of marijuana was the primary reason youth under the age of 18 were arrested for violations related to substance use. Sales/manufacturing of marijuana, and possession of opium or cocaine made up the remaining arrests related to substance use. During that same time the largest substance use-related reason for arrest for adults in Durham County was driving under the influence, which was closely followed by possession of marijuana. There was also a relatively large number of arrests for possession of opium or cocaine. There were fewer arrests for sales/manufacturing of opium or cocaine and sales/manufacturing of marijuana.
Figure 21: Juvenile Arrests, 2014-2017\textsuperscript{122}
Figure 2: Arrests for possession or sales of illicit substances, driving under the influence, or liquor law violations for juveniles 18 and under and adults, 2014-2017.

Arrests among juveniles by race

Tables 18 shows arrests related to substance use in 2016 and 2017, respectively, for juveniles in Durham by race. It is worth noting that the official reports indicate much fewer arrests for juveniles in 2017 and 2016 than in past years. Because of the low numbers, it is hard to determine significant trends of the data.
Table 18: Arrests in Durham County of juveniles for possession or sale of illicit substances, driving under the influence, or liquor law violations by race, 2016-2017

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th></th>
<th>2017</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White</td>
<td>Black</td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Possession - Marijuana</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Disorderly Conduct</td>
<td></td>
<td></td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Drunk &amp; Disorderly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sale/Mfg. Marijuana</td>
<td>Not reported</td>
<td>Not reported</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Possession - Opium or</td>
<td>Not reported</td>
<td>Not reported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Driving Under the Influence</td>
<td>1</td>
<td></td>
<td>Not reported</td>
<td>Not reported</td>
</tr>
<tr>
<td>Liquor Laws</td>
<td>2</td>
<td></td>
<td>Not reported</td>
<td>Not reported</td>
</tr>
</tbody>
</table>

The following statement comes from the Misdemeanor Arrest Trends in the City of Durham, NC 2007-2016 report and sheds light on important policy changes in Durham that could be significant factors in shaping the observed, dramatic, decreasing trend:

[A] factor to consider is the “Raise the Age” legislation that was coming to fruition in the state of North Carolina during this time. Efforts in Durham and around the state to persuade the North Carolina General Assembly to raise the age of criminal responsibility from 16 to 18 years were well underway during the time period covered in this report. This legislation would eventually pass in June of 2017, with the change becoming effective starting in December, 2019. In March of 2014, Durham County’s Criminal Justice Resource Center began its Misdemeanor Diversion Program (MDP). Designed for youth ages 16 and 17 years, the MDP targeted first-time offenders accused of lower-level misdemeanor offenses as an alternative to entering the adult criminal justice system. Because of the success of this program and support for quality diversion options for the city’s young adult population, the MDP was expanded to include people ages 18-21 in 2015. These policy context details provide some background information about what was happening in the City of Durham during the
years reflected in the data used in this report on Misdemeanor Arrest Trends in the City of Durham, North Carolina 2007-2016.

Figure 23 shows the rate of arrest per 100,000 for number of drug violation arrests by race/ethnicity. Consistently across the ten-year period, the highest rate of arrests for drug violations was found for blacks. After a spike in arrests in 2008, the rate of arrests for blacks has seen a consistent decline. In 2016, the rate is more than half the rate of arrest just four years earlier. The arrest trends for white, Hispanic, and other race/ethnicity have varied less over the past ten years and stayed low compared to arrest rates for blacks.

Figure 23: Rate of drug violation arrests by race/ethnicity in Durham for 2007-2016, per 100,000 population.128
Substance Abuse among Juveniles Prior to Adjudication

**Indicators:**

- Number and percent of youth involved with the juvenile justice system who are in need of treatment

**Relevance:** Youth who come into contact with law enforcement for criminal and/or delinquent behaviors are at risk for a number of negative outcomes including failure to complete high school and difficulty maintaining employment. One risk factor that is of higher prevalence among youth who become involved with the juvenile justice system relative to their peers who are not is substance use. A few studies have examined the effect of substance use treatment on youth with varying degrees of involvement in the juvenile justice system and have found encouraging results that substance use treatment can reduce the use of both substance use and criminal involvement.  

