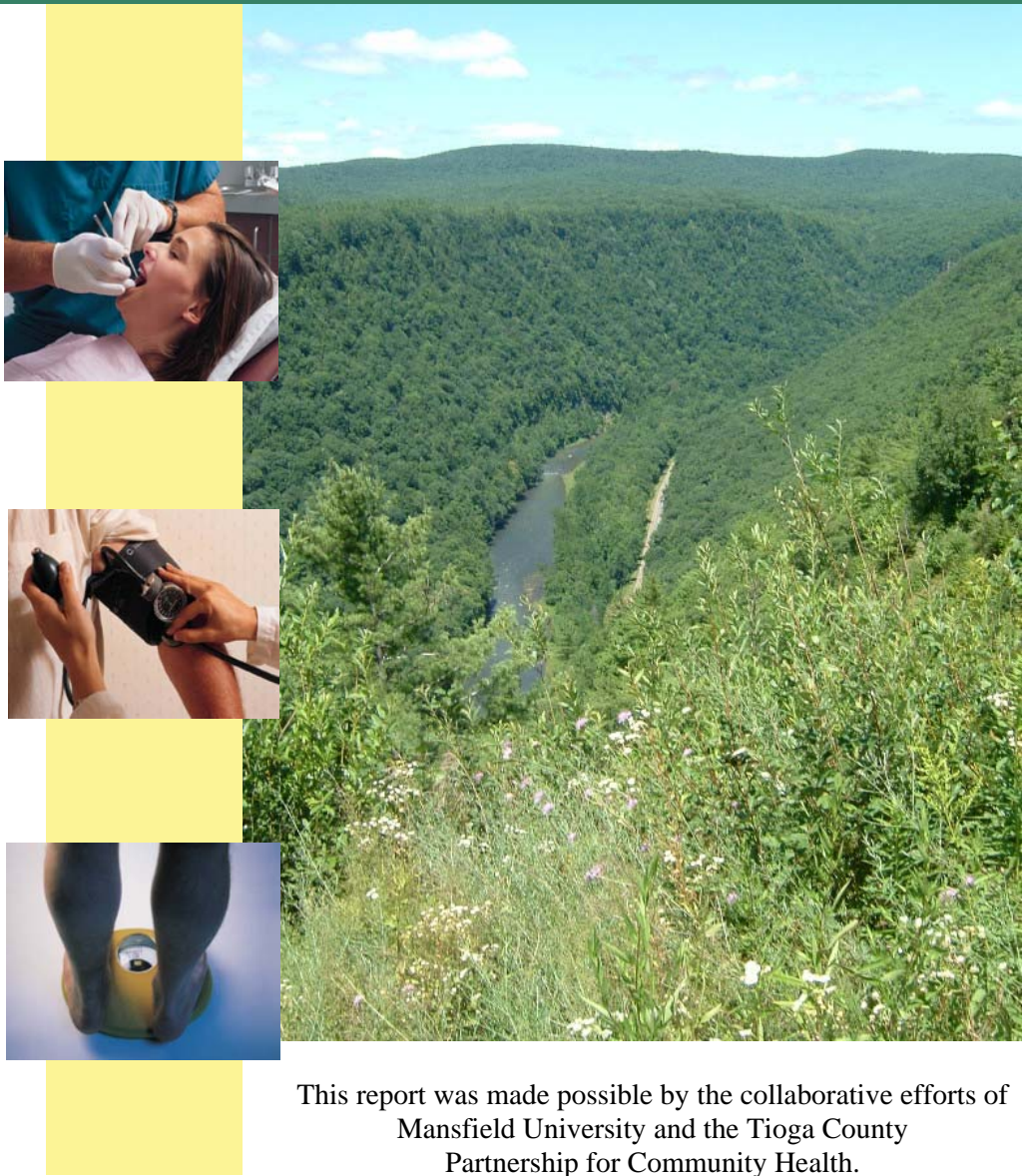


Substance Abuse

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Partnership for Community Health.



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Substance Abuse in Tioga County, Pennsylvania

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Introduction

In conjunction with the national programs, Healthy People 2010 and Drug-Free Communities Support Program, the Tioga County Partnership for Community Health is collecting and monitoring indicator data that pertain to key health issues. Through grant funding, the Drug-Free Communities Support Program helps community coalitions mobilize their communities to prevent youth alcohol, tobacco, illicit drug, and inhalant abuse. Healthy People 2010 is a comprehensive national health promotion and disease prevention program with 28 focus areas, each listing separate objectives and indicators. It is the Healthy People 2010 objectives, indicator data and targets that the Tioga County Partnership for Community Health is using to measure its progress towards the universal goal of reducing substance abuse in order to protect health, safety and quality of life for all, especially children (Table 1).¹

The three main types of addictive substances that people abuse or become dependent on include alcohol, tobacco and illicit drugs. However, this report will only focus on alcohol and illicit drugs. Those interested in *Tobacco Use in Tioga County, Pennsylvania* should refer to this original document, published April 2003, via the web at: www.mansfield.edu/~tcpch.

Table 1. Healthy People 2010, Focus Area 26 - Substance Abuse, Summary of Objectives

Adverse Consequences of Substance Use and Abuse

1. Motor vehicle crash deaths and injuries.
2. Cirrhosis deaths.
3. Drug-induced deaths.
4. Drug-related hospital emergency department visits.
5. Alcohol-related hospital emergency department visits.
6. Adolescent riding with a driver who has been drinking.
7. Alcohol and drug-related violence.
8. Lost productivity.

