

FOREWARD

Since 1986, the Metropolitan Drug Commission (MDC) has worked to eliminate the illegal use and abuse of alcohol and drugs while simultaneously striving to enhance access to treatment services in our community. In any community collaborative, it is critical to be able to measure both successes and challenges. Tracking risk and protective factors over time can give us a sense of understanding of the increases and decreases of alcohol, tobacco, and other drug use we see in our community. This information can also assist us in developing the necessary initiatives to address the problems. In this way, we can all better work together as a community, parents and youth, to solve the problems associated with the initiation of substance abuse.

This 2002 Metropolitan Drug Commission *Statsbook* is the latest in a series of reports on substance abuse in Knox County. The MDC is an anti-drug coalition that harnesses local energy and resources to work toward the common goal of reducing substance abuse. The coalition's driving force is its members comprised of local partnerships between youth, parents, businesses, media, schools, youth organizations, law enforcement, religious or fraternal organizations, civic groups, health care professionals, state, and other organizations.

Over the years, the Commission has initiated activities such as parent drug education programs, youth summits, local drug use surveys in middle and high schools, substance abuse assessment services, training for drug-free workplace programs, and numerous community education forums. Additionally, the MDC has been the catalyst for several community programs and initiatives, and has served as a fiduciary agent offering support and technical assistance to grassroots organizations. Coalitions empower individuals and communities at the local level to join national drug prevention efforts. This year, the MDC supports other key demand reduction initiatives, including:

- * Narrowing the treatment gap including targeted treatment programs for children and adolescents.
- * Advocating for improved access and capacity for treatment via the Demand Treatment Initiative at the federal, state and local level.
- * Launching a multi-tiered, multi-sector approach for the Drug Free Communities Support Grant to ensure that vital anti-drug efforts continue to reach parents and children.
- * Strongly supporting Drug Courts and other criminal justice diversion programs to help more East Tennesseans break the vicious cycle of addiction and incarceration.

This report serves as a call to action; now the real work begins. Collecting data on a social problem is pointless if we are not willing to act upon them and our need to act is more urgent than ever. According to the National Household Survey on Drug Abuse, 200,078,992 Tennesseans age 12 or older needed but did not receive treatment for an illicit drug problem in the past year.

As president of the Metropolitan Drug Commission, I am proud to present to you this *Statsbook*. This report will assist us as we work to prevent substance abuse in our community. On behalf of the Metropolitan Drug Commission, I would like to thank the many individuals who worked to put this report together, as well as, community and commission experts who reviewed and edited it. Finally, I would be remiss not to acknowledge the Executive Director of the Metropolitan Drug Commission, Catherine Thatcher Brunson. Without her vision and tenacity, you would not be holding this report in your hand today.

To the health of our community,

Micky D. Roberts
MDC Board President
Director Community Health Planning & Initiatives, Director
Knox County Health Department

ACKNOWLEDGMENTS

The Metropolitan Drug Commission would like to thank the many individuals that kindly contributed hours of effort to enhance the quality of this statistics report. Each is owed a debt of gratitude. In addition, several community agencies provided access to their data sets and provided the technical assistance necessary to allow direct analysis of the data. Representatives of some of these agencies have reviewed the material to ensure quality of the presentation.

Special contributors to the *Statsbook* include:

Edmund Bolt, Director, Knox County Health Department
Wanda Day, Collections Officer, City of Knoxville Finance Department
Sandra Elkins, MD, Knox County Medical Examiner
Laurence V. Gibney, Court Director, Knox County Juvenile Court
John W. Gill, Jr., Special Counsel, Office of the District Attorney General, Knox County
Lynn Graham, Tennessee Department of Health, Bureau of Alcohol & Drugs
Colleen Hayzen, Executive Director, CONTACT of Knoxville, Inc.
Karen Kirk, Resource Specialist, 211
Brian Lawson, Epidemiologist, Knox County Health Department
Walter Mencer, Administrative Assistant, Knox County School System
Richard Moran, David Ball, Shawn Ferguson, Knox County Information Service
Angie Nesbitt, Minutes Clerk, Commission Library, Office of the County Clerk
Deborah Perry, Assistant Chief, University of Tennessee Police
Tami Ruth, Administrator, University of Tennessee Regional Forensics Center
Tommy Schumpert, County Executive, Knox County
Gary Tullock, District Director, State of Tennessee Board of Probation and Parole

The Metropolitan Drug Commission is grateful to the MDC board members, volunteers, and community members that continue to support its efforts.

On behalf of the Metropolitan Drug Commission, the data in this handbook were compiled, analyzed, and presented by a team of analysts in the Community Assessment and Planning (CAP) division of the Knox County Health Department. CAP is headed by Eugene Fitzhugh, Ph.D., assisted by J. Mark Prather, Ph.D. and Linda Knol, Ph.D. This *Statsbook* is an update of the 1996 and 1998 *Statsbooks* compiled by the University of Tennessee Social Work Office of Research and Public Service (UT-SWORPS).

EXECUTIVE SUMMARY

Community Statsbook 2002: Alcohol and Other Drugs in Knox County is essentially a compilation of the available community indicators that portray the extent of local substance abuse problems. A review of the materials reveals that, like all communities, Knox County has several areas of special concern:

Substance Abuse: Patterns of Use

- In 2002, approximately one out of four Knox County adults reported binge drinking (defined as five or more drinks on a single occasion) within the past month (*pp.* 9-10).
- In 2000, approximately one out of three Knox County 9th and 11th grade teens reported that they drank alcohol in the past month (*p.* 11).
- In 2000, one out of ten 11th grade males and one out of fourteen 11th grade females reported having consumed alcohol and driven a motor vehicle in the past month (*p.* 12).
- In 2000, one out of three 11th grade males and one out of four 11th grade females reported using marijuana in the past month (*p.* 13).
- In 2000, with the exception of 9th grade girls, Knox County's level of inhalant use by teens exceeds national levels (*p.* 13).

Substance Abuse Treatment

- The rate per 100,000 population for substance abuse treatment admissions in 2001 was 980.5 (*p.* 15).
- There was a disproportionately large percentage of African-Americans admitted for substance abuse treatment in 2001 when compared to Knox County's African-American population (*pp.* 16-17).
- There was a significant reduction in hospital beds assigned for substance abuse treatment between October 1, 1997 (*n* = 70) and October 1, 1998 (*n* = 8) (*p.* 18) in Knox County (*pp.* 18 and 56).
- On a given day, there were over one thousand individuals receiving treatment for substance abuse problems in Knox County in 1998 (*p.* 56).
- In 1998, one out of ten Knox County residents reported that they (or someone in their household) had attempted to get help for alcohol problems. However, almost one out of three seeking help were unsuccessful in obtaining treatment (*p.* 19).
- Helpline calls inquiring about substance abuse treatment resources in Knox County are increasing (*p.* 19).

Substance Abuse and Birth

- In 2000, the percentage of Knox County women using alcohol during pregnancy surpassed the *Healthy People 2010* target for the nation (*p.* 20).
- Although the numbers are still fairly low (3.5% of all births in 2000), there has been a rapid increase in the frequency of Knox County moms reporting that they used drugs other than tobacco and alcohol during their pregnancy between 1995 (1.2%) and 2000 (3.5%) (*p.* 20).
- One out of seven Knox County mothers reported using tobacco during their pregnancy between 1995 and 2000 (*p.* 21).
- In 2000, approximately one out of four Knox County mothers that reported they used alcohol during pregnancy had babies born with some form of abnormal condition (*p.* 23).
- From 1990 to 2000, Knox County mothers that smoked during pregnancy had consistently higher rates of low birth weight newborns compared to nonsmoking mothers (*p.* 24).

Substance Abuse and Mortality

- Between 1997 and 1998, the prevalence of alcohol use was similar for all ethnic groups in Knox County. Despite this, African-American adults in Knox County experienced much higher alcohol-related mortality rates than any other ethnic group (pp.9 and 26).
- In 2000, Knox County’s rate of alcohol-related fatal car crashes (7.6 per 100,000 population) was approximately double the *Healthy People 2010* target of four per 100,000 population (pp. 28-29).
- The Regional Forensics Center reported 39 drug-related deaths in Knox County in 2001 (10.2 per 100,000 population)- more than twice the *Healthy People 2010* target of four per 100,000 population (p. 30).
- In 2001, the Regional Forensics Center reported that narcotic-analgesics (such as Hydrocodone or morphine) replaced stimulants (such as cocaine and methamphetamines) as the number one type of drug uncovered in forensic examinations in medicolegal examinations (usually homicides, suicides, overdoses, and accidents) in 2000 (pp. 31-32).

Regulation of Alcohol and Other Drugs

- Between 1999 and 2001, there was a 30% increase in the number of public intoxication criminal charges filed against adults and juveniles residing in Knox County (pp. 34-35).
- Between 1999 and 2001, there was a:
 - (1) 30% increase in the number of public intoxication criminal charges (pp. 34-37).
 - (2) 45.7% increase in the number of simple possession/casual exchange criminal charges (pp. 34-35 and pp. 38-39)
 - (3) 13.6% increase in DUI criminal charges (pp. 34-35 and pp. 40-41)
 - (4) 13.5% decrease in the numbers of manufacturing/trafficking criminal charges (pp. 34-35 and pp. 42-43)filed against Knox County residents (and homeless).
- Approximately one out of six charges (17%) filed in Knox County Juvenile Court from 1996 to 2000 were specific to substance abuse offenses.
- In 1998, 18 Knox County adolescents were charged with driving under the influence (p. 45). However, a 2000 nonrepresentative survey found that 10.6% of 11th grade males and 7% of 11th grade females in Knox County self-reported drinking and driving within the past 30 days (p. 12).
- In 2001, the overall ratio for licensed alcohol outlets (liquor stores or beer permits) to geographic area in Knox County was one outlet for every 3/4 square mile. The ratio of outlets to the Knox County population (21 or older) is 279.9 outlets per 100,000 population (p. 47).

TABLE OF CONTENTS

	Page
Foreword	1
Acknowledgments	2
Executive Summary	3
Introduction	7
Organization of the <i>Statsbook</i>	7
Interpreting Data and Understanding Trends.....	7
Substance Abuse: Patterns of Use	8
Adult Alcohol Use Patterns.....	8
Adolescent Alcohol Use Patterns.....	11
Adolescent Drug Use.....	13
Substance Abuse Treatment	14
Substance Abuse Treatment Centers.....	14
Treatment Admissions in 2001.....	15
Treatment Admissions in Knox County on a Given Day.....	18
Getting Help for Alcohol Problems.....	19
Helpline Calls.....	19
Substance Abuse and Birth	20
Birth Certificate Measures.....	20
Alcohol and Low Birth Weight.....	22
Alcohol and Abnormal Conditions of the Newborn.....	23
Tobacco and Low Birth Weight.....	24
Tobacco Counseling by Knox County Obstetricians/Gynecologists.....	25
Substance Abuse and Mortality	26
Alcohol-Related Deaths.....	26
Alcohol-Related Traffic Crash Fatalities.....	28
Drug-Related Fatalities.....	29
Intravenous Drug Use and HIV/AIDS.....	33

	Page
Regulation of Alcohol and Other Drugs	34
Criminal Charges.....	34
Public Intoxication Charges.....	36
Simple Possession/Casual Exchange Charges.....	38
Driving Under the Influence Charges.....	40
Trafficking/Manufacturing Charges.....	42
Substance Abuse During Probation and Parole.....	44
Alcohol and Drug Enforcement Among Minors.....	45
Suspensions and Expulsions from School.....	46
Alcohol Outlets in Knox County.....	47
Appendix 1: Methodological Notes.....	50
Appendix 2: Knox County, TN.....	54
Appendix 3: Uniform Facilities Data Set.....	56
References.....	57

INTRODUCTION

Substance abuse directly diminishes the quality of life in Knox County by making our streets and highways more dangerous, our neighborhoods less safe, our families less stable and our citizens less healthy. This *Statsbook* was developed to present the clearest possible picture of the impact that substance abuse has on Knox County, Tennessee and its citizens. It is hoped that this information will be used by community and government agencies, grassroots coalitions, and individual citizens to take steps in addressing our area's substance abuse issues. This *Statsbook* is in partial fulfillment of a *Demand Treatment* grant (www.jointogether.org) awarded to the Metropolitan Drug Commission of Knoxville, Tennessee in 2001 by Join Together and funded by the Robert Wood Johnson Foundation.

The *Healthy People 2010* Goal on substance abuse is to “reduce substance abuse to protect the health, safety, and quality of life for all, especially children.” Whenever possible, *Healthy People 2010* objectives on substance abuse have been added to aid the user in understanding the scope of the problem and how far we have to go to meet the specific health targets.

The data presented in the following sections were collected by various government agencies (local, state and federal) and community groups. The sources for the data appear in the references section at the end of the *Statsbook*.

ORGANIZATION OF THE STATSBOOK

The *Statsbook* is divided into five sections:

- (1) Substance Abuse: Patterns of Use
- (2) Substance Abuse Treatment
- (3) Substance Abuse and Birth
- (4) Substance Abuse and Mortality
- (5) Regulation of Alcohol and Other Drugs

In addition to the five main sections, there are three appendices which may also prove valuable to the user. Descriptions of the methodologies used to develop the statistics in each section are presented in Appendix 1. A presentation of Knox County's demographics may be found in Appendix 2. Appendix 3 contains data from the Uniform Facilities Data Set.

INTERPRETING DATA AND UNDERSTANDING TRENDS

Interpretations of the findings in the *Statsbook* were deliberately kept at a minimum to allow the user to evaluate the data on their own merits. However, caution is recommended due to the nature of the data collected. The data collected in the *Statsbook* originate from a variety of primary and secondary data sources. However, the majority of the data originates from secondary data sources such as Health Information Tennessee, or the United States Census Bureau. By relying on secondary data, the user must also rely on the external agency for the accuracy of the records and rigor in the manner the data was collected. Notes on the interpretation and analysis of the data in each section are presented in Appendix 1.

Interpreting data trends should be undertaken with special caution. Relative increases or decreases in raw frequencies of occurrences should not be interpreted without considering increases or decreases in population, or possible changes in reporting methods that have been instituted between the first year and the final year of the analysis. Instances where the individual numbers of occurrences are small (less than 20 is a good rule of thumb), should always be interpreted with extreme caution due to a suspected lack of statistical reliability. Also, the user is urged to keep in mind that there may be *multiple explanations* for trends that seem to appear in the data.

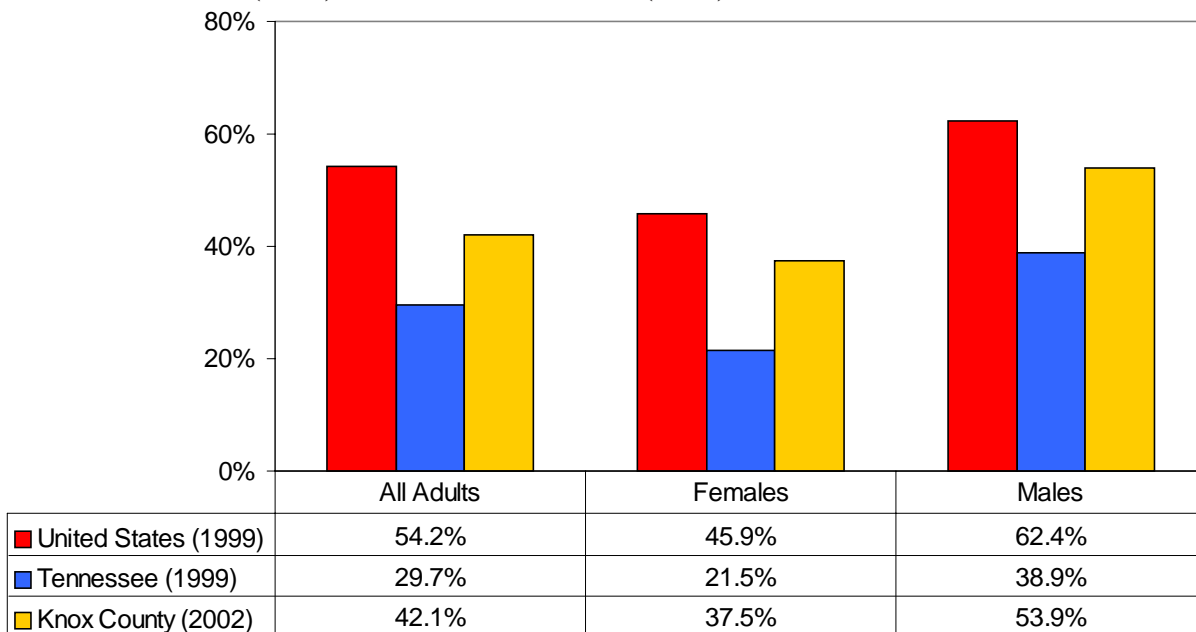
SUBSTANCE ABUSE: PATTERNS OF USE

ADULT ALCOHOL USE PATTERNS

According to *Healthy People 2010*, 44% of adults (18 years or older) at the national level reported that they had consumed 12 or more alcoholic drinks within the past year. More than 55% of those that drink reported that they had consumed five or more drinks in a single day in the past year (binge drinking). Nearly 10% of current drinkers (8 million Americans) meet the diagnostic criteria for alcohol dependence; another 7% (5.6 million Americans) meet the criteria for alcohol abuse.

Figures 1-3 refer to data from the 2002 Behavioral Risk Factor Survey ($n = 2,679$) in Knox County:

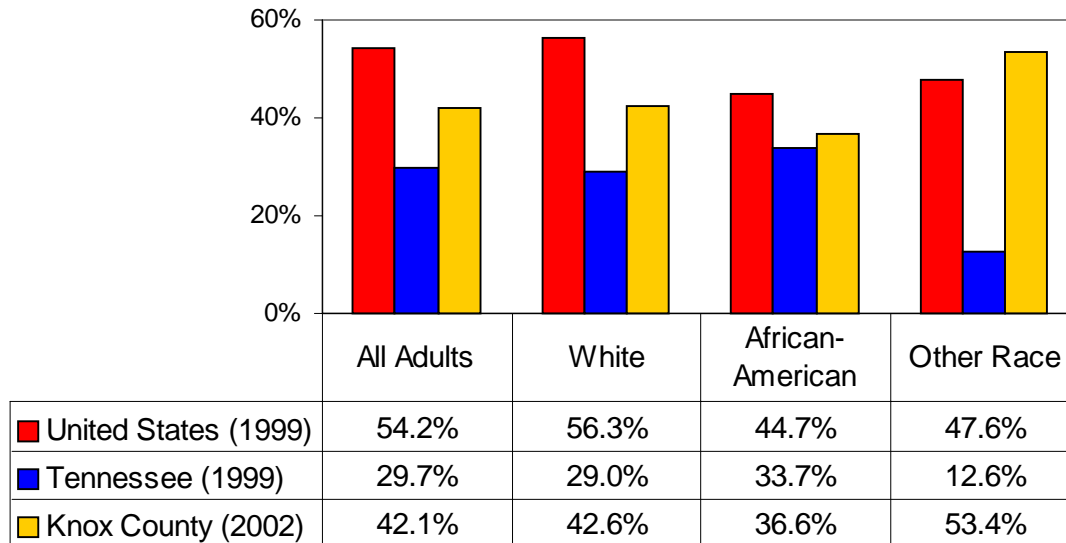
Figure 1: Adult Alcohol Use in Past 30 Days by Gender: Knox County, TN (2002) ($n = 2,769$) vs. Tennessee (1999) and the United States (1999)



Source: 2002 Behavioral Risk Factor Survey

- Approximately two out of five Knox County adults (42.1%) reported that they had at least one alcohol drink within the past 30 days.
- Knox County had higher rates of alcohol consumption than Tennessee but lower than the national average.
- A higher percentage of Knox County men (53.9%) reported drinking within the past month than women (37.5%).
- Knox County adults reported that they drank between seven and eight days during the past 30 days (average = 7.7 days).
- The average number of drinks consumed on one occasion by those Knox County adults that drank during the past month was estimated at 3.0.

Figure 2: Adult Alcohol Use in Past 30 Days by Race: Knox County, TN (2000) (n = 2,769) vs. Tennessee (1999) and the United States (1999)

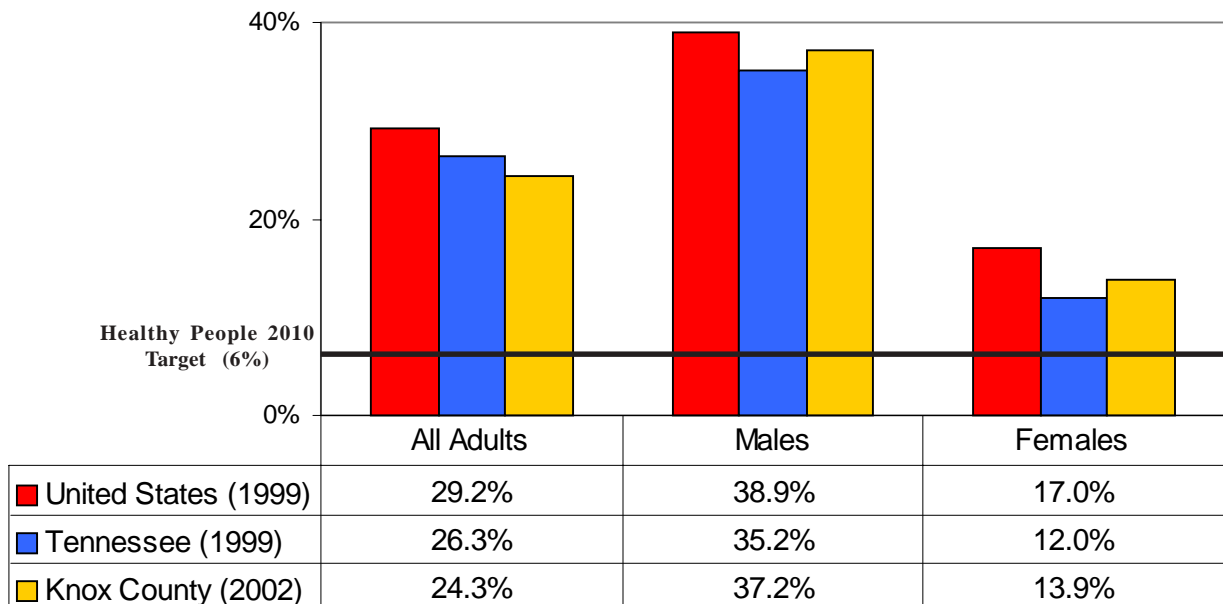


Source: 2002 Behavioral Risk Factor Survey

- In Knox County, the ‘other races’ category (races other than white or African-American) reported the highest rate of drinking within the past 30 days (53.4%), followed by whites (42.6%).
- African-Americans (36.6%) in Knox County reported the lowest rate of drinking within the past 30 days compared to other races.

Binge drinking is defined as having five or more drinks on one occasion within the past 30 days.

