Chapter 7: Preventable Risks to Health – Tobacco, Substance Abuse and Sexually Transmitted Diseases

Scanning electronic micrograph of HIV-1 budding from cultured lymphocytes.

Source: CDC Public Health Image Library, C. Goldsmith, P. Feorino, E. Palmer, W. McManus
Tobacco

Tobacco is the number one preventable cause of death in the United States and kills more than 443,000 people each year.¹ With more than 7,000 toxic chemicals found in a cigarette, it is irrefutable that tobacco use will damage the body, compromise the immune system and cause premature death.² Ninety percent (90%) of all lung cancer deaths are caused by smoking.³ Lung cancer, ischemic heart disease, chronic obstructive pulmonary disease, and strokes are the leading causes of death due to cigarette smoking in the United States (Figure 7.1). In New Hampshire in 2007, the data continues to be dismal with 1,764 premature deaths from smoking-related illnesses and an additional 200 deaths from second-hand smoke.⁴

![Figure 7.1 U.S. Deaths and Smoking](image)

An individual does not have to smoke to be negatively affected by it. Involuntary exposure to secondhand smoke can cause disease and death.⁵ Secondhand smoke is the sidestream smoke from the end of a cigarette and the smoke in the air that is exhaled from someone smoking.⁶ Approximately, 46,000 premature deaths from heart disease in non-smokers are caused by secondhand smoke and 3,400 lung cancer deaths a year are attributed to secondhand smoke.⁷ There is no amount of secondhand smoke exposure that is risk-free. Other types of tobacco products that are most commonly used in the United States are snuff and chewing tobacco.⁸ Smokeless tobacco is comprised of over 28 carcinogens and can cause
oral, esophageal, and pancreatic cancers. In the United States, 3.5% of adults (18 years and older) and 6.1% of high school students use smokeless tobacco.

The economic costs of tobacco in the United States are devastating. From years 2002 to 2004, it was reported that $96 billion were direct medical costs of smoking and $97 billion was associated with lost productivity. In New Hampshire, $1.4 billion in direct medical costs are attributed to smoking annually. The cost and tax on tobacco products have a direct relationship on sales. Nationally, the average cost of cigarettes is $5.33 a pack and the tax is approximately $2.19. However, in New Hampshire the average retail price is $4.19 and tax is approximately $1.08.

**Smoking Cessation**

Each year, thousands of people attempt to quit tobacco and try several different strategies. In the United States, nearly 17 million people try to quit smoking every year. However, only 1.3 million of these smokers are successful. According to the Behavioral Risk Factor Surveillance System (BRFSS), 52.9% (CI54.3-61.7%) of New Hampshire adult regular smokers have quit for one or more days in the past twelve months. Also, nearly 58.7% of all NH smokers are seriously considering quitting in the next six months. Of the smokers that have seen a medical provider in the last 12 months, 40.1% (CI33.9-46.3%) received a recommendation to begin nicotine replacement therapies, 31.7% (CI25.9-37.6%) identified a specific quit date, 25.4% (CI 19.9-30.9%) were provided with educational materials and 20.1% (CI 15.1-25.3%) received a recommendation to take a smoking cessation class, seek counseling or call a quitline. According to the Centers for Disease Control and Prevention (CDC), 2.1% of New Hampshire residents called the quit line in the past year compared to the national average of 2.8%

**Figure 7.2 Percentage of NH Smokers Calling the Quitline**

![Figure 7.2 Percentage of NH Smokers Calling the Quitline](https://example.com)

**Source:** CDC

**Adults and Tobacco**

In 2009, the CDC reported that 20.6% of U.S. adults over the age of 18 are current smokers, 23.5% are males and 17.9% are females. Smoking continues to be a public health concern as the decline of cigarette smoking has stalled over the past five years.
In New Hampshire, the number of adult smokers has slowly declined from 25.3% in year 2000 to 18.7% in 2006. However, in 2007 the number of current NH smokers increased slightly to 19.3%.4 According to Healthy People 2020, the goal over the next 10 years is to reduce illness, disability, and death related to tobacco use and secondhand smoke exposure. The national objective is to reduce cigarette smoking rates for adults 18 years and older from 20.6% to 12%. Although Nashua is better than the national average at 17% of adults smoking, Nashua does not meet the Healthy People 2020 target of 12%.

In Nashua, 43.9% (CI 38.8-49%) of adults have smoked in their lifetime and 17% (CI 12.1-22%) are current smokers (Figure 7.3). Similarly, the 2010 Nashua Community Health Survey (2010 NCHS) states that during the past 30 days, 17% of residents said they smoked cigarettes on one or more days. In addition, survey results showed that if a family member or friend does smoke and wants to quit, 58% would tell them to speak to a doctor, 11% would reference the NH Quitline, 6% would tell them to seek a private counselor or therapist and 25% would tell them to see help from other agencies or medical providers (Figure 7.4).15

For more information on smoking cessation, call the state quitline at 1-800-TRY TO STOP (1-800-879-8678) or visit http://www.trytostopnh.org.
Figure 7.4 Sources of Assistance for Quitting Smoking

If a friend or family member wanted to quit, where would you tell them to go to get help?