Substance Use and Abuse

9. Substance-free youth.
10. Adolescent and adult use of illicit substances.
11. Binge drinking.
12. Average annual alcohol consumption.
13. Low-risk drinking among adults.
14. Steroid use among adolescents.
15. Inhalant use among adolescents.

Risk of Substance Use and Abuse

16. Peer disapproval of substance abuse.
17. Perception of risk associated with substance abuse.

Treatment for Substance Abuse

18. Treatment gap for illicit drugs.
19. Treatment in correctional institutions.
20. Treatment for injection drug use.
21. Treatment gap for problem alcohol use.

Source: Centers for Disease Control and Prevention (2002).¹

Background

Table 2. DSM-IV Diagnosis of Substance Abuse or Dependence

A person is defined with abuse of a substance if he or she is not dependent on that substance and reports one or more of the following symptoms in the past year.

1. Recurrent use resulting in failure to fulfill major obligations at work, school or home.
2. Recurrent use in situations in which it is physically hazardous.
3. Recurrent substance-related legal problems
4. Continued use despite having persistent or recurrent social or interpersonal problems.

A person is defined as being dependent on a substance if he or she reports three or more of the following symptoms in the past year.

1. Tolerance—discovering less effect with the same amount.
2. Withdrawal (characteristic withdrawal associated with type of drug).
3. Using more or for longer periods than intended.
4. Desire to or unsuccessful efforts to cut down or control substance use.
5. Considerable time spent in obtaining or using the substance or recovering from its effects.
6. Important social, work or recreational activities given up or reduced because of use.
7. Continued use despite knowledge of problems caused by or aggravated by use.

Source: American Psychiatric Association (1994).²

Both substance abuse and dependence, also called addiction, are defined using criteria found in the *fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*, (Table 2).²

These are some of the most persistent and intrusive problems we face as a society. Substance abuse and dependence create both health and social problems for individuals as well as their families and communities.

Substance use is related to increased crime, motor vehicle crashes, unintentional injuries, lost productivity, poor birth outcomes and premature death.²

In the U.S., 9% of persons aged 12 and older were classified with a substance abuse or dependence problem in 2003.³ Approximately 70% of these people were dependent on or abused alcohol alone, while 14% were dependent on or abused both alcohol and illicit drugs. Substance dependence or abuse is also highly correlated with mental illness. In 2003, 21% of adults in the U.S with a serious mental illness were also dependent on or abused alcohol or illicit drugs, compared to 8% of adults without a serious mental illness.³

Having a diagnosis of mental illness is a risk factor for developing substance abuse and conversely, a diagnosis of substance abuse places people at a higher risk for mental illness.⁴ Like mental illness, substance disorders are complex health issues that have biological, psychological and social components. Presence of any of these components place certain groups at an increased risk. These include adolescents, young adults, males, those with a family history of substance abuse, victims of violent crimes and those of low socioeconomic status.⁴

Alcohol Use

Definitions and health consequences

Alcohol is the most abused substance nationally among adolescents and adults. According to the 2003 National Survey on Drug Use and Health, an estimated 119 million Americans (50.1%) aged 12 or older were current drinkers of alcohol.³ In addition an estimated 54 million (22.6%) respondents reported participating in binge drinking at least once in the past 30 days and 16.1 million (6.8%) reported being heavy drinkers.³

According to the Centers for Disease Control and Prevention (CDC), heavy drinking is defined as consuming alcohol in excess of 1 drink per day on average for women and greater than 2 drinks per day on average for men.⁵ Heavy drinking is associated with a number of chronic health conditions, including heart and liver diseases. Alcohol consumption can also exacerbate Hepatitis C infections and the progress of cirrhosis. Excessive drinkers are three times as likely to develop liver cancer than non-drinkers.⁵ Women who consume an average of 2 to 5 drinks per day increase their risk of developing breast cancer by approximately 50% compared to non-drinkers.⁵ Physiological effects can be severe consequences of alcohol abuse in adolescents and adults.

Youth trends

Alcohol, including beer, wine and hard liquor, is the most often abused drug among adolescents in Tioga County, coinciding with state and national data. The Pennsylvania Youth Survey has been conducted in Tioga County school districts in 2001 and 2003. This survey, conducted at both the county and state levels assesses students' behaviors, attitudes and perceptions of alcohol, tobacco, illicit drugs and violence. It is administered to students in grades 6th, 8th, 10th and 12th and is Tioga County's primary data source regarding drug and alcohol use by youth.

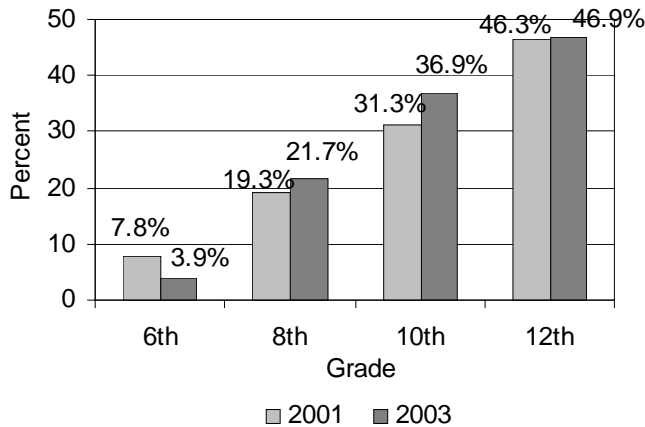
Age of onset of drinking strongly predicts development of alcohol dependence over the course of a life span.⁶ In 2003, the average age of onset for trying alcohol by Tioga County youth ranged from 10.5 years in 6th grade and 13.4 years in 12th grade.⁶ Average age of onset for drinking alcohol regularly by Tioga County youth ranged from 11 years to 15.3 years.⁶ These ages are very similar to state data (Table 3).