**Data:** The data reported is collected from two sources to gather information reflective of Durham County and NC as a whole.

For Durham County, statistics come from the Juvenile Crime Prevention Council. In the Durham County Plan for fiscal year 2018-2019, they present statistics in a county risk and needs assessment summary. The Risk and Needs Assessment Committee reviewed data gleaned from the Juvenile Risk Assessment instrument. This instrument is administered by Juvenile Court Counselors after juveniles are referred with a complaint alleging that a delinquent act has occurred and prior to adjudication of the juvenile. The Juvenile Risk Assessment is an instrument used to predict the likelihood of the juvenile being involved in future delinquent behavior. The Risk and Needs Assessment Committee also reviewed data gleaned from the Juvenile Needs Assessment instrument administered by Juvenile Court Counselors prior to court disposition of a juvenile. The Juvenile Needs Assessment is an instrument used to examine a youth’s needs in the various domains of his life. This instrument was designed to detect service intervention needs as an aid in service planning.

For both the Juvenile Risk Assessment and the Juvenile Needs Assessment, some of the individual item ratings may be heavily dependent upon information reported by the juvenile or the patent(s). For these items (noted by an asterisk), there is a likelihood of under-reporting the incidence of a particular behavior and the actual incidence may be higher than suggested by these figures. In those cases, the figure should be interpreted as a measure of the minimum level of occurrence.

For NC, information comes from the Juvenile Justice 2017 Annual Report prepared by the Division of Adult Correction and Juvenile Justice within the NC Department of Public Safety. Within the Division, Clinical Services and Programs ensure the appropriate clinical
treatment for youth in juvenile justice facilities. Their clinical treatment/programming includes mental health, substance use, recreational, spiritual, and case management services. Data on youth in their treatment programs are reported to glean a snapshot of the severity of substance use within adjudicated juveniles on a state level.

**Findings:**

**In 2017 in Durham:**

- Court-involved Durham juveniles have substance abuse issues requiring assessment or treatment at higher rates than their statewide peers.
- 27% of youth at intake reported having a level of substance abuse needing treatment.
- 46% of youth at intake reported needing more mental health assessment.

**In 2017 in NC:**

- 100% of committed youth had at least one mental health or substance use diagnosis in 2017.
- 72% of committed youth had more than one diagnosis.
- Committed youth had an average of three distinct mental health and/or SUD diagnoses. Approximately 43% of committed youth were prescribed psychotropic medication in 2017.
- Of those with substance use disorders, 99% had a co-occurring MHD. This indicates that when a committed youth has a SUD, he/she almost invariably has a MHD.
- Of those with a MHD, 55% had a co-occurring SUD.

The Juvenile Justice 2017 Annual Report includes data on mental health diagnoses among two populations: the Community Programs Population (n=21,338), and the Youth Development Center Population (n=187) (Figures 24 and 25). Within the evaluation of mental health diagnoses, the one statistic related to substance use is “cannabis related disorder”. For both populations, cannabis related disorder is higher among males than females.
Figure 24: Youth development center population mental health diagnoses

Figure 25: Community programs population mental health diagnoses
Arrests on College Campuses

**Indicators:**

- Arrests for liquor law violations on college main campuses
- Arrests for drug violations on college main campuses

**Relevance:**

- Arrests on specific college campuses for liquor law and drug violations provides a sense of whether – and the extent to which – these events are occurring.
- When interpreting changes in arrest rates, it is important to note that arrests can vary based both on the prevalence of a particular crime as well as the resources devoted to policing a crime.

**Data:** The Office of Postsecondary Education (OPE) of the U.S. Department of Education provides information regarding arrests on college campuses through its Campus Security Data Analysis Cutting Tool. All postsecondary institutions that receive Title IV funding are required to annually submit crime statistics. Data come from the OPE Campus Security Statistics website database and contain the following disclaimer:

  *Disclaimer:* The crime data reported by institutions have not been subjected to independent verification by the U.S. Department of Education. Therefore, the Department cannot vouch for the accuracy of the data they report.  