Source: 2010 Nashua Community Health Survey

Source: Shauna Vautier, Nashua High School Photography Project
Youth and Tobacco

Tobacco use is often initiated during the middle and high school years with approximately 80% of adult smokers starting before the age of 18. Each day in the United States, 3,450 youth between the ages of 12 and 17 smoke their first cigarette. Among these young adults, nearly 850 sustain the habit and become regular smokers each day. Other health risks that are associated with high school age smoking are drug use, alcohol use and risky sexual behavior.13

In the State of New Hampshire, the 2009 Youth Risk Behavioral System (YRBS) was completed by 1,493 students in 53 public high schools. In the survey, students were asked about tobacco use and highlights of this data include (not Nashua specific):

- 20.8% have smoked cigarettes on one or more of the past 30 days,
- 8.4% have used chewing tobacco, snuff, or dip on one or more of the past 30 days, 13.8% were males and 2.6% were females,
- 4.2% think they are at no risk to harming themselves if they smoke 1 or more packs of cigarettes a day,
- 66.4% think it’s very wrong or wrong for someone their age to smoke cigarettes.16

According to the 2004 Pregnancy Risk Assessment and Monitoring System conducted by the CDC, 13% of U.S. women smoked cigarettes throughout the last three months of their pregnancy. Of these smokers, 52% said they smoked 5 or less cigarettes a day, 27% smoked six to ten cigarettes and 21% smoked 11 or more cigarettes a day.14 For more information on smoking and maternal health go to Chapter 3.

"Cigarette smoking is clearly identified as the chief, preventable cause of death in our society."

- C. Everett Koop, former Surgeon General

For more information on Tobacco Prevention and Control for the Greater Nashua Region, visit www.nashuanh.gov and go to the Nashua Division of Public Health and Community Services page.
Substance Abuse

In the United States, alcohol and illicit drug abuse continue to have a negative impact on the health and public safety of communities and the nation. Medical issues such as drug overdoses, Hepatitis C and HIV infections can be directly linked to the use of illicit drugs such as heroin, cocaine, methamphetamine and non-prescribed pain relief medications. In regard to alcohol abuse, health issues have a significant impact on the public’s health and safety. Liver disease, injuries and deaths caused by drunk driving, as well as other types of accidents and violence also contribute to the high financial and emotional costs of abusing these substances. A 2004 report from the Office of National Drug Control Policy estimated that the overall cost of substance abuse, including loss of productivity and health and crime related costs exceeded $600 billion annually in the United States. These numbers included approximately $181 billion for illicit drug abuse and $235 billion for alcohol abuse.18

Illicit Drug Abuse

According to the 2009 Substance Abuse and Mental Health Services Administration (SAMHSA) National Survey on Drug Use and Health (NSDUH), 21.6 million persons aged 12 years or older in the United States admitted to having used an illicit substance over the past month. This number represented 8.7% of the population, and indicates a rise in illicit drug use over the previous year where 15.2 million persons (6.1% of the population) reported using an illicit substance. In examining specific drug use, the United States was found, in a 2008 survey of 17 countries, to have the highest levels of cocaine and cannabis abuse in the world.19

In New Hampshire, almost 11% of citizens (ages 12 or older) reported use of an illicit substance in the past month. When examining specific drugs being abused in the state, they found:

- In the past month, 9% of the population used marijuana,
- In the past month, 3.5% of the population used other illicit drugs,
- In the past year, 2.2% of the population reported use of cocaine and 5.2% of the population admitted to abuse of non-prescribed pain medications.

According to the U.S. Drug Enforcement Administration, marijuana use is the predominant drug of choice for New Hampshire, and is readily available in all parts of the State. This report also indicated that heroin and methamphetamine use and availability were increasing, particularly in the seacoast and western parts of the state.26

Youth and Illicit Drug Abuse

Data on illicit drug abuse for youth in the United States is available from the National Institute on Drugs and Alcohol (NIDA) Monitoring the Future (MTF) survey. In the 2010 survey, students in grades 8, 10 and 12 from targeted states were questioned about their alcohol, illicit drug and cigarette use. In this study, the survey questioned youth about their attitudes towards these substances. The survey revealed the use of marijuana for high school seniors was 6.1%, 3.3% for 10th graders and 1.2% for 8th graders. There was also an increase in the use of MDMA or Ecstasy (a designer drug) for 8th graders from 1.3% in 2009 to 2.4% in 2010. For 10th graders, there was an increase of Ecstasy use from 3.7% in 2009 to 4.7% in 2010.20
New Hampshire students were asked about drug use in the 2009 YRBS that was completed by 1,493 students in 53 public high schools in the State of New Hampshire (not Nashua specific). The report states:

- 40.5% of the students used marijuana one or more times during their life,
- 8.4% of the students tried marijuana for the first time before age 13 years,
- 20.4% of the students have taken a prescription drug (such as OxyContin, Percocet, Vicodin, Adderall, Ritalin, or Xanax) without a doctor’s prescription one or more times during their life,
- 10.4% of the students have taken a prescription drug (such as OxyContin, Percocet, Vicodin, Adderall, Ritalin, or Xanax) without a doctor’s prescription one or more times during the past 30 days,
- 6.5% of the students used some form of cocaine, including powder, crack, or freebase, one or more times during their life,
- 11.9% of the students sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high one or more times during their life,
- 3.0% of the students used heroin one or more times during their life,
- 4.7% of the students used methamphetamines one or more times during their life,
- 6.8% of the students used ecstasy one or more times during their life.\(^\text{16}\)

When students were asked about their attitudes towards marijuana, 57.1% of students think it is very wrong or wrong for someone their age to smoke marijuana and 84.7% of the students say their parents think it is very wrong or wrong for something their age to smoke marijuana. In regards to availability of drugs, 43.8% of the students think it would be very easy for them to get some marijuana if they wanted it and 10.4% of the students think it would be easy for them to get cocaine, LSD or amphetamines if they wanted to.\(^\text{16}\)

“\textit{No one is immune from the consequences of drug use. Every family is vulnerable.}”

- National Criminal Justice Reference Service

Source: Public Domain
Adults and Alcohol Abuse

Although 130.6 million (51.9%) people in the United States report current alcohol use, or at least one drink in the past 30 days, the 2009 SAMHSA survey reports one quarter (23.7%) of people over the age of 12 years binge drinks and 6.8% (17.1 million) of the population are heavy drinkers.19

Heavy drinking is defined as more than two drinks a day for a man and more than one drink a day for a woman. Binge drinking is defined as five or more drinks at one time for a man and four or more drinks at one time for a woman. According to the BRFSS, 5.5% of NH adults report heavy drinking and 16% of NH adults report binge drinking, which is similar to the national trend. In New Hampshire, males age 25 to 34 years are most likely to report heavy drinking and binge drinking.5 In Nashua, 11.5% of males and 5.8% of females are heavy drinkers. Of those that report binge drinking, 29.4% were male and 8.7% were female, which is a statistically significant difference between males and females for binge drinking (Tables 7.1 and 7.2).17

Table 7.1 Reported Heavy Drinking, 2008 & 2009

<table>
<thead>
<tr>
<th>Residence</th>
<th>Percent</th>
<th>95% Confidence Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Drinking (All)</td>
<td>Nashua</td>
<td>8.6%</td>
</tr>
<tr>
<td>Male Heavy Drinking</td>
<td>Nashua</td>
<td>11.5%</td>
</tr>
<tr>
<td>Female Heavy Drinking</td>
<td>Nashua</td>
<td>5.8%</td>
</tr>
<tr>
<td>Heavy Drinking (All)</td>
<td>NH w/out Nashua</td>
<td>5.8%</td>
</tr>
<tr>
<td>Male Heavy Drinking</td>
<td>NH w/out Nashua</td>
<td>6.1%</td>
</tr>
<tr>
<td>Female Heavy Drinking</td>
<td>NH w/out Nashua</td>
<td>5.6%</td>
</tr>
</tbody>
</table>

Source: NH BRFSS

Table 7.2 Reported Binge Drinking, 2008 & 2009

<table>
<thead>
<tr>
<th>Residence</th>
<th>Percent</th>
<th>95% Confidence Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binge Drinking (All)</td>
<td>Nashua</td>
<td>18.9%</td>
</tr>
<tr>
<td>Male Binge Drinking</td>
<td>Nashua</td>
<td>29.4%</td>
</tr>
<tr>
<td>Female Binge Drinking</td>
<td>Nashua</td>
<td>8.7%</td>
</tr>
<tr>
<td>Binge Drinking (All)</td>
<td>NH w/out Nashua</td>
<td>15.9%</td>
</tr>
<tr>
<td>Male Binge Drinking</td>
<td>NH w/out Nashua</td>
<td>22.1%</td>
</tr>
<tr>
<td>Female Binge Drinking</td>
<td>NH w/out Nashua</td>
<td>10.1%</td>
</tr>
</tbody>
</table>

Source: NH BRFSS
Youth and Alcohol Abuse

New Hampshire high school students that were surveyed as part of the YRBS report that:

- 68% of students had at least 1 drink of alcohol on one or more days during their life,
- 39% of students had at least one drink of alcohol on one or more of the past 30 days,
- 24% of students had 5 or more drinks of alcohol in a row, within a couple of hours on one or more of the past 30 days.