Table 3. Average Age of Onset for Alcohol Use

	Trying Alcohol (in years)	Drinking Alcohol Regularly (in years)
<u>Tioga County</u>		
6th grade	10.5	11.0
8th grade	11.6	12.3
10th grade	12.7	14.2
12th grade	13.4	15.3
<u>Pennsylvania</u>		
6th grade.	10.5	10.8
8th grade	11.5	12.0
10th grade	12.9	14.2
12th grade	13.9	15.4

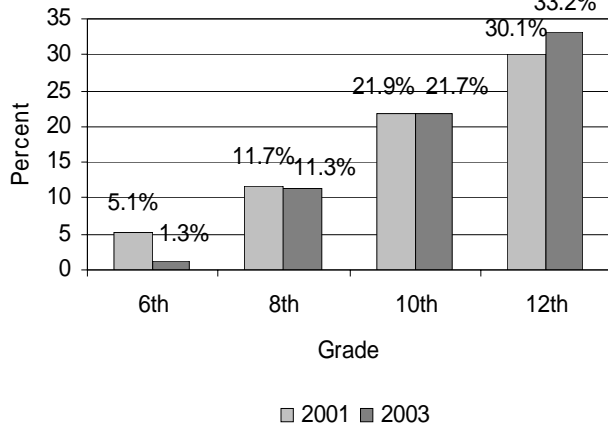
Source: Pennsylvania Youth Survey (PAYS), 2003

Figure 1. Past 30-day Use of Alcohol Reported by Tioga County Students, 2001 & 2003



Source: Pennsylvania Youth Survey (PAYS), 2001 & 2003.

Figure 2. Past 30-day Binge Drinking Reported by Tioga County Students, 2001 & 2003



Source: Pennsylvania Youth Survey (PAYS), 2001 & 2003.

Past 30 day prevalence is often used as a measure of current use patterns. For Tioga County youth, past 30 day use of alcohol ranges from a low of 3.9% for 6th graders to a high of 46.9% for 12th graders as reported in 2003.⁶ With the exception of 6th graders, this is an increase since 2001 (Figure 1). Compared to state data from 2003, Tioga County students reported similar rates among 6th, 10th and 12th grades but had higher rates for 8th grade students. Across the state 17% of 8th graders reported using alcohol in the past 30 days compared to 21.7% of Tioga County 8th graders.

Binge drinking is defined by the Centers for Disease Control and Prevention (CDC) as having 5 or more drinks on one occasion, meaning in a row or within a short period of time.⁵ However, among women, binge drinking is often defined as having 4 or more drinks on one occasion.

Past 30-day prevalence of binge drinking ranges from 1.3% for 6th graders to a high of 33.2% for 12th graders as reported in 2003.⁶ Only 12th grade students showed an increase in binge drinking between 2001 and 2003.^{6,7} The percent of Tioga County students binge drinking in the past 30 days (2003) is similar to state rates with the exception of Tioga County 8th grade students. Statewide, 8.8% of 8th graders participated in binge drinking compared to 11.3% of Tioga County 8th graders.⁶

Adult Trends

In 2000, 33% of Tioga County adults, ages 18 and older, reported they drank alcohol.⁸ The average number of drinks consumed per week was 5.9 while the average number of drinks per sitting was 2.3. Tioga County males, young adults, the poor and those without a high school diploma were more likely to consume 10 or more alcoholic drinks in a given week. These groups were also more likely to participate in binge drinking.

In 2004, an average of 19 individuals per month were admitted to the emergency room of Soldiers and Sailors Memorial Hospital for alcohol abuse, unspecified.⁹ This includes conditions such as drunkenness, extreme hangover, inebriation and excessive drinking. The highest number of admissions occurred during the months of May, July and November with a maximum of 32 visits in July. While a majority of admits were Tioga County residents, these data include non-residents. Also, the high numbers during these months may reflect tourism, holiday travel and/or hunting seasons within the county.

Consequences of Alcohol Use

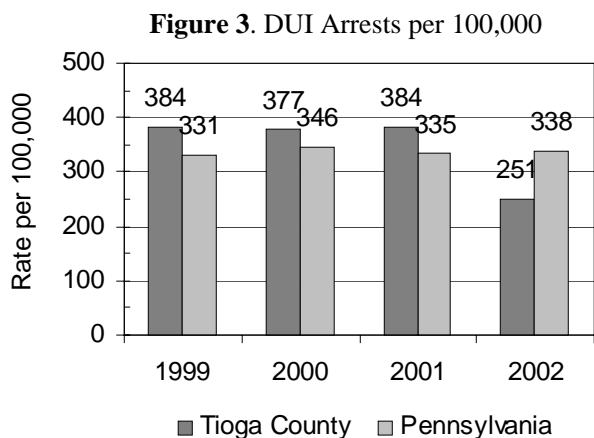
Because alcohol depresses the central nervous system, some of the adverse effects include impaired judgment and reduced reaction time, making driving under the influence extremely hazardous and potentially deadly. Currently a blood alcohol content level (BAC) of 0.08% or higher can result in a DUI arrest in Pennsylvania. The tolerance policy for minors is .02%. Refusal of a blood alcohol test also leads to an arrest.