Figure 3: Adult Binge Drinking Rates by Gender: Knox County, TN (2002) (n = 2,769) vs. Tennessee (1999) and the United States (1999)

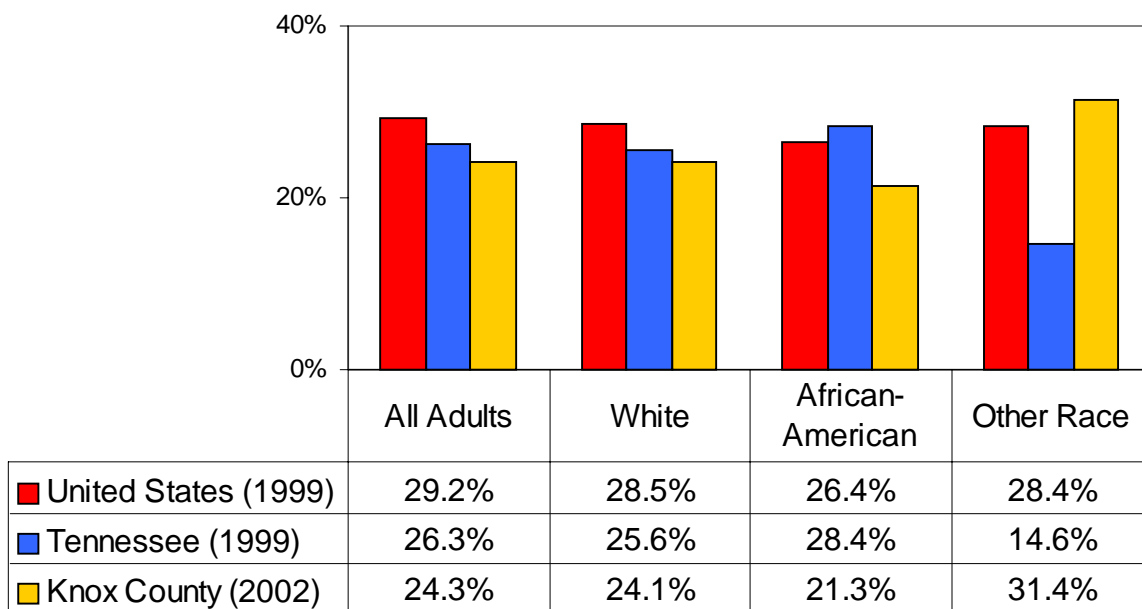


(Source: Behavioral Risk Factor Survey 1999, Knox County Behavioral Risk Factor Survey 2001)

Community Statsbook: Substance Use

- Approximately one out of four Knox County adults (24.3%) reported binge drinking within the past 30 days.
- Knox County’s 2002 binge drinking rate (24.3%) is slightly more than four-times the Healthy People 2010 target of 6%.
- Approximately, one out of three Knox County men (37.2%) reported binge drinking within the past 30 days. In contrast, approximately one out of eight Knox County women (13.9%) reported binge drinking in the past 30 days.

Figure 4: Adult Binge Drinking Rates by Race: Knox County, TN (2002) vs. Tennessee (1999) and the United States (1999)



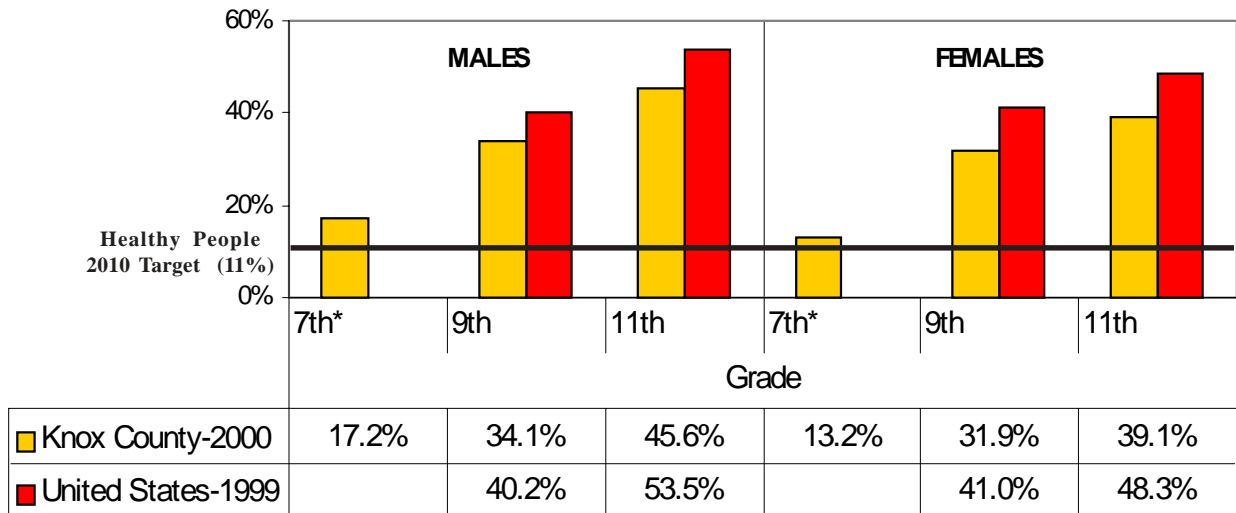
(Source: Behavioral Risk Factor Survey 1999, Knox County Behavioral Risk Factor Survey 2001)

- Knox County “other race” residents (31.4%) reported the highest levels of binge drinking compared to whites (24.1%) and African-Americans (24.3%).

ADOLESCENT ALCOHOL USE PATTERNS

The *Healthy People 2010* target goal is to increase the proportion of adolescents that report not having any alcohol or drugs in the past 30 days to 89%. The data in Figure 5 were drawn from the 2000 Knoxville Teen Assessment Project (KTAP) survey. A discussion of the 2000 KTAP survey may be found in Appendix 1.

Figure 5: Adolescent Alcohol Use by Gender and Grade: Knox County, TN (2000) vs. United States (1999)

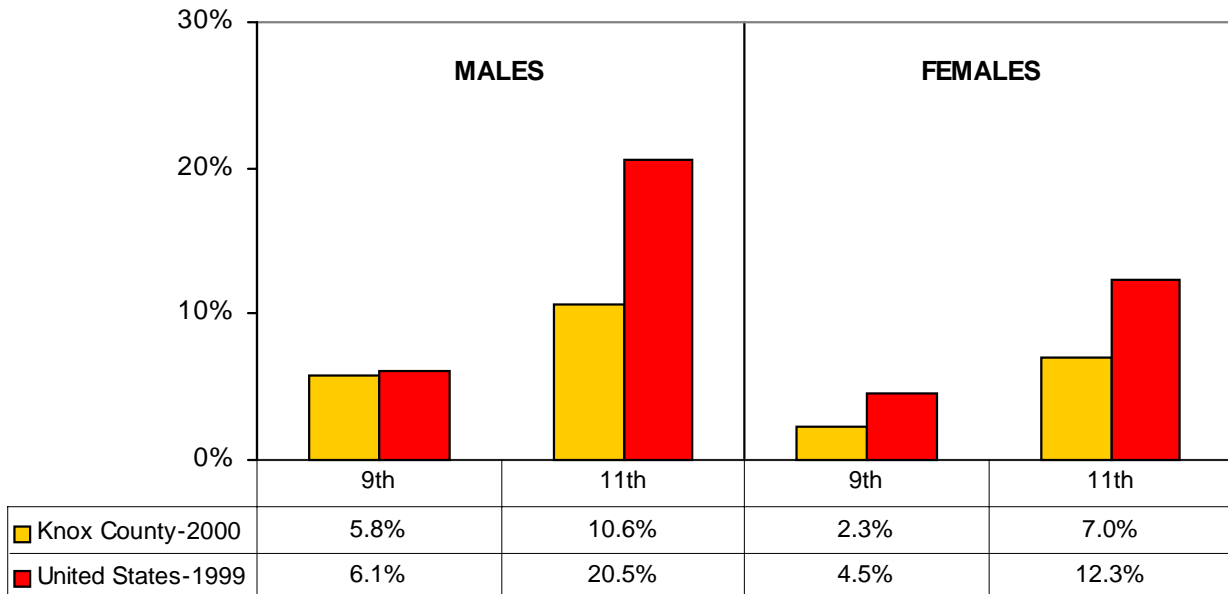


*No current national data available.

(Source: 2000 Knoxville Teen Assessment Project [KTAP] Report)

- Both 9th and 11th grade students in Knox County drank less than 9th and 11th grade students at the national level but still have not reached the 89% *Healthy People 2010* goal.
- Approximately one out of every three 9th and 11th grade Knox County teens reported that they consumed alcohol in the past month.

Figure 6: Drinking and Driving in the Past by Gender and Grade: Knox County, TN (2000) vs. United States (1999)



(Source: 2000 Knoxville Teen Assessment Project [KTAP] Report, Behavioral Risk Factor Survey, 1999)

- Specific to drinking and driving within the past 30 days, Knox County high school students are less likely to practice this risky behavior compared to their peers at the national level (Figure 6).
- Among 11th grade students in Knox County, 10.6% of males and 7.0% of females reported that they drank alcohol and drove at some point in the last 30 days.

The Center for Disease Control estimates that approximately five million teens at the national level that are using tobacco who are living today will die prematurely. According to Fredia Wadley MD, Commissioner of Health for Tennessee, this is because the younger one begins a form of substance abuse (such as smoking), the more likely one becomes strongly addicted (Tennessee Department of Health News Release, November 16, 2000; see also Annis, 1974)

ADOLESCENT DRUG USE

Table 1: Knox County, TN (2000) 7th, 9th and 11th Grade Drug Use in the Past Month Ranked by Type of Drug

Males	<u>7th Grade</u>		<u>9th Grade</u>		<u>11th Grade</u>	
		%		%		%
	1. Alcohol	17.2	1. Alcohol	34.1	1. Alcohol	45.6
	2. Cigarettes	11.2	2. Marijuana	23.1	2. Marijuana	32.2
	3. Marijuana	10.2	3. Cigarettes	19.9	3. Cigarettes	28.5
	4. Inhalants	8.5	4. Uppers/ Downers	10.5	4. Uppers/ Downers	14.5
	5. Uppers/ Downers	4.2	5. Inhalants	7.9	5. Heroin or LSD	9.0
	6. Heroin or LSD	3.0	6. Heroin or LSD	5.8	6. Inhalants	6.6
	7. Cocaine	2.0	7. Cocaine	4.3	7. Cocaine	5.2
Females	<u>7th Grade</u>		<u>9th Grade</u>		<u>11th Grade</u>	
		%		%		%
	1. Alcohol	13.2	1. Alcohol	31.9	1. Alcohol	39.1
	2. Cigarettes	9.9	2. Cigarettes	20.9	2. Cigarettes	27.6
	3. Inhalants	7.0	3. Marijuana	19.1	3. Marijuana	25.7
	4. Marijuana	6.9	4. Uppers/ Downers	8.5	4. Uppers/ Downers	12.1
	5. Uppers/ Downers	3.1	5. Inhalants	6.6	5. Heroin or LSD	4.8
	6. Heroin or LSD	1.6	6. Heroin or LSD	3.0	6. Cocaine	4.0
	7. Cocaine	1.1	7. Cocaine	2.2	7. Inhalants	3.3

(Source: 2000 Knoxville Teen Assessment Project [KTAP])

- Alcohol is the most frequently used substance by Knox County teens regardless of gender and grade.
- The levels of marijuana smoking in Knox County far exceeds the *Healthy People 2010* target of 0.7% of adolescents using marijuana within the past 30 days. For example, among 11th grade Knox County students, 32.2% of males and 25.7% of females reported having used the drug within the past 30 days.
- The levels of cigarette smoking by 11th grade males (28.5%) and females (27.6%) exceeds the *Healthy People 2010* target of 21% for Grades 9 - 12.
- According to a study completed by the Knox County Health Department (Whose Kids, Our Kids 2, 2001), the level of Knox County student using inhalants in the 30 days prior to the study exceeds those seen in the nation (1999 Youth Risk Behavior Survey) with the exception of 9th grade girls.

SUBSTANCE ABUSE: TREATMENT

SUBSTANCE ABUSE TREATMENT CENTERS

Each day, thousands of Knox County residents seek treatment for their substance abuse problems in area facilities. In order to gauge the amount of treatment service admissions in Knox County within the past year, the Metropolitan Drug Commission surveyed area treatment providers in 2002. The treatment survey yielded usable responses from the following 18 agencies and programs specializing in substance abuse treatment services that regularly see Knox County clients:

- Agape, Inc.
- Bridges to Recovery Chemical Dependency and Treatment Programs
- Blount Memorial Emotional Health and Recovery Center
- Buffalo Valley, Inc.
- Cherokee Health Systems
- E.M. Jellenik Rehab Center
- Helen Ross McNabb Center - A & D Adolescent Services
- Helen Ross McNabb Center - Centerpointe;
- Helen Ross McNabb Center - Medical Detox
- Helen Ross McNabb Center - Outpatient Program
- Helen Ross McNabb Center, Inc.-Residential Program
- Helen Ross McNabb Center, Inc.- Sisters of the Rainbow
- Helen Ross McNabb Center, Inc. - Women's Program
- HOPE of East Tennessee, Inc.
- Knoxville Area Rescue Mission
- Knox County Health Department - Renew
- Midway Rehabilitation Center
- Peninsula Lighthouse

Other agencies that advertise alcohol and drug treatment in the Knox County area but are not included in the survey were:

- Child and Family- Great Starts
- Comprehensive Community Care
- Cornerstone of Recovery
- Florence Crittenton Agency
- Knoxville-Knox County Community Action Committee, Counseling and Recovery Service

In addition to the above agencies, Knox County has several faith-based counseling centers, DUI schools, independent substance abuse counselors, a drug court, and alternative therapy centers in Knox County that provide treatment and educational services. Another survey completed by the Metropolitan Drug Commission in 2002 found that there were 104 Alcoholic Anonymous meetings being held each week at 23 locations in Knox County. In addition, Narcotics Anonymous meetings are held each week.

Treatment Admissions in 2001

The 2002 Metropolitan Drug Commission (MDC) Treatment Survey requested data on substance abuse treatment admissions in 2001 from area substance abuse treatment facilities. Eighteen facilities returned usable responses (see previous page). The MDC survey did not request data on alcohol-only diagnoses, hallucinogens (other than marijuana), sedatives or barbiturates. In addition, the data does not reflect treatment admissions by independent or faith-based counselors. Please read the notes in Appendix 1 for assistance with interpretation of this data.

Table 2: Knox County, TN Substance Abuse Treatment Admissions in 2001 by Primary Substance of Abuse According to Sex, Age, and Race

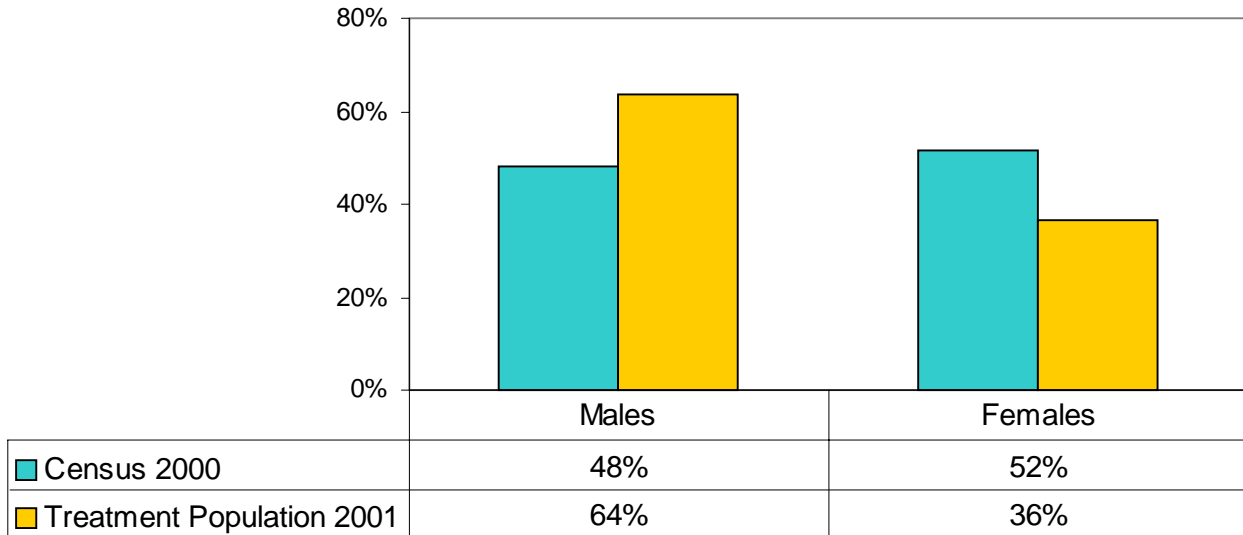
	Primary Substance at Admission											
	Total Number		Alcohol with Secondary Drug*		Marijuana		Opiates		Cocaine		Other Stimulants	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
TOTAL	3,746	100.0%	1,770	47.3%	526	14.0%	406	10.8%	772	20.6%	272	7.3%
<u>Sex</u>												
Male	2,383	63.6%	1,220	32.5%	339	9.0%	257	6.9%	445	11.9%	122	3.3%
Female	1,363	36.4%	550	14.7%	187	5.0%	149	3.9%	327	8.7%	150	4.0%
<u>Race/Ethnicity</u>												
White	2,947	82.3%	1,460	39.0%	368	9.8%	374	10.0%	553	14.8%	192	5.1%
African-American	521	14.5%	253	6.6%	94	2.5%	12	0.3%	132	3.4%	30	0.9%
Other Race	113	3.2%	57	1.7%	5	0.1%	11	0.3%	40	1.1%	0	0.0%
<u>Age at Admission</u>												
17 or younger	236	6.7%	90	2.4%	82	2.4%	1	0.0%	33	0.9%	30	0.8%
18 to 25	852	24.1%	408	10.9%	131	3.7%	85	2.4%	144	4.1%	83	2.2%
26 to 34	1,280	36.2%	618	16.5%	132	3.7%	162	4.6%	295	8.4%	73	0.2%
35 or older	1,172	33.0%	635	17.0%	122	3.5%	119	3.4%	260	7.4%	36	1.0%

* Note: Admissions involving alcohol as the only drug of abuse are excluded from this data set.

Source: MDC 2002 Substance Abuse Treatment Survey for Knox County

- The Metropolitan Drug Commission survey revealed that there were 3,746 admissions for substance abuse treatment in Knox County in 2001. This represents a rate per 100,000 population of 980.5 receiving some form of substance abuse treatment in 2001 in Knox County.
- Almost one out of two admissions (47.3%) involved alcohol with a secondary drug as the primary reason for admission (alcohol-alone diagnoses were excluded in this analysis). The next most frequent drug problem seen at admission was cocaine (20.6%), followed by marijuana (14.0%), and opiates (including heroin) at 10.8% (Table 2).

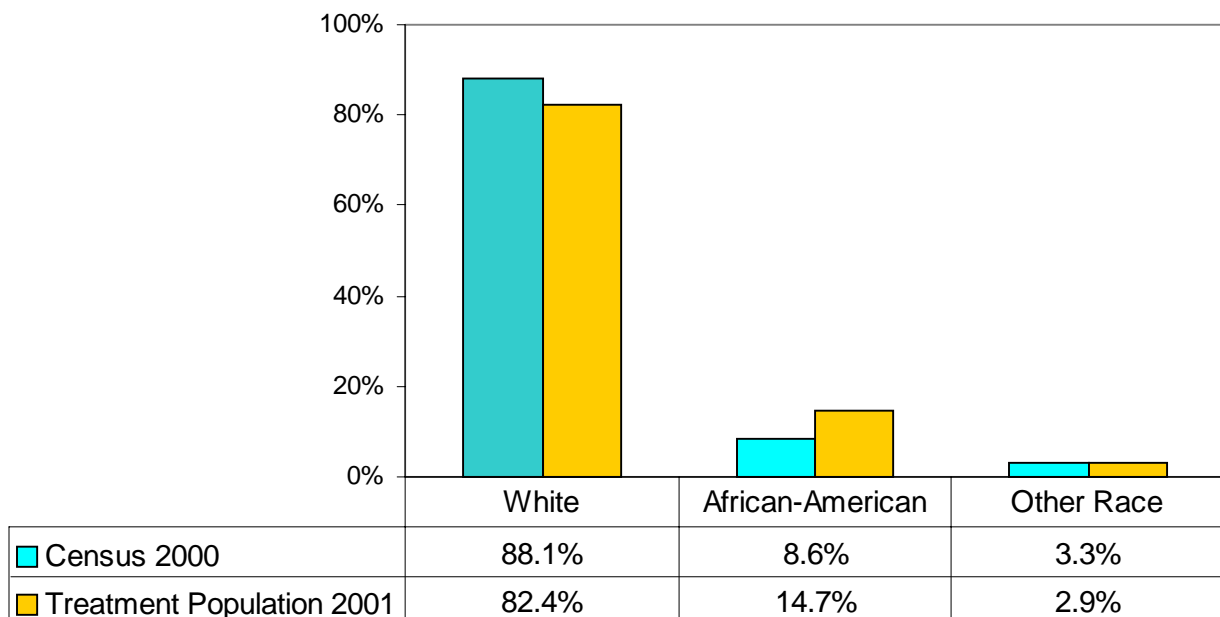
Figure 7: Knox County, TN Population by Gender vs. Knox County, TN Substance Abuse Treatment Admissions in 2001 by Gender (n=3,746)



Source: MDC 2001 Substance Abuse Treatment Survey for Knox County and US Census 2000

- Males (63.6%, n = 2,383) were admitted into treatment at almost twice the rate of females (36.4%, n = 1,363). In contrast, the US Census 2000 population estimates for the sexes in Knox County are 51.7% for females and 48.2% for males. This trend of larger numbers of males in treatment remained true for all of the primary drugs except stimulants; slightly more females (4.0%, n = 150) than males (3.3%, n = 94) were admitted for stimulants (other than cocaine) addiction (see Table 2).

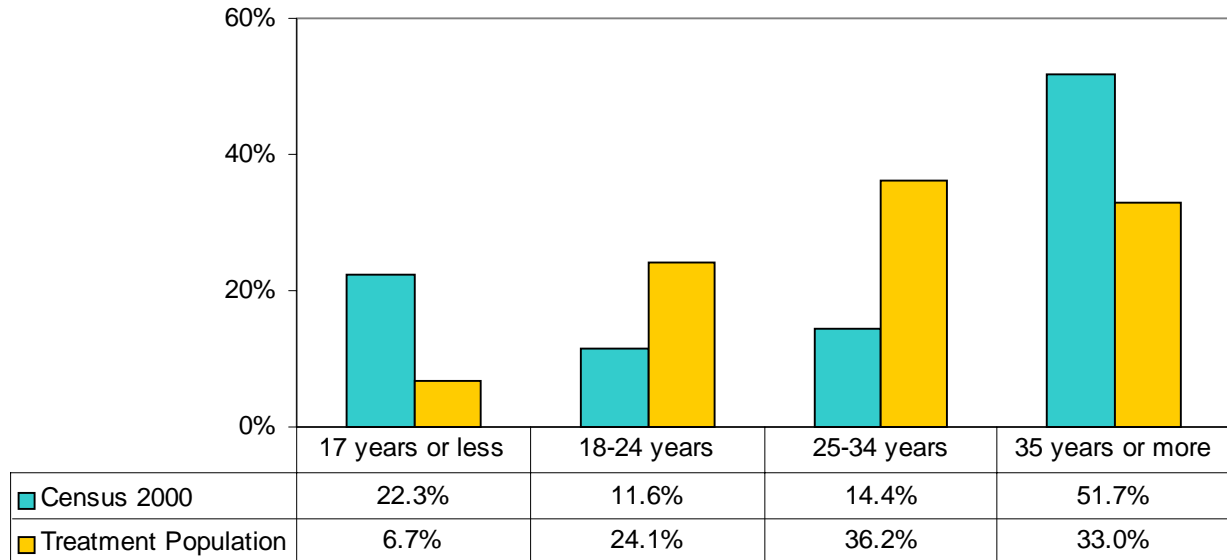
Figure 8: Knox County, TN Population by Race/Ethnicity vs. Knox County, TN Substance Abuse Treatment Admissions in 2001 by Race (n = 3,581)



Source: Metropolitan Drug Commission 2001 Substance Abuse Treatment Survey and US Census 2000

- Whites compose the largest racial/ethnic group admitted for treatment (82.3%, $n = 2,947$) followed by African-Americans (14.5%, $n = 521$). The percentage of African-Americans admitted for treatment (14.5%) exceeds the proportion of African-Americans in Knox County’s population (8.6%) (Figure 8).