When asked about their attitudes towards alcohol use, 48.8% of students think it is very wrong or wrong for someone their age to drink beer, wine or liquor regularly and 8% of the students think people are at no risk of harming themselves (physically or in other ways) if they have 5 or more drinks of an alcoholic beverage (beer, wine, or liquor) each weekend. Furthermore, 37.9% of students think it would be very easy for them to get some beer, wine, or liquor if they wanted to.16

Public Safety

In 2009, an estimated 1/3 of drug tests completed on motorists who were killed in auto accidents in the United States were found to be positive for illicit drugs or medications ranging from hallucinogens to prescription pain killers.21 From the 2009 SAMHSA national survey, 10.5 million persons, approximately 4.2% of the population aged 12 or older, reported driving under the influence of an illicit drug during the past year.19 Illicit substance abuse remains a major challenge to public health and safety interventions on both a state and national level.

Nationally, 12% of the population drove a vehicle at least once in the past year under the influence of alcohol. This percentage has dropped since 2002, where 14.2% of the population drove under the influence. In spite of this decrease, examination of 2009 data showed that the highest percentage of persons who drive under the influence (DUI) of alcohol were between the ages 21 and 25 years old. The 2010 Profile of Drug Indicators reports that there were 4,676 driving DUIs for adults and 68 DUIs for juveniles in New Hampshire that year.26 In 1986, 81% (139 deaths) of fatal traffic accidents were related to alcohol abuse. Since then, the lowest number of drunk driving fatalities was in 1992 with 40 deaths in New Hampshire.22

According to the 2009 Nashua Police Department Annual Report, there were a total of 1,220 arrests for driving while intoxicated (DWI) and 1,563 drug arrests from 2005-2009 in Nashua. DWI arrests stayed the same between 2008 and 2009, but drug arrests increased by 9% during this same time period (Table 7.3).23

<table>
<thead>
<tr>
<th>Year</th>
<th>DWI Arrests</th>
<th>Drug Arrests</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>293</td>
<td>272</td>
</tr>
<tr>
<td>2006</td>
<td>236</td>
<td>330</td>
</tr>
<tr>
<td>2007</td>
<td>192</td>
<td>312</td>
</tr>
<tr>
<td>2008</td>
<td>249</td>
<td>310</td>
</tr>
<tr>
<td>2009</td>
<td>250</td>
<td>339</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,220</td>
<td>1,563</td>
</tr>
</tbody>
</table>

Source: Nashua Police Department
Emergency Department and Inpatient Discharges

In 2007, there was a total of 37,239 emergency department discharges for Nashua residents and 33,308 for residents in the Greater Nashua Region (does not include Nashua residents). Of these, 486 (1.31%, CI 0.92-1.12%) of the discharges for Nashua residents were for drug/alcohol dependence or abuse and 229 (0.69%, CI 0.60-0.78%) were for residents in the Greater Nashua Region, for a total of 715 discharges for drug/alcohol dependence or abuse. Nashua has a significantly higher number of emergency department visits for drug/alcohol dependence or abuse than the Greater Nashua Region. The number of emergency department visits, due to drug/alcohol dependence or abuse, has also increased steadily since 2005 for Nashua residents (Table 7.4, Figure 7.5). \(^{24}\)

There was a 154% increase in emergency department discharge costs between 2003 and 2007. In 2003, the total cost for emergency department discharges for drug/alcohol dependence or abuse was $296,825 whereas; in 2007 the total cost was $754,958 (Table 7.4, Figure 7.5). \(^{24}\)

Table 7.4 Emergency Department Discharges and Cost for Nashua, 2003-2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Emergency Department Discharge Cost</th>
<th>Emergency Department Cost per Discharge</th>
<th>Total Emergency Department Discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>$296,825</td>
<td>$798.78</td>
<td>373</td>
</tr>
<tr>
<td>2004</td>
<td>$444,389</td>
<td>$1,040.72</td>
<td>427</td>
</tr>
<tr>
<td>2005</td>
<td>$446,921</td>
<td>$1,117.30</td>
<td>400</td>
</tr>
<tr>
<td>2006</td>
<td>$588,350</td>
<td>$1,310.36</td>
<td>449</td>
</tr>
<tr>
<td>2007</td>
<td>$754,958</td>
<td>$1,553.41</td>
<td>486</td>
</tr>
</tbody>
</table>

Source: NH DHHS

Many Americans believe that drug abuse is not their problem. They have misconceptions that drug users belong to a segment of society different from their own…they are wrong. Almost ¾ of drug abusers are employed.