According to the Tioga County Probation Department, the annual number of arrests for driving under the influence has remained fairly constant

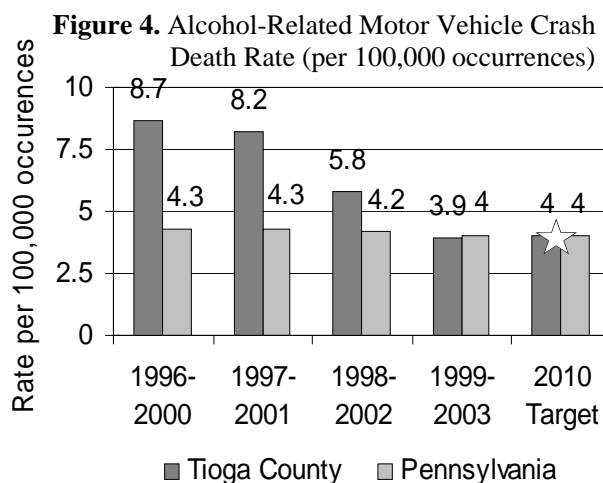
for the past three years, averaging 182 arrests per year.¹² The majority of arrests in the past 3 years have been made on Saturdays and Sundays while the majority of arrested individuals had a BAC level of 0.20 or higher. The gender comparison among Tioga County individuals arrested for DUI is significantly higher for males than females. For example in 2004, 84% of DUI arrests were males. Compared to state data, Tioga County had more DUI arrests until 2002, when for the first time in several years, county rates were lower (Figure 3).¹³

According to the CDC, alcohol-related deaths in the U.S. vary considerably by state and are directly related to the amount of alcohol consumed and the pattern of alcohol use.⁵ In 2002, 17,419 people in the U.S. died in alcohol-related motor vehicle crashes, accounting for 41% of all traffic-related deaths, which was a 6% increase from 2001.¹⁴ According to Mothers Against Drunk Driving (MADD), Pennsylvania is the fourth worst state in the nation for alcohol-related fatalities.¹⁵ State data for 2001 indicate that 529 people died in alcohol-related crashes and 12,694 were injured.¹⁴ The majority of crashes (78%) occur during the night time or early hours when it is dark and involved male drivers (80%).

In Tioga County, from 1997 to 2001, there was an average of 3 deaths per year related to alcohol-related motor vehicle crashes. Alcohol related motor vehicle crash death rates are much higher in Tioga County than state rates but have declined dramatically in past years, helping the County reach the Healthy People 2010 target of no more than 4 deaths per 100,000 (Figure 4).¹⁶



Source: Pennsylvania Electronic Juvenile Justice Databook, 2002.



Source: Pennsylvania Department of Health, 2003.

Illicit Drugs

The National Center for Health Statistics (NCHS) defines illicit drug use as the use or misuse of illegal and controlled drugs.¹⁷ While this definition is broad, national, state and local survey data monitor the following categories of illicit drug use: marijuana, cocaine (including crack), heroin, hallucinogens (including LSD, PCP, and MDMA or ecstasy), inhalants (including solvents, paint or glue), and non-medical use of prescription type drugs (including pain relievers, tranquilizers, stimulants and sedatives). According to the 2003 National Household Survey on Drug Use and Health, 19.5 million Americans or 8.2% of the population, aged 12 and older were current illicit drug users.³ This has been fairly constant over the past several years. In 2002 the total economic cost of drug abuse was estimated at \$180.9 billion and can be divided into three main categories: 72.1% in lost productivity from disability, death or withdrawal from the workforce, 8.7% in healthcare costs and 20.1% in other costs, such as law enforcement.¹⁸

While the health impact of each drug is unique, in general, drug use is associated with heart failure, stroke, mental disorders, accidents and injury, birth defects and complications, sexually transmitted diseases including HIV/AIDS and death due to overdose.¹ In addition, drug use impacts society through higher rates of crime, domestic abuse, homelessness and lost productivity.

Age of onset

Youth are particularly vulnerable to the health effects of drugs. Both short term and long term drug use affects brain functioning. In 2003, the average age at which Tioga County students first used marijuana was 13.5 years.⁶ Sixth graders, on average, indicated trying marijuana for the first time at age 11 while 12th graders, on average, indicated using marijuana for the first time at age 14.

The Adolescent Chemical Use Experience (ACUE) continuum, lists four stages of drug use.¹⁹ It consists of: *experimentation* where the user responds to boredom, curiosity or peer pressure, *social use* where the user is seeking an altered state who, while not yet addicted, may become so, and *operational use* where the user actively engages in drug use in order to cope with stressful events or seeking pleasure. *Dependence* is the final stage where the user feels they need the drug in order to feel normal.

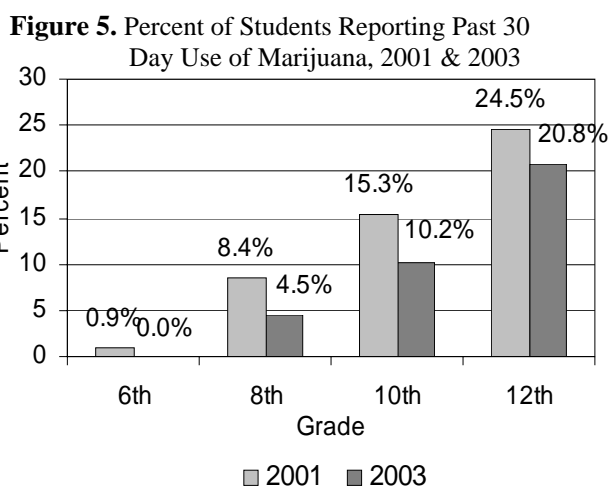
While adolescent drug users vary in their experience across the ACUE continuum, one fact is clear. The earlier youth experiment with drugs and the more drugs they try, the more likely they are to develop abuse problems.¹⁹ Early drug use often leads to other forms of unhealthy, unproductive behavior. Illegal drugs are associated with premature sexual activity (with additional risks of unwanted pregnancy and exposure to sexually-transmitted diseases like HIV/AIDS), delinquency, and involvement in the criminal justice system.¹

