Understanding Suburban Heroin Use

Research Findings from the Reed Hruby Heroin Prevention Project at the Robert Crown Center for Health Education

ILLINOIS CONSORTIUM ON DRUG POLICY

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About the Illinois Consortium on Drug Policy

The Illinois Consortium on Drug Policy is a project established in 2005 through a grant from the Drug Policy Alliance and is housed at Roosevelt University's Institute for Metropolitan Affairs (IMA) in Chicago, Illinois. These funds were secured to assist the IMA in developing its regional and state drug policy research activities. The Consortium brings together the research, ideas and recommendations from non-profit organizations, scholars, and policymakers working in the diverse fields impacted by drug policies. The Consortium creates policy recommendations derived from analysis of quantitative data sets, interviews with impacted populations, legislative reviews, and lessons learned from around the nation. The Consortium engages in projects that intersect with drugs and the criminal justice system and aims to inform Illinois' public policy by disseminating information that informs policymaking.

Our Mission

We promote socially just and economically viable drug policies in Illinois by providing sound research to policymakers, advocates, impacted individuals and the general public.

Our Vision

The Consortium looks to a time when substance use is viewed as a public health issue rather than a criminal justice problem. We envision a future when substance use declines due to decreased demand achieved through advancements in drug and alcohol treatment, mental health services and prevention and outreach programs.

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Executive Summary

Background

Mexican heroin production has increased significantly since 2002 from an estimated 6.8 metric tons to a production level of 50 metric tons in 2011—a more than seven-fold increase in just seven years. This increase in production has made heroin more available in many areas across the country, including Missouri, New York, North Carolina, Illinois, Pennsylvania and South Carolina.

Patterns of suburban heroin use have been reported nationally and in Illinois:

- Though heroin use levels may be somewhat stable, use is increasing among young people in many suburban and rural areas, according to the US Department of Justice.
- Illinois has seen an increase in young suburban users, evident in public treatment admissions and hospital discharge data. For example:
    - Among 20 to 24 year olds, from 1998 to 2007, hospital discharges for heroin use among Chicagoans declined 67 percent but increased more than 200 percent in the Collar Counties.

National survey and treatment data indicate increases in youth heroin use:

- According to the National Household Survey on Drug Use and Health, initiations to heroin have increased 80 percent since 2002.
- Among those ages 12 to 17, survey data indicates that nearly 34,000 youths initiate to heroin in a given year.
- Among those ages 12 to 17, survey data indicates that nearly 3,753 youths used heroin on any given day, not necessarily for the first time.
- Treatment admissions among those in their teens and their 20s increased by about 56 to 58 percent from 1996 to 2006.
- The majority of youth aged 12 to 17 entering public treatment for heroin across the nation were white (76 percent), followed by Latinos (16 percent), with only 2 percent of those entering treatment being African American.
- In Illinois, nearly 70 percent of youth under age 18 admitted to public treatment were white.

Injection drug use is increasing among younger heroin users:

- Over a ten year period, injection drug use has increased among heroin using teens by 94 percent, with about 70 percent of teens reporting injection currently.
- Injection drug use among 20 year olds entering treatment for heroin increased by 110 percent, with more than three quarters reporting injection drug use.

The academic literature has demonstrated some linkage between the usage of opiate pills to the initiation of heroin and survey data demonstrate that:

- In 2008, over 900,000 12 to 17 year olds initiated to prescription pain pills.
- While cannabis initiation trumps prescription pain pill initiation, (59 percent vs. 17.1 percent), the second most common illicit drug initiation was to prescription pain pills.

Understanding Heroin Use, Addiction and Dependency

Heroin has one of the highest dependency liability profiles of any licit or illicit drug--only nicotine ranks higher. As such, the fear the public may have about the increasing heroin use among young people is understandable. Of those who are offered heroin, about 20 percent will try it, and of those, 25 percent will proceed to dependency.

The academic literature indicates that the life trajectory of heroin dependent persons is poor, with extremely negative outcomes. There is little information available in the literature on this emerging population of suburban heroin users. In order to build a profile of suburban heroin use and users, the researchers decided to use a "life map" approach. This approach allowed the research team to build profiles of suburban heroin users in order to better understand this growing population.

Heroin Interview Findings

Among the interviewees, the researchers found three pathways to heroin**:**

1. Pill Use to Heroin
   Use and dependence on opiate pills prior to using heroin (e.g. using heroin as a replacement for opiate pills when they were difficult to obtain)
   - One third of the sample was dependent on opioid pills like Oxycontin or Vicodin before transitioning to heroin.
     - One participant had become addicted after being prescribed Vicodin by his doctor.
   - Pill users' perception of heroin use were softened (e.g. they were less scared to try it) once they realized the connection between opioid pills and heroin.
2. Cocaine Use to Heroin
   Use of heroin to ease the effects of cocaine binges (e.g. using heroin to "come down" from the cocaine)
   - Users who binge on cocaine generally find that they require something to stop the cocaine binge and enable them to fall asleep. Roughly one-third of our sample initiated to heroin in this manner.
3. Poly drug use to Heroin
   - Poly drug use to heroin was the most common path to initiation among our sample, with just over one third initiating to heroin in this manner.

Characteristics of Heroin Initiation

- All of the interviewees first initiated use to heroin by inhalation - "snorting" or "sniffing" heroin. Most of the interviewees thought that heroin used this way was "less addictive" or had no addictive qualities at all.
- The mean age of first use of heroin was 18.4. Three of the interviewees used heroin at age 15.
- All of the interviewees, except one, transitioned from sniffing to injection.
- One third of our sample began to use heroin while they were in high school.
    - Among the higher SES participants, heroin use spread throughout the high school peer group and many people became dependent.
- The majority of those interviewed had little or no idea what heroin use dependence consisted of or the withdrawal syndrome associated with it.
- Many became addicted quickly after initiation, but dependency was generally identified by another person (someone who was dependent). Interviewees thought that the withdrawal syndrome was the flu or some other illness.

Interviewees had minimal drug knowledge:

- The majority of heroin interviewees had little or no education regarding heroin use and dependency.
- Many indicated that if they had known about heroin's (and other opioids') addictive and dependency profile, they would not have become addicted.

Characteristics of the Sample

- More than 75 percent of the interviewees self-reported mental health disorders or exhibited symptoms of mental health disorders.
- The high levels of mental health disorders—via self-report or observed symptoms—indicate that one reason for using or continuing to use heroin was to ease these symptoms; thus self-medication was common in most interviewees.
- More than two-thirds of the sample exhibited sensation seeking behavior.

Negative Experiences Related to Heroin Use

Health

Mortality rates for heroin dependent persons are extremely high. Over 50 percent of heroin dependent persons will be dead before the age of 50, with the mean age of death being 30. Overdose is a common danger that both novice and dependent users with extensive use backgrounds may face:

- About one-third of the sample experienced multiple overdoses.
- Two interviewees had friends who died from heroin overdoses.

Heroin use causes major health problems, including heart disease, blood borne pathogens from injecting (HIV/HCV/HBV) and dental problems. Heroin dependent individuals have high rates of co-occurring disorders (COD), which makes them more prone to die from suicide than the general population:

- One third of the sample suffered significant scarring from injection, amputation or limb damage as a result of injection drug use.
- About half the sample had missing teeth, caused by the lack of saliva in the heroin dependent person.
- At least three of the interviewees had been hospitalized for a serious event related to drug use including endocarditis, abscesses at the injection site, cellulitis and other infections.
- Three of the participants attempted suicide on more than one occasion.

Education, Employment and Housing

- More than a third lost jobs due to heroin dependency.
- More than half left educational programs due to heroin dependency (this includes high school and college).
- Nearly half the sample experienced a period of homelessness.

Crime Victimization

- More than half of the female interviewees had been subject to a crime. Three were victims of violent sexual assault (all while living in precarious housing/homelessness situations).
- At least one male was subject to a hold-up at gunpoint by other users.
- Many of the interviewees indicated that they had been victims of other forms of crime, such as having money stolen during drug transactions, generally with other users.

Criminal Activity

As the heroin user becomes more dependent and loses employment, the normal trajectory indicates that the heroin dependent individual will commit crimes to support their habit. Generally these crimes are acquisitive crimes, which are crimes to obtain money. Violent crime is not common among heroin dependent users:

- About 75 percent of the sample committed some form of theft—including theft from parents, shoplifting, and burglaries.
- Those who engaged in drug selling after their addiction did so to provide money for heroin. About half of our male interviewees engaged in drug selling.
- Another way in which heroin dependent individuals in our sample paid for heroin was by giving other users rides to the city to purchase heroin.
- More than half of the female interviewees engaged in sex work (prostitution) after they had become dependent on heroin.
- More than 70 percent of our sample reported an arrest after becoming dependent on heroin.

- About half of the sample had at least one felony conviction.
- Nearly one-third of our sample experienced incarceration. More men than women (3:1) experienced incarceration after being dependent on heroin.