**Findings:** There are three main college campuses in Durham:

- Duke University, a private institution that provides four-year degrees as well as advanced degrees and enrolled a total of 16,130 students in 2017.  
- Durham Technical Community College, an institution that awards two-year degrees and enrolled 5,415 students in 2017.  
- NC Central University (NCCU), a historically black university that provides four-year degrees as well as advanced degrees and enrolled 8,097 students in 2017.

Figures 26 and 27 show the number of arrests for liquor law violations and drugs that occurred at these postsecondary institutions from 2001-2017 (no data are available for 2006 and 2014). Duke University had a peak in the number of arrests for liquor law violations in 2015 with 7 arrests, but in the following years, there was a significant decrease to 2 in 2016 and zero in 2017. There was an increase in arrests for drugs from 2015 to 2016, followed by a decrease in 2017. Durham Technical Community College reported no arrests for liquor law, but there was a steady increase in arrests for drugs.
observed from 2015-2017. NCCU appeared to have an increase in arrests for drugs in 2015, reaching the highest number of arrests in the past 15 years at 62 arrests in 2015. Although the number of arrests for drugs decreased in 2016, the number rose again in 2017. Even though the number of students at NCCU was approximately half of the number at Duke University, there were six times more arrests for drugs at NCCU than at Duke University.

![Figure 26: Arrests for liquor law violations on college campuses in Durham: 2001-2017](image)

![Figure 27: Arrests for drugs on college campuses in Durham: 2001-2017](image)
Discussion

From this report and its previous iterations, it is evident that Durham County has been affected by substance misuse and abuse on various levels and as the result of a wide range of contributing factors. Such a complex public health problem necessitates extensive, multi-faceted approaches to improving the health of the Durham community.

Healthy NC 2020 Objectives

Table 19 lists objectives from Healthy NC 2020, the state’s health improvement plan, that are directly related to substance use. These objectives can guide the development of interventions for substance use.

<table>
<thead>
<tr>
<th>Healthy NC 2020 Objective</th>
<th>Current Durham</th>
<th>Current NC</th>
<th>2020 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reduce the percentage of high school students who had alcohol on one or more of the past 30 days</td>
<td>25% (2015)vi</td>
<td>29.2% (2015)</td>
<td>26.4%</td>
</tr>
<tr>
<td>2. Reduce the suicide rate (per 100,000 population)</td>
<td>8.1 (2012-16)vii</td>
<td>13.4 (2015)</td>
<td>8.3</td>
</tr>
<tr>
<td>3. Reduce the rate of mental health-related visits to emergency departments (yearly admits per 10,000 population)</td>
<td>156.2 (2016)viii</td>
<td>584.2 (2016)ix</td>
<td>82.8</td>
</tr>
</tbody>
</table>

Table 19: Healthy NC 2020 Objectives

Mental Health Care Services

Alliance Health

Alliance Health (formerly Alliance Behavioral Healthcare) is a managed care organization (MCO) that manages behavioral health and developmental disability services in several counties, including Durham. Alliance’s responsibilities include recruiting and monitoring direct service providers, serving individuals with Medicaid or without insurance, and staffs a 24/7 information call center.

Private Mental Health Care Providers

Durham County also has private mental health providers. According to the Robert Wood Johnson Foundation (RWJF) County Health Rankings, Durham County had one mental
health provider for every 200 Durham County residents in 2017. The ratio was 1:490 for NC and 1:360 for top performing counties in the U.S.\textsuperscript{145} Although Durham County has a better ratio than other counties, it could still benefit from more providers who can address mental health needs related to substance use.

**Together for Resilient Youth (TRY)**

In response to substance use challenges faced in Durham, TRY has developed a comprehensive strategic action plan (Appendix A). TRY focuses their efforts on the Community Anti-Drug Coalitions of America’s (CADCA) Seven Strategies for Community Change:\textsuperscript{146}

1. Providing Information
2. Enhancing Skills
3. Providing Support
4. Enhancing Access and Reducing Barriers
5. Changing Consequences
6. Physical Design (the environment)
7. Modifying and/or Changing Policies

TRY conducts a wide range of activities that employ these strategies, including presentations, workshops, and seminars in schools and the community to reach youth, young adults, and parents who have lost children due to overdose. One example of TRY’s work in the community is publicly recognizing 450 local businesses who have decreased alcohol sales to minors. Another example is the program “Forward Together,” a community recovery support safety net for youths, young adults, and adults that struggle with addiction.