Marijuana

Marijuana is the most widely available and most commonly abused illicit drug at the national, state and local levels. The intoxicating effects of marijuana are similar to alcohol with slowed thinking and reaction time, confusion and impaired balance. Long term health effects include cough, frequent respiratory infection, impaired memory and learning, increased heart rate as well as anxiety or panic attacks.¹

In 2003, approximately 6.2% of Americans, aged 12 and older, used marijuana regularly and some 7,000 Americans try pot each day.³ Two-thirds of new users are under 18 while half are women. Data from the Pennsylvania State Police crime reporting system indicate that on average 24 arrests are made each month in Tioga County for marijuana possession.²⁰ This includes adults and youth.

Past 30 day use of marijuana by Tioga County youth has declined since 2001.^{6,7} In 2003, no 6th graders had reported using marijuana in the past 30 day while 20.8% of 12th graders had (Figure 5). All grades in Tioga County were lower than state and national rates.



Source: Pennsylvania Youth Survey (PAYS), 2001 & 2003.

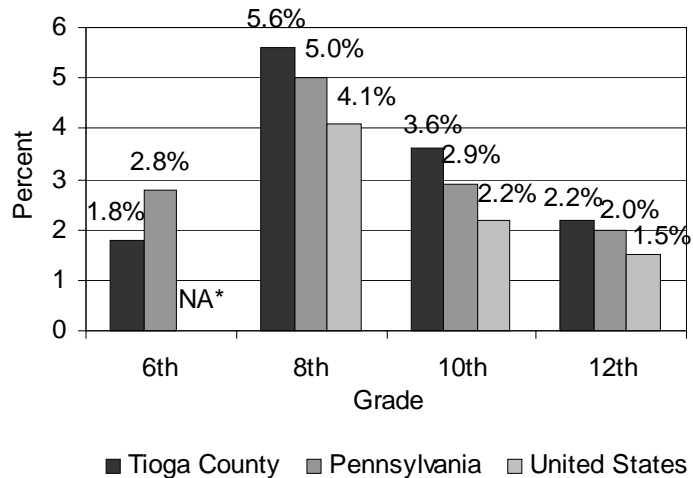
Other Illicit Drugs

According to the 2003 National Survey on Drug Use and Health, 3.7% of the U.S. population, aged 12 and older, reported past 30 day use of any illicit drug other than marijuana.³ The question regarding use of any illicit drug other than marijuana is often asked separately because the high usage of marijuana often inflates drug use statistics. In the PAYS (2001 & 2003), students were asked of lifetime and past thirty day use of the following: marijuana, any illicit drug other than marijuana, inhalants, cocaine, crack cocaine, heroin, hallucinogens, methamphetamines, ecstasy, steroids and any drug other than marijuana. In 2003, Tioga County youth reported similar past 30 day use of any drug other than marijuana as Pennsylvania as a whole.⁶ Only Tioga County 8th graders reported slightly higher levels when compared to state data, with 7.0% and 6.7% respectively. Specific drugs that should be of concern for Tioga County include the use of inhalants, methamphetamines and prescription drugs.

Inhalants

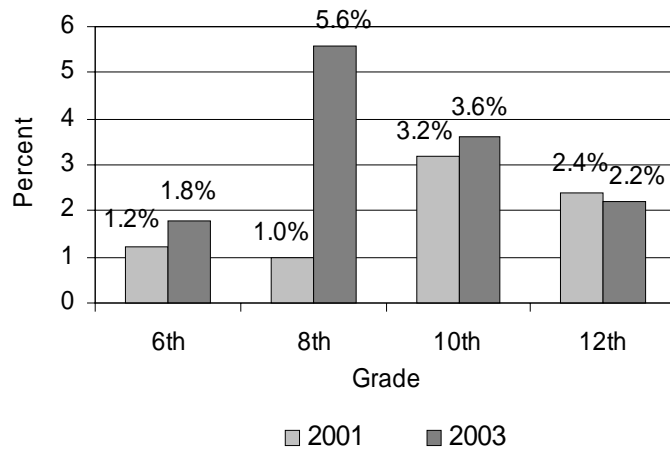
Inhalants are often the first drug a child may use or abuse.⁴ This type of drug is hard to detect and readily available in products such as spray paint, rubber cement and nail polish remover. Depending on what is inhaled, sudden death can occur due to heart failure or asphyxiation.²¹ Chronic abuse of solvents in particular can lead to severe, irreversible brain, kidney and/or liver damage.²¹ In 2003, Tioga County 8th, 10th and 12th graders indicated higher usage of inhalants than the state and national levels (Figure 6).⁶ Between 2001 and 2003 past 30 day use of inhalants by Tioga County 8th graders has increased by 460%, from 1.0% in 2001 to 5.6% in 2003 (Figure 7).^{6,7}

Figure 6. County, State and National Past 30 Day Use of Inhalants, 2003.



Source: Pennsylvania Youth Survey (PAYS), 2003.

Figure 7. Tioga County Youth Past 30 Day Use of Inhalants by Grade, 2001 & 2003.



Source: Pennsylvania Youth Survey (PAYS), 2001&2003.