Figure 9: Knox County, TN 2000 Population by Age Groups vs. Knox County, TN 2001 Substance Abuse Treatment Admissions by Age Groups ($n = 3,540$)



Source: Metropolitan Drug Commission 2001 Substance Abuse Treatment Survey, Census 2000

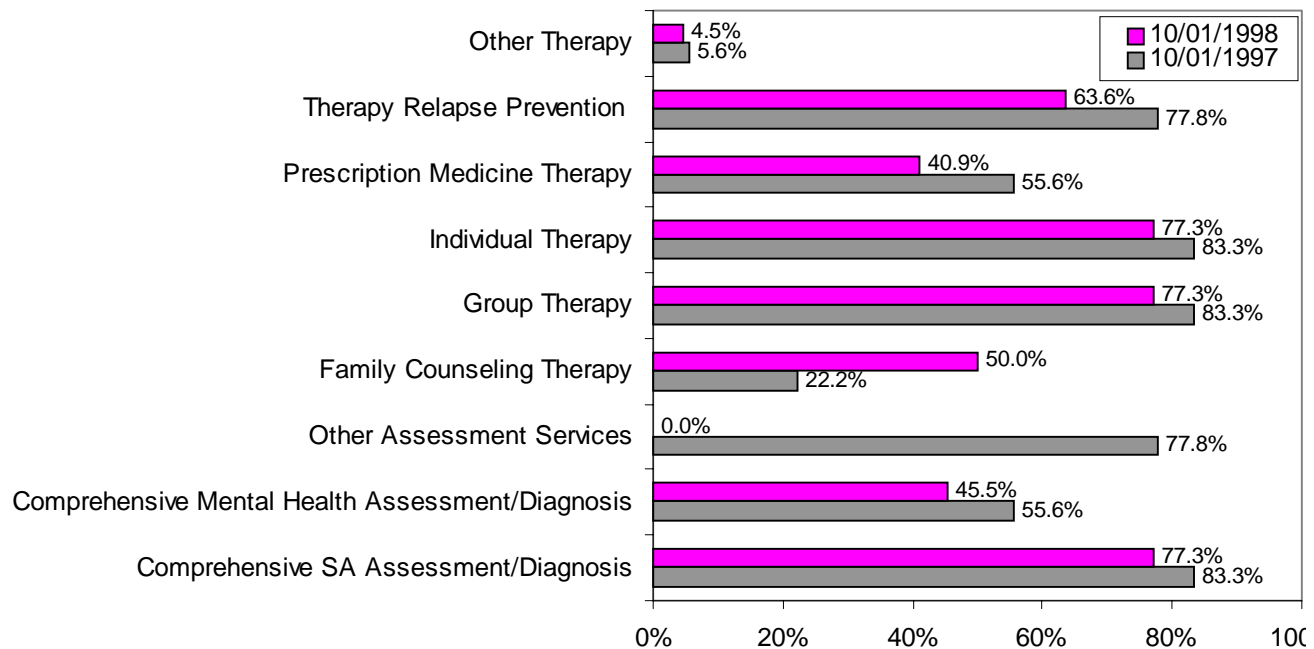
- Drug abuse treatment admissions were distributed throughout all of the age groups. The age group with the most admissions was found within the 25 to 34 years of age category (36.2%, $n = 1,280$) followed by 35 years or older (33.0%, $n = 1,172$) (Figure 9).

TREATMENT ADMISSIONS IN KNOX COUNTY ON A GIVEN DAY

The Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies Uniform Facility Data Set (UFDS) survey provides data from privately and publicly funded substance abuse treatment providers across the United States. To qualify for the survey, the facility must be state-licensed, have accredited staff, and bill specifically for substance abuse-related services (U.S. Department of Health and Human Services, 1997, 1998). Participation in the survey is voluntary in Tennessee as it is in most states.

Each year, participating agencies record facility and client-related data for a particular day (for example, October 1). In this way, the Uniform Facility Data Set provides a “picture” of Knox County’s treatment capacity and needs on an average day. Appendix 3 (p. 56) represents the data for Knox County on October 1 1997 and October 1, 1998. The data indicate that there was a dramatic reduction in hospital beds assigned exclusively for substance abuse treatment between 1997 ($n = 70$) and 1998 ($n = 8$) (see Appendix 3).

Figure 10: Types of Therapy Offered by Knox County, TN Substance Abuse Treatment Providers: October 1, 1997 ($n = 1,300$) and October 1, 1998 ($n = 1,068$)



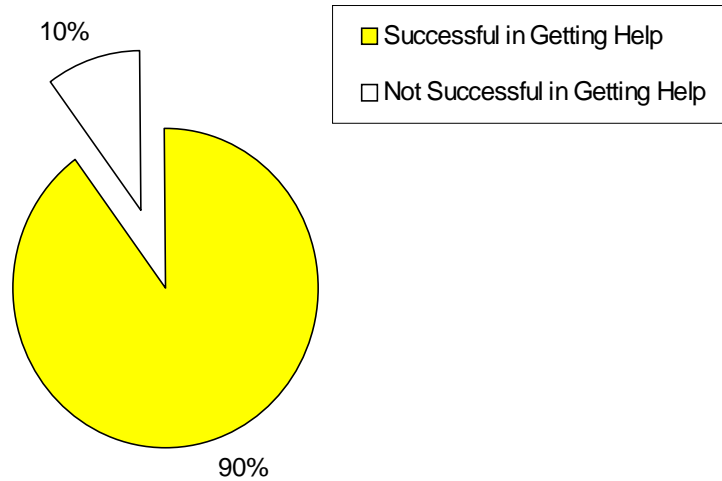
(Source: Uniform Facility Data Set: 1997, 1998)

- The Knox County facilities provided a broad scope of therapy between the years of 1997 and 1998. However, family counseling appears to have decreased as a treatment option.
- As seen in Figure 10, in 1997, most of the providers (77.8%, $n = 14$) were offering assessments (clinical evaluations of an individual’s psychological well-being and level of addiction) for problems other than substance abuse. By 1998, all of these “other assessments” had been eliminated. The amount of facilities offering family counseling doubled from October 1, 1997 (22.2%) to October 1, 1998 (50.0%).

GETTING HELP FOR ALCOHOL PROBLEMS

In the 1998 Community Health Survey, one out of ten (10.1%) Knox County adults responded that they or someone in their household had attempted to get help or treatment for alcohol problems. No significant patterns were found for the demographic variables.

Figure 11: Attempted to Get Help for Alcohol Problems in Knox County in 1998 ($n = 1,082$)



(Source: 1998 Community Health Assessment Survey)

- Of those Knox County adults that attempted to get help for alcohol problems, 10% ($n = 107$) reported they were not successful in receiving help or treatment (Figure 11). The reason for the lack of success was not determined by the 1998 survey. In several facilitated meetings in 2001 sponsored by the Metropolitan Drug Commission, area treatment providers have suggested that a lack of capacity may be the primary reason for this lack of access.

HELPLINE CALLS

Knox County does not currently have an independently-operated helpline dedicated solely to substance abuse issues. The county does have a “211” information number for those wishing information on a variety of social service topics including substance abuse treatment referrals. The 211 office reported there were 147 requests for resources on substance abuse from June 2000 to July 2001 and 207 requests from June 2001 to July 2002 (Kirk, August 12, 2002). This represents a 43.5% increase in information requests between the June-July 2001 and June-July 2002 years.

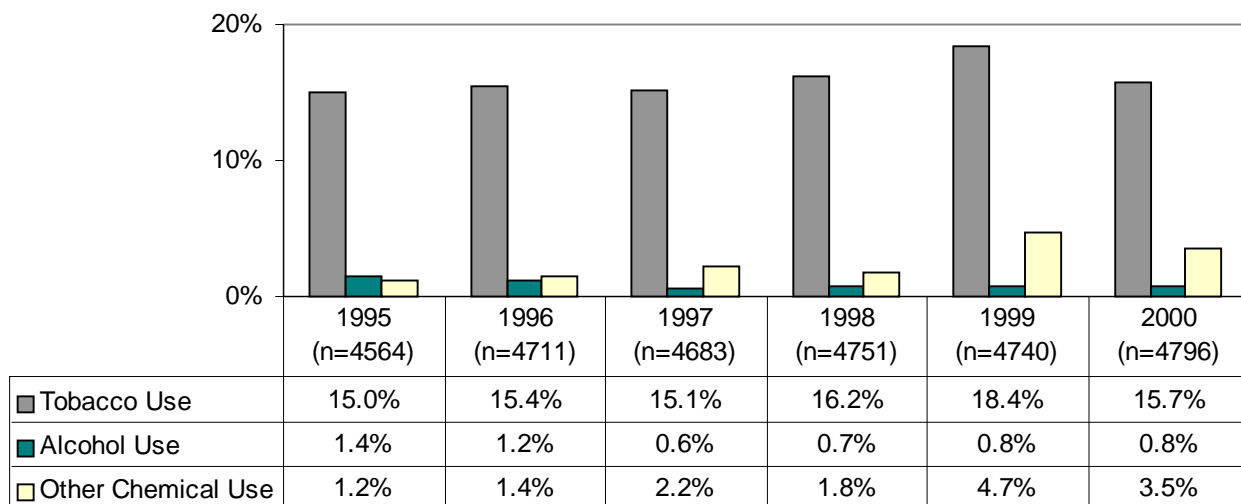
CONTACT of Knoxville, Inc., a Judeo-Christian non-profit organization that provides a crisis line service for East Tennessee reported that they had received 152 calls for substance abuse problems in the first ten months of 2001. A majority of calls (59%, $n = 89$) were for alcohol addiction and the remaining 41% of the calls ($n = 63$) concerned addiction to other drugs.

SUBSTANCE ABUSE AND BIRTH

The use of alcohol and other drugs has been associated with a wide range of birthing problems including low birth weight, spontaneous abortion, genitourinary (kidney/bladder) impairment, miscarriages, respiratory problems, pre-term delivery, and cognitive impairments including retardation (fetal alcohol syndrome) and attention-deficit problems (NIAAA, 1987). Figures 12-16 represent the substance abuse-related data available from birth records for Knox County from 1995 to 2000.

BIRTH CERTIFICATE MEASURES

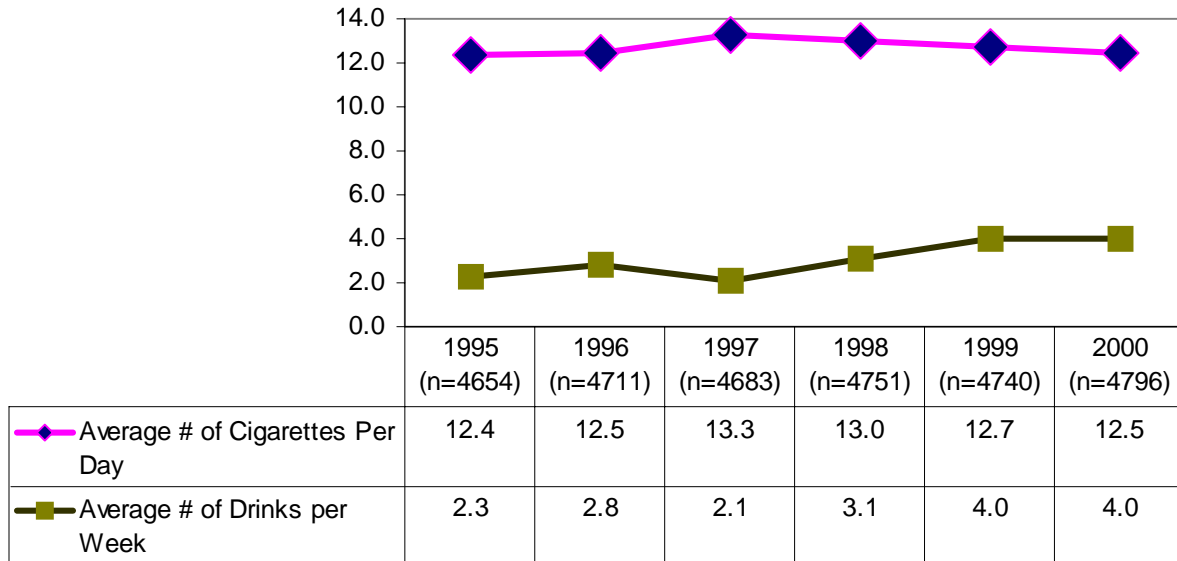
Figure 12: Self-Reported Substance Abuse Among Pregnant Women in Knox County, TN: 1995 - 2000



(Source: Tennessee Vital Statistics System: Birth Certificates)

- In 2000, approximately one out of seven (15.7%) of Knox County’s new mothers self-reported smoking during their pregnancy. There was a slight increase in smoking reports from 1995 (15.0%) to 2000 (15.7%). This does not meet the *Healthy People 2010* target of 98% abstinence for tobacco in the past 30 days for pregnant women.
- In 2000, less than one percent (0.8%) of Knox County moms self-reported drinking alcohol during their pregnancy. This represents a 42.9% decrease from the 1995 level of 1.4%. This meets and surpasses the *Healthy People 2010* target that 94% of pregnant women abstain from alcohol use in the past 30 days.
- In 2000, 3.5% of Knox County moms self-reported using other drugs during their pregnancy. This represents an increase of 192% from the 1995 (1.2%) estimate. This does not meet the *Healthy People 2010* target for substance abuse that 100% of pregnant women should abstain from drugs.

Figure 13: Average # of Cigarettes Smoked Per Day and Average # of Drinks per Week Among Pregnant Women in Knox County, TN: 1995 - 2000



(Source: Tennessee Vital Statistics System: Birth Certificates)

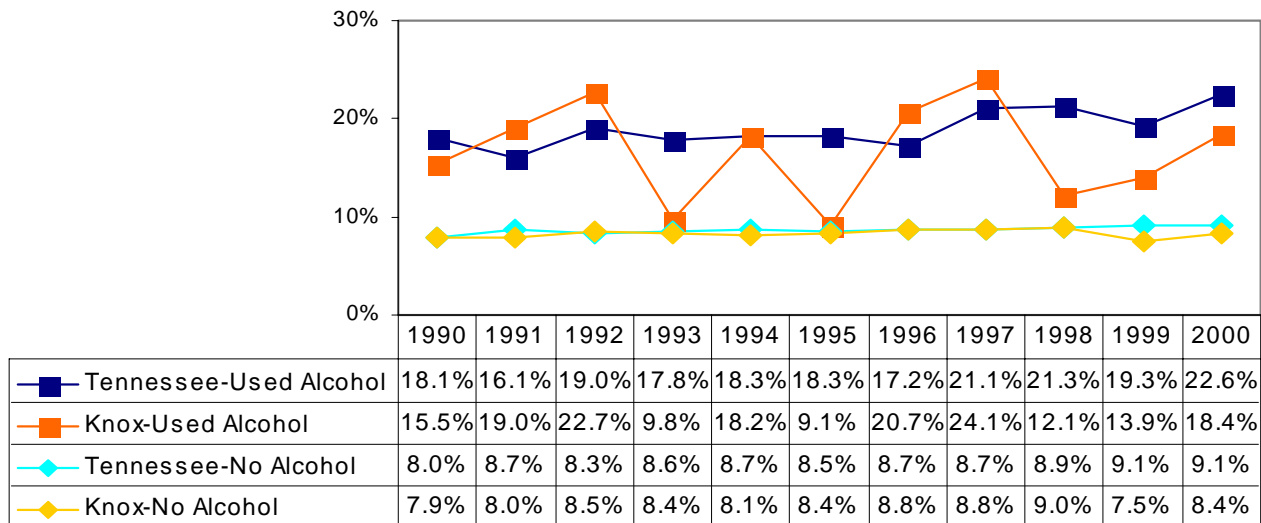
- The average number of (self-reported) cigarettes smoked per day by Knox County women during their pregnancy has remained fairly stable from 1995 (mean = 12.4; standard deviation = 7.2) to 2000 (mean = 12.5; standard deviation = 7.2).
- The average number of (self-reported) alcohol drinks consumed per week by Knox County women has almost doubled from 1995 (mean = 2.3, standard deviation = 2.6) to 2000 (mean = 4.0; standard deviation = 6.0).

ALCOHOL AND LOW BIRTH WEIGHT

Alcohol use during pregnancy has been linked to low birth weight (National Center for Health Statistics, 1990). Low birth weight is defined as babies that weigh less than 2,500 grams (5.5 pounds) at birth and has been identified as the risk factor most associated with neonatal death (*Healthy People 2010*). Low birth weight has also been correlated with increases in SIDS, attention disorders, long-term disabilities, and vision and hearing impairments. Besides the use of alcohol, low birth weight rates have also been correlated with the age of the mother (younger mothers tend to have lower birth weight babies), tobacco use, illicit drug use, race, and limited access to prenatal care.

Figure 14 below compares the percentages of low birth weight births between mothers that reported they used alcohol during their pregnancy and those that reported that they abstained in both Knox County and Tennessee.

Figure 14: Low Birth Weight (less than 2,500 grams) by Maternal Alcohol Use or Nonuse in Tennessee and Knox County, TN: 1990-2000



(Source: *Health Information Tennessee: Statistical Profiling of Tennessee*)

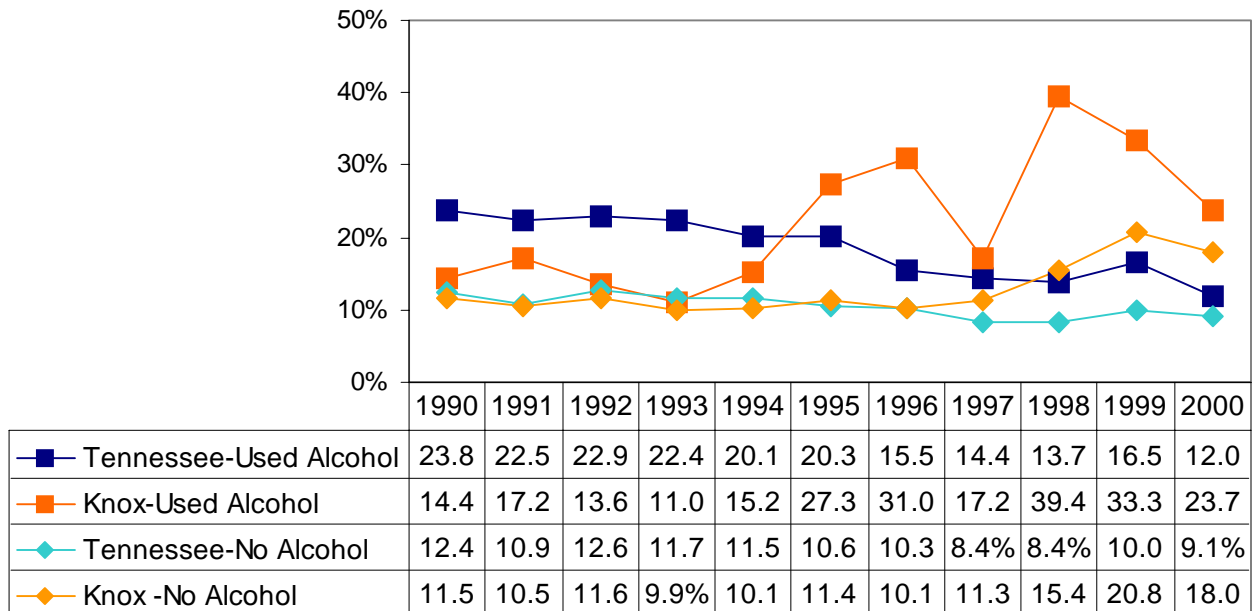
- In 2000, mothers who used alcohol during pregnancy (18.4%, $n = 863$,) were 119.0% more likely to have a low birth weight infant than moms who did not use alcohol (8.4%, $n = 403$).

ALCOHOL AND ABNORMAL CONDITIONS OF THE NEWBORN

Besides low birth weight, alcohol use is also associated with abnormal conditions of the newborn, including: anemia, birth injuries, fetal alcohol syndrome, respiratory distress syndrome, meconium aspiration syndrome, assisted ventilation, and seizures (as well as others) (*Statistical Profiling of Tennessee*). These conditions often occur in combinations. Like low birth weight, alcohol use is not thought to be the only cause of abnormal conditions of the newborn.

Figure 15 compares the percentages of abnormal conditions of the newborn between mothers that reported they used alcohol during their pregnancy and those that reported that they abstained in both Knox County and Tennessee.

Figure 15: Abnormal Conditions of the Newborn by Maternal Alcohol Use or Nonuse in Tennessee and Knox County: 1990 - 2000



(Source: *Health Information Tennessee: Statistical Profiling of Tennessee Birth Data*)

- Knox County data indicate that mothers that used alcohol during their pregnancy were more likely to give birth to a child with abnormal conditions than Knox County mothers that abstained. In 2000, 23.7% of Knox County mothers that used alcohol during their pregnancy had babies with abnormal conditions. In that same year, 18% of Knox County mothers that did not drink had babies with abnormal conditions.