TRY initiatives are open to all for participation and collaboration. For more information on TRY’s activities and how to participate, please visit http://www.durhamtry.org/, call 919-491-7811, or email wanda.durhamtry@gmail.com.
Appendix A: Together for Resilient Youth
Strategic Plan

Documentation of Evaluation measures have been established and collected for TRY initiatives 2010 – present.

Publications and Publication support: Alcohol Outlet Density in African American Communities, Equity in the Opioid Epidemic, Race and Resilience, Durham County Substance Use Summary, Durham County Perception of Risk, Durham County Juvenile Justice Arrests, School, Durham County School Climate, Resilience (Risk and Protective Factors. Co-Author Durham County Health Assessment

Grants and Evaluation: Drug Free Support Program (AOTD), STOP (Alcohol), Blue Cross Blue Shield of NC (Opioids, Minority Populations & Trauma), NCPUDi (Alcohol), NCBHI (Behavioral Health Disparities – ACEs/Resilience), SAMHSA College and Community Coalitions (AOTD), Duke CTSI (ACEs and Resilience), NC Injury Prevention (Opioid Harm Reduction), UNC School of Government (Opioid/Minorities), NC Injury Prevention (Violence Prevention), Unrestricted funds (Minorities and Tobacco sales – menthol, E-cigs & Marijuana) NCABC P/T Ambassador and Misdemeanor Diversion Program provider.
<table>
<thead>
<tr>
<th>Strategy/Intervention</th>
<th>Description</th>
<th>Face to face reach 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Youth and Parent/Family Education</strong></td>
<td>Education for youth and parents (including communities of color) aimed at decreasing ATOD use by youth by increasing refusal/resistance skills of youth and increasing parental communication and monitoring</td>
<td><strong>1,300 elementary, 1,985 middle and high school youth, 642 parents, 1,500 college students, 427 community members</strong></td>
</tr>
<tr>
<td></td>
<td>TRY’s youth coalition, Living in Future Tense (LIFT) operates in Durham Public Schools grades 5 – 12 using age appropriate materialsMarvelous and Extraordinary (ME) Self Esteem Building – elementary and middle school girls. Middle and High School Students receive a TIP of the Month based on the SAMHSA CSAP Calendar. Partnerships: Talk it Out NC – Alcohol (parents), Talk it Up. Lock it Up – Alcohol (parent), Lock it! Drop It!/NC Lock Your Meds (community)Smoke is Smoke- Marijuana (Colorado PH document on teen use)Tobacco – Synar (circa SAMHSA 2018), E-Cigs – Journeyworks, CSAP, SAMHSAPresentations made: “12 Sectors” including Faith Communities, Private/Charter Schools and Regional PTAs, Youth</td>
<td></td>
</tr>
</tbody>
</table>
and Parents, TRY Driver Education classes through DPS, TRY is a DPS Family Academy Provider of Curriculum

<table>
<thead>
<tr>
<th>Tobacco</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2. Community Education and Mobilization</strong></td>
</tr>
<tr>
<td>Identify and partner with community partners to develop, educate and plan strategies to reduce youth access to tobacco</td>
</tr>
<tr>
<td><strong>2018 – present Distribution</strong></td>
</tr>
<tr>
<td><strong>9,245: Neighborhood Improvement Services to all public housing 8 properties via mobile unit, Campus communications through the NCCU Department of Public Health, Duke Residence Services.</strong></td>
</tr>
<tr>
<td>Materials as identified above are shared through coalition members to their peer groups on a monthly basis. Based on the outcome of Tobacco Purchase Surveys more information has been shared about e-cigs and loose cigarette sales. CollegeTRY . (Duke and NCCU) coalition members share information with families and peers to help ensure that they do not provide tobacco or e-cigs to individuals under 18. Additionally, GNBN’s agree voluntarily not to sell e-cigs or energy drinks to anyone under 18</td>
</tr>
</tbody>
</table>