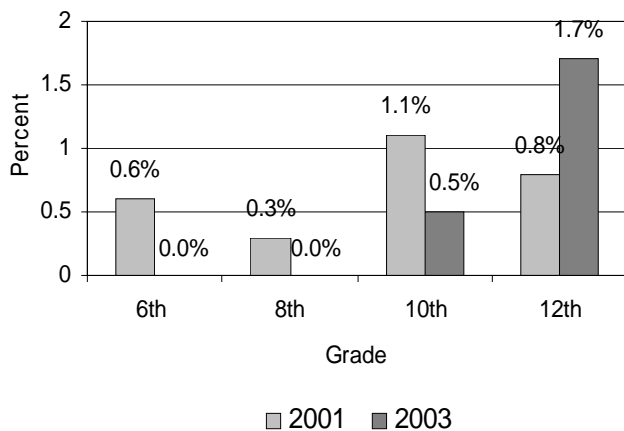
Methamphetamine

Methamphetamine are highly toxic and addictive drugs that are becoming more and more popular as their use sweeps across the country. It is of great concern in cities and rural areas of Pennsylvania, particularly in the northwest and eastern parts of the state. In 2002, neighboring Bradford County had the highest rate of methamphetamine-related treatment admissions with 3.19 per 100,00 population while the state rate was 0.13.²²

Methamphetamine are most often produced in illegal home laboratories using highly toxic chemicals. In addition to damaging brain cells and nerve endings, health consequences of using methamphetamine can include damage to blood vessels, risk of stroke, respiratory problems and anorexia.²¹ If parents are creating these drugs in the home, their children are more likely to experience adverse effects of the chemicals used to create the drug. This may lead to short-term or permanent brain damage and developmental problems.⁴ In addition, these children are more likely to experience family violence and maltreatment.⁴

Similar to state and national trends, past-30 day use of methamphetamine by Tioga County youth has generally declined between 2001 and 2003 (Figure 8).^{6,7} The exception is twelfth grade students, who increased from 0.8% in 2001 to 1.7% in 2003. While the 2003 past-30 day use of methamphetamine by 12th graders is similar to national data, these rates are much higher than 12th graders statewide with only 0.9% reporting past 30 day use.

Figure 8. Tioga County Youth, Past 30 Day Use of Methamphetamines by Grade



Source: Pennsylvania Youth Survey (PAYS), 2001 & 2003.

Prescription Drug Use

While most people who take prescription drugs use them responsibly, there are three main types of prescription drugs that are most commonly abused or misused. These include opioids, central nervous system (CNS) depressants and stimulants. When taken as prescribed, these drugs rarely lead to addiction.²¹ The risk of addiction increases when these types of drugs are used in ways other than prescribed. These types of pharmaceuticals are most often obtained through prescription drug forgeries and “doctor shopping”, making health care providers, pharmacists and patients key players in preventing prescription drug misuse and abuse.

Many people have the false impression that abusing a prescription drug is safer. However, severe health consequences, including death, can occur when prescription drugs are misused.²¹ While persons of all ages, races and socioeconomic status abuse prescription drugs, national data suggests that certain groups may be more likely to abuse prescription drugs. These include the elderly, women and adolescents/young adults due to availability, poor rates or direction compliance, over medicating and higher likelihood of having these drugs prescribed in the first place.²¹

National data also indicate that prescription drug abuse is on the rise in the U.S. In 2003, it was estimated that 6.3 million people, or 2.7% of the population 12 and older, had used certain prescription drugs non-medically in the past month.³ Nationally, pain relievers continue to be the most commonly abused prescription drug.³ In 2004, the national *Monitoring the Future* survey, which assesses the extent and perception of drug use among 8th, 10th and 12th graders, indicated that annual OxyCotin use was 5% for 12th graders, 3.5% for 10th graders and 1.7% for 8th graders.²¹

The abuse of prescription drugs is a serious and growing problem in Pennsylvania. Between fiscal years 2001 and 2002, the Pennsylvania Bureau of Drug and Alcohol Programs reported that the number of pharmaceutical-related treatment admissions to publicly funded facilities increased 17%, from 2,622 to 3,055.²² Drugs such as Dilaudid, OxyCotin, Vicodin and Xanax pose serious drug threats in the state.²² OxyCotin has been noted by law enforcement officials as the drug of choice in western Pennsylvania and continues to be the most widely abused pharmaceutical in the state.²² In fall of 2005 the Pennsylvania Youth Survey (PAYS) will begin asking questions about the non-medical use of prescription drugs.

Action

Prevention

Prevention is defined by the Substance Abuse and Mental Health Services Administration (SAMHSA) as “a proactive process that empowers individuals and systems to meet the challenges of life events and transitions by creating and reinforcing conditions that promote healthy behaviors and lifestyles.”²³ According to the Pennsylvania Department of Health, Bureau of Drug and Alcohol Programs “if we want to prevent substance use among youth, we must intervene before problems begin to occur. And for every dollar spent on substance abuse prevention services, we save between \$2 and \$19.64.”²⁴

Tioga County is actively following a set of research-based guidelines from the Office of National Drug Control Policy upon which prevention programming can be based.²⁵ These guidelines include:

- 1) Addressing appropriate risk and protective factors for substance abuse in defined population.
- 2) Using approaches that have been shown to be effective.
- 3) Intervening early at important stages, transitions, and in appropriate settings and domains.
- 4) Managing programs effectively.

A risk factor is defined as a condition that increases the risk of a person becoming involved in a problem behavior. According to PAYS (2003), the following risk factors are indicative of substance abuse in Tioga County youth:

- Favorable parental attitudes and involvement in alcohol, tobacco and other drug use,
- Low neighborhood attachment and community disorganization,
- Academic failure and
- Family management problems.