- National Criminal Justice Reference Service
In 2007, there was a total of 10,493 inpatient discharges for Nashua residents and 10,364 for residents in the Greater Nashua Region (does not include Nashua residents). Of these, 167 (1.59%, CI 1.35-1.83%) of the inpatient discharges for Nashua residents were for drug/alcohol dependence or abuse and 63 (0.61%, CI 0.46-0.76%) were for residents in the Greater Nashua Region, for a total of 230 discharges for drug/alcohol dependence or abuse. Nashua has a significantly higher number of inpatient visits for drug/alcohol dependence or abuse than the Greater Nashua Region. The number of inpatient visits has also increased steadily since 2005 for Nashua residents (Figure 7.5).24

There was a 74% increase in inpatient discharge costs for drug/alcohol dependence or abuse between 2003 and 2007. In 2003, the total cost for inpatient discharges was $819,684 whereas; in 2007 the total cost was $1,423,943 (Table 7.5, Figure 7.6).24

### Table 7.5 City of Nashua Inpatient Discharges and Cost

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Inpatient Discharge Cost</th>
<th>Inpatient Cost per Discharge</th>
<th>Total Inpatient Discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>$819,684</td>
<td>$4,604.97</td>
<td>178</td>
</tr>
<tr>
<td>2004</td>
<td>$774,732</td>
<td>$5,825.05</td>
<td>133</td>
</tr>
<tr>
<td>2005</td>
<td>$745,314</td>
<td>$6,312.22</td>
<td>118</td>
</tr>
<tr>
<td>2006</td>
<td>$1,085,168</td>
<td>$8,822.50</td>
<td>123</td>
</tr>
<tr>
<td>2007</td>
<td>$1,423,943</td>
<td>$8,526.60</td>
<td>167</td>
</tr>
</tbody>
</table>

*Source: NH DHHS*
Treatment for Alcohol and Illicit Drug Abuse

In the 2009 NSDUH report, the number of persons seeking out substance abuse treatment remained relatively stable across the United States between 2008 and 2009. SAMHSA defines “treatment” as any form of support such as Alcoholics Anonymous/ Narcotics Anonymous self-help groups, outpatient counseling, inpatient treatment, mental health care, or visits to an emergency room or physician’s office. In 2008, a total of 4.0 million persons accessed treatment, while in 2009, 4.3 million persons received some form of treatment services. Of these, 1.6 million received treatment for the use of alcohol and drugs, 0.8 million obtained treatment for only illicit drug use and 1.5 million received care for only alcohol use.\(^{19}\)

The 2009 SAMHSA survey defined “specialty treatment “ as treatment received at any of the following facilities: inpatient hospital care, inpatient/ outpatient rehabilitation centers or mental health centers. A primary requirement placed on all of these respondents who needed or accessed a specialty treatment program was their need to meet a Diagnostic Statistical Manual of Mental Disorders diagnosis of having dependence to alcohol / illicit drugs or abuse of one of these substances.\(^{19}\) The survey showed that:

- 23.5 million persons aged 12 or older qualified as needing treatment for an alcohol or illicit substance abuse disorder,
- 2.6 million persons were able to obtain treatment at a defined specialty substance abuse facility,
- 20.9 million persons aged 12 years or older needed to receive treatment at a specialty care center but were unable to access treatment.

For youth ages 12 to 17, there were 1.2 million young persons who needed treatment for their alcohol abuse issues. Of that number, only 96,000 received care at a specialty facility causing almost 1.1 million youth to go without specialty treatment.\(^{19}\)
The 2010 Profile of Drug Indicators for New Hampshire revealed that in 2009 there were 6,332 admissions for treatment:

- 1,724 (27.3%) persons were admitted for treatment of alcohol abuse,
- 826 (13.1%) persons were admitted for treatment for marijuana issues,
- 461 (7.3%) persons were admitted for treatment for cocaine abuse,
- 946 (15%) persons were admitted for treatment for heroin issues,
- 904 (14.3%) persons were admitted for treatment of opiate abuse,
- 1,471 (23%) persons were admitted for treatment for other drugs.26

In examining “specialty treatment” resources in the Nashua community, a significant number of persons with substance abuse issues have been referred to the Greater Nashua Council on Alcoholism, Inc. at Keystone Hall. This state funded agency provides several levels of treatment including: Crisis Intervention/ Sobriety Maintenance (CIC/ESMC) for persons who have just stopped their alcohol/ illicit drug use and who are waiting to enter a higher level of treatment such as a 28-day rehabilitation program, Transitional Living Community (TLC) a one – year residential program for clients who have completed a 28-day inpatient treatment program elsewhere in NH who request support in adjusting to a non substance abusing lifestyle, The Intensive Outpatient Program group/individual treatment services (IOP) and Project Recovering Lives (PRL), a four week intensive outpatient group and individual counseling experience for persons coming out of the NH Department of Corrections prison system and into parole status.25

In 2010, Keystone Hall staff completed 680 telephone screenings of persons requesting entry into their CIC/ ESMC program. Of this number, 228 persons were admitted into this program for non-medical detoxification/sobriety maintenance services. For the other programs at this center, 269 persons were enrolled into the IOP program, 18 persons were accepted into the TLC program and 149 persons were enrolled into the PRL program. The breakdown of drugs of abuse by clients entering treatment were reported as 262 alcohol, 67 cocaine, 169 heroin, 86 non-prescribed opiod based pain medications, 24 marijuana, 1 methamphetamine and 8 benzodiazepines.25