| **3. Merchant Education**                                               |
| Identify, contact and visit tobacco retail outlets to provide information and materials (brochures, signs, Red Flag Merchant Education packet) on youth access to tobacco laws |
| **10 stores are visited on a weekly basis by a dedicated team of paid and volunteer members. Alcohol Outlets are visited almost daily.** |
| TRY helped to create the Tobacco store GIS tracking system. TRY members have been trained in Synar/Tobacco – Red Flag Merchant |
Education and use materials from SAMHSA SYNAR regulations updated 2018. The information is shared and discussed with Merchants during face to face Good Neighbor Business Network visits.

### 4. Law Enforcement Related Activities

<table>
<thead>
<tr>
<th>Contact and assist local law enforcement/ALE officers to conduct tobacco compliance checks and tobacco retailer training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2018 - 3 stores were identified</strong></td>
</tr>
<tr>
<td>Loose cigarette sales and sales to minors are reported to ALE. ALE conducts on-site training. The first offense is nonpunitive.</td>
</tr>
</tbody>
</table>

### 5. Media and Public Relations

<table>
<thead>
<tr>
<th>Collaborate with community partners and/or youth organizations to increase awareness and publicize youth access to tobacco laws, penalties and compliance inspection results and recruit/publicize merchants who pledge not to sell tobacco products to youth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2018 – Family Fare received the top award representing 27 stores Durham as well as stores throughout NC, 10 sticker shock, 4 youth and college visits. Dr. Wanda Boone was interviewed on television about JUUL x 2 and in print X1</strong></td>
</tr>
<tr>
<td>The GNBN Checklist requires adherence to alcohol, tobacco and lottery tickets laws. Compliant GNBN participants are recognized at the TRY annual conference and quarterly by LIFT, CollegeTRY and community members at Sticker Shock and appreciation events. This process has been covered by WRAL, WTVD and News 14.</td>
</tr>
</tbody>
</table>

#### Communication Campaigns

### 6. Social Norms

<table>
<thead>
<tr>
<th>Campaign designed to utilize marketing techniques to change misperceptions regarding audience behavior in order to change behavior by communicating accurate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2018 – 4 Billboards and 2 Mobile</strong></td>
</tr>
<tr>
<td>TRY engaged Fairway Mobile Billboards to engage schools and community in Districts 1 and 4 (alcohol and tobacco), Districts 2, 3</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td><strong>group norms of a specific, targeted audience</strong></td>
</tr>
<tr>
<td><strong>NC Injury Prevention Overdose Prevention</strong></td>
</tr>
<tr>
<td><strong>7. Harm Reduction Plan</strong></td>
</tr>
</tbody>
</table>
| **8. Support for Prevention (Policy/Advocacy)** | Campaign designed to support the creation, enhancement or enforcement of policy efforts | **2013 - present**
**Quasi-judicial 2014**
**Alcohol/Tobacco policy 2019 – JUUL e-cig policy**

TRY initiated a change in the DPS suspension policy for tobacco and e-cig suspensions by working with the Board of Education that includes referral to on-line quick smoking.

TRY initiated a quasi judicial process that was adopted and implemented by City Council |
| **9. Lock Your Meds** | Campaign to promote safe medication and storage disposal through a combination of media messages, print materials and efforts to increase the | **2018 – present**
**5,300 materials and received additional supply.**