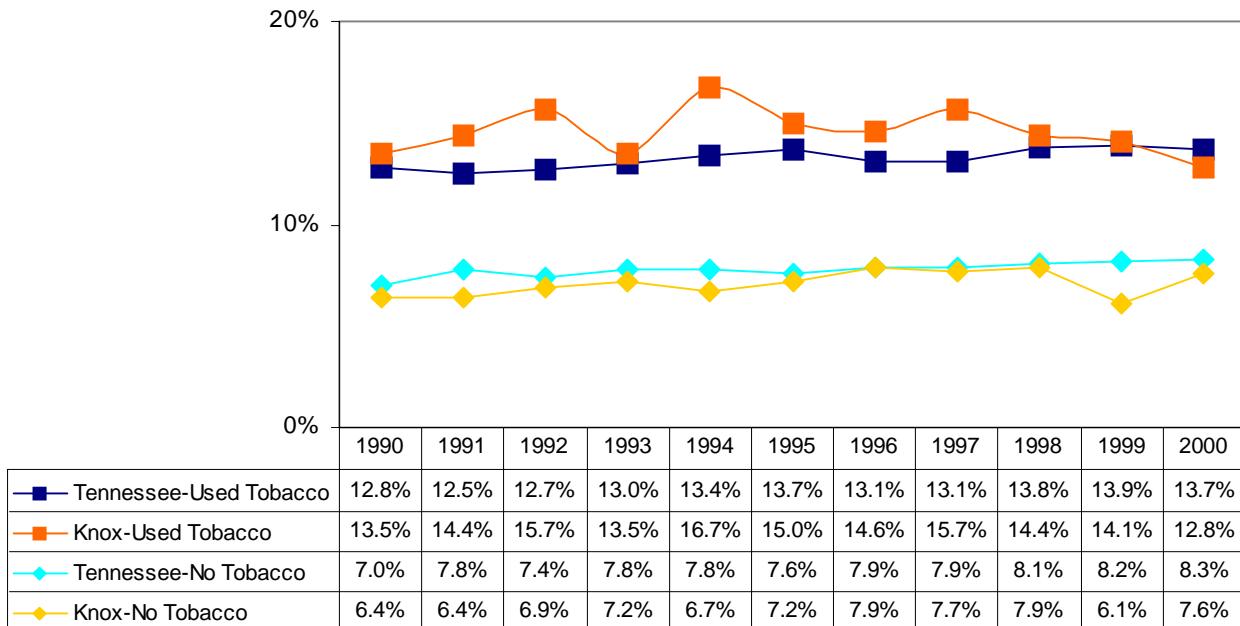
Unintentional alcohol exposure often occurs in the earliest part of pregnancy before the woman knows that she is pregnant, according to *Healthy People 2010*.

TOBACCO AND LOW BIRTH WEIGHT

As previously discussed, “low birth weight” is defined as babies that weigh less than 2,500 grams (5.5 pounds). *Healthy People 2010* considers smoking to be the number one preventable cause of low birth weight babies.

Figure 16 below compares the percentages of abnormal conditions of the newborn between mothers that reported they smoked during their pregnancy and those that reported that they did not smoke in both Knox County and Tennessee.

Figure 16: Low Birth Weight by Maternal Tobacco Use in Knox County, TN and Tennessee: 1990-2000



(Source: *Health Information Tennessee: Statistical Profiling of Tennessee*)

- Knox County moms that smoked had consistently higher rates of low birth weight babies than Knox County moms that did not smoke.
- Knox County moms that smoked had higher rates of low birth weight babies than Tennessee moms that smoked in every year except 2000.

The *Healthy People 2010* goal for maternal tobacco use is to increase abstinence to 98% for pregnant women.

TOBACCO COUNSELING BY KNOX COUNTY OBSTETRICIANS/GYNECOLOGISTS

In 2001, a survey ($n = 21$) of Knox County obstetricians/gynecologists conducted by the Knox County Health Department and the Greater Knoxville Coalition on Smoking OR Health (*Assessing and Counseling Pregnant Patients that Smoke: A Survey of Knox County OB/GYN Physicians, 2001*), found the following data:

- 100% of the sampled ob/gyn physicians ($n = 21$) assessed their pregnant patients' tobacco use.
- Approximately half (47.6%) of the sample ($n = 10$) also assessed their patients' environmental tobacco smoke exposure.
- Almost all (95.4%, $n = 20$) of the sample reported that they regularly counseled their pregnant patients that smoked. The mean time spent counseling on each patient was estimated at seven minutes.

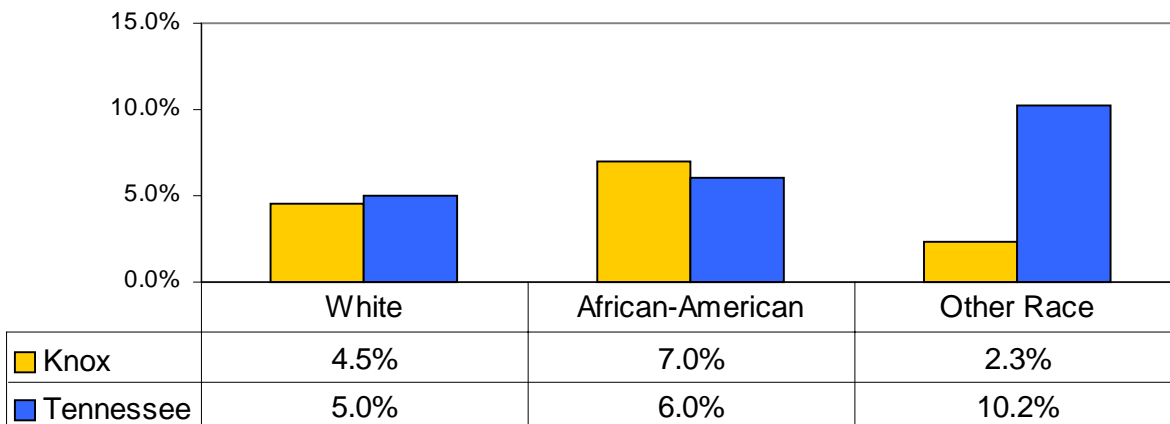
SUBSTANCE ABUSE AND MORTALITY

Alcohol use has been correlated with a wide variety of chronic health problems such as cardiovascular disease, liver disorders, cancer, and addiction and mental disorders (Mustro, 1992). According to *Healthy People 2010*, over 100,000 deaths (both accidents and disease-related) are directly related to alcohol consumption in the United States each year, and another 12,000 deaths are directly related to the use of other drugs, including acquiring AIDS through intravenous drug use. In addition, *Healthy People 2010* also points out that, in an average year, approximately 430,000 Americans lose their lives due to tobacco-related diseases.

ALCOHOL-RELATED DEATHS

Figure 17 represents the percentages of alcohol-related deaths by race for both Tennessee and Knox County in 1998. Please see Appendix 1 for an explanation of the methods used in this section.

Figure 17 : Alcohol-Related Deaths in 1998 by Race: Knox County, TN ($n = 162.4$) and Tennessee ($n = 2,771.4$)

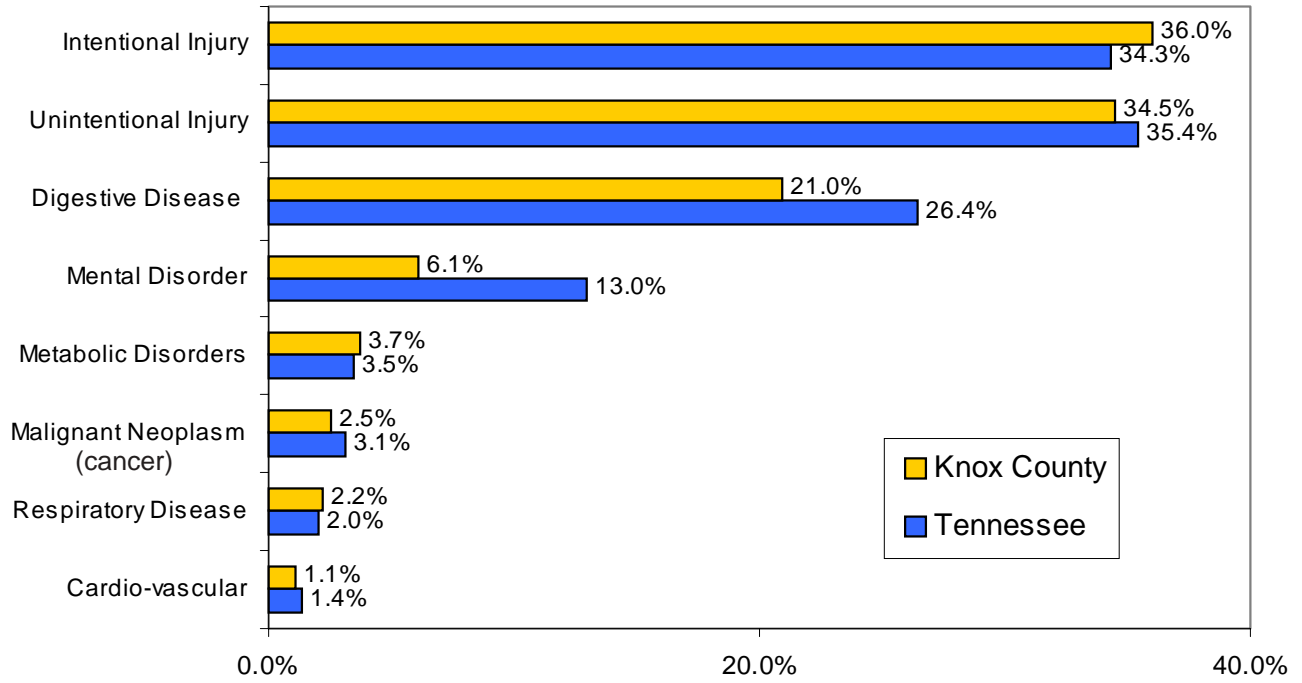


(Source: *Statistical Profiling of Tennessee*)

- Knox County white and “other races” residents tended to have lower alcohol-related death rates than similar groups at the state level in 1998. In contrast, Knox County African-Americans had slightly higher mortality rates than their state counterparts.

Figure 18 represents the alcohol-related deaths associated with specific categories of diagnoses for 1998 in Tennessee and Knox County.

Figure 18: Alcohol-Related Death Diagnoses Categories in 1998: Knox County (n = 162.4) and Tennessee (n = 2,771.4)



(Source: Statistical Profiling of Tennessee)

- In 1998, 2,771.4 deaths (5.2% of the total deaths for the state) in Tennessee and 162.4 deaths (4.6% of the total deaths for the county) in Knox County were directly attributable to alcohol use.
- Intentional injury mortalities (such as suicides and homicides) were the number one form of alcohol-related death in 1998 in Knox County with 36% of all intentional injury deaths being related to alcohol use, exceeding the state rate of 34.3%.
- The next most frequent form of alcohol-related death in Knox County were unintentional injuries (such as traffic accidents, industrial accidents, falls and drownings) with 34.5% of all unintentional injury deaths being alcohol-related.
- In 1998, Knox County alcohol-related deaths were lower than the state specific to digestive disease, mental disorder, malignant neoplasm (cancer) and cardiovascular disease.

ALCOHOL-RELATED TRAFFIC CRASH FATALITIES

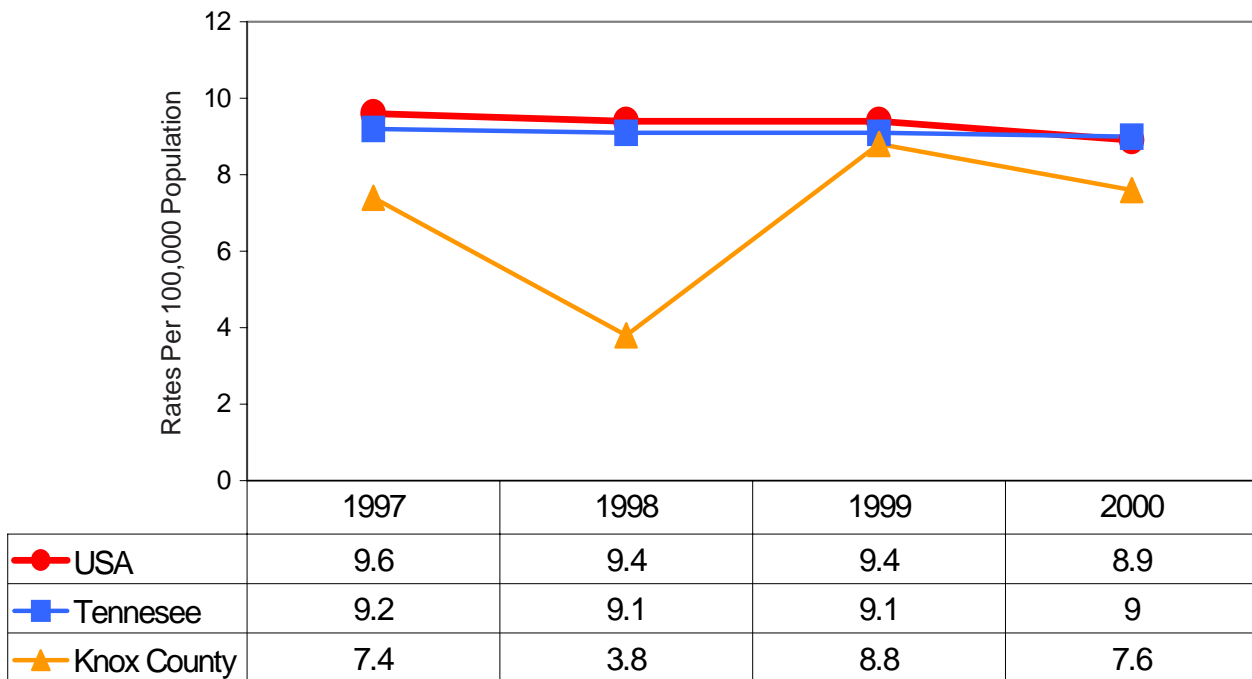
Healthy People 2010 estimated that in 1997, alcohol-related, motor vehicle fatalities occur at the rate of 6.1 per 100,000 population in the United States. The 2010 objective is to reduce that rate to four per 100,000 population. In 2000, the rate per 100,000 population for alcohol-related traffic deaths was 7.6 ($n = 29$) in Knox County.

Healthy People 2010 also estimated that, if current rates continue, approximately three out of every ten people in the United States will be involved in an alcohol-related crash sometimes in their lives--many of these will be fatal crashes. The National Highway Traffic Safety Administration (NHTSA) estimated that alcohol was involved in 40% of the crashes that resulted in fatalities and eight percent of all crashes in the United States in 2000 (NHTSA, 2001).

The data presented in this section was drawn from the NHTSA’s Fatality Analysis Reporting System (FARS). The definition of an event in the FARS system is “a crash involving a motor vehicle on a public traffic way that results in the death of a person (driver, occupant, or non-motorist)” (www.fars.nhtsa.gov). In addition, the death must occur within 30 days of the crash in order for it to be considered a fatal accident.

The data in Figure 19 represent the FARS rates per 100,000 population on alcohol-related fatalities (includes both residents and non-residents).

Figure 19: Alcohol-Related Motor Vehicle Fatality Rates per 100,000 Population: Knox County, TN, and the United States: 1997 – 2000



(Source: Fatality Analysis Reporting System)

- With the exception of 1999, Knox County’s alcohol-related motor vehicle fatality rate has been consistently lower than Tennessee’s and the United States.
- Unlike Tennessee and the United States, Knox County’s alcohol-related motor vehicle fatality rates vary greatly from year to year due to the county’s relatively low numbers of alcohol-related fatal crashes (1997: $n = 27$, 1998: $n = 14$; 1999: $n = 33$, 2000: $n = 29$).
- The *Healthy People 2010* target is to reduce alcohol-related traffic fatalities to four per 100,000. The Knox County rate in 2000 was 7.6 per 100,000. Although still not met, Knox County is closer to meeting the objective than Tennessee or the nation.

DRUG-RELATED FATALITIES

Besides alcohol, the use of street drugs (such as marijuana, heroin, cocaine) or the misuse of prescription drugs (such as narcotics, stimulants or tranquilizers) may also result in fatalities due to disease, injury related-accidents or overdose in Knox County.

As an indice of drug-related deaths, data were drawn from toxicology reports from forensic examinations in Knox County. The Knox County Medical Examiner or one of her assistants at the Regional Forensic Center (a division of the University of Tennessee Medical Center, Department of Pathology) perform all examinations classified as forensic in nature or “medicolegal” that occur in Knox County. Deaths reportable to the Medical Examiner according to Tennessee law include cases when:

- (1) The cause of death occurs through violence, suicide, or casualty.**
- (2) A person in apparently good health is found dead.**
- (3) Death occurs in prison.**
- (4) Death occurs under suspicious, unusual or unnatural circumstances.**
- (5) Deaths of persons scheduled to be cremated.**

Each year, the Regional Forensic Center performs hundreds of medicolegal examinations. From this extensive information pool, data on “drug-related deaths” in Knox County were drawn for the years 2000 to 2001. In this focus on drug-related mortalities, all cases presented in Tables 3 and 4 and Figure 20 are limited to Knox County mortalities involving at least one drug other than alcohol.

Table 3 presents both the number of cases broken down by demographics of the deceased and the “manner of death,” an official designation of each case. The number of overdoses is also added to the table although it is not an official manner of death. Table 5 represents a summary of the individual drugs uncovered by the toxicology analysis for the cases (2000 - 2001) for all examinations that uncovered a psychoactive substance other than alcohol.

Table 3: Drug Related Forensic Examinations in Knox County, TN by Demographics of the Deceased and Manner of Death: 2000 - 2001

	2000 (n=51)		2001 (n=39)	
	%	n	%	n
<u>Gender</u>				
Male	70.6	36	76.9	30
Female	29.4	15	23.1	9
<u>Ethnicity</u>				
White	80.4	41	89.7	35
African-American	19.6	10	10.3	4
Other Race	-	-	-	-
<u>Manner of Death</u>				
Natural Death	3.9	2	10.3	4
Accident-Non-Traffic	35.3	18	53.8	21
Accident-Traffic	11.8	6	2.6	1
Homicide	13.7	7	17.9	7
Suicide	19.6	10	2.6	1
Unknown	15.7	8	10.3	4
<u>Overdose: Cause of Death*</u>				
Yes	31.4	16	69.2	27

* Note: Overdose is not an official manner of death but a determination of cause of death used in the investigation. Overdose cases were most often Accident-Non-Traffic-related cases (accidental overdose) or suicides.

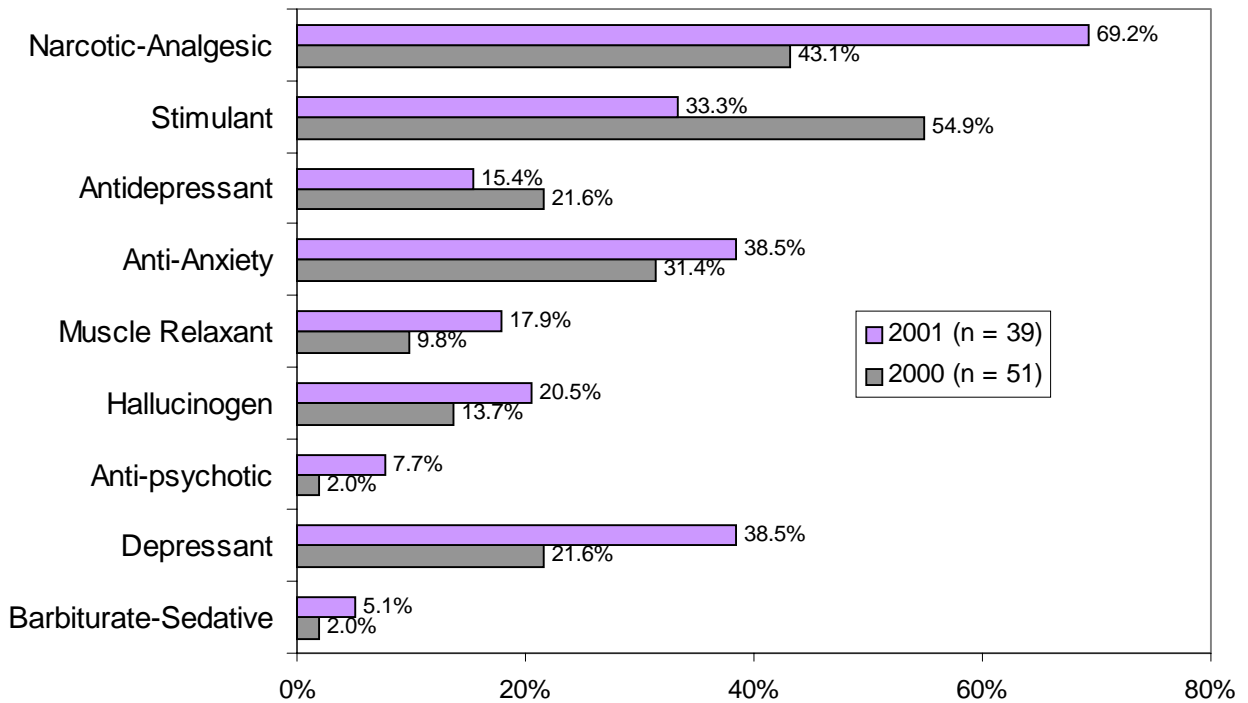
(Source: Knox County Medical Examiner's Office)

- The data from the medicolegal cases seen by the Regional Forensics Center alone far exceed the *Healthy People 2010* target of reducing drug-induced deaths to one per 100,000. For Knox County (US Census 2000 population estimate = 382,031), the targeted number calculates to be no more than approximately four drug-induced deaths per year by 2010. The 39 drug-related deaths in 2001 calculates to a rate per 100,000 population of 10.2 - more than twice the *Healthy People 2010* target. The reader should also keep in mind that not all drug-related deaths require medicolegal examinations at the Regional Forensics Center, the actual number is certainly much higher.

The data in Figure 21 on the next page represent the types of drugs uncovered in the forensic examinations from April, 1999 to December 2001. Toxicology reports often reveal several types of drugs (e.g. narcotic-analgesics, muscle relaxants, stimulants, anti-depressants) and may also uncover several different individual drugs within the drug type (e.g. codeine, morphine, Oxycodone under 'Narcotic-Analgesics'). To clarify the data display, drug types were only counted once. Please see the explanation in Appendix 1 for further clarification.

Figure 20 shows the classification of drugs uncovered in the forensic examinations. For a complete report of each individual drug uncovered in the analysis, please see Table 4.

**Figure 20: Type of Drugs in Drug-Related Deaths in Knox County (2000 - 2001):
Regional Forensics Center***



* Due to multiple drug use, percentages do not sum to 100%.

(Source: Knox County Medical Examiner's Office)

- The most commonly found classes of drugs found in the forensic data for 2001 were narcotic-analgesics (especially Hydrocodone morphine and Propoxyphene), followed by anti-anxiety drugs (especially Diazepam and Alprazolam), depressants (alcohol), stimulants (especially cocaine), antidepressants (especially Doxepine and Fluoxetine). In 2001, 27 of the 39 (69.2%) forensic examinations revealed at least one narcotic-analgesic was present.
- Stimulants (especially cocaine) were most frequent type of drug uncovered in the 2000 data (54.9%).
- 87.6% of the forensic examinations revealed multiple drug use between 2000 and 2001.