Challenges Overcoming Addiction/Dependency

Once heroin dependency is established, the life trajectory of heroin users tends to be one of treatment followed by relapse. This pattern generally continues throughout the individual's life:

- The majority of our sample (80 percent) had been in some form of treatment more than one time.
- More than half of the sample had used heroin in the three months preceding the interview.
- About a third of the sample indicated that while they had not used recently, they would if they had the opportunity.

Youth Experiences with Drug Education: Focus Group Findings

In order to understand gaps and deficiencies and to generate ideas regarding heroin prevention/educational programming, the next phase of the research was to conduct focus groups with young people. Four focus groups were held during the summer of 2011. One focus group consisted of participants from the interviews, (e.g. former heroin users), the other three consisted of individuals aged 18 to 24 who had used an illicit substance while in high school.

Focus Group Respondents indicated that drug education experiences overall were mixed and mostly negative:

- Many participants reported experiences with the D.A.R.E. program in elementary school. While a few thought the program was interesting or liked the giveaways, most felt the program was boring or forgettable.
- Some of the participants had health classes with presentations about drugs and drug use. These participants said that the information presented in health was better than in the D.A.R.E. program, but that it was not very comprehensive. They described it as being limited to short, 2-week sessions or bullet point presentations. Health class was perceived to be more focused on pregnancy and STI prevention.
- All of the participants responded that their drug education was not comprehensive, regardless of the format or program.

The participants indicated that there were a number of problems with drug education:

- Participants overwhelmingly believed that they were being told partial truths about drugs or were given incomplete information in their drug education programs.

- Participants felt that drug education was not realistic nor was it relevant to their needs and experiences. Some believed it focused too heavily on alcohol and marijuana and not on the other substances.
- Participants believed that they were placed at a disadvantage when the assumption was that they were learning all that they needed to know through their drug education program.
- Exaggerated stories and warnings as a component of the drug education program were perceived as insulting and discrediting by some participants.

<u>Participant drug knowledge was low, particularly in regard to heroin:</u>

- All participants knew of heroin, but none could describe the addictive nature of the substance, the physical dependency or the withdrawal. Few could explain what the drug would do to your body when taken.
- Participants mentioned the following concerns in relation to their heroin drug knowledge:
    - Heroin-specific information was lacking from school programs.
    - Participants indicated that school programs "half explained" heroin effects, if at all.
    - Heroin and other drugs were "lumped together," which prevented heroin from standing out as a particularly problematic drug when compared to something like marijuana.
- Participants reported relatively high disapproval of heroin use but comparatively low disapproval of using opiate pills. Participants were not necessarily clear about the linkage between opiate pills and heroin.
- Participants had general knowledge about drugs like marijuana, but there were some answers that highlighted knowledge gaps. When asked which substances caused physical dependency, some participants included cocaine, crack and methamphetamine in their responses.
- The difference between dependency and addiction were not clearly understood terms. Several participants believed that marijuana was a very addictive drug, though other participants clarified that they saw it as more of a mental addiction and not a physical addiction.
- Participants often brought up urban myths or legends about drug use and believed them to be true.

<u>Focus group participants reported drug use, as well as drug use among peers and family</u>:

- All of the participants had used marijuana and others alluded to the use of other substances.
- Only two of the participants in the non-heroin involved groups had used heroin, but one participant mentioned problematic opiate pill use. A few other participants mentioned occasional opiate pill use.
- All participants in the heroin-involved group had poly drug use histories.
- Several of the participants knew people that had used heroin during their time in high school. All these participants responded that they were turned off by the impact of the drug on their friend, citing the ways in which the drug was problematic (led to lying, overdose, etc.).

- Many of the participants believed that their own experiences of drug use, as well as the drug use experiences of friends and family, were the best sources of education about drugs and drug use.
- Many participants felt that the bad experiences of friends and loved ones helped them to decide not to do something, just as good experiences might encourage them to try something.
- According to the participants, some parents were very vocal in their disapproval of drug use and other parents never talked about the issue with their children.

Findings from Parent Survey

The data that emerged from the focus groups indicated that nearly all of the participants felt their parents did not know how to communicate with them effectively. This finding was echoed in the life-map interviews. In addition to the research conducted with young people, a survey of suburban parents was conducted in order to gauge their feelings and their preparedness for conversations regarding substance use with their children.

<u>Knowledge Deficits</u>

- Parents felt that they did not know which drugs their children would encounter or what the biophysical consequences would be of those drugs.
- Some also expressed concern about knowledge gaps due to their own lack of experience with personal use.

<u>Concerns about Age-appropriateness</u>

- Parents were concerned about knowing at what age to start having the conversation about drugs, and about knowing what types of information to present and in how much detail to children of varying ages.

<u>Uncomfortable Situations</u>

- Parents felt awkward talking about drugs and being honest about their own feelings about drugs (both positive and negative.)
- Some parents expressed discomfort with how to handle their own use history and how to tell their children not to do things they themselves had done, while others were unsure how to address problematic substance use in family or friends.

<u>Threats to Parental Authority</u>

- Parents were unsure how to get their children to see them as a knowledgeable, reputable source of drug information when their children displayed the typical adolescent “know-it-all” attitude. They wanted their children to understand that they as parents wanted to be open and approachable, rather than preachy, lecturing, or commanding.
- They feared that their children would disregard their warnings as hypocritical or uninformed depending on their parents’ drug use history or lack thereof. They wanted to be seen as a more authentic agent than their children’s peer groups.

Children's Comprehension

- Parents were worried that they would overwhelm their children with too much information or that the materials and information would be too advanced for their children.
- They expressed uncertainty regarding how to ask for feedback or input from their children following a conversation about drugs.

Concerns about Content of Conversations

- Parents wanted to create a balance between educating their children and making them aware that drugs are a serious threat.
- They were unsure about the types of scenarios to present to their children about how they might encounter drugs, such as at parties or in school.

No Challenges Indicated

- Some of the parents indicated that they did not perceive any challenges in talking to their children about drugs. Reasons cited included open communication or "quality conversations," high levels of parental involvement in their children's lives, and children still being very young in age.

Where to Get Accurate Information

- About half of parents did not know where to get accurate information about drugs.

Background and Introduction

Heroin Availability

According to the National Drug Intelligence Center, Mexican heroin production had increased significantly since 2002 from an estimated 6.8 metric tons to a production level of 50 metric tons in 2011. This represents an increase of 668 percent in just seven years[1,2]. Increasing supplies of heroin have resulted in purer, cheaper and increased availability of heroin. Mexican drug trafficking organizations increasingly transport South American heroin as well as Mexican heroin, which has increased the availability in many US markets including Missouri, New York, North Carolina, Illinois, Pennsylvania and South Carolina. Though heroin use levels may be somewhat stable, use is increasing among young people in many suburban and rural areas[3].

This rise of heroin use among young people has been featured extensively in news reports, community forums, and in drug threat assessments during the last few years. There has been much attention paid to youth heroin use across the country, with articles and television news reports about young, suburban heroin users increasing in the metro areas surrounding cities. Atlanta, St. Louis, Cincinnati, New York City, Kansas City, Wichita, Boston, Philadelphia, Milwaukee, Denver, Los Angeles, Salt Lake City, Charlotte, Baltimore, Seattle, San Jose, Detroit, and Chicago have all reported increasing and alarming use among younger people in the suburbs. Reports of heroin use in smaller metro areas have also surfaced. Newspaper articles and reports indicate that there is a growing cohort of younger initiates to heroin. Aside from these reports, survey and treatment data also demonstrate the rise of heroin initiation among younger, predominantly white users across the nation[4].

Increasing Heroin Initiations and Increased Treatment

According to the National Household Survey on Drug Use and Health, initiations to heroin have increased since 2002, from around 100,000 per year to over 180,000 in 2009, an increase of about 80 percent. Among those ages 12 to 17, survey data indicates that nearly 34,000 youths initiate to heroin in a given year[5]. On any given day in 2006, 3,753 youth aged 12 to 17 used heroin[6].

These increasing numbers of heroin initiations are also mirrored in public treatment data. Nationally, heroin treatment admissions increased slightly from about 225,000 individuals in 1996 to 246,000 in 2006, an increase of 10 percent[7] . These increases may not seem very great, but there are significant differences when the data is broken down by age cohorts. Among younger users under 30, and those aged 40 and over, treatment admissions increased much more significantly, while treatment admissions among 30 year olds decreased by 23 percent[8].

Heroin Treatment Admissions among Teens and Young Adults

Nationally, significant increases in treatment admissions can be found among those in their teens and their 20s, increasing by about 56 to 58 percent from 1996 to 2006. While these increases are alarming, the number of teens entering treatment is relatively small. For young adults, the numbers are much

greater. For example, the number of teens entering treatment for heroin in 1996 was 4,414, while in 2006 this number had increased to 6,889. Among twenty year olds, treatment episodes increased from 45,000 in 1996 to just over 72,000 in 2006[9].

The largest cohort of heroin treatment admissions is found among older populations and these numbers have increased rapidly. For those aged 40 and over, the number entering treatment was just over 72,000 in 1996; in 2006 this number had reached over 95,000, an increase of 31 percent. These data, along with other trend analyses indicate that heroin use is rising among two distinct cohorts of heroin users: the young and the aging[10].