TRY is a coalition member with LYM covering Durham, Wake,
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>availability of medication locking mechanisms</td>
<td>Yadkin*, Franklin*, Craven*, Johnston*, Robeson* and Edgecomb* counties.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*These counties are also included in TRY’s Strategic Prevention framework and 7 strategies for community change TA is provided with the intent that they will be prepared to apply for other funding in the future. (ATOD)</td>
</tr>
<tr>
<td>10.</td>
<td>Prescription Drug Strategies</td>
<td>TRY was part of formulating the NC Strategic Action Plan and participated over a 2 year period</td>
</tr>
<tr>
<td>11.</td>
<td>Safer Prescriber Training</td>
<td>Training for prescribers to learn about safer prescribing options and use of the CSRS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TRY partners with Community Care Network regarding training.</td>
</tr>
<tr>
<td>12.</td>
<td>Hospital/Clinic Prescription Drug Monitoring Program (PDMP) Policy Change</td>
<td>Encouraging and advocating for PDMP policy/protocol changes to utilize, manage the PDMP system better</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TRY works with Community Care Network regarding training.</td>
</tr>
<tr>
<td>13.</td>
<td>Prescription Drug Monitoring Program (PDMP) registration/utilization effort</td>
<td>NC's prescription drug monitoring program collects controlled substance prescription data for prescribers and dispensers in order to improve patient care and safety while avoiding potential drug interactions and identifying individuals in need of referral to treatment services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lead Partner: Carolina Behavioral Care Pharmacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TRY works with Pharmacists in Durham to gain their insight re: the pros and cons of how to make this more consistent and why there are challenges.</td>
</tr>
<tr>
<td>14.</td>
<td>Lockbox distribution</td>
<td>Distribution of medication lock boxes for families at</td>
</tr>
</tbody>
</table>
increased risk of prescription medication misuse including, but not limited to: emergency department patients, foster families and WIC participants. **425 distributed** TRY began distributing lock boxed (DFC) in 2014 and continues to distribute LYM lockboxes to ED, HD, Housing developments, through PTA and others.

<table>
<thead>
<tr>
<th>15. Locking cabinet installation</th>
<th>Locking cabinets provide safe and responsible ways for people to store prescription drugs kept in their homes</th>
<th>No associated activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Permanent medication drop box</td>
<td>Secure storage boxes, located in law enforcement offices or pharmacies, where individuals can safely dispose of no longer needed medications</td>
<td><strong>TRY purchased 5</strong> of the 7 permanent drop boxes located throughout Durham including at NCCU and Carolina Behavior Care Pharmacy.</td>
</tr>
<tr>
<td>17. Medication take back events</td>
<td>Events organized with law enforcement to collect and safely dispose of no longer needed medications</td>
<td><strong>2018 – 20 Events, 2019 2 Events</strong></td>
</tr>
<tr>
<td>18. Chemical medication disposal</td>
<td>Distribution of chemical medication disposal kits, containers that can be used to chemically dissolve medications at places such as, but not limited to: end of life/late in life serving organizations (i.e. hospice, funeral homes and assisted living centers)</td>
<td><strong>2018 - present</strong></td>
</tr>
</tbody>
</table>