Table 4: 2000-2001 Psychoactive Drugs Appearing in Toxicology Reports from Drug-Related Deaths for Knox County Reported by Frequency and Percentage*

**Note: Most toxicology reports showed multiple drug use*

	2000 (n = 51)		2001 (n = 39)	
	<i>n</i>	%	<i>n</i>	%
Alcohol ⁵	11	(23%)	15	(38%)
Alprazolam ¹	2	(4%)	2	(5%)
Amitripyline ²	4	(8%)	1	(3%)
Butalbital ⁴	0	-	1	(3%)
Caffeine ⁹	7	(14%)	7	(18%)
Carisoprodol ⁸	3	(6%)	4	(10%)
Cocaine ⁹	22	(43%)	5	(13%)
Codeine ⁷	0	-	1	(3%)
Cyclobenzaprine ⁸	2	(4%)	0	-
Desipramine ²	2	(4%)	0	-
Diazepam ¹	11	(22%)	10	(26%)
Dihydrocodeine ⁷	0	-	2	(5%)
Doxepin ²	7	(14%)	0	-
Ecstasy (methylenedioxy amphetamine) ⁹	1	(2%)	0	-
Fluoxetine ²	4	(8%)	0	-
Hydrocodone ⁷	13	(25%)	14	(36%)
Hydromorphone ⁷	0	-	1	(3%)
Hydroxyzine ¹	1	(2%)	1	(3%)
Imipramine ²	2	(4%)	0	-
Ketamine ⁶	0	-	0	-
Loxapine ³	1	(2%)	0	-
Meperidine ⁷	2	(4%)	0	-
Meprobamate ⁸	3	(6%)	3	(8%)
Methadone ⁷	3	(6%)	2	(5%)
Methamphetamine ⁹	0	-	1	(3%)
Methocarbamol ⁸	0	-	1	(3%)
Midazolam ¹	0	-	0	-
Mirtazapine ²	1	(2%)	0	-
Morphine ⁷	5	(10%)	8	(20%)
Nortriptyline ²	3	(6%)	1	(3%)
Olanzapine ³	2	(4%)	3	(8%)
Oxycodone ⁷	7	(14%)	6	(15%)
Paroxetine ²	1	(2%)	2	(6%)
Phenobarbital ⁴	1	(2%)	0	-
Propoxyphene ⁷	5	(10%)	1	(3%)
Secobarbital ⁴	0	-	1	(3%)
Sertraline ²	1	(2%)	1	(3%)
Marijuana (Tetrahydrocannabinols) ⁶	6	(12%)	8	(20%)
Trazodone ²	1	(2%)	0	-
Venlafaxin ²	1	(3%)	1	(3%)
Zolpidem ⁴	1	(2%)	1	(3%)

Key: 1. Anti-anxiety/tranquilizer 6. Hallucinogen
 2. Anti-depressant 7. Narcotic-analgesic
 3. Anti-psychotic 8. Skeletal muscle relaxant
 4. Barbiturate/sedative 9. Stimulant
 5. Depressant

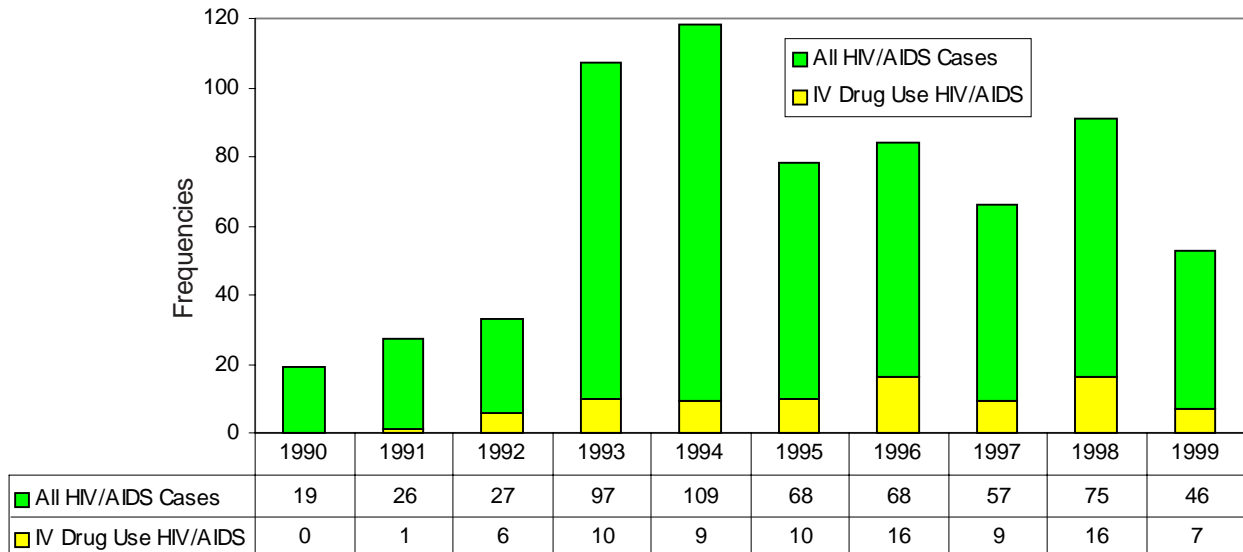
(Source: Knox County Medical Examiner's Office)

INTRAVENOUS DRUG USE AND HIV/AIDS

Healthy People 2010 reports that the human immunodeficiency syndrome (HIV) and acquired immunodeficiency syndrome (AIDS) cases have been reported in every sociodemographic group and every state in the United States (USDHHS, 2000). Nationally, African-Americans and Hispanics have proportionately higher rates of HIV/AIDS than other ethnic groups. Intravenous drug use is the second most common means of transmitting the disease following high-risk sexual practices.

In an April 2001 report (TDOH, 2001), the Tennessee Department of Health estimated there have been 644 documented cases of AIDS since 1982 and 777 documented cases of HIV since 1992 in Knox County (see also CDC, June, 2001). The AIDS Public Data Set (accessible through the Centers for Disease Control website) provides information on reported HIV/AIDS cases in Knox County from 1990 to 1999 (Figure 21) including a breakdown of HIV/AIDS transmitted through intravenous drug use.

Figure 21: New Case Reports of HIV/AIDS and Injection Drug-Related HIV/AIDS Cases in Knox County, TN: 1990-1999



(Source: Knox County Medical Examiner's Office)

- There were more new cases of HIV/AIDS (all types) in 1994 ($n = 109$) than in any other year.
- The years 1996 ($n = 16$) and 1998 ($n = 16$) saw the highest recorded cases of injection drug use- related HIV/AIDS cases in Knox County.

REGULATION OF ALCOHOL AND OTHER DRUGS

Enforcement of the laws, regulations and policies on the use of alcohol and other drugs in Knox County is conducted by a wide variety of federal, state, county and city agencies including law enforcement, courts, probation and parole agencies, alcohol permit departments, and the school systems. This section will cover criminal charges, substance abuse during probation and parole, alcohol and drug enforcement among minors, zero tolerance expulsions from schools, and the regulation of alcohol sales in Knoxville and Knox County.

CRIMINAL CHARGES

Table 5 and Figure 22 display the data on the four most-frequent, substance abuse-related, criminal charges filed in Knox County from 1999-2001 recorded in the JIMS-Justice Information Management System database for Knox County residents. The JIMS data include both adult and juvenile charges from the Knox County Sheriff's Office, the Knoxville Police Department and other area law enforcement agencies. Rates were determined by using the US Census 2000 estimate for Knox County residents over 14 years of age ($n = 310,831$) as the denominator. Please see the methodology discussion in Appendix 1 for assistance with interpretation of this data.

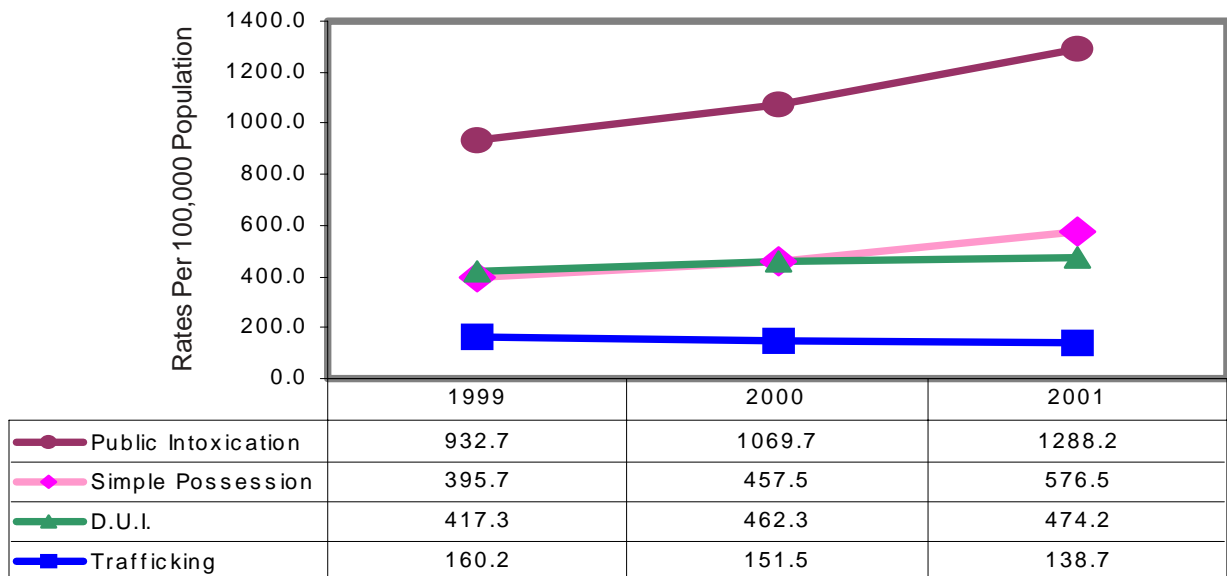
Table 5: Top Four Substance Abuse-Related Criminal Charges (1999 - 2000) in Knox County, TN (Excluding Non-County Residents): Frequencies and Rates per 100,000 Population (> 14 Years)

	1999	2000	2001
TOTAL for the Four Primary Charges	5,924	6,655	7,701
Rate per 100,000 Population (>14 Years)	1,905.9	2,141.0	2,477.6
CHARGES			
#Public Intoxication	2,899	3,325	4,004
Rate per 100,000 Population (>14 Years)	932.7	1,069.7	1,288.2
#Simple Possession/Casual Exchange	1,230	1,422	1,792
Rate per 100,000 Population (>14 Years)	395.7	457.5	576.5
#Driving Under the Influence	1,297	1,437	1,474
Rate per 100,000 Population (>14 Years)	417.3	462.3	474.2
#Trafficking/Manufacturing	498	471	431
Rate per 100,000 Population (>14 Years)	160.2	151.3	138.7

(Source: Knox County Justice Information Management System--JIMS)

- Between 1999 and 2001, the total number substance abuse-related charges of Knox County residents increased from a rate of 1,905.9 per 100,000 population (>14 years) to 2,477.6 -- a 30% increase. Rates for three of the four charges raised steadily during these years (Trafficking/Manufacturing was the exception).

Figure 22: Four Primary Substance Abuse Criminal Charges Filed Against Knox County, TN Residents (1999 - 2001): Rates per 100,000 (>14 Years of Age)



(Source: Knox County Justice Information Management System--JIMS)

- By far, the most common charge of the four charges between 1999 and 2001 in Knox County was public intoxication (Tennessee Code Annotated [TCA]: 39-17-310). Over four thousand ($n = 4,004$) charges were filed against Knox County residents in 2001. The rate has increased from a rate of 932.7 per 100,000 population (>14 years) in 1999 ($n = 2,899$) to 1,288 in 2001, an increase of 38.1% (see also Table 6 and Figure 23).
- The next most common charge in Knox County was simple possession or casual exchange (TCA code: 39-17-418) with a rate per 100,000 (>14 years) population of 576.5 ($n = 1,792$ charges) in 2001. In contrast, there were 1,230 simple possession/casual exchange charges filed in 1999 with a rate per 100,000 population (>14 years) of 395.7 in 1999. This represents 45.7% increase in the rate per 100,000 (> 14 years) between 1999 and 2001 (see also Table 7 and Figure 24).
- The third most common charge was DUI or driving under the influence of intoxicant or drug (TCA code: 55-10-401) with a rate of 474.2 per 100,000 population (>14 years) in 2001 ($n = 1,474$). The rate in 1999 was 417.3 per 100,000 population (>14 years) with 1,297 recorded charges involving Knox County residents and homeless population. This results in a 13.6% increase in the DUI rates per 100,000 (>14) between 1999 and 2001 (see also Table 8 and Figure 25).
- The Criminal Offenses and Penalties charge (TCA code: 39-17-417) involve a wide variety of illegal activities surrounding the manufacture, sale, and distribution of illicit drugs (trafficking). The rate per 100,000 population (> 14 years) was 138.7 ($n = 431$) in 2001. In 1999, the rate per 100,000 population (>14 years) was 160.2 ($n = 498$). Unlike the other charges, there has been a 13.4% decrease in the rates of trafficking-related charges since 1999 (see also Table 9 and Figure 26).

Besides the primary four listed charges (public intoxication, simple possession, DUI, and trafficking), Knox County residents were also charged with other crimes involving substance abuse such as unlawful drug paraphernalia, counterfeiting substances for distribution, and operating a boat under the influence.

Community Statsbook: Substance Use

The following maps and tables depict residence information for Knox County citizens charged with the four principal substance abuse charges discussed in the “Regulation of Alcohol and Other Drugs” section. The data represent totals of charges not totals of individuals charged. Often, single individual were charged more than once. The data are broken down by Knox County zip codes to protect the anonymity of those that have been accused (and not necessarily convicted) of these crimes.

PUBLIC INTOXICATION CHARGES (TCA CODE: 39-17-310)

Table 6: Knox County, TN (1999-2001) Public Intoxication Charges by Offender Residential Zip Code -Frequencies and Rate Per 100,000 Zip Code Population (> 14 Years of Age)

zip code	1999		2000		2001		3-Year Average Rate	Population n
	n	Rate	n	Rate	n	Rate		
37721	*17	-	32	395.2	38	469.3	358.2	8,097
37754	*6	-	*4	-	*8	-	-	3,602
37764	*12	-	*13	-	*13	-	-	6,436
37779	*7	-	*10	-	*11	-	-	2,648
37806	*11	-	*13	-	*16	-	-	2,297
37830	*10	-	*14	-	*17	-	-	22,377
37849	50	288.4	78	450.0	79	455.7	398.0	17,335
37871	25	368.8	27	398.3	38	560.6	442.5	6,779
37902	58	4,696.4	94	7,611.3	95	7,692.3	6,666.7	1,235
37909	33	291.6	28	247.4	43	380	306.3	11,317
37912	81	519.5	70	448.9	115	737.5	568.6	15,593
37914	191	1,175.8	255	1,569.8	297	1,828.4	1,524.7	16,244
37915	169	4,075.2	189	4,557.5	308	7,427.1	5,353.3	4,147
37916	71	615.0	54	467.8	70	606.4	563.1	11,544
37917	661	3,216.2	765	3,722.3	853	4,150.4	3,696.3	20,552
37918	175	589.5	236	795.0	271	912.9	765.8	29,686
37919	100	431.5	142	612.7	132	569.5	537.9	23,177
37920	272	873.5	307	985.9	374	1,201.1	1,020.2	31,138
37921	236	1,171.3	304	1,508.8	356	1,766.8	1,482.3	20,149
37922	50	143.1	59	168.9	92	263.3	191.8	34,938
37923	64	301.4	80	376.8	101	475.7	384.6	21,234
37924	29	389.9	34	389.9	54	726.1	524.4	7,437
37931	28	194.4	38	263.9	48	333.3	263.9	14,402
37932	*17	-	*12	-	*19	-	-	8,721
37938	28	257.8	25	230.1	36	331.4	273.1	10,863
Homeless	498	NA	445	NA	520	NA	NA	NA
Unknown	*4	NA	*2	NA	*8	NA	NA	NA
Refused	*3	NA	*5	NA	*3	NA	NA	NA
Total	2,899	932.7	3,325	1,069.7	4,004	1,288.2	1,096.9	**310,832

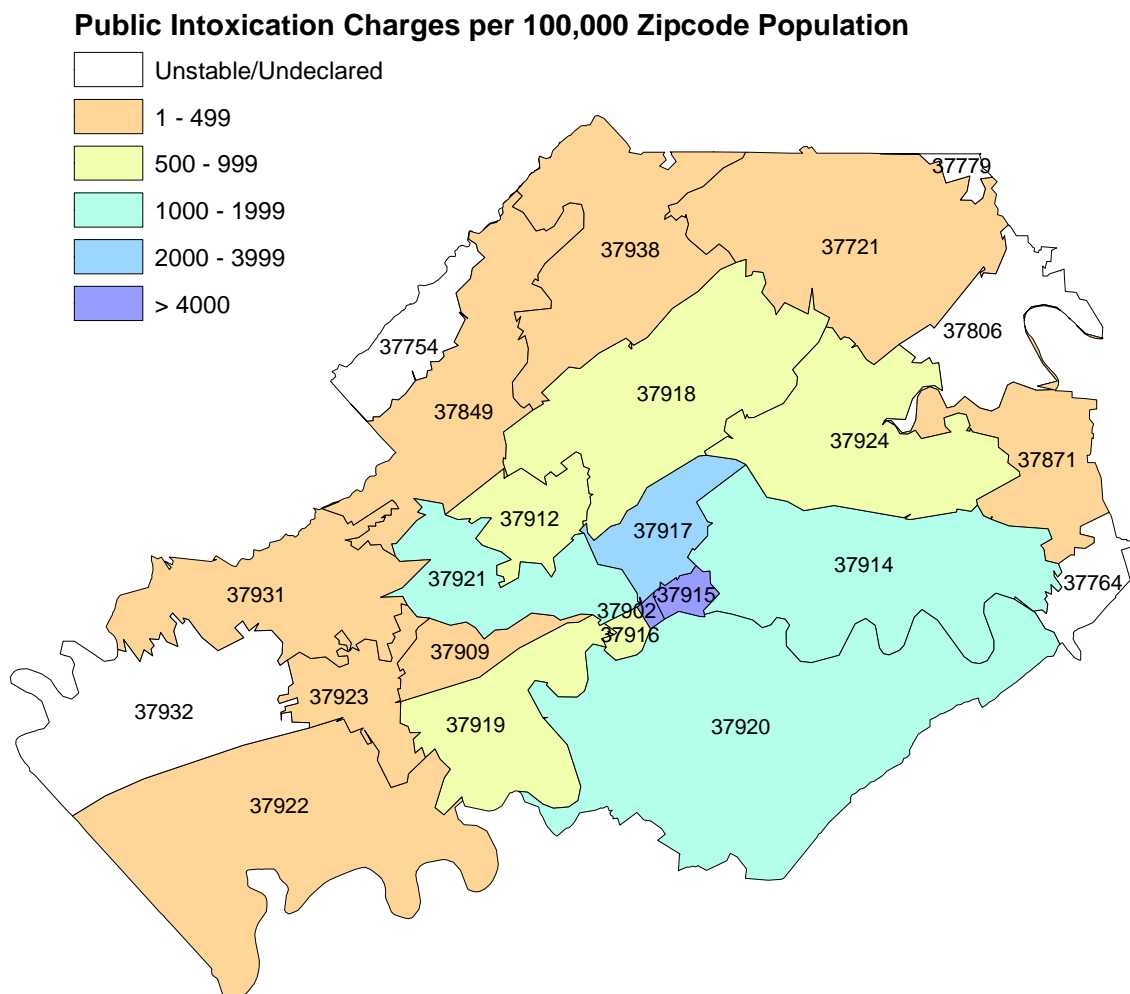
* An n less than 20 is statistically unstable/undeclared and should not be used in an analysis of this data.

** Population rates are based on US Census 2000 data for Zip Code Tabulation Areas (ZCTA's) 15 years of age or older (> 14). The Knox County population (>14 years) is drawn from US Census 2000. Because some zipcodes extend beyond the Knox County line, the numbers in the right column are not summed.

(Source: Knox County Justice Information System, US Census 2000)

- There was a 38.1% increase in public intoxication charges for Knox County residents between 1999 ($n = 2,899$) and 2001 ($n = 4004$).
- The Knox county zip code with the greatest concentration of residents charged with public intoxication was 37902 with a three-year average rate of 6,666.7 residents per 100,000 population followed by 37915 with a three-year average rate of 5,353.5 per 1,000 population (Figure 23).
- Approximately 13% ($n = 520$) of the public intoxication charges in 2001 ($n = 4,004$) were filed against Knox County’s homeless population.

Figure 23: Knox County, TN Public Intoxication Charges (2001) by Offender’s Residential Zip Code - Rate per 100,000 Zip Code Population (> 14 Years of Age)



(Source: Justice Information Management System, US Census 2000)

SIMPLE POSSESSION/CASUAL EXCHANGE CHARGES (TCA CODE 39-17-418)

Table 7: Knox County, TN (1999-2001) Simple Possession/Casual Exchange Charges by Offender's Residential Zip Code --Frequencies and Rate Per 100,000 Population (>14 Years of Age)

Zip Code	1999		2000		2001		3-Year Average Rate	Population n
	n	Rate	n	Rate	n	Rate		
37721	*19	-	20	247	25	308.8	263.5	8,097
37754	*3	-	*5	-	*7	-	138.8	3,602
37764	*4	-	*6	-	*5	-	77.7	6,436
37779	*3	-	*9	-	*2	-	176.2	2,648
37806	*8	-	*4	-	*11	-	333.8	2,297
37830	*5	-	*18	-	*19	-	62.6	22,377
37849	37	213.4	49	282.7	41	236.5	244.2	17,335
37871	*12	-	*8	-	25	368.8	221.3	6,779
37902	*5	-	*12	-	*12	-	782.7	1,235
37909	21	185.6	24	212.1	40	353.5	250.4	11,317
37912	45	288.6	58	372.0	70	448.9	369.8	15,593
37914	145	892.6	154	948.0	220	1,354.3	1,065.0	16,244
37915	115	2,773.1	133	3,207.1	140	3,375.9	3,118.7	4,147
37916	20	173.3	*19	-	37	320.5	219.5	11,544
37917	164	798.0	177	861.2	188	914.8	858.0	20,552
37918	100	336.9	101	340.2	150	505.3	394.1	29,686
37919	88	379.7	87	375.4	135	582.5	445.8	23,177
37920	100	321.2	130	417.5	154	494.6	411.1	31,138
37921	179	888.4	208	1,032.3	231	1,146.5	1,022.4	20,149
37922	39	111.6	36	103.0	57	163.1	125.9	34,938
37923	42	197.8	60	282.6	80	376.8	285.7	21,234
37924	25	336.2	29	389.9	39	524.4	416.8	7,437
37931	*17	-	29	201.4	37	256.9	192.1	14,402
37932	*7	-	*11	-	*19	-	141.4	8,721
37938	*12	-	*7	-	27	248.6	141.2	10,863
Homeless	*14	NA	23	NA	*19	NA	NA	NA
Unknown	*0	NA	*5	NA	*2	NA	NA	NA
Refused	*1	NA	*0	NA	*0	NA	NA	NA
Total	1,230	395.7	1,422	457.5	1,792	576.5	475.6	**310,832

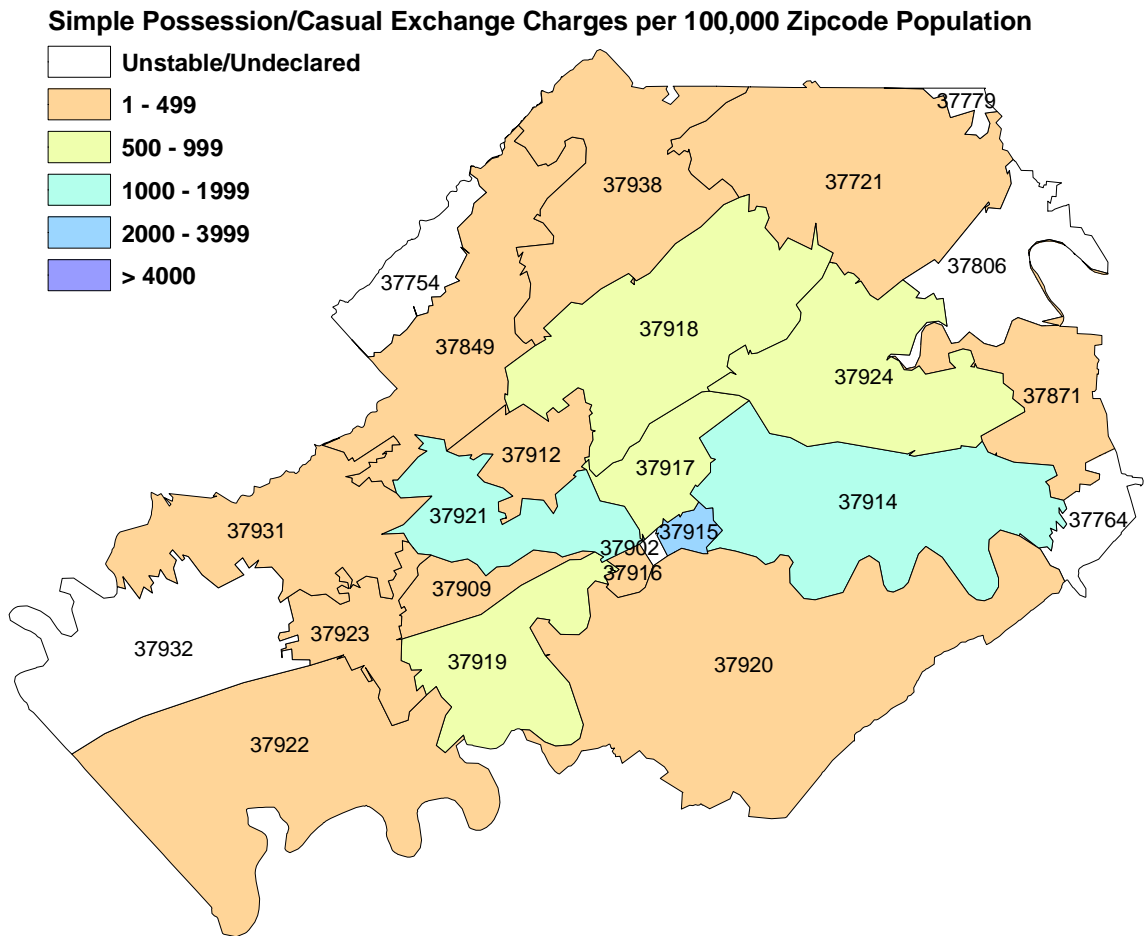
* An n less than 20 is statistically unstable/undeclared and should not be used in an analysis of this data.