Youth Treatment Characteristics

Nationally, the majority of youth aged 12 to 17 entering public treatment for heroin across the nation was white (76 percent), followed by Latinos (16 percent), while just 2 percent of those entering treatment were African American. Youth treatment admissions tended to consist of slightly more males than females, though the difference was slight (53 vs. 47 percent). About half of adolescents reported injection drug use, though females were more likely to report injection drug use than males (56 vs. 43 percent).

Injection among Teens and Young Adults

National treatment data demonstrate more significant increases in injection among those admitted to treatment for heroin. For example among teens entering treatment for heroin in 1996, 55 percent injected, while in 2006 nearly 70 percent injected. A similar pattern of increasing injection drug use may be found among 20 year olds admitted to treatment. In 1996, 58 percent of 20 year olds entering treatment were injection users, compared with 76 percent injecting in 2006. Older users are more likely to use heroin by inhalation (sniffing) than injection.

Youth and Older Cohorts in Illinois

These national patterns are echoed in Illinois. Treatment, emergency room and hospital discharge data indicate two patterns of use: young white users predominantly found in the suburbs and rural areas, and older African American users who are located primarily in Chicago. Metro areas throughout the state have seen increases in the number of younger white treatment admissions indicating that the growth in younger white users is not confined solely to the suburbs[11]. While these trends are disturbing and significant, it is important to note that heroin use across the population, while growing, still represents a very small percentage of the population. Survey data from Illinois indicate that about 3.0 percent of Illinois students used heroin in 2009, an increase of .5 percent from 2007[12].

Trending Hidden Populations

Estimates suggest that the number of heroin dependent persons is about .3 percent of the US population[13]. This means that young heroin users (and heroin users overall) represent a hidden population. This is especially true of those more affluent users because they are unlikely to enter

publicly funded treatment centers. It is in the hospital discharge data that we are most able to see glimpses of this population (please see Heroin Use in Illinois: A Ten-Year Multiple Indicator Analysis, 1998 to 2008 for more information). However without access to private treatment data, the scope of this increasing problem cannot be enumerated with any sort of precision. Hospital discharges show only those users who were admitted and discharged from the hospital, leaving a large gap in our understanding of the extent of the problem of heroin use among more affluent, suburban populations.

Initiation, Use and Dependency of Prescription Pain Pills

The academic literature has demonstrated some linkage between the use of opiate pills and the initiation of heroin[14]. Opiate pills may be accessible through the family medicine cabinet, available at school or prescribed by doctors to patients. Generally, most individuals who first use these drugs get them for free[15]. Young people often take these opioid pills to "get high." These trends may be seen in the initiation data of first illicit substance. According to that National Household Survey on Drugs and Health, *over 17 percent of first time initiates <u>to any illicit substance</u> used pain relievers*. While cannabis initiations trump prescription pain pill initiations, (59 percent vs. 17.1 percent), prescription pain pills are the second most common illicit drug initiation. Overall, the number of pain pill initiates was 2.2 million. From 2008 to 2009, there was a statically significant rise in the percentage of individuals who used prescription pain pills for non-medical reasons, from 2.3 to 2.7 percent. In 2008, over 900,000 12 to 17 year olds initiated to prescription pain pills. Approximately 1.9 million US individuals were dependent on pain pills in the last year[16]. If an individual does not understand how opioids work and how quickly tolerance and dependency develop, they risk recreational use developing into addiction and dependency.

Changing Access to Information

The Internet

For youth and young adults who are interested in learning about how to use drugs or the "highs" associated with specific drugs, there are many internet sites, drug using forums, and chat rooms where users or potential users can learn not only how to use drugs, but where to find them. This kind of information was not available 15 years ago.

There are a number of drug use forums that provide "tips" on navigating through drug markets in inner cities, the costs of heroin (and other drugs), where to purchase drugs, and how to use them. Because of this, a young person who is intrigued with using heroin may find information about using and learn how to obtain and use drugs without knowing anyone who is currently using that particular substance. This new access to information means that a young person does not have to enter the heroin subculture to learn how to obtain, use, and sniff or even inject heroin (or other opioids). Distance from addicted persons, but the knowledge of where to obtain drugs, may make heroin seem less dangerous because young people might not see the consequences of extensive drug use.

Media

There are many television shows that graphically demonstrate either rehabilitation or serious drug use. Shows such as "Skins," "Intervention," and "Celebrity Rehab" may give youth the wrong impression about drug use. While these television programs might be interesting, generally they do not show the progression to addiction. Rather, they tend to focus on individuals who are "hitting bottom." These programs might mistakenly give young people the idea that addiction cannot happen to them as they do not see and understand the progression to addiction from first use, through continued use, to dependency.

Differences in Youth Communication

Ten years ago, there were few areas for social networking. Facebook and twitter were non-existent. Youth, depending on circumstance, might or might not have had access to a personal cell phone. Now younger (and older) individuals use texting to communicate with one another, or may use instant messaging features online. Nearly all individuals who have the means have a cell phone, a computer and internet access, often on their phones. These means of communication, while tremendously useful, mean that what was once spoken is now written. These differences in communication and the highly linked nature of online communities make information more accessible. Therefore, the ease in being able to link to other young people might also facilitate the transmission of drug information, both accurate and inaccurate.

Heroin's Effects

Heroin has one of the highest dependency liability profiles of any licit or illicit drug—only nicotine ranks higher—so the fear that these reports of increasing heroin use may cause is understandable. Of those offered heroin, about 20 percent will try it, and of those, 25 percent will proceed to dependency[17]. The length of time between first use and dependency is generally just 18 months[18,19]. Two weeks of everyday use will generally result in some physical dependency. Unlike marijuana, cocaine or other drugs, opioids like heroin cannot be used every day without a very serious chance of dependency and a subsequent withdrawal syndrome.

Heroin is a central nervous system depressant, in the class of opioids. It is important to note that drugs in the class of opioids, including the prescription painkillers Oxycontin, Vicodin and codeine, share the same characteristics. Because heroin is a depressant, it suppresses breathing. Combined with other depressants (e.g. alcohol, benzodiazepines like Xanax) this effect is more potent. Heroin creates a kind of detached euphoria in the user. First time users will generally experience nausea and vomiting until some tolerance is built. After these initial first uses, the user will feel euphoric and detached from their emotions. Some users describe this feeling as "covered in a warm blanket, where worries are gone" or simply "womb-like." It is important for the public, parents, teachers, and young people to understand that an individual on heroin does not necessarily "look like" they are "on drugs." Use of heroin is quite sedating, so a user may appear to fall asleep or "nod out." Generally speaking, those on heroin (and other opioids) are relatively lucid and can communicate coherently. The person who has just used

heroin may end their sentences by trailing off, or losing track of the conversation. Unlike cannabis, the person who is under the effects of heroin is not giggly, nor are they hungry. They might not look like they are "high" at all; they may simply appear tired, although this is dependent on the dose used and the tolerance of the user. Some heroin dependent individuals use large doses to obtain an effect that is close to unconsciousness. Unlike alcohol, heroin dependent people do not usually slur their words; the voice of the user, however, might be significantly lower as compared to their voice when not under the influence of heroin.

Withdrawal Syndrome

Physical dependency on heroin (and other opioids) is characterized by a significant withdrawal syndrome. Once an individual is dependent on heroin or other opiates, abrupt cessation of use makes the heroin (or opioid) dependent person extremely ill. The withdrawal syndrome is characterized by muscle, joint and bone aches, insomnia, goose flesh, sweating and chills, running nose and eyes, yawning, anxiety, and gastrointestinal upsets such as diarrhea, nausea and vomiting. The withdrawal syndrome is often characterized as a bad flu, except that the inability to sleep and anxiety often make these symptoms feel worse. The withdrawal syndrome stops immediately if the dependent individual uses heroin (or another opioid). This sickness results from not having access to opioids, a fact which the naïve user might not understand. Individuals who do not know they are dependent on opioids generally assume they are ill with the flu or another virus until someone indicates to them that they are experiencing withdrawal. Although the withdrawal syndrome is extremely uncomfortable, it is typically not life threatening.

Heroin Lifestyle

Once the opioid dependent individual realizes that they will be ill if they do not use, much of the dependent person's life becomes structured around obtaining opioids. Because heroin has a relatively short half-life (1.5 hours), this means that 2-3 uses per day become the norm in order to avoid withdrawal. Tolerance to heroin and other opioids develops extremely rapidly—more rapidly than any other substance. So while the heroin dependent person may start out with a "habit" that costs $10 or $20 a day, increasing tolerance generally means that over time the "habit" may quickly escalate to hundreds of dollars a day. Because of the withdrawal syndrome and the frequency of use needed to keep withdrawal at bay, most heroin dependent individuals have a difficult time staying employed or in school. This increase in tolerance—and the resulting heroin costs—mean that most heroin dependent individuals must spend much time obtaining money to purchase drugs. Generally, this means that the heroin or opioid dependent person generally turns to criminal activity to support the "habit."