In examining the reasons or barriers for persons’ not getting into any form of specialty treatment, the NSDUH survey revealed that based on 2006 to 2009 data, there were six primary reasons for persons aged 12 or older not obtaining treatment at a specialty treatment facility (Table 7.6).19 When reviewing the local environment in Nashua for persons not accessing care at the area substance abuse treatment program (Keystone Hall), it was reported by admission staff that the three primary reasons for persons who needed care but who did not obtain treatment were: the facility did not have the capacity to immediately take a person into treatment, the need for clients to wait long periods of time (3 to 6 weeks) in order to be accepted into treatment and the inability of the center to maintain communication with persons waiting for care because they did not have stable housing or telephone contacts.25

For more information on preventing alcohol and drug abuse, contact the Bureau of Alcohol and Drug Services at 603-271-2677.

To contact Keystone Hall, visit www.keystonehall.org or call 603-881-4848.
### Table 7.6 Reasons for Not Accessing Treatment

<table>
<thead>
<tr>
<th>Reasons for Not Accessing Treatment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Believed they were not ready to stop their drug use</td>
<td>39.8%</td>
</tr>
<tr>
<td>Did not have health insurance or the ability to afford treatment</td>
<td>33.7%</td>
</tr>
<tr>
<td>Concern over negatively impacting their job</td>
<td>12.4%</td>
</tr>
<tr>
<td>Receiving treatment might cause neighbors/community to have a negative opinion of them</td>
<td>12%</td>
</tr>
<tr>
<td>Believed they could handle their substance abuse issues by themselves without assistance of treatment</td>
<td>10.9%</td>
</tr>
<tr>
<td>Did not know where to go for treatment</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

*Source: National Survey on Drug Use and Health*

“The social and health costs to society of illicit drug use are staggering. Drug-related illness, death, and crime cost the nation approximately $66.9 billion....Illicit drug use hurts families, businesses, and neighborhoods; impedes education; and chokes criminal justice, health and social service systems.

- National Criminal Justice Reference Service
Sexually Transmitted Diseases and Human Immunodeficiency Virus

Sexually transmitted diseases (STDs) are caused by pathogens, such as bacteria and viruses that can be acquired and transmitted through sexual activity.\textsuperscript{27} STDs remain a significant public health problem in the United States and many, including the Human Immunodeficiency Virus (HIV), are without symptoms. Social, economic and behavioral factors that affect the spread of STDs include: racial and ethnic disparities; poverty and marginalization; substance abuse; sexuality and secrecy; and sexual networking. STDs often have financial, physiological, and psycho-social consequences. These infections may cause harmful, often irreversible and costly clinical complications such as reproductive health problems; fetal and perinatal health problems, cancer and increased susceptibility to other diseases and illnesses.\textsuperscript{27}

The CDC estimates that there are approximately 19 million new STD infections each year—almost half of them among young people ages 15 to 24 years of age. The cost of STDs to the United States health care system is estimated to be as much as $15.9 billion annually. Because many STDs often go undiagnosed, the reported cases of chlamydia, gonorrhea, and syphilis may only represent a fraction of the true burden of STDs in the United States. The CDC estimates that undiagnosed and untreated STDs are responsible for at least 24,000 women in the United States becoming infertile each year.\textsuperscript{28}

The occurrence of STDs in New Hampshire is significant. In 2009 in New Hampshire, there were 2,299 cases of reportable STDs, accounting for 57.5\% of all reportable diseases in the State of NH. In 2010, there were 2,675 cases of reportable STDs, accounting for 51\% of all reportable diseases (Table 7.7). Hepatitis C is not included in these numbers because it is not reportable in the State of New Hampshire. Of all the reportable STDs, chlamydia cases accounted for 90.5\% of all reportable STDs in 2010 and 91.3\% in 2009.\textsuperscript{32}

"There are approximately 19 million new STD infections each year in the United States."

-Centers for Disease Control and Prevention
Table 7.7 State of NH Reportable Sexually Transmitted Diseases, 2009-2010

<table>
<thead>
<tr>
<th>Sexually Transmitted Diseases</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlamydia</td>
<td>2,099</td>
<td>2,423</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>117</td>
<td>146</td>
</tr>
<tr>
<td>Syphilis</td>
<td>36</td>
<td>43</td>
</tr>
<tr>
<td>HIV</td>
<td>25</td>
<td>40</td>
</tr>
<tr>
<td>AIDS</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,299</td>
<td>2,675</td>
</tr>
</tbody>
</table>

Other Reportable Communicable Diseases

| Other Reportable Communicable Diseases | 3,114 | 2,796 |

Source: NH DHHS

Until July 1, 2011, the STD/HIV Prevention Section within the NH Division of Public Health Services contracted with 20 health care agencies to provide comprehensive services including confidential diagnosis, testing and treatment for STDs in the State of New Hampshire. All treatment provided was consistent with the national guidelines established by the CDC. Below are counts for services provided by the State of NH and City of Nashua, Division of Public Health and Community Services in regards to services provided (Table 7.8). While at the clinic, clients were vaccinated with Twinrix (Hepatitis A&B) vaccine, Tdap (Tetanus, diphtheria, acellular pertussis), Menactra, Td, Gardisil (Human Papilloma Virus) vaccine, Pneumovax, and influenza vaccine if needed.