** Population rates are based on US Census 2000 data for Zipcode Tabulation Areas (ZCTA's) 15 years of age or older (>14). The Knox County population (>14 years) is drawn from US Census 2000. Because some zip codes extend beyond the Knox County line, the numbers in the right column are not summed.

(Source: Knox County Justice Information System, US Census 2000)

- The rate of simple possession/casual exchange charges filed against Knox County residents and homeless increased by 45.7% between 1999 (n = 1,230) and 2001 (n = 1,792).
- The Knox County zip code with the greatest concentration of residents charged with simple possession/casual exchange was 37915 with a three-year average rate per 100,000 population (> 14 years) of 3,118.7. The next highest zip codes were 37914 (three-year average rate = 1,065.0 per 100,000 population [> 14 years]) and 37921 (three-year average rate = 1,022.4 per 100,000 population [>14 years]) (Figure 24).
- The following Knox County zip codes exhibited rapid growth rates of 80% or more between 1999 and 2001: 37909 (90.5%), 37916 (84.9%) and 37923 (90.5%) for simple possession/casual exchange charges.

Figure 24: 2001 Knox County, TN Simple Possession/ Charges by Offender’s Residential Zip Code - Rate per 100,000 Population (>14 Years of Age)



(Source: Justice Information Management System, US Census 2000)

DRIVING UNDER THE INFLUENCE CHARGES (TCA CODE: 55-10-401)

**Table 8: Knox County, TN (1999-2001) DUI Charges by Offender’s Residential Zip Code
--Frequencies and Rate Per 100,000 Population (> 14 Years of Age)**

Zip code	1999		2000		2001		3-Year Average Rate	Population <i>n</i>
	<i>n</i>	Rate	<i>n</i>	Rate	<i>n</i>	Rate		
37721	30	370.5	29	358.2	29	358.2	362.3	8,097
37754	*6	-	*8	-	*9	-	212.8	3,602
37764	*9	-	*10	-	*6	-	129.5	6,436
37779	*9	-	*6	-	*12	-	339.9	2,648
37806	*9	-	*11	-	*9	-	420.8	2,297
37830	*19	-	27	120.7	21	93.8	99.8	22,377
37849	62	357.7	73	421.1	62	357.7	378.8	17,335
37871	*16	-	26	383.5	20	295.0	304.9	6,779
37902	*11	-	*15	-	*15	-	1,106.6	1,235
37909	35	309.3	45	397.6	44	388.8	365.2	11,317
37912	66	423.3	64	410.4	95	609.2	481.0	15,593
37914	61	375.5	75	461.7	71	437.1	424.8	16,244
37915	29	699.3	30	723.4	23	554.6	659.1	4,147
37916	30	259.9	31	268.5	28	242.6	257.0	11,544
37917	116	564.4	142	690.9	110	635.5	596.9	20,552
37918	124	417.7	129	434.5	131	441.3	431.2	29,686
37919	102	440.1	104	448.7	107	461.7	450.2	23,177
37920	145	465.7	155	497.8	159	510.6	491.4	31,138
37921	117	580.7	137	679.9	134	665.0	641.9	20,149
37922	75	214.7	106	303.4	105	300.5	272.9	34,938
37923	78	367.3	93	438.0	108	508.6	438.0	21,234
37924	24	322.7	21	282.4	34	457.2	354.1	7,437
37931	39	270.8	37	256.9	66	458.3	328.7	14,402
37932	39	447.2	23	263.7	27	309.6	340.2	8,721
37938	39	359	29	267.0	41	377.4	334.5	10,863
Homeless	*7	NA	*9	NA	*3	NA	NA	NA
Unknown	*0	NA	*2	NA	*4	NA	NA	NA
Refused	*0	NA	*0	NA	*1	NA	NA	NA
Total	1,297	417.3	1,437	462.3	1,474	474.2	451.3	**310,832

* An *n* less than 20 is statistically unstable/undeclared and should not be used in an analysis of this data.

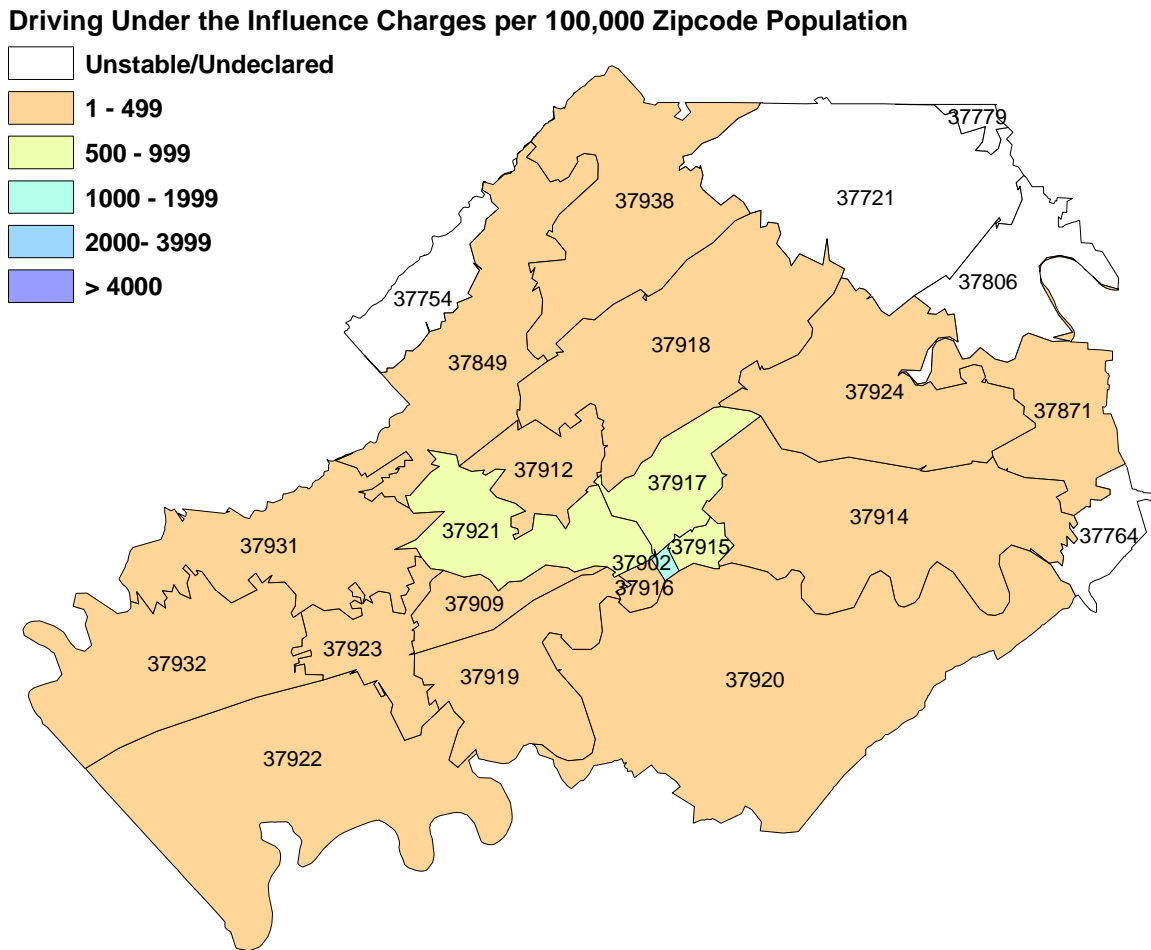
** Population rates are based on US Census 2000 data for Zipcode Tabulation Areas (ZCTA's) 15 years of age or older (> 14). The Knox County population (>14 years) is drawn from US Census 2000. Because some zip codes extend beyond the Knox County line, the numbers in the right column are not summed.

(Source: Knox County Justice Information System & US Census 2000)

- There was a 13.6% increase in DUI charges of Knox County residents and homeless population between 1999 (*n* = 1,297) and 2001 (*n* = 1,474).
- The Knox County zip code with the highest concentration of residents with DUI charges was 37902 with an estimated three-year average rate of 1,106 per 100,000 zip code population (>14 years of age). However, the data used to determine the 37902 rate had frequencies that were less than 20 so interpretation of this finding should be done with extreme caution. The zip codes with the next highest concentrations were 37915 (three-year average rate of 659.1 per 100,000 population [>14 years of age]) and 37921 (three-year average rate of 641.9 per 100,000 population [>14 years of age]) (see Figure 25).

- Zip code 37931 exhibited the fastest growth rate of DUI charges of 69.2% between 1999 ($n = 39$) and 2001 ($n = 66$). Four zip codes exhibited decreases in DUI charges between 1999 and 2001: 37915 (20.7%), 37916 (6.7%), and 37932 (30.8%).

Figure 25: 2001 Knox County, TN Driving Under the Influence (DUI) Charges by Offender's Residential Zip Code - Rate per 100,000 Population (>14 Years of Age)



(Source: Justice Information Management System, US Census 2000)

TRAFFICKING/MANUFACTURING CHARGES (TCA CODE: 39-17-310)

Table 9: Knox County, TN (1999-2001) Trafficking/Manufacturing Charges by Offender’s Residential Zip Code - Frequencies and Rate Per 100,000 Population (> 14 Years of

Zip code	1999		2000		2001		3-Year Average Rate	Population <i>n</i>
	<i>n</i>	Rate	<i>n</i>	Rate	<i>n</i>	Rate		
37721	*6	-	*5	-	*2	-	53.5	8,097
37754	*2	-	*0	-	*0	-	18.5	3,602
37764	*1	-	*0	-	*3	-	20.7	6,436
37779	*3	-	*1	-	*0	-	50.3	2,648
37806	*3	-	*0	-	*1	-	58.0	2,297
37830	*1	-	*7	-	*5	-	19.4	22,377
37849	*11	-	*6	-	*8	-	48.1	17,335
37871	*6	-	*3	-	*4	-	63.9	6,779
37902	*7	-	*5	-	*1	-	350.9	1,235
37909	*7	-	*8	-	*3	-	53.0	11,317
37912	*11	-	*12	-	*16	-	83.4	15,593
37914	67	412.5	65	400.1	74	455.6	422.7	16,244
37915	41	988.7	41	988.7	48	1,157.5	1,044.9	4,147
37916	*8	-	*6	-	*6	-	57.8	11,544
37917	73	355.2	73	355.2	54	262.7	324.4	20,552
37918	39	131.4	44	148.2	27	91.0	123.5	29,686
37919	21	90.6	*18	-	22	94.9	87.7	23,177
37920	48	154.2	37	118.8	22	70.7	114.5	31,138
37921	77	382.2	89	441.7	79	392.1	405.3	20,149
37922	*16	-	*8	-	*15	-	37.2	34,938
37923	*18	-	*13	-	*12	-	67.5	21,234
37924	*7	-	*5	-	*10	-	98.6	7,437
37931	*8	-	*18	-	*6	-	74.1	14,402
37932	*2	-	*0	-	*3	-	19.1	8,721
37938	*11	-	*4	-	*8	-	70.6	10,863
Homeless	*4	NA	*3	NA	*2	NA	NA	NA
Unknown	*0	NA	*0	NA	*0	NA	NA	NA
Refused	*0	NA	*0	NA	*0	NA	NA	NA
Total	498	160.2	471	151.3	431	138.7	150.1	**310,832

* An *n* less than 20 is statistically unstable/undeclared and should not be used in an analysis of this data.

** Population rates are based on US Census 2000 data for Zip Code Tabulation Areas (ZCTA's) 15 years of age or older. The Knox County population (>14 years) is drawn from US Census 2000. Because some zip codes extend beyond the Knox County line, the numbers in the right column are not summed.

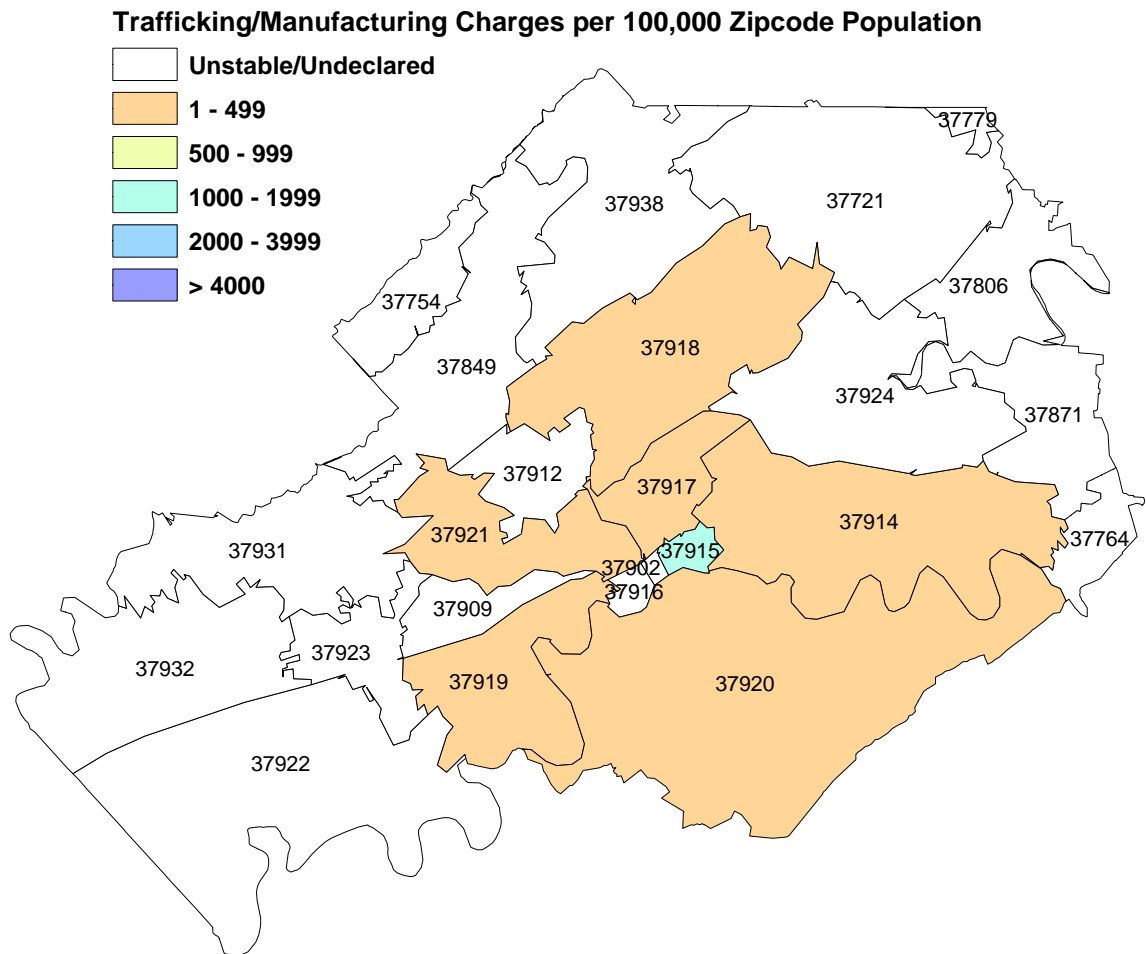
(Source: Knox County Justice Information System, US Census 2000)

- There was a 13.5% decrease in trafficking/manufacturing charges directed at Knox County residents and homeless between 1999 (*n* = 498) and 2001 (*n* = 431).
- The Knox County zip code with the greatest amount of trafficking/manufacturing charges committed by residents was 37915 with a three-year average rate of 1,044.9 per 100,000 population (>14 years of age). The next most concentrated zip codes were 37914 with a three-year average rate of 422.7 per 100,000 population (> 14 years) and 37921 with a three-year average rate of 405.3 per 100,000 population (> 14 years) (see Figure 26).

42 There were decreases in trafficking charges between 1999 and 2001 in 37917 (26.0%), 37918 (30.7%),

There were decreases in trafficking charges between 1999 and 2001 in 37917 (26%) and 37918 (30.7%) and 37920 (54.1%).

Figure 26: 2001 Knox County, TN Trafficking/Manufacturing Charges by Offender's Residential Zip Code - Rate per 100,000 Population (> 14 Years of Age)

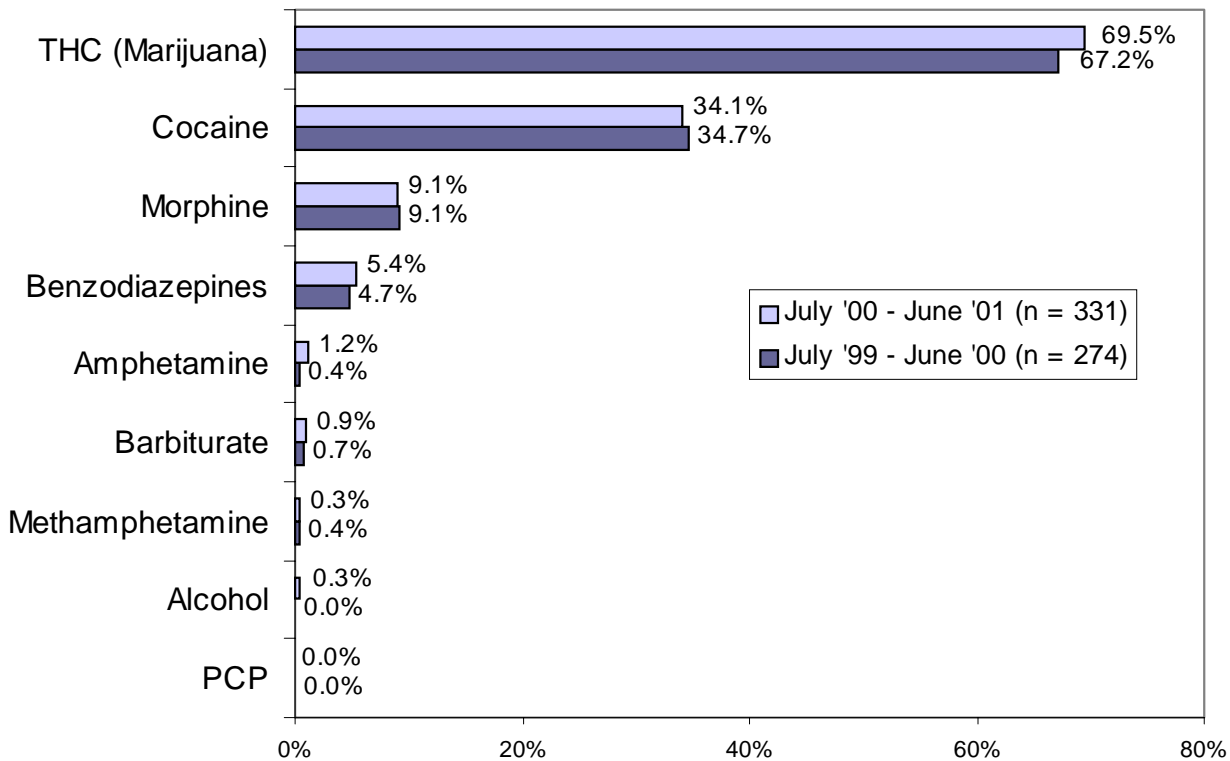


(Source: Justice Information Management System, US Census 2000)

SUBSTANCE ABUSE DURING PROBATION AND PAROLE

Under the terms of their parole or probation, many Knox County residents are required to undergo drug testing to help reduce arrest recidivism and other negative behaviors. Figure 27 below represents the data from randomized testing performed on state probation and parole participants from July 1, 1999 to June 30, 2000 and July 1, 2000 to June 30, 2001 who reside in Knox County. Parolees were asked to submit to randomized field tests. If the field test was returned positive, a laboratory test was ordered to verify the results. The data in Figure 27 are limited only to the occurrences when both the field test and the laboratory result came back positive. Data on Knox County jail parolees and federal parolees were not available at the time of publication. It was not unusual for an individual to have positive results for multiple drugs, especially marijuana and cocaine.

Figure 27: Type of Drugs found in Positive Drug Tests for State Probation and Parole Population in Knox County, TN: July 1999 to June 2000 and July 2000 to June 1999



(Source: State of Tennessee Board of Probation and Parole)

- From July 1999 to June 2000, 15.9% of Knox County-based state parolees (n = 274) tested positive in 412 individual drug screens (defined as both a positive field test and a positive lab test).
- From July 2000 to July 2001, 16.1% of Knox County-based state parolees (n = 331) tested positive in 511 individual drug screens (defined as both a positive field test and a positive lab test).
- THC or *delta-9* tetrahydrocannabinol, the major psychoactive chemical found in marijuana was most often uncovered by the drug screens in both years. Almost 70% (69.5%, n = 230) of those that tested positive in both tests in the second year were due to marijuana use. The next most frequent drug in the second year was cocaine (34.1%, n = 113).

ALCOHOL AND DRUG ENFORCEMENT AMONG MINORS

Table 5 (p. 34) listed both adult and juvenile charges (14 years of age and older) in Knox County from 1999 to 2001. The data in Table 10 is limited to juvenile charges (17 years of age or younger) recorded by the Knox County Juvenile Court (1996 - 2000) because research indicates that the earlier someone begins experimenting with psychoactive substances, the more likely lifelong addiction will occur (Annis, 1974; Healthy People 2010).