Protective factors can be defined as conditions that buffer children and youth from exposure to risk, by either reducing the impact of the risks or changing the way the young person responds to the risks. Research has identified the likelihood of involvement with substance use and delinquency decreases when youth are exposed to protective factors. The following protective factors have been prioritized for Tioga County youth:

- Family attachment,
- Family opportunities for pro-social involvement,
- Religiosity,
- Family rewards for pro-social involvement and
- Social skills.

Adequate funding for drug use prevention programs such as Safe and Drug-Free Schools (SDFSC) program and the Drug-Free Communities Support Program (DFCSP) is vital. According to the Community Anti-Drug Coalition of America, the state grants portion of SDFSC is the backbone of youth drug prevention in the country, serving more than 37 million youth per year. Tioga County service providers are joining forces in collaboration with the Tioga County Partnership for Community Health (TCPCH) to combat substance abuse and focus on evidence-based prevention programming. Currently, the Partnership is coordinating a Drug-Free Communities Support Program grant through SAMSHA. The overarching goal of this grant is to reduce substance use rates of Tioga County youth. The grant is assisting the community in communication and collaboration, prevention planning and technical assistance.

Communities That Care (CTC), a work group of TCPCH, supports the implementation of evidence-based prevention programming focused on identified risk factors. Tioga County schools are implementing evidence-based programming focused on reducing risk factors associated with substance abuse, such as PATHS (Promoting Alternative Thinking Strategies) and Life Skills Training. The SDFSC initiative supports a portion of funding for substance abuse prevention such as peer resistance and social skills training, student assistance, parent training and education about emerging drug trends.

Treatment/Intervention

Substance addiction is a chronic, relapsing condition. While it is not curable, it is treatable. Treatment is complex, however, as addiction has many dimensions and disrupts most aspects of one's life. The National Institute on Drug Abuse (NIDA) indicates that treatment can help reduce the economic impact that substance abuse has on society. This includes cost for medical treatment, crime and lost productivity. Studies have shown that from \$4-\$7 are saved for every dollar spent on treatment.²⁶ For example, it can cost a community an average of \$3600 per month to leave a substance abuser untreated and approximately \$3300 per month to have them in jail.²⁶ In contrast, methadone, a treatment therapy for heroin addiction, costs approximately \$290 per month.²⁶

The NIDA recommends 13 principles of effective treatment. These include making treatment readily available, tailoring treatment to each individual, providing treatment for an adequate time period, addressing the multiple issues of substance abuse, addressing co-occurring mental illnesses, serving special needs populations and monitoring both the short and long term treatment needs. There are several types of drug abuse treatment programs, including both short and long term programs such as counseling, support groups, family therapy, medication for withdrawal symptoms, and residential community treatment.

At the national level in 2003, there were approximately 1.7 million admissions to publicly funded substance abuse treatment programs.³ The majority of these treatments were for alcohol (23.2%), marijuana (15.4%) and heroin (14.4%). During the fiscal year 2003-2004, two licensed providers were available in Tioga County for people seeking outpatient substance abuse treatment services. These include the Tioga County Department of Human Services, Drug and Alcohol Treatment Program and Harbor Counseling. In addition, Harbor Counseling is licensed to provide partial hospitalization services.

The Tioga County Department of Human Services served 333 individuals (both youths and adults) for drug and alcohol issues.¹⁰ These clients were primarily on some type of medical assistance. Alcohol was reported as the primary substance of abuse for 47% of all clients while marijuana was the primary substance of abuse for 41%.¹⁰ Of all clients receiving services, 71% were males and 29% were between the ages of 18 and 24.

During the same fiscal year, Harbor Counseling saw a total of 260 clients (both youths and adults), 38 of which were referred by Tioga County Department of Human Services.¹¹ Of the clients seen by Harbor Counseling, 33% paid using private insurance, 37% were funded through public assistance, 24% were self paid while 6% were funded through other public sources.¹¹ Primary services for alcohol abuse were provided to 66.2% of all clients, while 20% received primary services for marijuana use.¹¹ Again, the majority of all clients were males (74%) and were between the ages of 18 and 24 (25%).

Both Harbor Counseling and the Tioga County Department of Human Services Drug and Alcohol Treatment Program, report similar primary service rates for illicit drug use other than marijuana at 12-14%.^{10,11} During the fiscal year 2003-2004, the Tioga County Department of Human Services reported providing treatment for three main types of abused substances: cocaine (including crack cocaine), heroin and other opium derivatives. The majority of primary treatment services provided by Harbor Counseling were for other opium derivatives, cocaine and polysubstances.

In 2003, an estimated 22.2 million Americans, aged 12 and older, needed treatment for alcohol or illicit drug problems.³ Of this, only 3.3 million received some type of treatment. For those who did not receive treatment, only 5% felt they needed it.³ Their major reasons why they did not receive treatment included: not ready to stop using, cost or insurance barriers, stigma and feeling they could handle the problem on their own. These are similar to barriers to substance abuse treatment in Tioga County. For example, according to the Tioga County Health Survey 2000, 30% of Tioga County adults do not have insurance coverage for drug or alcohol treatment services.⁸ This includes those who do not have any medical insurance and those whose medical insurance does not include coverage for drug and alcohol treatment services.