Misconceptions exist about the heroin dependent person and crime; for example, some may think that the heroin dependent person is more likely to commit violent crimes. Though heroin dependent individuals may have committed crimes before their dependency, *criminal activity after dependency is directly related to the amount of heroin used*. As heroin use goes up, so does criminal activity. As heroin use goes down, criminal activity goes down. Cessation of use is associated with a cessation of criminal

activities. Heroin users commit crimes of *acquisition*—theft and fraud—rather than crimes of violence. Other criminal activities include drug selling to pay for drugs and sex work, although sex work is more often engaged in by women than men[20].

Health Related Harms

Of all of the licit and illicit substances, heroin causes the most harm to users. Overdose is a common harm that both novice users and dependent users with extensive use background face. Mortality rates for heroin dependent persons are extremely high. Over 50 percent of heroin dependent persons will be dead before the age of 50, and the mean age of death is 30[21].

Other Health Concerns

Heroin use causes major health problems, including heart disease, blood borne pathogens from injecting (HIV/HCV/HBV) and dental problems. Heroin dependent individuals have high rates of co-occurring disorders (COD), which makes them more prone to die from suicide than the general population. Collective damage from injecting drugs includes cellulitis, abscesses and inflammation of the lining of the heart. Because heroin dependent individuals have tenuous connections with health care, many health problems may not be attended to for years, increasing the possible damage done by injecting and use.

Prevention and Education

Because heroin is so dangerous, causing dependency, mortality and morbidity, the best place to intervene is before a young person has even tried heroin. Education and prevention strategies may be the key for lessening this emerging drug threat[22].

A review of drug education curricula shows that there is a lack of prevention/education material on heroin for young people. Considering the increase in heroin use by the young, development of a community health prevention model would be helpful in dealing with this emerging drug threat. In 2010, the Illinois Consortium on Drug Policy was contacted by representatives from the Robert Crown Center for Health Education. The Reed Hruby Drug Education/Prevention project was created to develop heroin specific drug education and prevention strategies. Because little is known about this new population of heroin users, the ICDP developed a research plan that would inform the Reed Hruby Drug Education/ Prevention project.

Research Methods Rationale

Modified participatory research methods were used in the collection of data and information regarding heroin use in the Chicago metropolitan area and drug education and prevention issues. A participatory research method is one in which the subject of the study plays an integral role in the creation of research tools and data collection. This study did not use heroin-involved youth in this way. However, the research plan was intentionally developed to maximize the contributions of the heroin-involved youth as they pertained to subsequent research activities.

The flow of data collection was designed to allow information from the heroin-involved youth to influence successive research tasks:

Literature Review →Heroin-Involved Youth Interviews → Heroin-Involved Youth Focus Group →

Substance-Using Youth Focus Groups

Note that for the purposes of this research study, a *substance-using youth* is defined as a young adult aged 18-24 with some experience with drug use beginning during their high school years.

Research Activity 1: Literature Review

The researchers explored the literature to uncover current quantitative and qualitative studies examining the lives and use patterns of individuals who use heroin. Additionally, the literature was searched for studies that reviewed current drug education and prevention methods to see if these principles could be applied to our research study. The goal of the literature review was threefold: (1) to describe heroin use and heroin users in the United States; (2) to describe current methods for preventing use and (3) to take the assumptions and findings from the literature to test them with the heroin-involved youth in this study.

The findings from the literature review were compiled into a written brief and were translated into a number of interview questions for the heroin-involved youth interviews. Key findings included the recommendation that comprehensive drug education include information on the most commonly used and the most harmful drugs and that prevention messaging must be authentic and carefully targeted to the intended audience.

Research Activity 2: Heroin-Involved Youth Interviews

Young adults aged 18 to 30 with a history of heroin use were recruited for interviews. The main goal of the interview was to develop a "life map" of the individual and her/his heroin use patterns. This life map includes information on initiation, experiences with drug education and possible intervention points. A secondary goal of the interview was to collect opinions and attitudes about heroin use and prevention from impacted individuals to test these suggestions and assumptions among a group of substance-using youth during the focus groups.

The interviews ranged from two to three hours and were a comprehensive review of the participants' lives, their drug-using experiences and their thoughts about the benefits and harms of heroin use. The interviews were guided by an open-ended questionnaire, which was developed from expert subject knowledge and concepts/information gathered during the literature review. The participant led the flow and tone of the conversation, which resulted in varying degrees of comprehensiveness based on the participant disclosure comfort level. Unanticipated time constraints sometimes precluded in-depth discussion about prevention and education, so the researchers scheduled an additional focus group with the heroin-involved youth participants to further clarify their opinions and suggestions for prevention and education.

Key prevention findings from the interviews included participants' beliefs that individuals had to be shown the negative consequences of heroin use (images) and told the difficult personal experiences (stories) of those that had been using heroin problematically. Interviewees also stressed the importance of clearly explaining how difficult it is to quit using heroin once dependence is formed.

Research Activity 3: Heroin-Involved Youth Focus Group

Interviewees were asked to participate in a focus group to provide additional information regarding their suggestions for prevention and education. These ideas were then taken to the substance-using youth focus groups for feedback and further recommendations. The researchers believed that it was important to get suggestions from this group because they all had lengthy substance use histories with exposure to a wide variety of substances, resulting in a comprehensive source of experiential knowledge. This experiential knowledge allowed the participants to fully reflect on the differences between substances and the varied benefits and risks associated with these drugs.

The focus group moderator used prevention suggestions from the interviews as a starting point, asking the participants to elaborate on these ideas and provide additional suggestions. Participants expanded the original ideas and came up with additional suggestions for prevention. Of note were the recommendations that educational efforts clearly identify the differences between different types of drugs (alcohol, marijuana, cocaine and heroin) and their effects on the person and the need to carefully explain dependence and addiction to people that may have never experienced those things.

The note-takers identified a list of key prevention suggestions, which then were used to develop the question guide for the substance-using youth focus groups. These included the importance of distinguishing between addiction and dependence and highlighting the significant differences in short and long term effects of different types of drugs.

Research Activity 4: Substance-Using Focus Groups

The final research activity involved focus groups with individuals that fit the profile of the intended audience for an educational/prevention intervention. Interviews with heroin-involved youth made it very clear that people using heroin have had experience with other drugs prior to their heroin use. Therefore, participant recruitment for these focus groups was targeted to individuals aged 18 to 24 that had experience with substance use in high school. The researchers believe that the people most likely to segue to heroin experimentation or use are those individuals that have some exposure to different types of drugs and have personally experimented with use.

The moderator question guide was developed from the findings from the literature review, the interviews and the heroin-involved youth focus group. The goal of the focus group was twofold: (1) to explore experiences with current drug education and assess drug knowledge and (2) to test the assumptions and suggestions provided by heroin-involved individuals among a group of people with non-heroin substance use histories. (Note: Although the researchers did not actively recruit individuals

with heroin use histories for these focus groups, 2 of the 28 participants disclosed previous heroin use and 3 of the 28 disclosed problematic opiate pill use.)

Key findings supported a number of the themes that arose from the other data collection points, including the importance of carefully targeting messages and messengers, the need for authenticity and the importance of differentiating drugs.

Research Activity 5: Parent Survey

A corollary research activity undertaken concurrently with the heroin-involved and substance-using youth research was the parent prevention and drug knowledge survey. Interviewees and participants of the focus groups all cited "parent education" as an important component of drug education and prevention interventions. A number of the research participants believed that parents lacked the drug knowledge and conversational/communication skills necessary to effectively talk about drugs with their children. The surveyed parents also cited their own knowledge and communication skills gaps as detrimental to their ability to effectively communicate with their children.

As with the youth participants, responses from parents highlighted their desire for authentic stories and comprehensive drug information.

Understanding Suburban Heroin Users and Patterns of Use

METHODS

Recruitment and Interviewing

The researchers recruited the heroin involved youth participants via a posted recruitment flyer through a number of treatment centers. Additionally, several individuals contacted the researchers after learning about the project through a news story about the Reed Hruby project at the Robert Crown Center. The response to the interviews was overwhelming and many more individuals wanted to participate in the research than could be accommodated (~50 interested persons). The research design called for life mapping of 10 to 12 individuals to understand the individual's course of drug use initiation and their individual risk and protective factors. However, as a result of the enthusiastic response to the recruitment flyers, the researchers interviewed 15 individuals. Participants were asked to call or text the dedicated study cell phone or email their interest to a confidential Gmail email.

In order to gather a comprehensive range of narratives, the inclusion/exclusion criteria was limited to recruitment of any individual with a heroin use history that was aged 18 to 30 and attended high school in the Chicago suburbs. Since the response was so high, participant selection could be targeted to include a broad sample of individuals attending high schools throughout the western suburbs of Chicago. This variation resulted in a sample with a diverse socioeconomic profile.