Table 10: Substance Abuse-Related Juvenile Criminal Charges filed in Knox County, TN (1996 - 2000) - Frequencies and Rates* Per 100,000 Population (18< Years)

	1996	1997	1998	1999	2000
TOTAL Substance Abuse-Related Charges	234	617	317	525	497
Rate Per 100,000 (18<)	275.1	721.5	368.5	593.8	584.1
# Possession of Controlled Substance	46	55	73	179	197
Rate Per 100,000 (18<)	54.1	64.3	84.9	202.5	231.5
# Possession of Marijuana	98	128	120	** N/A	** N/A
Rate Per 100,000 (18<)	115.2	149.7	139.5	-	-
# Sales of Controlled Substance	22	19	13	12	16
Rate Per 100,000 (18<)	25.9	22.2	15.1	13.6	18.8
# Sale of Marijuana	0	11	4	*** N/A	*** N/A
Rate Per 100,000 (18<)	0.0	12.9	4.6	-	-
# Other Drug Charges	22	72	45	73	63
Rate Per 100,000 (18<)	25.9	84.2	52.3	82.6	74.0
Driving Under the Influence	17	18	18	13	12
Rate Per 100,000 (18<)	20.0	21.0	20.9	14.7	14.1
# Drunkenness/Public Intoxication	29	35	35	22	30
Rate Per 100,000 (18<)	34.1	40.9	40.7	24.9	35.3
# Possessing/Consuming Alcohol	N/A	279	9	226	179
Rate Per 100,000 (18<)	-	326.2	10.5	255.6	210.4

* Rates per 100,000 population (less than 18 years of age) are based on the following Knox County population estimates from *Statistical Profiling of Tennessee*: 1996: 85,055; 1997: 85,518; 1998: 86,025; 1999: 88,407; and 2000: 85,093.

** Possession of Marijuana was recategorized to be included under Possession of Controlled Substance in 1999 and 2000.

*** Sale of Marijuana was recategorized to be included under Sale of Controlled Substance in 1999 and 2000.

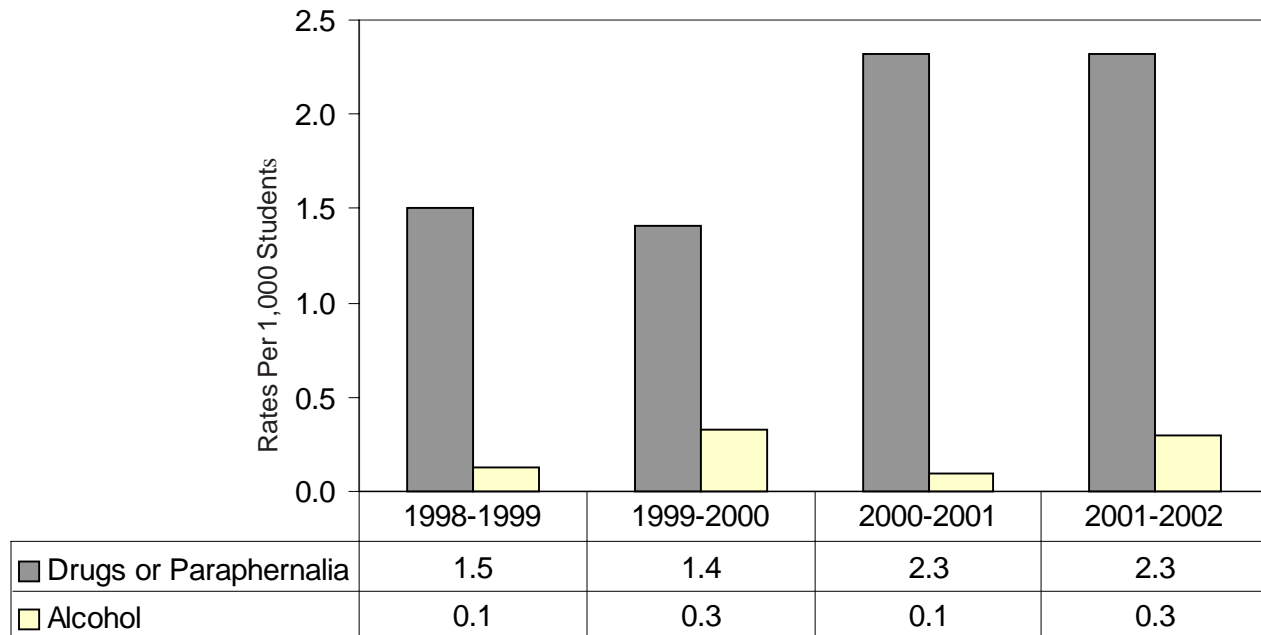
(Source: *Knox County Juvenile Court*)

- Approximately one out of six charges (17%) filed in Knox County Juvenile Court from 1996 to 2000 were specific to substance abuse offenses. Court officials suggest that substance abuse often plays a key role in many more charges they see, including crimes such as homicide, rape, assault and manslaughter.
- The criminal charge with the highest frequency in 2000 was possession of a controlled substance ($n = 197$) with a rate per 100,000 (<18 years) of 231.5 followed by possessing/consuming alcohol ($n = 179$) with a rate of 210.4 per 100,000 population (18< years).

SUSPENSIONS AND EXPULSIONS FROM SCHOOL

Knox County Schools maintains a zero tolerance policy toward substance abuse and participates in several Safe and Drug-Free Schools and Communities Programs (SFDS) aimed at preventing substance abuse and avoiding violence.

Figure 28: Knox County School System Zero Tolerance Offenses Due to Substance Abuse/Paraphernalia and Alcohol Use 1998 - 2002 - Rates per 1,000 Students*



* Based on Knox County’s average daily membership (K-12) estimates:
 1998-1999 = 46,635; 1999-2000 = 51,708; 2000-2001 = 52,072; 2001-2002 = 51,306

(Source: Knox County Schools, Tennessee Department of Education Annual Statistical Report 1999-2001)

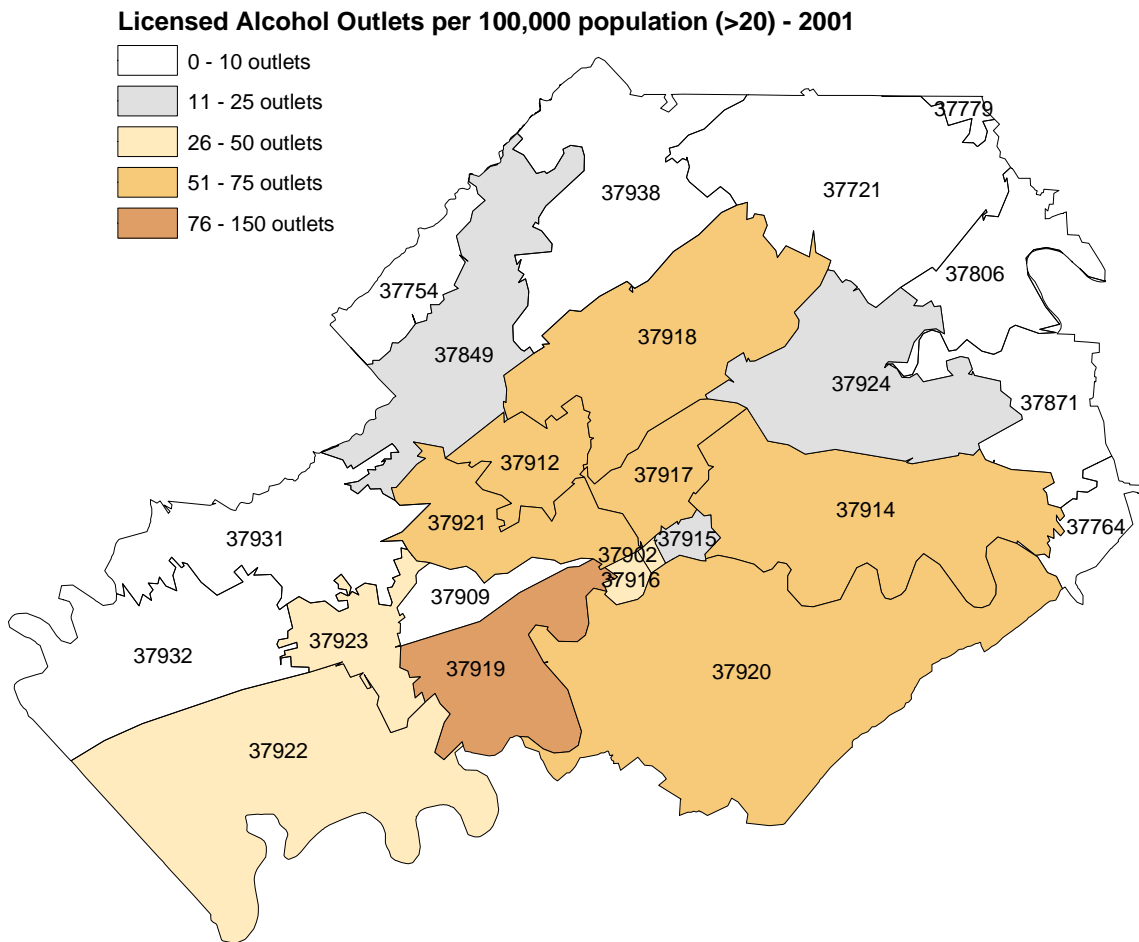
- In the 2001-2002 school year, Knox County Schools recorded 134 zero tolerance offenses related to drug or alcohol use (119 for possessing/using drugs or drug paraphernalia and 15 for alcohol use) (Knox County Schools, 2002). The rate per 1,000 student population (K-12) for drug and/or paraphernalia offenses was 2.3 and for alcohol it was 0.3.

According to *Healthy People 2010*, adolescents that use marijuana are more than twice as likely to cut class, commit property theft, destroy property, or physically attack someone than adolescents that do not use marijuana.

ALCOHOL OUTLETS IN KNOX COUNTY

The sale of alcohol products is legal in Knox County. Figure 29 represents the numbers of available outlets to legally purchase alcohol broken down by Knox County zip codes. Beer permit data were provided by the City of Knoxville Finance Department and the Knox County Office of the County Clerk. Liquor store addresses (licensed by the state) came from the phone directory.

Figure 29: Licensed Alcohol Outlets by County Zip Code: Rates per 100,000 Population: 2001



(Sources: Office of the County Clerk, Knoxville Finance Department, US Census 2000)

- There were 773 total alcohol outlets in Knox County at the end of 2001: city beer permits: ($n = 561$), county beer permits ($n = 173$), liquor stores ($n = 39$). The overall ratio of alcohol outlet to Knox County (over 21 years of age) population was 279.9 per 100,000. A breakdown of the individual zip code rates per population is displayed in Table 11 .

Table 11: Zip Codes in Knox County: Alcohol Outlets (beer permits and liquor stores) per 100,000 Adult Population: 2001

Knox County Zip Code	# Alcohol Permits	Alcohol Permits Per 100000 Zip Code Population (> 20)*
37721	4	54.8
37754	3	92.1
37764	1	17.2
37779	0	0.0
37806	0	0.0
37830	2	9.8
37849	18	116.1
37871	3	46.7
37902	34	2,961.7
37909	6	58.4
37912	54	376.7
37914	59	399.3
37915	15	423.5
37916	45	893.2
37917	61	320.2
37918	59	217.9
37919	141	660.3
37920	74	264.1
37921	57	314.2
37922	50	159.0
37923	37	190.6
37924	22	322.2
37931	9	68.4
37932	10	126.5
37938	9	92.0
Total	773	279.9**

* Zip code adult populations are based on Census 2000 5-digit ZCTA's.

** Based on Knox County's population estimate of 276,074 for 21 years of age and older for

(Sources: Justice Information Management System Data, Office of the County Clerk, Knoxville Finance Department, US Census 2000)

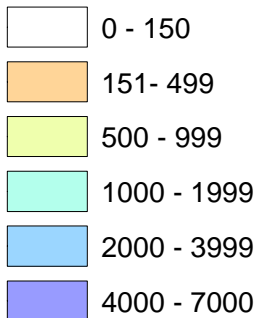
- Zip code 37919 (age 21 and older population = 21,203), a section of west Knoxville that borders the University of Tennessee had the most alcohol outlets ($n = 141$) - almost twice as many as any other zip code. The ratio per 100,000 zip code population was 660.3 (Table 11 and Figure 31).
- The zip code with the next highest amount of alcohol outlets was 37920 in south Knoxville ($n = 74$). The 37920 age 21 and older population was estimated at 28,021 resulting in a rate per 100,000 (> 21) of 264.1 (Table 12 and Figure 30).
- The overall ratio for alcohol outlets to geographic area in Knox County was one outlet for every 0.75 square miles (Knox County = approximately 576 square miles - see Appendix 2).

- The zip code with the highest density of beer permits to adult population is 37902 (see Table 11 and Figure 29), a section of downtown with limited amounts of residents and a surplus of restaurants with a rate of 2,961.7 per 100,000 population (21 years or older). This zip code contained 34 alcohol permits and the age 21 or older population was 1,148 (Census 2000).

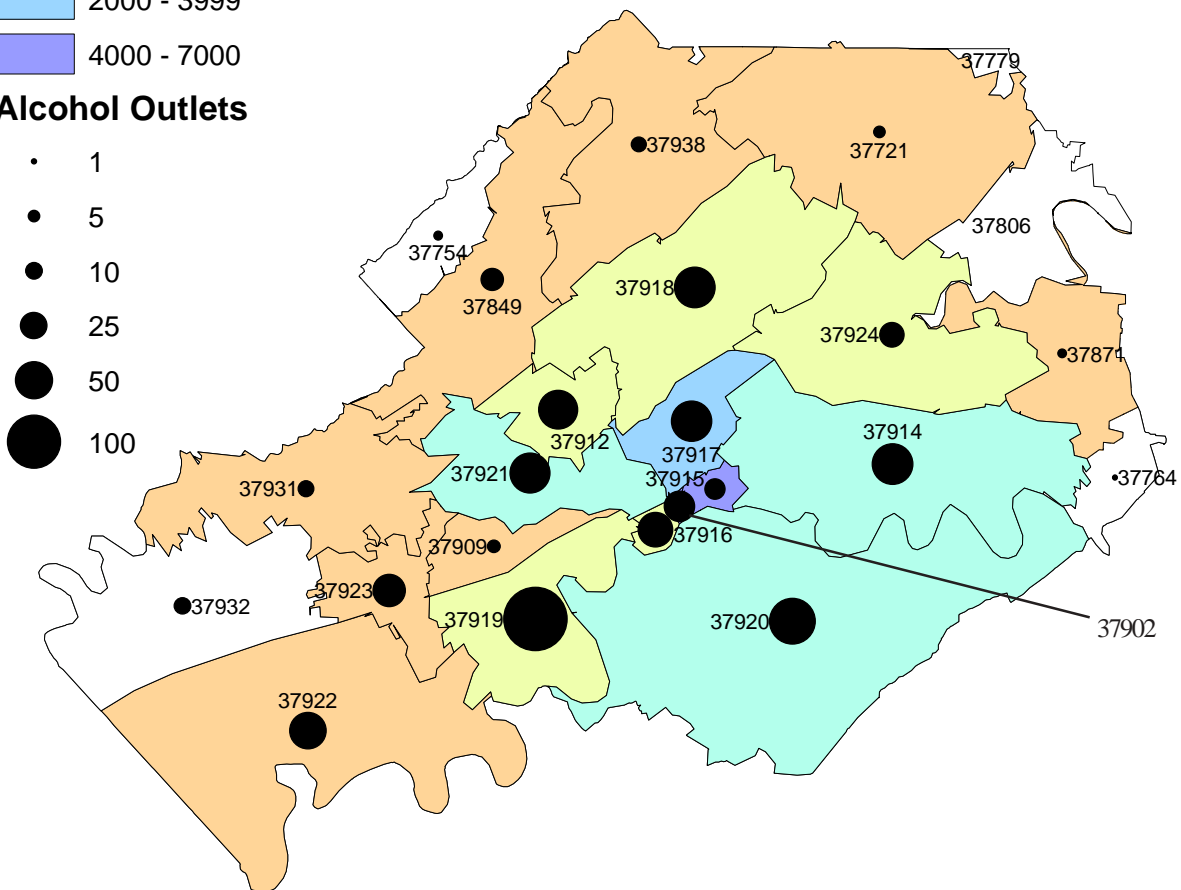
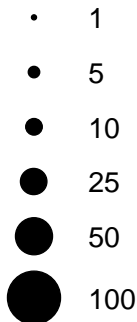
Figure 30 maps the number of alcohol outlets with the home addresses (based on zipcode) of Knox County residents charged with public intoxication in 2001, the most common alcohol-related crime.

Figure 30: Public Intoxication Charges per 100,000 Population (2001) with Number of Alcohol Outlets (2001) by Knox County, TN Zip Codes

Public Intoxication Charges per 100,000 Zipcode Population



Alcohol Outlets



(Sources: Justice Information Management System Data, Office of the County Clerk, Knoxville Finance Department, US Census 2000)

APPENDIX 1: METHODOLOGICAL NOTES

The following notes on each section and subheading are designed to assist the reader in interpreting the data found throughout the *Statsbook*.

Substance Abuse: Patterns of Use.

Adult Alcohol Use Patterns (pp. 8-10): Figures 1-4 report data from the 2002 *Behavioral Risk Factor Survey* ($n = 2,769$) commissioned by the Knox County Health Department. This survey used an equal probability, randomized digit-dialing design and the results were weighted to adjust for disproportionate selection and post-stratified to match the population characteristics of Knox County. The results in Figures 1 and 2 should be considered representative for Knox County in 2002.

Adolescent Alcohol Use Patterns (pp. 11-12): Figures 5-6 refer to data from the 2000 *Knoxville Teen Assessment Project* (KTAP) survey ($n = 8,324$) administered between March and May, 2000 in Knox County schools. KTAP was a nonrepresentative survey administered to all students in the 7th, 9th, and 11th grade in Knox County schools. The survey had a completion rate of 85% (84.3%) out of all the 9,829 students eligible to take the survey. Comparisons with the 1999 *Youth Risk Behavior Surveillance* survey at the state and national level were made because both studies focus on similar variables at roughly the same time. Due to the nonrepresentative design of KTAP, the reader is urged to interpret the data with caution.

Adolescent Drug Use (p. 13): The data in Table 1 are drawn from the 2000 *Knoxville Teen Assessment Project* survey survey ($n = 8,324$). As previously discussed, the KTAP survey used a nonrepresentative design so the reader is urged to interpret with caution.

Substance Abuse Treatment

Substance Abuse Treatment Centers (p. 14): The data in this section was drawn from the 2002 Metropolitan Drug Commission Substance Abuse Treatment Survey and phone book listings. The Metropolitan Drug Commission also maintains a database of operating Alcoholics Anonymous and Narcotics Anonymous meetings in Knox County. The data on self-help groups are from that database.

Treatment Admissions in 2001 (p. 15): The data in Table 2 and Figures 7-9 were drawn from a survey undertaken by the Metropolitan Drug Commission for this *Statsbook*. Nineteen Knox County substance abuse treatment facilities (94%) responded but one facility was removed from the analysis due to errors. The remaining eighteen facilities are listed on page 14. Also, private counselors and church-based programs were not included in the survey. The data included both Knox County residents and nonresidents. The data did not include admissions that were alcohol-only, hallucinogens (other than marijuana), barbiturates, or sedatives. The reader is encouraged to interpret the results in this section with extreme caution.

The rate per 100,000 population of 980.5 (p. 15) was determined using the total (US Census 2000) Knox County Population as the denominator: $(3,746 \text{ admissions divided by } 382,032) * 100,000$.

Treatment Admissions on a Given Day (pp. 17-18 and p. 56): Figures 10 and Appendix 3 refer to data from the Substance Abuse and Mental Health Services Administration (SAMHSA), Office of Applied Studies *Uniform Facility Data Set* (UFDS). An annual national survey, the UFDS is completed by mental health facilities across the United States. The UFDS focuses on the number of services provided during one day, in this case on October 1 1997 and October 1 1998. Facilities voluntarily comply with the survey and are allowed to estimate patient demographics (gender, race) rather than rely on accurate records. The data in this section should be interpreted with care due to these factors. Although an annual survey, 1998 was the most recent data set available at the time of publication that allowed analysis at the county level.

Getting Help for Alcohol Problems (p. 19): The data in Figure 11 were drawn from the report of the 1998 Community Health Assessment Survey ($n = 1,105$ adults). This survey used an equal probability, randomized digit-dialing design and the results were weighted to adjust for disproportionate selection and post-stratified to match the population characteristics of Knox County. The data should be considered representative for Knox County in 1998.

Helpline Calls (p. 19): Data on helpline requests for information on substance abuse and available treatment resources were collected from 211 and Contact of Knoxville, Inc. The Contact data did not establish if the calls originated in Knox County. Interpretation of the Contact data should be undertaken with extreme caution.

Substance Abuse and Birth

Birth Certificate Measures (p. 20-21): The data in Figures 12-13 were drawn from 1995-2000 birth certificate vital statistics records for Knox County from the Tennessee Vital Statistics System. The substance abuse measures are based on voluntary self-report by the mothers not laboratory tests. They are asked to identify any time during their pregnancy (rather than a specific period such as the last 30 days) when they may have used alcohol, tobacco or other drugs. Some caution should be taken with this data because of these two problems.

Alcohol and Low Birth Weight, Alcohol and Abnormal Conditions of the Newborn, Tobacco and Low Birth Weight (pp. 22-24): The data in Figures 14-16 were drawn from the *Statistical Profiling of Tennessee* interactive website which draws upon birth certificate vital statistics in Tennessee. As discussed before, alcohol use measures are self-reported in birth records, so caution is advised in the interpretation of this section.

Tobacco Counseling by Knox County Obstetricians/Gynecologists (p.25): This section refers to the results of a small-sample mail survey conducted by the Knox County Health Department's Community Assessment and Planning section on behalf of the Greater Knoxville Coalition on Smoking OR Health in 2001. Because of the small sample ($n = 21$), results should be interpreted with extreme caution.

Substance Abuse and Mortality

Alcohol-Related Deaths (pp. 26-27): In this focus on alcohol-related fatalities, the data for Figures 17-18 were drawn from the Statistical Profiling of Tennessee (SPOT) section of the Health Information Tennessee (HIT) website, maintained through a partnership between the Tennessee Department of Health and the University of Tennessee at Knoxville Community Health Research Group. The HIT website employs a CDC-developed, SAS-based algorithm to determine alcohol-related deaths using International Classification of Diseases, Ninth Edition (ICD-9) codes available from Tennessee Vital Statistics System records. Because an algorithm is used, reported frequencies of mortalities may not be in whole numbers

Community Statsbook: Substance Use

(for example one may see a *n* of 4.3 rather than 4). Data for 1999 - 2001 were not available at the time of publication. The data on deaths due to alcohol in Figures 18-19 should be considered fairly representative of Knox County and Tennessee. It is unfortunate that the website only included data until 1998 at the time of publication of this volume; therefore 1999-2001 data are not displayed.