**Youth Environmental Management Strategies**
<table>
<thead>
<tr>
<th>Alcohol Education/Enforcement Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>19. Youth activities</strong></td>
</tr>
<tr>
<td><strong>20. Compliance Checks</strong></td>
</tr>
<tr>
<td><strong>21. Alcohol Purchase Surveys</strong></td>
</tr>
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</tbody>
</table>
| **22. Responsible Alcohol Sales Training (RAST) and Be a Responsible Server/Seller (BARS) Training** | Training to educate owners, managers, servers and sellers at alcohol establishments about strategies to avoid illegally selling alcohol to underage youth and/or intoxicated patrons | **2018 - present**  
**2 events**  
TRY hosted RAST and BARS training conducted by NCABC and ALE. The event 2018 was covered by WRAL and the News & Observer. Over 250 alcohol outlets participated. TRY presented on why training is important from a public health and safety perspective. TRY uses materials supplied by NCPUDi for individual training. |
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Small “P” Policy</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **23. Safe Homes** | Private homes whose owners agree to/sign a pledge not to provide alcohol, tobacco or other drugs to youth, including family members and visitors, at parties, gatherings and social events such as Homecoming, Prom or Graduation | **2017 – present**  
**526 signatures collected**  
TRY participates with organizations in Durham that host Prom events. Safe Home signatures have been collected from parents since 2009 through the TRY website. TRY works with Talk it Out NC and NCPUD to collect parent signatures |
| **24. Safe Stores** | Businesses who agree to/sign a pledge not to sell alcohol or tobacco to youth by checking for proper identification, training employees, and creating-following policies with consequences for violations | **2015-2018 450 alcohol, tobacco stores signed**  
The GNBN has been described under separate cover. |
<p>| <strong>Big “P” Policy</strong> | | |</p>
<table>
<thead>
<tr>
<th>25. Establish, Review or Change School ATOD Policies</th>
<th>School policies prevent and/or decrease the use of ATOD on school property and/or during school-sponsored events and promote fair consequences for all persons who violate policies</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010 – 13,000 suspensions of primarily minority students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2012 – 2014 (lawsuit) policy rewrite 9,000 suspensions of primarily minority students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2015 – 2016 6,000 suspensions of primarily minority students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2016 – 2017 4,000 suspensions of primarily minority students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2017 – Approximately 3,500</td>
<td></td>
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<td></td>
<td>TRY has participated in all iterations of policy locally and with NCDPI. TRY works with SROs and receives reports on trends involving suspensions.</td>
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<tr>
<th>26. Establishing, reviewing or changing Community and/or Workplace ATOD Policies</th>
<th>Effective workplace policies implement fair and consistent protocol and detail consequences of ATOD use during work time. Effective community policies such as smoke-free parks and outlet density restrictions regulate ATOD use in public places.</th>
<th>2017, 2018 - only</th>
</tr>
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<td></td>
<td>Measurement Inc., is the first workplace that includes prevention signage information for its almost 2,000 employees. AOTD information is shared with all Durham County and City employees as described in #1.</td>
<td>Measurement Inc.,</td>
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<td></td>
<td>TRY works with Parks and Recreation on the safe handling and disposal of needles from park areas. TRY checks ABC stores for Fetal Alcohol Spectrum Disorder (FASD) posters</td>
<td>is the first workplace that includes prevention signage information for its almost 2,000 employees. AOTD information is shared with all Durham County and City employees as described in #1. TRY works with Parks and Recreation on the safe handling and disposal of needles from park areas. TRY checks ABC stores for Fetal Alcohol Spectrum Disorder (FASD) posters</td>
</tr>
</tbody>
</table>
Many compliance stores post WE CARD (TRY) FASD (NCFASD) and Alcohol posters (NCABC).

Several Pharmacies post Overdose Prevention and Good Samaritan material.

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<tr>
<th>27. Modify Alcohol or Tobacco Advertising Policies</th>
<th>Advertising restrictions reduce the exposure of youth to alcohol and tobacco ads</th>
<th>2015 – present 20 PSAs</th>
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<td>Using the Media Prevention materials described in #1, youth design their own anti AOTD ads for social media and YouTube.</td>
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</tbody>
</table>

| 28. Product Pricing Strategies                    | Product pricing aims to increase the price of alcohol or tobacco products to dissuade youth from purchasing | TRY has worked on this with JUUL, e-cigs and alcopops but not very much with tobacco. |

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<tr>
<th>29. Festival/Event Restrictions</th>
<th>Restrictions at community events including policies focusing on the availability and use of alcohol or tobacco at public venues such as concerts, fairs/festivals and sporting events</th>
<th>2017 to present</th>
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<tr>
<td></td>
<td>• TRY worked on reducing cup size at the Durham Ballpark</td>
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<td>• A new brewery has limited sales after 8 PM.</td>
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<td>• Taxi services (TRY policy) operating in Durham do not deliver alcohol.</td>
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<td>• A safe ride home initiative is being developed with the help of NCCU and Duke CollegeTRY members.</td>
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<td>• Tailgating is banned at Duke.</td>
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<td></td>
<td>• Party buses no longer operate at NCCU.</td>
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</tr>
</tbody>
</table>
### 30. Violence Prevention
Using a shared risk and protective factors approach to prevent multiple forms of violence

2011 – present
- NC Injury Prevention Branch – TRY technical assistance award
- Partnering with Durham Police Department, Durham Sheriff’s Department, Alliance Behavioral Healthcare, Department of Social Services, Division of Juvenile Justice

Decreases have been documented due to alcohol outlet compliance (through 2018)

### 31. ACEs, Trauma Informed and Resilience

2014 – present

Data 2018-2019 – 4,209 men, women and children not including PTA regional and local, juvenile justice District Directors, Department of Public Instruction, All staff at 4 including 3 elementary schools