While the stigma associated with substance abuse is hard to measure, its presence in the community, in the form of fear, distrust, discrimination and stereotyping, deters people from getting the treatment they need. For those who live in rural areas like Tioga County, the concern of stigma may be greater than in urban areas.²⁷ One would expect that as public knowledge and scientific understanding of mental illness, including substance abuse and addiction, has increased, the stigma would decrease. However, studies at the national level indicate that while our understanding has increased, the stigma associated with it has remained steady.²⁷ It appears that knowledge about illnesses such as abuse or addiction alone is not enough to reduce its stigma. Advocacy, education and support are some approaches that can help dispel the community's negative perception of substance abuse and treatment options. Reducing stigma will take time, but it is an important factor to consider when trying to assess and address substance abuse treatment needs of Tioga County.

An additional barrier in a rural area such as Tioga County is transportation to treatment services. The two licensed substance abuse providers are located in the center of the county, in Mansfield and Wellsboro. For those without personal transportation, travel to these locations is difficult. While some public transportation is available, it is not available during the evening. In addition, if the needed service is not readily available (an average 30 day wait in Tioga County for some services), those needing immediate treatment may need to travel farther to services in areas such as Williamsport or the Corning/Elmira areas or not receive treatment at all.

Discussion

There is no question that substance use is both a major health and social issue for Tioga County. As this report has documented, youth and young adults are particularly vulnerable. Tioga County is actively engaged in both evidence based prevention and treatment activities. As grant funding for substance use programs shifts towards more prevention efforts, there will be a continued need to assess the effectiveness of local prevention programs.

During discussions with interested parties for the creation of this report, it has become apparent that some of the major barriers to substance use prevention in Tioga County are the overall social norms regarding alcohol and drug use. Social norms are the written and unwritten rules and expectations about what constitutes desirable behavior. Youth who's friends or parents are illegal drug users or heavy drinkers, are more likely to become substance users.⁶ In the Pennsylvania Youth Survey, Communities that Care (CTC) *risk factors* are measured by a set of survey items called scales. The risk factor scale *Laws and Norms Favorable to Drug Use and Handguns* includes survey questions such as, "How wrong would most adults in your neighborhood think it was for kids your age to drink alcohol?" and "If a kid smoked marijuana in your

neighborhood, would he or she be caught by the police?" The risk factor scale *Parental Attitudes Favorable Toward Alcohol, Tobacco and Other Drug Use* includes survey questions such as "How wrong do your parents feel it would be for you to smoke marijuana?" Since negative behaviors are associated with risk, it is better to have a low risk factor scale score rather than a high score. In 2003, Tioga County youth scored higher in these risk factor scales than the state as a whole.⁶

According to a focus group survey conducted by the Tioga County Department of Human Services in 2004, respondents felt the following risks were of greatest concern: availability of alcohol, tobacco and other drugs, family management problems, family history of problem behaviors and friends who engage in problem behaviors.²⁸ This is similar to what Tioga County youth stated in the 2003 PAYS (see page 8). If adults and youth both agree that it is okay to misuse and/or abuse alcohol and drugs, this should become a priority area for everyone concerned about substance use in Tioga County.

Finally, the availability of treatment facilities, will continue to be a concern. On average, 500 Tioga County youths and adults receive some type of substance abuse treatment within the county each year.^{10,11} This does not include those who do not receive needed treatment or those who receive treatment elsewhere. Only outpatient and partial hospitalization treatment services are available from two licensed providers within the county. If, as assumed, these providers are operating at maximum or overcapacity, it creates a concern that persons with substance abuse issues may not be able to receive evidence-based, quality treatment in a timely manner. Family, friends and clergy may be able to provide immediate comfort, but they may not have the knowledge and/or training to deal with those facing serious substance abuse issues. While it is beyond the scope of this report to examine the need for new or expanded treatment services, it should continue to be a concern for the county.

Conclusion

There is much to be done in order to address the multiple and complex issues regarding substance abuse in Tioga County. Substance abuse affects all dimensions of individuals, their families and the community. No one is immune to the problems associated with substance abuse. Evidence based prevention and treatment methods do work and are effective. While the framework for many of these activities is already in place in Tioga County, more work needs to be done to address social attitudes that favor drug and alcohol use, improve prevention program effectiveness and respond to unmet treatment needs.

For readers concerned that they or someone they know may be misusing, abusing or addicted to drugs or alcohol, the following is a list of possible warning signs:

- Abrupt changes in work or school attendance, quality of work, work output, grades, discipline.
- Unusual flare-ups or outbreaks of temper.
- Withdrawal from responsibility.
- General changes in overall attitude.
- Deterioration of physical appearance and grooming.
- Wearing of sunglasses at inappropriate times.
- Continual wearing of long-sleeved garments particularly in hot weather or reluctance to wear short sleeved attire when appropriate.
- Association with known substance abusers.
- Unusual borrowing of money from friends, co-workers or parents.
- Stealing small items from employer, home or school.
- Secretive behavior regarding actions and possessions; poorly concealed attempts to avoid attention and suspicion such as frequent trips to storage rooms, restroom, basement, etc.

Those seeking assistance in any of these areas should talk with a primary health care provider or mental health professional. Contact Guideline in Tioga County at 1-800-332-6718 for referral to the appropriate service.

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... to improve the health and quality of life of individuals and communities in Tioga County.

Work Groups and Committees

Charlie's Place	Community Health Awareness
Elder Services	Measurement & Outcomes
Healthy Families	Planning Committee
Immunization	Kids First
Mental Health	Tioga County NAMI
Countryside Council	Tobacco Coalition
Alcohol, Tobacco and Other Drugs (ATOD)	Disability Awareness Network
Tioga Early Care and Education Team (TECET)	Communities that Care (CTC)
	Northern Tioga CTC

If you would like to learn more about these groups or would like to be a member please contact the Tioga County Partnership for Community Health.

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