Table 7.8 NH STD/HIV Clinic Services, 2010

<table>
<thead>
<tr>
<th></th>
<th>Nashua Clinic</th>
<th>Nashua Outreach Van</th>
<th>Total Nashua</th>
<th>Total Statewide</th>
<th>Nashua's Contribution to Statewide Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Clinic Visits</td>
<td>945</td>
<td>141</td>
<td>1086</td>
<td>6243</td>
<td>17.4%</td>
</tr>
<tr>
<td>Number of Male Visits</td>
<td>611</td>
<td>88</td>
<td>699</td>
<td>3215</td>
<td>21.7%</td>
</tr>
<tr>
<td>Number of Female Visits</td>
<td>333</td>
<td>53</td>
<td>386</td>
<td>3022</td>
<td>12.8%</td>
</tr>
<tr>
<td>Number of MSM Visits</td>
<td>60</td>
<td>6</td>
<td>66</td>
<td>524</td>
<td>12.6%</td>
</tr>
<tr>
<td>Number of IDU Visits</td>
<td>74</td>
<td>59</td>
<td>133</td>
<td>364</td>
<td>36.5%</td>
</tr>
<tr>
<td>Number of Comprehensive Visits</td>
<td>500</td>
<td>90</td>
<td>590</td>
<td>4055</td>
<td>14.5%</td>
</tr>
</tbody>
</table>

STD/HIV Clinic, Fiscal Year July 2009-June 2010

<table>
<thead>
<tr>
<th></th>
<th>Number of HIV Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>543</td>
</tr>
</tbody>
</table>

Source: NH DHHS

The insurance status of clients was collected as they sought services at the STD/HIV clinic or on the outreach van as it provided services in the community. On the outreach van, 77.9% of clients did not have insurance and at the clinic 71.7% of clients did not have insurance. Additionally, 21.3% of clients at the clinic have private insurance, whereas only 7.9% of clients who access the outreach van have private insurance (Figure 7.7 and 7.8).
Figure 7.7 Insurance Statuses of STD/HIV Clinic Patients

![Insurance Statuses of STD/HIV Clinic Patients](image)

Source: NH DHHS

Figure 7.8 Insurance Status of STD/HIV Clinic Patients from Outreach Van

![Insurance Status of STD/HIV Clinic Patients from Outreach Van](image)

Source: NH DHHS

**Chlamydia**

In 2009, a total of 1,244,180 chlamydial infections were reported to CDC from the 50 states and the District of Columbia. This case count corresponds to a rate of 409.2 cases per 100,000 population, which is an increase of 2.8% compared with the rate of 398.1 per 100,000 in 2008. During 1990-2009, the rate of reported chlamydial infections increased from 160.2 to 409.2 cases per 100,000 population.31
In Nashua, the rate of chlamydia increased from 195.6 per 100,000 in 2005 to 249.2 per 100,000 in 2007. In 2009, the rate of chlamydia was 237.1 per 100,000 in Nashua compared to 189.9 per 100,000 in Hillsborough County and 158.5 per 100,000 in the State of New Hampshire. In 2009, Nashua’s chlamydia cases accounted for 9.9% of all the chlamydia cases in NH and 26.9% of all cases in Hillsborough County (Table 7.9, Figure 7.9). From 2005-2009, there were a total of 10,095 cases of chlamydia in the State of NH. Of these, 7,349 (73%) were for females ages 15 to 44 years. In Nashua, 701 (71%) out of 993 cases of chlamydia were for females ages 15 to 44 years of age.

**Gonorrhea**

In 2009, a total of 301,174 cases of gonorrhea were reported in the United States, a rate of 99.1 cases per 100,000 population. This is a rate decrease of 10.5% since 2008.

From 2005-2009, there were 58 cases of gonorrhea in Nashua and 711 cases in the State of NH. Nashua’s cases accounted for 8% of the cases in NH and 18% of the cases for Hillsborough County (Table 7.10). The greatest risk for gonorrhea is heterosexual contact followed by male-to-male sexual contact. In 2009, person’s ages 20-24 years accounted for the
largest rate of gonorrhea cases and females had a rate of 9.5 per 100,000, while males had a rate of 8.2 per 100,000 in the State of NH.\textsuperscript{33}

<table>
<thead>
<tr>
<th>Table 7.10 Gonorrhea Cases and Rates, 2005-2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases/Rate (per 100,000)</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>Hillsborough County</td>
</tr>
<tr>
<td>State of NH</td>
</tr>
</tbody>
</table>