### 32. BRSS TACS
Community Supports to improve Resilience

2018 – present 220 trained (2019)

### 33. NC Coalition Technical Assistance
3 NCABC, 5 Counties

2018 – present 325 provided TA (2019)

### 34. Awards and Recognition

2019 Community Anti-Drug Coalitions of America Got Outcomes Award, Ann Doolen Visionary Award, ADCNC, Social Justice Warrior, Duke CTSI Spotlight, Proclamations County and City, NC Attorney General Josh Stein, NC Dogwood Award
References

17 N.C. DETECT Emergency Department (ED) Data: by Intent, Drug Type, and County. Available from Injury and Violence Prevention Branch County-Level Poisoning Data Tables Retrieved 6-5-19, from NC Department of Health and Human Services https://www.injuryfreencncdhhs.gov/DataSurveillance/Poisoning.htm
21 N.C. DETECT Emergency Department (ED) Data: by Intent, Drug Type, and County. Available from Injury and Violence Prevention Branch County-Level Poisoning Data Tables Retrieved 6-5-19, from NC Department of Health and Human Services https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm
22 Death Data: by Intent, Drug Type, and County. Available from Injury and Violence Prevention Branch County-Level Poisoning Data Tables Retrieved 6-5-19, from NC Department of Health and Human Services https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm
23 Death Data: by Intent, Drug Type, and County. Available from Injury and Violence Prevention Branch County-Level Poisoning Data Tables Retrieved 6-5-19, from NC Department of Health and Human Services https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm
26 Death Data: by Intent, Drug Type, and County. Available from Injury and Violence Prevention Branch County-Level Poisoning Data Tables Retrieved 6-5-19, from NC Department of Health and Human Services https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm
28 Death Data: by Intent, Drug Type, and County. Available from Injury and Violence Prevention Branch County-Level Poisoning Data Tables Retrieved 6-5-19, from NC Department of Health and Human Services https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm
29 Death Data: by Intent, Drug Type, and County. Available from Injury and Violence Prevention Branch County-Level Poisoning Data Tables Retrieved 6-5-19, from NC Department of Health and Human Services https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm
30 Death Data: by Intent, Drug Type, and County. Available from Injury and Violence Prevention Branch County-Level Poisoning Data Tables Retrieved 6-5-19, from NC Department of Health and Human Services https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm
31 Death Data: by Intent, Drug Type, and County. Available from Injury and Violence Prevention Branch County-Level Poisoning Data Tables Retrieved 6-5-19, from NC Department of Health and Human Services https://www.injuryfreenc.ncdhhs.gov/DataSurveillance/Poisoning.htm
69 https://www.addictioncenter.com/college/
70 Sources: National Institute on Drug Abuse, Marijuana (2017); The Center on Young Adult Health and Development, University of Maryland School of Public Health

https://schs.dph.ncdhhs.gov/data/brfss/
https://schs.dph.ncdhhs.gov/data/brfss/
https://schs.dph.ncdhhs.gov/data/brfss/
https://schs.dph.ncdhhs.gov/data/brfss/
https://schs.dph.ncdhhs.gov/data/brfss/
https://schs.dph.ncdhhs.gov/data/brfss/
https://schs.dph.ncdhhs.gov/data/brfss/
https://schs.dph.ncdhhs.gov/data/brfss/
https://schs.dph.ncdhhs.gov/data/brfss/
102 (Centers for Disease Control and Prevention (CDC) 2014)
https://schs.dph.ncdhhs.gov/data/bfrss/2017/region3_5/topics.htm#tu
https://schs.dph.ncdhhs.gov/data/bfrss/2017/region3_5/topics.htm#tu
https://schs.dph.ncdhhs.gov/data/bfrss/2017/region3_5/topics.htm#tu
https://schs.dph.ncdhhs.gov/data/bfrss/2017/region3_5/topics.htm#tu
110 Source: 2019 County Health Data Book: 2013-2017 NC. Resident Race/Ethnicity-Specific and Sex-Specific Age-Adjusted Death Rates