The interviews were held in non-clinical settings using a semi structured questionnaire. A typical interview generally lasted about 3 hours, depending on the interviewee. All interviewees were compensated for their time in accordance with Roosevelt University's Institutional Review Board. An interviewer and a note-taker were present for the interview. The researchers did not write down the interviewees' names in any document. The researchers did not know the last names of the interviewees and were very careful to keep interviewees anonymous because of the sensitive nature of the project. As a result of the privacy and confidentiality protocols for recruitment and interviewing, the researchers do not know the full names of the participants. The note-taker transcribed the interview using the participants first initial, age, gender and the community in which they now lived. The study used a dedicated cell phone for this project. No links currently exist between the researchers and the interviewees as the phone number call log and text messages were deleted from the phone at the conclusion of the interviews and focus groups.

Data Analysis

All interviews were coded twice for themes. The first pass coding included 29 themes such as: "age of first heroin use," "family drug use," "depression symptomatology." The second pass coding created broader "code families", changing "age of first use" to "initiation characteristics," for example. The interviews were then analyzed for risk and protective factors, using a risk/protection rubric for evaluation. These analyses coded responses as either "yes" or "no" answers and included descriptive

quotes from the interviewee. For example, a risk factor for substance use is poor school performance. The researchers reviewed each of the interviews for comments about the person's school performance, coding "yes" or "no" based on these answers and then selecting key quotes that summarized their school experience.

After all of the interviews were coded for the broad code families and analyzed for risk and protective factors, the researchers attempted to develop even broader categories of findings. Routes of initiation were again analyzed to determine if there were demonstrable patterns among the interviewees. This activity (code families → categories) was extremely useful for understanding initiation patterns, but became less meaningful for other variables such as school performance, sports, family, situations, etc. The researchers at one point collapsed all conditions of abuse and neglect (purposeful or unintended) into a broad category, but this was not useful because it obscured some of the nuances described by the interviewees. Following this analysis, case studies were written for some of the interviews because the narrative nature of the life-mapping process and the context of the story were best expressed through a narrative case study. The six case studies juxtapose the most severe cases with the least severe, so that readers may better understand the nuances in the stories and how these worked in relationship to the individual's progression to heroin addiction.

SAMPLE CHARACTERISTICS

The sample of heroin interviewees consisted of 8 females and 7 males, all of whom were between 22 and 31 years of age. The majority of the sample finished high school, and many completed some college. All of the interviewees were from the Western suburbs of Chicago. The interviewees came from a wide range of socio-economic backgrounds—from upper middle class to those who had grown up in poverty. The majority of the interviewees fell into middle socio-economic status groups, which is slightly less characteristic of longitudinal studies which tie heroin use to impoverished conditions[23, 24].

Family Characteristics

Among the heroin interviewees, there were varying levels of family dysfunction. Many of the individuals interviewed reported some mental health issues among their parents—from bipolar disorder and parent suicide to more moderate disorders such as anxiety and depression. Connectedness between family members was variable but limited in most cases. Please see the case studies for more information about family dynamics and childhood experiences.

Initiation

Heroin Sniffing Not Perceived as "Addictive"

All of the interviewees first initiated to heroin use by inhalation – "snorting" or "sniffing" heroin. Most of the interviewees thought that heroin used this way was "less addictive" or had no addictive qualities at all. In addition, nearly all of the interviewees first sniffed heroin in a social situation, with a friend or a group of friends, and this lessened the fear.

> *When I was at [college] then I heard about it. And this person snorted it. And he said "you don't get addicted this way" since you are snorting it and not injecting it.*

> *If you are at a party and someone opens a pack and dips a key into the powder and then puts it under your nose and says sniff, that's not so scary. That's how we did it.*

Heroin Addiction only Happens to the Poor and/or "Not Me Syndrome"

The majority of the sample was unaware of the rapidity with which tolerance develops or of the withdrawal syndrome. Still, the stigma associated with heroin use was high among the interviewees. Some thought that because of the stereotypical association of heroin dependent persons with inner city poor individuals that they were impervious to the effects of heroin or that heroin dependency only happened to poor people:

> *I didn't know people that did [heroin] because I always looked down on people that did it. I thought people that did it lived on the street, were bums, scumbags.*

Others indicated that they thought that dependency and addiction would not happen to them:

I thought I was smart enough that I was not going to let myself become 'that guy.' I was just going to try it and then walk away. You just have to let them know that they are not special. It does not matter if you are a boy or girl, short or tall, black or white. Your chances of just walking away – it's not going to work.

The majority of our sample did not know heroin dependent people when they first used:

Being around people that were doing it, if you don't see anything bad happening, then it seems OK. But that was in the beginning. I expected it all to be like in the beginning when I was not getting sick. All those things that were supposed to happen were not happening then, so I thought it was fine. And I kept using.

Paths to Heroin Initiation

Detailed analysis of the heroin interviews showed three distinct pathways to first heroin use:

1. **Pill Use to Heroin**
   Use and dependence on opiate pills prior to using heroin (e.g. using heroin as a replacement for opiate pills when they were difficult to obtain)
2. **Cocaine Use to Heroin**
   Use of heroin to ease the effects of cocaine binges (e.g. using heroin to "come down" from the cocaine)
3. **Polydrug use to heroin use**
   Use of heroin after a pattern of escalating polydrug use (e.g. alcohol to cannabis to pills to psychedelics/hallucinogens to cocaine to heroin.) This represents the stereotypical picture of initiation to heroin.

These three pathways will be demonstrated through the use of case studies to better understand the different trajectories to heroin use (see case studies for more detail).

Pill Use to Heroin

One third of the sample was dependent on opioid pills like Oxycontin or Vicodin before transitioning to heroin. One of the five reported that a doctor continued to prescribe Vicodin for 8 months, thus leaving him dependent on the drug:

I didn't use heroin first – I broke my foot and I was out of pain in like 2 weeks, but he [the doctor] kept me on Vicodin for 8 months. I kept calling for refills and he kept giving them to me. I didn't know it was addicting. I figured it was safe because it was from a doctor and he kept giving it to me.

Another respondent stated:

One day I was feeling crappy and I called the pharmacist. I told him that I had been taking Vicodin for a while and told him that I was feeling real bad and the pharmacist told me that I was in withdrawal. So I knew then.

Pill users' perception of heroin use had been softened once they realized the connection between opioid pills and heroin:

I remember thinking that I was scared to try it because it was heroin, but then I remember thinking that it was the same as Oxys [Oxycontin], so it was OK.

Cocaine Use to Heroin

Users who binge on cocaine generally find that they require something to stop the cocaine binge and enable them to fall asleep. Roughly one-third of our sample initiated to heroin in this manner. Many cocaine users use alcohol or other depressants to "come down" from the effects of cocaine. Others may find that heroin provides an easy pathway to "coming down" from the stimulating effects[25]:

We had been up for a long time and we were trying to come down off the coke….We split one bag–all three of us–and just came down and shut down. We didn't like it at first. And then the following weekend we tried it again to come down [from cocaine]. We didn't like the feeling but it helped us come down. We didn't know anything about heroin.

Polydrug Use to Heroin

Polydrug use to heroin initiation was characterized by continuing initiation to a number of different substances, culminating in the heroin initiation. Poly drug use to heroin was the most common path to initiation among our sample, with just over one third initiating to heroin in this manner.

Heroin Use in High School

One third of our sample began to use heroin while they were in high school. Those who used in high school were split among all socio-economic status (SES) groups. Two of the individuals were from high SES families, one was middle class and two came from more impoverished backgrounds. Among the higher SES participants, heroin use spread throughout the high school peer group and many people began to become dependent:

The people I knew in high school that used heroin all got addicted. Most of the kids that were using in high school stayed around. I went away to [college], so I wasn't around it down there. They stayed and got habits up here. There were maybe 30 people I knew that were using heroin that I went to high school with.

Heroin Initiation among Peer Group

Most individuals begin using heroin with other people but heroin initiation among peer group indicates a slightly different phenomenon. In these cases, the individuals were part of a peer group where heroin

was introduced and spread quickly throughout the entire peer-using group. The individuals did not change peer groups. All of these interviewees came from higher income families:

> *When I turned 20, a lot of my close friends from that group were starting to do heroin. And then my other friends in the group started using. And then I was around all them and thought it was OK to try.*

Feelings about Personal Control over Heroin Use

Some participants talked about the issue of personal control over use. They spoke of their assumptions that they would not become addicted or that they would be able to control their use so that it would not lead to further problems:

> *When I left treatment, I went back home. And I thought, maybe I can do heroin like in a way like 'I'll keep it under control and do it different.' I think probably within a week of getting out of treatment, I was doing it again. Didn't take long to get a habit again – a few days.*

Knowledge of Heroin Dependence

The majority of those interviewed had little or no idea what heroin use dependence consisted of or the withdrawal syndrome associated with it:

> *I didn't know that people got sick from not doing it. I didn't know anything about it. The only image I had was a bum on the ground with a needle in his arm and this is what I think kids now believe.*

Many became addicted quickly after initiation but dependency was generally pointed out by another person (someone who was also dependent):

> *I really thought I had the flu. I said "lately I've been feeling weird like I am sick" and my friend V flat out told me "that's withdrawal." I don't remember what I felt. I know it wasn't good. I was surprised. I didn't know what addicted meant. I didn't understand why people would get sick or how or why they would have to use all day.*

Several interviewees indicated that heroin at first seems like a cheap high, but that as tolerance develops the costs become staggering:

> *People think they can just take $10 or $20 a day and be fine, but it's not always going to be like that. Someday it is going to be hundreds of dollars a day.*

Time to Heroin Dependence

The time from first use of heroin to dependence was relatively short—with the vast majority of the interviewees becoming dependent within 18 months of first use. For those who were dependent on

opiate pills and transitioned to heroin, dependency to opioids already existed. For these individuals, the onset to heroin dependency was generally very rapid (less than one month).