Alcohol-Related Traffic Crash Fatalities (pp. 28-29): The data in Figure 19 in this section were drawn from the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS) website. FARS is widely recognized as the standard data source for automotive crash statistics and should be considered representative for Knox County, Tennessee, and the United States. FARS contains a statistical model that counts passengers and drivers with blood alcohol content levels of 0.10 and higher and accounts for possible discrepancies in testing. For more information on the model, contact the National Center for Statistics and Analysis, NRD-31, 400 Seventh Street, S.W., Washington, D.C. 20590.

Drug-Related Fatalities (pp. 29-32): Regional Forensic Center data were presented in Tables 3-4 and Figure 20 because they were considered the best possible indices of drug-related fatalities in Knox County. The forensic examination or autopsy and concomitant toxicology analysis can accurately determine specific drugs and drug metabolites in the remains of the deceased. In this manner, trends in illicit drug use, drug of choice, and fatalities due to overdose can be revealed through the surveillance of data from the Regional Forensic Center. For the purposes of this analysis, drug-related deaths were defined as:

- (1) Death due to overdose (either suicide, accident or unknown cause) of psychoactive prescription drugs or illicit drugs, or a combination of the two.
- (2) Death due to homicide when an illicit drug (cocaine, heroin, marijuana) is present in the toxicology report.
- (3) Death due to natural or unknown causes when an illicit drug is present in the toxicology report.

Non-psychoactive drugs such as anti-epilepsy drugs, calcium blockers, appetite suppressants, antibiotics, antihistamines, heart medicines (such as Atropine) and nonnarcotic painkillers (such as aspirin), antihistamines, and calcium-blockers were eliminated from the analysis. It is important to note that forensic examinations that uncovered alcohol as the sole psychoactive drug were removed from this analysis of drug-related mortalities. The reader is referred to the section of alcohol-related deaths in Knox County (pp. 26-27).

Figure 20 shows data on the types of drugs uncovered from 1999 to 2001 in the forensics examinations. To create Figure 20, it was necessary to collapse multiple drugs uncovered in the examinations into one category. For example, a forensic examination that uncovered three types of narcotic-analgesics, alcohol, and two types of anti-depressants would be counted as one narcotic analgesic, one alcohol, and one anti-depressant in the final tally. The reader is urged to review the data in Table 4 to get a better idea of the complexity of the data.

Intravenous Drug Use and HIV/AIDS (p. 33): The data in Figure 21 was drawn from the Centers for Disease Control's AIDS Public Data set and should be considered representative for Knox County from 1990-1999.

Regulation of Alcohol and Other Drugs

Criminal Charges, Public Intoxication Charges, Simple Possession/Casual Exchange, Driving Under the Influence, Trafficking/Manufacturing Charges (pp. 34-35): The data in Tables 5-9 and Figures 22-

26 were drawn from Knox County's Justice Information Management System (JIMS) system data while limiting the data to arrestees with Knox County addresses (checked through zipcodes, maps and the web-based KGIS system) and homeless population and should be considered representative for Knox County from 1999 to 2001. Addresses with zipcodes that border both Knox County or other counties were verified using the KGIS (Knoxville/Knox County/KUB Geographic Information System) available at www.kgis.org. The population rates were set at 14 years or older after a review of the Juvenile Court data yielded that sizable number of juveniles commit alcohol and other drug-related crimes in Knox County. The majority of these crimes are committed at age 14 and above ($n = 310,932$ in Knox County [US Census 2000]). Rates per 100,000 population were determined by the following formula: # of specific crime divided by Knox County Population (14 years or older) * 100,000.

Substance Abuse During Probation and Parole (p. 44): The data in Figure 27 were drawn from a database provided by the State of Tennessee's Probation and Parole. The data were limited to Knox County residents. It is important to note that drug positives seen in Figure 27 are the results of two independent tests. Parolees were asked to submit to random field tests for specific drugs. If the field test is positive, the parolee was automatically checked through a more thorough and reliable lab test. Both tests had to be returned positive in order to be counted in this analysis.

Alcohol and Drug Enforcement among Minors (p. 45): The data in Table 10 were drawn from Knox County Juvenile Court records from 1996 to 2000. The 17 or younger population rates were created using the Statistical Profiling of Tennessee webpage for each year in the analysis. For example, 1996 rates are created using the 1996 population 17 or younger population for Knox County as the denominator and 1997 rates are created using 1997 population estimates. This data set should be considered representative for Knox County from 1996 to 2000.

Suspensions and Expulsions from School (p. 46): The zero tolerance offenses data in Figure 28 were provided by Knox County Schools in the 2002 report "Knox County Schools Summary of Zero Tolerance offenses." There were 73 drug/paraphernalia and 6 alcohol offenses in 1998-1999; 73 drug/paraphernalia and 17 alcohol offenses in 1999-2000; 121 drug/paraphernalia and 5 alcohol offenses in 2000-2001; and 119 drug/paraphernalia and 15 alcohol offenses in 2001-2002. The rate per 1,000 students was calculated based on Knox County School's average daily membership (K - 12) for each school year: # of offenses divided by average daily membership for that year * 1,000. Average daily memberships for Knox County for 1998-2001 were reported in the Annual Statistical Report of the Department of Education for 1998 to 2001. The 2001-2002 daily membership estimate was provided by Knox County Schools.

Alcohol Outlets in Knox County (pp. 47-48): The data in Figure 29 and Table 11 were drawn from alcohol permit databases kept by both the city of Knoxville and Knox County and the liquor store phone book listings. The map was created using ARC-Map and ARC-View software. The data in table 12 were drawn from the alcohol permit data and US Census 2000 Zip Code Tabulation Area (ZCTA) population estimates available at the Census 2000 website. The formula used to create the Alcohol Permits per 100,000 was: #alcohol permits divided by zip code population (ZCTA) * 100,000.

The data in Figure 30 required the JIMS data on residential information on residents charged with public intoxication and the alcohol permit data. The residential information was confined to zip codes identified with Knox County (listed on the US Postal Service's website). Individuals with residential zip codes that are in both Knox County and the surrounding counties were identified using the KGIS (Knoxville/Knox County/KUB Geographic Information System) and included only if their place or residence was in Knox County. ARC-Map and ARC-View software was used to create the map. Rates were developed using this formula: # of residents within a zip code divided by the zip code population (ZCTA) * 100,000.

APPENDIX 2: KNOX COUNTY, TN

With a US Census 2000 estimate of 382,032 residents, Knox County is the third most populous county in the state and by far the most populous county in East Tennessee. Knoxville, the county seat, is the third largest city in Tennessee. Founded in 1791, Knox County is located where the French Broad and the Holston River meet to form the Tennessee River and comprises approximately 576 square miles within its borders. Knox County is also the point of intersection for Interstate 81, Interstate 40 and Interstate 75. The home of several colleges including the main campus of the University of Tennessee (with approximately 26,000 students), it is estimated that almost one out-of-four Knox County residents (23.9%) are college graduates. The Knoxville/Knox County per capita annual-income is estimated at \$27,376. Unemployment levels tend to be lower than both state and national levels.

In 2000, there were an estimated 197,455 (51.7%) females and 184,577 (48.2) males in Knox County (Census 2000). The Knoxville-Knox County Metropolitan Planning Commission estimates there are approximately 93 males to every 100 females in Knox County.

Figure 30: Knox County, TN Population ($n = 382,031$) by Race/Ethnicity: 2000

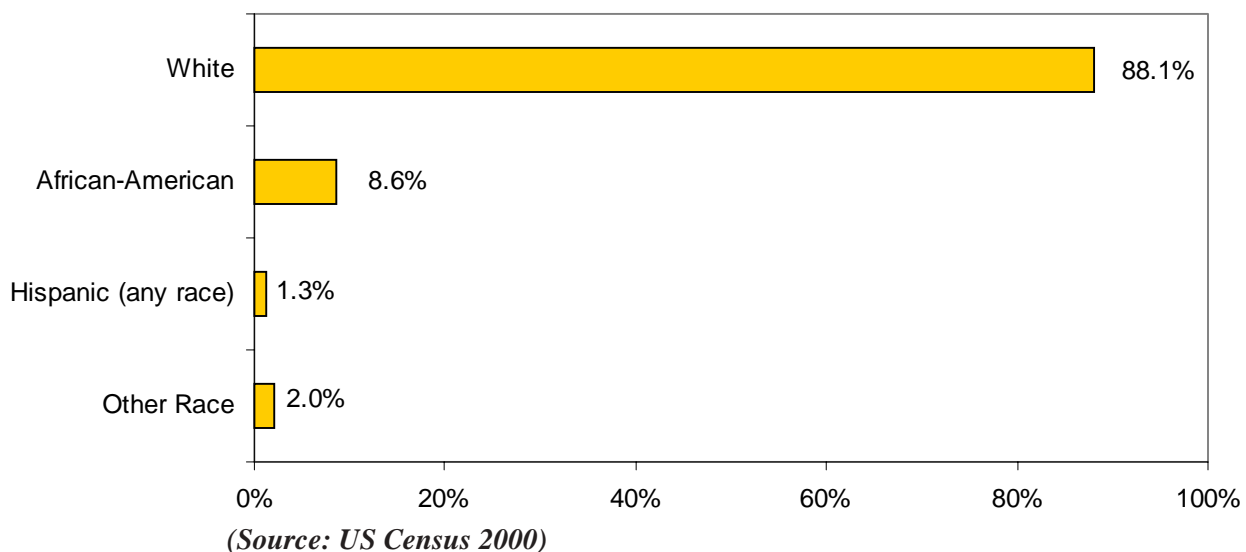


Figure 30 represents Knox County's Census 2000 population estimates by race and ethnic group. The most populous race is white (88.1%, $n = 335,751$) followed by African-Americans (8.6%, $n = 32,987$). Hispanic and "other races" compose the remaining 3.3% of the population ($n = 13,293$).

Given only moderate growth, the population for Knox County is estimated to exceed 1/2 million by 2030.

--Metropolitan Planning Commission: Knox County Demographic Trends (2001)

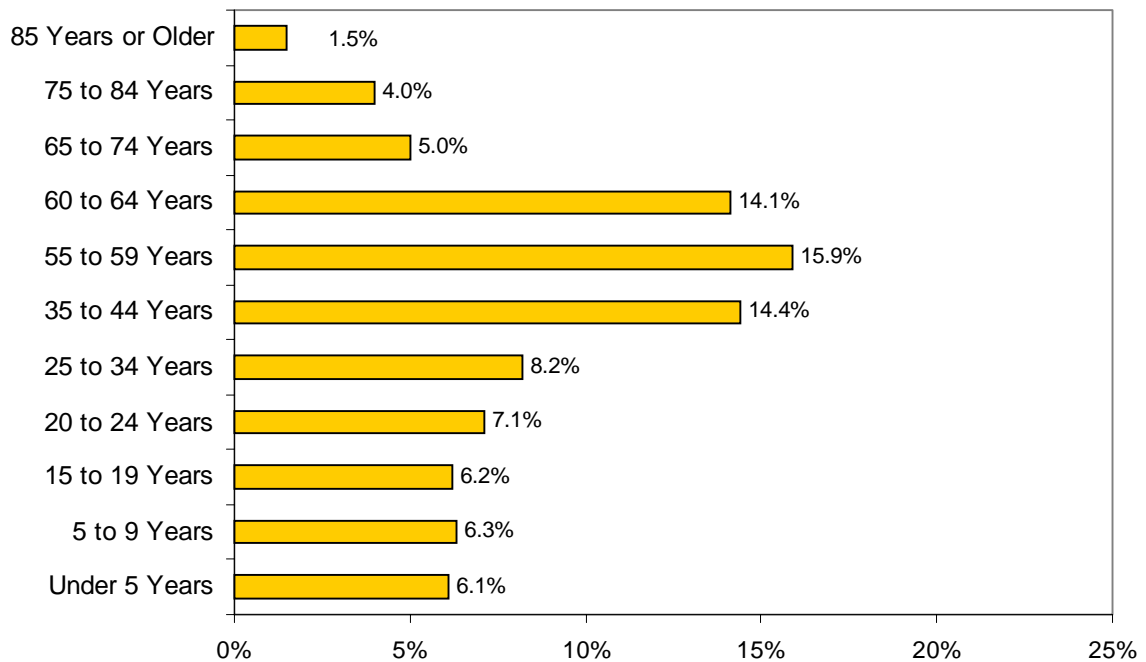
Table 12 below represents Knox County’s racial composition broken down by zip code.

Table 12: Racial Composition of Knox County, TN Zip Codes: 2000

<u>Zip code</u>	<u>White</u>	<u>African-American</u>	<u>Other Race/Two or More Races</u>
37721	98.2%	0.8%	1.0
37754	97.7%	0.2%	2.1
37764	97.9%	0.2%	1.9%
38949	97.0%	1.3%	1.7%
37830	87.0%	8.2%	4.8%
37871	97.1%	1.3%	1.6%
37902	80.9%	16.0%	3.1%
37909	89.1%	6.0%	4.9%
37912	89.0%	6.9%	4.1%
37914	56.6%	41.2%	2.2%
37915	12.2%	85.4%	2.4%
37916	84.7%	7.4%	7.9%
37917	83.7%	12.8%	3.5%
37918	93.7%	4.3%	2.0%
37919	90.8%	4.3%	4.9%
37920	93.4%	4.0%	2.6%
37921	76.6%	20.0%	3.4%
37922	93.8%	2.3%	3.9%
37923	91.4%	5.7%	2.9%
37924	90.9%	7.1%	2.0%
37931	99.1%	2.5%	1.6%
37932	94.1%	3.2%	2.7%
37938	98.4%	0.2%	1.4%

(Source: US Census 2000)

Figure 31: Knox County, TN Population (n = 382,032) by Age: 2000



(Source: US Census 2000)

- Figure 35 represents Knox County’s population estimates broken down by age groups. The median age was estimated at 36 years of age. Knox County’s median age in the 1990 census was estimated at 33.6 years. Knox County’s population is aging.

APPENDIX 3: UNIFORM FACILITIES DATA SET

Table 13 contains the complete 1997-1998 data available from the Uniform Facilities Data set including patient demographics.

**Table 13: Knox County Substance Abuse Treatment Facilities and Client Data:
October 1, 1997 and October 1, 1998**

	<u>10/01/1997</u> 18 Facilities	<u>10/01/1998</u> 22 Facilities
Ownership		
Private For-Profit	2 (11.1%)	1 (4.5%)
Private Non-profit	13 (72.2%)	20 (90.9%)
Local/State Government	3 (16.7%)	1 (4.5%)
Available Beds for Substance Abuse Treatment		
Hospital Inpatient Beds	70	8
Non-hospital Residential Beds	273	278
Number of Facilities Offering Services		
	<u>(n = 18)</u>	<u>(n = 22)</u>
Comprehensive Substance Abuse Assessment/Diagnosis	15 (83.3%)	17 (77.3%)
Comprehensive Mental Health Assessment/Diagnosis	10 (55.6%)	10 (45.5%)
Other Assessment Services	14 (77.8%)	0
Family Counseling Therapy	4 (22.2%)	11 (50.0%)
Group Therapy	15 (83.3%)	17 (77.3%)
Individual Therapy	15 (83.3%)	17 (77.3%)
Prescription Medicine Therapy	10 (55.6%)	9 (40.9%)
Therapy Relapse Prevention	14 (77.8%)	14 (63.6%)
Other Therapy	1 (5.6%)	1 (4.5%)
Other Race Clients	1 (0.0%)	0 (0.0%)
Client Data		
# of Active Clients	1,300	1,068
# of Hospital Inpatients	38	4
# of Outpatients	798	850
Age of Client		
	<u>(n = 1,300)</u>	<u>(n = 1,068)</u>
Clients under 18 Years	68 (5.2%)	132 (12.4%)
Clients between 18 - 20 Years	92 (7.1%)	60 (5.6%)
Clients between 21 - 24 Years	184 (14.2%)	129 (12.1%)
Clients between 25 - 34 Years	456 (35.1%)	311 (29.1%)
Clients between 35 - 44 Years	367 (28.2%)	311 (29.1%)
Clients between 45 - 64 Years	124 (9.5%)	111 (10.4%)
Clients over 65 Years	7 (0.6%)	14 (1.3%)
Age not identified	0	3 (0.2%)
Gender of Clients		
	<u>(n = 1,300)</u>	<u>(n = 1,068)</u>
Female Clients	422 (32.5%)	428 (40.0%)
Male Clients	878 (67.5%)	640 (59.9%)
Gender not reported	0	22 (2.1%)
Race of Clients		
	<u>(n = 1,300)</u>	<u>(n = 1,068)</u>
White Clients	1,042 (80.1%)	930 (87.0%)
African American Clients	224 (17.2%)	132 (12.4%)
Hispanic Clients	30 (2.3%)	1 (0.0%)
Asian/Pacific Islander Clients	1 (0.0%)	19 (0.2%)
American Indian/Alaskan Native Clients	2 (0.0%)	5 (0.0%)

(Source: Uniform Facility Data Set)

REFERENCES

Substance Abuse: Patterns of Use

- Annis, H. (1974). Patterns of intrafamilial drug use. *British Journal of the Addictions*, 69, 361-369.
- Centers for Disease Control and Prevention (2002). *Trends in cigarette smoking among high school students--United States, 1991-2001*. Morbidity and Mortality Weekly Report. Vol. 51 (19), May 17.
- Community Assessment & Planning (2001). *Healthy people Knox County: A community health status report*. Knox County Health Department. Unpublished Report.
- Community Assessment & Planning (2002). *Adolescent health status report: Risk taking behaviors among Knox County, TN teens*. (June). Knox County Health Department. Unpublished Report
- Community Assessment & Planning (2001). *Whose kids, our kids 2*. Knox County Health Department. Power Point Presentation.
- Knox County Health Department (1999). *Knox County: The 1998 community health assessment survey report*. Unpublished Report.
- Nelson, D., Bland, S., Powell-Griner, E., Klein, R., Wells, H., Hogelin, G., & Marks, J. (2002). State trends in health risk factors and receipt of clinical preventive services among US adults during the 1990s. *Journal of the American Medical Association*, 287, (20).
- Tennessee Department of Health (2000). News Release: *Tobacco use rises among middle school students*. November 16, 2000.
- U.S. Department of Health and Human Services. (2000) *Healthy People 2010* (Conference Edition, in Two Volumes). Washington DC.

Data Set

Community Assessment & Planning, *Behavioral Risk Factor Survey 2002*. Knox County Health Department.

Substance Abuse Treatment

- Annis, H. (1974). Patterns of intrafamilial drug use. *British Journal of the Addictions*, 69, 361-369.
- Kirk, K. (August 12, 2002) Personal Communication from Karen Kirk, Resource Specialist for 211-Knox County.
- U.S. Department of Health and Human Services.(2000) *Healthy People 2010* (Conference Edition, in Two Volumes). Washington DC.

Data Sets

CONTACT of Knoxville, Inc. *Substance abuse-related calls from January to October, 2001*.

Metropolitan Drug Commission. *2002 Treatment Survey*.

Metropolitan Drug Commission. *Self-help Group Directory*.

Substance Abuse and Mental Health Services Administration (SAMHSA). *Uniform Facilities Data Set 1997-1998*.

Community Statsbook: Substance Use

Substance Abuse and Birth

- Community Assessment & Planning (2001). *Assessing and counseling pregnant patients that smoke: A survey of Knox County OB/GYN physicians*. Knox County Health Department. Unpublished Report.
- National Center for Health Statistics. (1990). *Health, United States, 1989 and prevention profile*. (DHHS Publication No. (PHS) 90-1232) Washington DC: U.S. Government Printing Office.
- National Institute on Alcohol Abuse and Alcoholism. (1987). *Program strategies for preventing fetal-alcohol syndrome and alcohol-related birth defects*. (DHHS Publication No ADM 87-1482). Rockville, Maryland.
- Simpson, W. (1957). A preliminary report on cigarette smoking and the incidence of prematurity. *American Journal of Obstetrics & Gynecology*, 73, 808.
- U.S. Department of Health and Human Services. (2000). *Healthy People 2010* (Conference Edition, in Two Volumes). Washington DC.

Data Sets

- Health Information Tennessee. Statistical Profiling of Tennessee. *Population Birth Data for Knox County and Tennessee 1990-2000* available at hitspot.utk.edu.
- Tennessee Vital Statistics System (2002). *Knox County Birth Certificate Data 1995 - 2000*.

Substance Abuse and Mortality

- Mustro, D. (1992). Historical perspective on alcohol and drug abuse. In J. Lowinson, P. Ruiz, & R. Millman *Substance abuse: A comprehensive text book* (2nd ed.). Baltimore, MD: Williams & Wilkins.
- National Highway Traffic Safety Administration. (2001). *Traffic Safety Acts 2000: State alcohol estimates*. DOT HS 809 304. U.S. Department of Transportation.
- Tennessee Department of Health. (2001). *Reported TN residents only HIV and AIDS cases by county*. April 30. Available at www2.state.tn.us/health/CEDS/casereports.htm.
- U.S. Department of Health and Human Services. (2000). *Healthy People 2010* (Conference Edition in Two Volumes). Washington, DC.

Data Sets

- Centers for Disease Control. *AIDS Public Data Set 1990 - 1999*. Available at www.wonder.cdc.gov.
- Center for Disease Control. National Center for Chronic Disease Prevention and Health Promotion. *Behavioral Risk Factor Survey*. Available at www.cdc.gov/brfss/index.htm.
- Health Information Tennessee. Statistical Profiling of Tennessee. *Alcohol Related Deaths-1998*. Available at hitspot.utk.edu.
- National Highway Traffic Safety Administration. *Fatality Analysis Reporting System - 1997-2000*. Available at www.fars.nhtsa.gov.
- Knox County Medical Examiner's Office. *Toxicology Reports from Forensic Examinations - 1999-2001*.

Regulation of Alcohol and Other Drugs

- Knox County Schools. (2002). *Knox County Schools summary of zero tolerances offenses*. Unpublished report.
- Tennessee Department of Education. *State of Tennessee annual statistical report of the Department of Education for the scholastic year ending June 30, 1999, 2000, 2001*.

Data Sets

City of Knoxville Finance Department. *Knoxville City Beer Permits-2001*.

JIMS-Justice Information Management System. *Knox County Criminal Charges for TCA 397-17-310, 397-17-417, 397-17-418, and 55-10-40 for 1999-2001*. Knox County Information Services.

Knox County Juvenile Court. *Juvenile Court charges for 1996-2000*.

Knox County Office of the County Clerk. *Beer Permits for Knox County-2001*.

Metropolitan Drug Commission (2002). *Substance Abuse Treatment Data for Knox County 2001*.

Tennessee Board of Probation & Parole. *State Parole and Probation Population Drug Screens-1999-2000*.

U.S. Census Bureau. *Census 2000*. Available: www.census.gov.

Appendix 2: Knox County, TN

Knoxville-Knox County Metropolitan Planning Commission (2001). *Knox County demographic trends*. Report.

Knoxville-Knox County Metropolitan Planning Commission (2001). *Knox County population projections: 2005-2030*. Report.

Knoxville-Knox County Metropolitan Planning Commission (2001). *Knoxville area facts & figures*. Report.

Data Set

U.S. Census Bureau. *Census 2000*. Available: www.census.gov.

Appendix 3: The Uniform Facilities Data Set

Data Set

Substance Abuse and Mental Health Services Administration. *The Uniform Facilities Data Set 1997-1998*.