Source: NH DHHS

Syphilis

During 2008-2009, the number of cases of early latent syphilis reported to CDC increased 5.4% (from 12,401 to 13,066 cases) while the number of cases of late and late latent syphilis decreased 13.1% (from 19,945 to 17,338 cases). The total number of cases of syphilis (primary and secondary, early latent, late, late latent and congenital) reported to CDC decreased 3.2% (from 46,291 to 44,828 cases) during 2008-2009 in the United States.\textsuperscript{31}

From 2005-2009, there were 11 cases of syphilis in Nashua, 54 cases in Hillsborough County and 136 in the State of NH. Nashua’s cases account for 20% of the cases in Hillsborough County and 8% of the cases in New Hampshire.\textsuperscript{33}

<table>
<thead>
<tr>
<th>Table 7.11 Syphilis Cases and Rates, 2005-2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases/Rate (per 100,000)</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>Hillsborough County</td>
</tr>
<tr>
<td>State of NH</td>
</tr>
</tbody>
</table>

Source: NH DHHS

Human Immunodeficiency Virus

CDC estimates that more than one million people are living with HIV in the United States. It is believed that one in five (21%) of those people living with HIV is unaware of their infection. Despite increases in the total number of people living with HIV in the U.S. in recent years, the annual number of new HIV infections has remained relatively stable. However, new infections continue to rise with an estimated 56,300 Americans becoming infected with HIV each year. More than 18,000 people with Acquired Immune Deficiency Syndrome (AIDS) still die each year in the United States. Gay, bisexual, and other men who have sex with men (MSM) are strongly affected and represent the majority of persons who have died. Through 2007, more than 576,000 people with AIDS in the United States have died since the epidemic began.\textsuperscript{31}

From 2005-2009, Hillsborough County had 102 cases of HIV and 74 cases of AIDS, while New Hampshire had 227 cases of HIV and 159 cases of AIDS (Table 7.12). HIV cases in Hillsborough County account for 45% of the cases in NH and 47% of AIDS cases in New Hampshire. The greatest risk for HIV and AIDS from 2005-2009 was male-to-male sexual
contact and in 2009, 49% of HIV cases had a concurrent diagnosis of AIDS. Concurrent diagnosis is defined as receiving an AIDS diagnosis within 12 months of an initial HIV diagnosis. The age group with the highest rate of infection in 2009 was young adults ages 25 to 29; the rate for males (5.2) was higher than females (1.6) and the rate for African Americans (44.2) was higher than Caucasians (2.7).33

<table>
<thead>
<tr>
<th>Table 7.12 HIV Cases and Rates, 2005-2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases/Rate (per 100,000)</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td><strong>Hillsborough County</strong></td>
</tr>
<tr>
<td><strong>State of NH</strong></td>
</tr>
</tbody>
</table>

Source: NH DHHS

The Southern New Hampshire HIV/AIDS Task force is a private, nonprofit agency that serves Greater Nashua by providing community based HIV prevention education and direct services to people living with HIV and AIDS. In 2010, they served 75 (63%) clients in Nashua out of 119 clients from the rest of the state. All 119 clients received case management, 72 received housing assistance, 103 received food and nutrition services, 22 received mental health counseling, 16 received substance abuse counseling and 41 received transportation services.35

Hepatitis C

Hepatitis C virus (HCV) infection is the most common chronic bloodborne infection in the United States; an estimated 3.2 million persons are chronically infected. Although HCV is not efficiently transmitted sexually, persons at risk for infection through injection drug use might seek care in STD treatment facilities and other public health settings where STD and HIV prevention and control services are available.31

From June 1, 2000 to December 31, 2008, the Division of Public Health and Community Services sent 2,632 tests to the NH Public Health Laboratory for Hepatitis C testing. Of these, 19% (511) of the tests came back positive by polymerase chain reaction and 25% (660) had a history of infection. During this timeframe, the NH Public Health Laboratory received 10,070 tests for Hepatitis C. Nashua’s tests accounted for 26% of the tests sent to the lab.36

Youth and STDs

The 2009 YRBS was completed by 1,493 students in 53 public high schools in the State of New Hampshire. In the survey, students are asked about their sexual behavior and highlights of this data include (not Nashua specific):

- 46% of students stated they have had sexual intercourse,
- 4.3% of them had sexual intercourse for the first time before the age of 13 years,
- 11.4% of the students has sexual intercourse with 4 or more people during their lifetime,
- 21.4% of the students who has sexual intercourse during the past 3 months drank alcohol or used drugs before last sexual intercourse,
- 57% of the students (or their partners) who had sexual intercourse during the past 3 months used a condom during sexual intercourse,
- 90% of the students have been taught about AIDS or HIV infection in school.36
This digitally-colorized transmission electron micrograph (TEM) revealed the presence of hepatitis B virions. The large round virions are known as Dane particles.

Source: CDC Public Health Image Library, Erskine Palmer


21 Snyder, N. (2010, November 30). US: third of tests on motorists killed shows drug use