Injection Drug Use

All but one of the interviewees moved on to injection drug use within two years after heroin initiation because of either financial constraints or because the individual was interested in understanding the feeling of intoxication that injection causes:

> *Then on my 21st birthday, I shot up for the first time. And it was wonderful. I liked how it hit me faster and that euphoric feeling in that first 2 seconds. I didn't do it, that guy S did. He was a year or two older. It was a year from the first time I used to shooting.*

Injection drug use is an important point of transition for heroin users and signifies increased drug use and dependency. Many of the risks that the public associates with injection drug use are the increased infection of blood borne pathogens (BBP) such as HIV, hepatitis C (HCV) and chronic hepatitis B (HBV). If injection drug users have access to sterile injection equipment (and our entire sample did, except for one user who was HCV positive) the risk of infection from transmission of blood borne pathogens is extremely low. However, the risks associated with injecting aside from BBP are still great, and include but are not limited to: vein collapses, hardening of the arteries, heart disease resulting from endocarditis, overdose, and lowered life expectancy[26].

Low Drug Knowledge/Low Drug Education Levels

The majority of heroin interviewees had little or no education regarding heroin use and dependency. This is unfortunate because drug prevention and education efforts can be effective in prevention of use:

> *We had a D.A.R.E. program, but they spoke to us mostly about violence and gangs. And that was all in elementary school. And in high school it was just sex education. No drug education then. I didn't know it [heroin] was a downer like it was. I thought it was like marijuana. I thought that the people that got addicted – that it was all in their head. I just saw heroin as another drug. I thought maybe it wasn't true that it was so bad. I thought maybe people did more than they could handle.*

Many indicated that if they had known about heroin's (and other opioids') addictive and dependency profile, they would not have become addicted:

> *If I knew about withdrawal, I would not have done it. If I knew, I would never have used. If they could show people this, what it is like— I think people might not use.*

Characteristics Common among Interviewees- Personal Characteristics

Mental Health Disorders

As we would expect[27, 28], the sample as a whole reported high levels—more than 75 percent—of self-reported mental health disorders or exhibited symptoms of mental health disorders. These included anxiety disorders, depression, bipolar disorder and attention deficit hyperactivity disorder (ADHD). While the interview instrument included brief screening questions for the above disorders, no diagnoses could be made from these screening tools because the length of the interview precluded using more detailed instruments.

Females were more likely to have a co-occurring disorder (COD) or symptoms of a COD than were males, though the results were not dramatically different. This result is consistent with the literature on heroin using trajectories and the underlying psychiatric symptoms found in heroin users[29].

Self-Medicating Behaviors

The overwhelming majority of the interviewees indicated that their heroin use provided some relief from anxiety, worries or problems. This self-medicating behavior makes sense, as heroin's effects provide both pain relief and detachment from emotionality. The high levels of mental health disorders—either self-reported or symptoms—indicate that one reason for using or continuing to use heroin was to ease these symptoms.

> *Heroin gave me something. It made me feel the best I have ever felt.*
>
> *It makes everything so much better. I don't have to stress about anything: bills, the stress of my life…. It would take me away from all that – the arguing with my family, my sister. I was in my own world, in my own area, doing my own thing….And it would make me not be sad.*

Sensation Seeking

More than two-thirds of the sample exhibited sensation seeking behavior. Sensation seeking may be broken down into four key areas: risk taking (e.g. skydiving); disinhibition; boredom susceptibility; and adventurousness. Risk taking or thrill seeking are somewhat self-evident, as is adventurousness (seeking novel experiences). Disinhibition relates to throwing inhibitions aside in social situations. Boredom susceptibility is the act of changing for the sake of change. While the research design did not allow us to administer the SSS (Sensation Seeking Scale), the interviews were coded for these characteristics. Thus, a trip to the west side to purchase heroin on the street may well be considered a sensation seeking exercise. Sensation seekers find boredom oppressive and are often looking for new and different experiences[30].

> *I found going to the west side exciting. It was a thrill. The chance was that you could get caught, but the reward was that you got your dope. I am a thrill-seeker. I bungee-jumped when I was*

12. I used to steal small things just to do it. My parents would describe me that way – as a thrill seeker.

Negative Life Events Related to Heroin Dependency

Because heroin is the drug that causes the most harm to an individual[31], it was no surprise that the interviewees reported significant negative life experiences after becoming dependent on heroin. These harms may be broken down into the following categories: health, education and job, housing, and criminal justice.*

Health

Health encompasses a wide variety of negative life experiences relating to heroin including unwanted pregnancies, overdoses, and scars or other physical deformities. Of course, there are other negative health consequences of using heroin—from death to heart problems—but these were negative effects that were found after the sample analysis. These results are consistent with what we would find in the literature for those who had entered treatment and were far along on their heroin trajectories or in their heroin using careers[32].

- Among our female interviewees, half had experienced unwanted pregnancies while they were using.
- About one-third of the sample experienced at least one overdose. Non-fatal overdoses may also cause significant brain injuries if they are not attended to because of the resulting lack of oxygen[33] :

  I overdosed. She didn't take me to the hospital. She kept me in the car. She waited in the back of the hospital parking lot and my pulse was really weak and then it stopped and she was going to take me in, but it came back. And I came to.

  Overdoses often occur after a treatment or detoxification, which is followed by a heroin relapse:

  I had been clean for a month and then used that once and overdosed and they gave me the Narcan and it was awful. Awful. I wanted them to get away from me and not put it in me. It was awful.

- Two interviewees had friends who died from heroin overdoses, which is not surprising given that the mean age of heroin dependent individuals' deaths is 30[34]
- One third of the sample suffered significant scarring from injection, or amputation/limb damage due to injection drug use.

* Harms indicated in the following sections were self-reported by interviewees. Because of the time frame associated with the heroin interview, probing for specific harms did not occur (e.g. interviewer did not ask, "Have you ever been arrested") but flowed naturally out of the life map interview. Therefore the number of individuals who mentioned a specific harm is probably lower than the number who experienced the harm.

- About half of the sample had missing teeth, caused by the lack of saliva in the heroin dependent person[35].
- At least three of the interviewees had been hospitalized for a serious event related to drug use, including endocarditis, abscesses at the injection site, cellulitis and other infections.

> *My mother – she didn't notice that my arms were covered in big, pussed [sic] infections because of all the shooting. I don't think she wanted to see that.*

- Three of the participants attempted suicide on more than one occasion. One female respondent stated:

> *I was 21 the second time I tried to kill myself. I was in severe depression from using. I had formed a habit and I understood that I was probably a junkie.*

Education and Employment

Education and employment both suffer after a person becomes dependent on heroin. Because heroin is a short acting opioid, generally users must use three times per day to keep withdrawal symptoms away. This means that the time spent buying, using and finding ways to get money for heroin becomes the main focus of the heroin dependent person's life. It becomes quite difficult to go to work or school if the heroin dependent person is in withdrawal. Therefore, losing employment or leaving school due to heroin dependency is very common[36].

- More than a third lost jobs due to heroin dependency
- More than half left educational programs due to heroin dependency (this includes high school and college)

> *School started out as important [to me] and then [it was] school and drugs and then just drugs.*

Homelessness

Homelessness becomes an increasing issue for heroin dependent individuals as their use continues to escalate. Families, who once may have been supportive, become frustrated and often refuse to let the heroin dependent individual live at home, particularly after a "failed" treatment episode. Loss of employment may mean that heroin dependent individuals are unable to pay rent or maintain housing. Loss of housing carries significantly increased health risks, and is extremely detrimental to individuals with heroin dependency. For individuals struggling to not use, the state of homelessness makes it nearly impossible. Women, in particular, are likely to turn to sex work with homelessness onset. For women, living "on the streets" carries very real risks like sexual and other kinds of assault.

- Nearly half of the sample experienced a period of homelessness. It's important to understand that homelessness does not mean that the individual actually *slept* on the streets. In these

cases, it could be a combination of staying with friends, living in motels for sex work, living in cars or other precarious situations.

- More women than men experienced homelessness prior to their interview. More than half of female interviewees were homeless at some point.

> *She would not let us [interviewee and her fiancé] stay there. So we stayed with someone that I knew used. So we lived in the car or wherever.*

Crime Victimization

One often thinks of the heroin dependent individual as committing crime to support the heroin dependency, and this is often the case. One, however, does not realize the extent to which heroin dependent individuals may be crime victims. In one study, approximately 5 to 15 percent of homicide victims were heroin dependent[37]; in another study about ten percent of homicide victims in the US and Australia test positive for opioids—40 times that in the general population[38, 39]. While homicide is the ultimate form of crime victimization, there are many other ways in which heroin dependent individuals become crime victims.

- More than half of the female interviewees had been subjected to a crime. Three were victims of violent sexual assault (all while living in precarious housing/homelessness situations).

> *One time, I was with a dealer and they brought me to a hotel room and locked me in there. And they shot me up [with heroin] and I was real high and I passed out and there were a whole bunch of guys in there and they raped me.*

- At least one male was subject to a hold-up at gunpoint by other users.
- Many of the interviewees indicated that they had been victims of other forms of crime, such as having money stolen during drug transactions, generally with other users.

Involvement with Criminal Justice System

As the heroin user becomes more dependent and loses employment, the normal trajectory indicates that the heroin dependent individual will commit crimes to support their habit. Generally these crimes are acquisitive crimes— crimes to obtain money. Violent crime is not common among heroin dependent users though they are often victims (as noted above) of violent crime[40]. The heroin dependent individual generally commits four types of crimes:

1. Theft
2. Fraud
3. Drug Selling
4. Sex Work (this is more common among females than males)

Theft and Fraud

About 75 percent of the sample committed some form of theft—including theft from parents, shoplifting, and burglaries. One participant committed several bank robberies and one participant was involved in check fraud. It is important to note that criminal activity goes up as drug use goes up. As drug use drops, criminal activity drops. These trends indicate that criminal activity is directly related to the amount of drug use. Thus heroin dependent individuals' crime levels decrease during periods of low use. Cessation of use generally stops criminal activity altogether[41].

Drug Selling

Those who engaged in drug selling after their addiction did so to provide money for heroin. About half of our male interviewees engaged in drug selling.

> *I would go to Chicago to get the weights I want. I want jabs or raw product to take back to [the suburbs]. I take the $10 bags from Chicago and charge $20.*

Another way in which heroin dependent individuals in our sample paid for heroin was by giving other users rides to the city to purchase heroin:

> *And I had a car, so if someone wanted s*** [heroin], then people had to give me gas and take care of me [give me heroin].*

Sex Work

More than half of the female interviewees engaged in sex work after they had become dependent, generally when the heroin dependent individual was precariously housed. Among all of the interviewees who engaged in sex work, each of them started at the suggestion of another person:

> *We were in [a suburb] and I was panhandling. And I look nice, so people believed me when I said that our car broke down. And one day some guy asked me if I gave massages and I said yes and he gave me $50 and his phone number. And then one day we had no money and no heroin and so I called the guy and met him at a hotel and started doing that [sex work].*

Arrest

The majority of our sample had been arrested at some time following their dependency on heroin. This is not surprising because of the relationship between criminal activity and heroin use. For heroin dependent individuals there are two primary reasons for arrest. The first is related to heroin use – obtaining and using heroin is, in itself, illegal. For some individuals, arrests for possession may be their only contact with the criminal justice system. For other interviewees, arrests for theft, drug sales, or other crimes also occurred.

As stated earlier, increased heroin use is directly related to increased criminal activity (absent use of illicit drugs), and the inverse is also true. It should hardly surprise us that more than 70 percent of our sample had been arrested after they had become dependent.

Felony Conviction

Felony convictions might seem to be the inevitable conclusion to a felony arrest, but this is not necessarily the case, particularly for first time possession offenses. Felony convictions significantly impact an individual's ability to get housing and employment, and may impact student financial aid. Felony convictions may make a person unemployable and unhoused. Felony convictions impact future employability as the felony conviction is likely to follow throughout their life. In the past, employers relied less on employment background checks. The availability of data online and the proliferation of online background check sources demonstrate how easily this information may be obtained. About half of our sample had at least one felony conviction. One of our interviewees indicated:

I am trying to get jobs – back looking for work at minimum wage.

Incarceration

Nearly one-third of our sample experienced incarceration. More men than women (3:1) experienced incarceration after being dependent on heroin. Most people assume that incarceration is a harrowing experience. However, to those interviewees who had been imprisoned, it was not as bad as life on the street.

Current Challenges Overcoming Addiction

Multiple Treatment Episodes

The majority of our sample (80 percent) had been in some form of treatment more than one time. Most of the interviewees indicated enrolling in treatment and attempting not to use, then relapsing. This pattern of use of treatment interspersed with heroin use (and other drug use) is very typical, according to the literature on heroin dependent individuals. Once heroin dependency is established, the life trajectory of heroin users tends to be one of treatment followed by relapse. This pattern generally continues throughout the individual's life[42].

Cycling in and out of treatment and between using and cessation of use may seem a failure to some. However, the public at large must understand that heroin dependency is a chronic relapsing disorder. Thus, relapsing to heroin use is a manifestation of the disorder. Heroin dependent individuals will in most cases relapse, and the success rates for abstaining from heroin appear to be lower than for any other drugs, such as cocaine and methamphetamine[43]. One might ask the question, "Why even send the heroin dependent user to treatment, if they are extremely likely to use again or to continue to use throughout their lives?" The fact is, treatment does lower heroin use and gives many positive benefits to the heroin dependent individual in terms of lowered health risks. These lowered health risks provide an overwhelming cost benefit to society. In addition, when heroin dependent individuals stop using, their criminal activity goes down[44]. Therefore, treatment brings benefits to: (1) the user by providing increased health; (2) saves money to taxpayers by reducing costs associated with healthcare and crime.

Recent Heroin Use/Drug Use Ideation

As indicated above, it should not be surprising that more than half of our sample had used heroin in the three months preceding the interview. While the majority of the sample were engaged in some form of treatment, these relapses are extremely common. Heroin dependent users have very high rates of relapse, and while treatment lowers drug use significantly, that does not mean that it halts it altogether, forever[45]. Another four interviewees indicated that while they had not used recently, they would if they had the opportunity:

> *When I first started [treatment], I felt the cravings were gone. And now they feel like they are coming back. If someone were to come up to me now and offer me heroin, I probably would do it.*

Unemployment

Because of felony convictions, mental health issues or other reasons (such as continued sex work), about 25 percent of the sample was unemployed at the time of the interview. This unemployment rate was lower than expected, and the researchers attribute this to the fact that the majority of the sample participated in treatment.

Living at Home

Half of the sample still lived with their parents at the time of interview. Multiple treatment episodes, early termination of schooling, and difficulty securing employment were some of the reasons why these individuals still lived at home.

Risk and Protective Factors

Research has identified risk and protective factors associated with the likelihood of using substances. A "protective factor" is any factor that reduces the potential for drug use. "Risk factors" are those associated with the increased likelihood of engaging in harmful behavior with negative consequences. A number of ecological domains have been identified as having both risk and protective factors, including community, school, family, peer and individual[46].

There is a great deal of nuance in terms of the attributes of risk and protective factors. Collapsing and categorizing risk and protective factors obscures the distinctiveness of individual factors. Family dynamics, for example, is a complex domain in which various risk and protective factors have been identified. Family risk factors include: chaotic home environment, ineffective parenting, poor parent-child attachment, and family attitude or history favorable to antisocial behavior. Family protective factors include: strong and positive family bonds, parental monitoring, involvement of the parents in the lives of their children, and clear, consistently enforced rules of conduct[47].

These factors, however, encompass a vast expanse of behavior and are not clearly delineated when quantified. Closer inspection of risk and protective factors is warranted. What may appear on the surface as a protective factor may have underlying vulnerabilities that override protective aspects. Care, too, must be taken in deconstructing individual risk factors. Risk factors need not be severe in order to result in destructive behavior.

At first glance, having grown up within a two parent household and not having been neglected in a manner that constitutes abuse appears to qualify as a protective factor against drug use. However, a great deal of friction existed within almost all interviewee parental relationships. The presence of two adults did not necessarily mean that the individual witnessed healthy adult interactions or was adequately monitored. A few interviewees reported close relationships with parents, but acknowledged that "on paper it looked good, but it was kind of a lonely place."

Likewise, risk factors exist along a continuum and do not have to reside at the extreme end in order to influence behavior. Both physical abuse among family members and parental drug abuse undoubtedly qualify as risk factors for drug use. However, care should be taken to not overlook factors that are not as overt, but that lead to the same outcome. Just because an individual was not abused or resided in a household with high educational expectations does not necessarily mean that they felt a greater connection with their parent(s) than the individual who was verbally or physically abused. The uniting theme among all families within this sample was not the type of risk or protective factor present, but rather the experienced degree of detachment between parent and child and the overall lack of communication.

These case studies will demonstrate the nuanced nature of risk and protective factors among the heroin interviewees. Each case highlights differences in family backgrounds, co-occurring disorders, and initiation patterns.

CASE STUDIES

Case Study #1, M, Male, Age 31, Pill Use to Heroin

M is a 31 year old white male, of average height, with an athletic build. We conducted the interview in a historically significant building downtown – a building that he knew well since he had done electrical work there. M was open and friendly throughout the interview, and appeared to thoroughly contemplate questions. M reflected on his experiences and was able to reconsider preconceived ideas. M was articulate, candid, and eager to help, and was the only interviewee to bring a list of prevention ideas to the interview.

M enjoys weight-lifting and competitive bicycling, both of which he became fond of following a drug related prison stint. At the interview, M appeared well-groomed and put together, the opposite of what one might imagine a heroin user to look like.

M grew up in an affluent suburb, west of Chicago. He was part of a large family and grew up comfortably in a subdivision with his older sister and younger brother. His father specialized in a skilled trade while his mother stayed home to raise the children. Although M described his family as being close, and his relationship with his father as "very close," M at times felt lonely:

> *The home – was a little cold. A little hands off….I kind of always felt alone…On paper it [childhood] looked good, but it was kind of a lonely place.*

M's father claimed to have been an alcoholic, yet M saw little evidence of that behavior since his father stopped drinking when M was born. His mother and father did not drink or misuse substances though there was substantial drinking on his father's side of the family, particularly among his uncles and cousins. Although his brother was diagnosed with ADHD, M was not; he did, however, express some feelings of restlessness and difficulty sitting unless he could move his legs.

> *If I am given something to focus on, I can sit and study and learn. I am fine with that as long as I have something to focus on…. I need to be moving around. I can't sit and watch TV. I can't play cards.*

M was caught smoking marijuana at age 14, shortly after he first tried it with his older cousin. After an emotionally charged encounter with his father, M stopped using marijuana for a couple of months. He received good grades and his parents approved of his peer group. M's father told him that if he did not play sports he had to work.

At 14, M began working and held numerous jobs throughout high school. M's parents did not monitor his money or his schedule after his freshman year of high school, and M was not given a curfew.

> *From like 15 – as soon as I got the job at [local food chain], they [parents] would pay for food and rent, but everything else was on my own. It was almost like I was an adult, when I was 15 years old. It felt great. I thought I was a man.*

Since he worked and earned good grades, his parents did not think he was still smoking marijuana:

> *My folks never checked my eyes, searched my room. Nothing. My folks thought it was a onetime thing. I don't think that they thought I would do it again. I thought that I hid it well.*

M continued to smoke marijuana nearly every day in high school. He did not use alcohol until he was 16 years old. He used alcohol at that age to get drunk with friends, an activity that he really did not particularly enjoy. Despite using marijuana daily, he graduated from high school a semester early. M was given the choice of going to college or getting a job. He decided to get a job, so at the age of 17 he began an apprenticeship, working alongside adults who were nearly twice his age.

> *I got into the union through my dad. I am 17 and working, surrounded by guys that are upwards of 30... Still smoking pot every day – in the morning, on the job with the guys, at night. All the time…..And then once I got the union job, I was making about as much money as my dad. And I was young. I was so reckless then. I was impulsive. Do anything, try anything. My thrill seeking was with drugs….When it comes to the drugs, I was seeking out the next high.*

At age 17, M tried his first opioid pill with a friend. His friend's brother had a medical condition that provided him with access to a variety of opioids:

> *I was at complete peace – laying there doing absolutely nothing, but being at complete peace with that. There was no restlessness. Just a warm blanket over my soul. It was the best I ever felt in my entire life.*

M continued to use pills with his friend during the following year, often staying the weekend with his friend's brother, so that they could steal pills. M mainly used Oxycontin but had access to Fentanyl patches and morphine pills. M continued to use every weekend for about 4 or 5 months. At one point, the brother's supply of pills ran out and M's friend suggested that they get heroin instead.

> *I remember thinking that I was scared to try it because it was heroin, but then I remember thinking that it was the same as oxys so it was OK….I loved oxy and I had been told that heroin was similar. So we drove down to the west side and picked up some black guy and he got it for us. And then we bought it every day after that. And I knew – I thought this was f*** up. I thought it was f*** up that I was doing heroin.*

Despite M's sentiment toward using heroin, which was in his words "f***ed up," M felt an instant connection:

> *Heroin made me feel – I would talk about how much I loved that thing.*

M continued to go to the West side every day for more than a year and sensed that he was becoming dependent after a month of daily use. Within 6 months, M was spending more than $100 a day on heroin. M realized he was drug dependent when he was unable to quickly obtain heroin:

*I guess when I knew I was really f*****, was when I would do all my dope the night before and when I would wake in the morning and the boys would not be up at 6:30am and I couldn't get to work until I got my dope. I knew it was the dope. I knew it. I knew it because if I didn't get it, I felt like s***. It was just me. I had no one doing it with me. No one on the west side told me about dope sick. I figured it out.*

Within a year, he knew he needed help. M enrolled in a methadone program but continued to use.

M bought a condo and decided to leave the methadone program when he was laid off because it was too expensive. This was the first of many treatment episodes that M would attempt and fail. After yet another failed treatment attempt, at which time he was receiving unemployment, he suddenly figured out how he could get money to continue to support his habit:

*One day I was cashing an unemployment check and I was at the bank and I saw piles of money being counted and I thought "There, that is where I am going to get my money." I planned the first one. I was sick. But I was going to drive down Roosevelt and saw a standalone bank. I had my bb gun. And I started walking in and there was that voice in my head that was like "What the f*** are you doing? Stop it." But I swallowed the voice and went up to a guy counting his drawer and put the gun in his face and told him to give me all his f****** money. I got $700 and copped that day. And it lasted about a week. Then I did it again about a week later… And then the third one, that was – I kind of botched it.*

M was arrested, detained for 9 months in jail, and ultimately sentenced to four and a half years in a prison in Michigan that had a drug treatment program. M described a revelation about using during his time in prison:

*When I was there, I felt like I had a moment of clarity. I didn't want to do drugs anymore – felt it had f***d my life.*

After M was released, he was reinstated in the union and found a job, a girlfriend, and an apartment. He did well for about a year, until the stress of his job began to get to him. He began using again and quit his job to use heroin full time. After entering treatment his relationship with his girlfriend ended and he quickly relapsed. Prior attempts to stop using on his own have failed, but he has finally been able to stop using:

I have a buddy in Indiana and I asked him if I could kick there. I kicked there for like 5 days and I asked my folks if I could come back to their place. So I finished up withdrawal there at my folks place. And I finally admitted that I was powerless to heroin and I got a sponsor and it's been good.

Although M was able to stop using heroin about 30 days before the interview, there remains a void in his life that has yet to be filled:

Heroin gave me something. It made me feel the best I have ever felt…Maybe I think love was missing. Like, love. I think. I think that, uh, because I always felt like alone. Like even though I had good family, I always felt alone. Different.

Case Study #2, C, Female, Age 27-Cocaine to Heroin

C is a 27 year old white female, from the western suburbs. She is attractive and clean cut with dark hair. She was a cheerleader in high school and her attitude during the interview was friendly, helpful and cheerful. C grew up in a well-educated, high income family with a brother and sister.

C's family has no history of psychological problems and no history of alcoholism or substance abuse. Her brother and sister did not use drugs. C earned good grades in junior high and high school.

When asked about her drug education experiences, C replied:

> *We had D.A.R.E. And a poster that showed the different drugs. But there were no drugs in junior high. At all. In the high school there was no drug education, but there were drugs in high school.*

C felt distant from both her parents and her siblings. C was much younger than her siblings, with her siblings being 8 and 10 years older than she. In a sense, C grew up as an only child, with parents who were much older than her peers' parents. C believed that she might have been depressed as a child and as an adolescent. When she brought this concern to her mother, her mother did not take any action. C described her parents as somewhat disconnected from not only her, but each other:

> *They never had big fights but they always bicker. Looking back, they aren't the happiest together. I thought everything was fine with them but I think they shielded me. They never divorced but they had problems.*

C wished she was more popular in high school. She did not always feel accepted:

> *In junior high I always wanted to be popular. I was a cheerleader and I had friends and I always wanted to be accepted and I kinda wasn't. I wanted to be accepted by the cool kids and that went into high school. There were the popular kids drinking every weekend and having parties with the football team and then there were the ones smoking pot and I hung with them.*

C began smoking marijuana with her friends when she was 15 years old, and fell in with the "stoner" group because she felt more accepted there:

> *I was a cheerleader, but I never fit into the top, top group. Probably my freshman year, I fit into the stoner group… I really wanted to fit in and I never did and it caused me a lot of grief. I should have been happy as a cheerleader but I always wanted to be higher and so I fell into the stoner group because they accepted me. Three other cheerleaders and me went to the stoner group.*

C began to smoke marijuana often, most every day, starting her freshman year of high school, and often used with other cheerleaders before practice:

> *In high school, I'd have to be stoned to go to cheerleading practice or to games. As soon as we'd got out, we would go and smoke right after. I worked at a cleaner's, so it was easy.*

Despite regular use, C managed to earn decent grades in high school, and continued to participate in sports:

> *I was a B student, an average student. I could have done better in high school.*

By her own account she was not the kind of person one would envision growing up to be a heroin user:

> *I was not a big risk taker as a kid. They can't picture me using heroin. My mom was putting ribbons in my hair in fifth grade and curling my hair.*

C was able to pay for her drug use with the job that she held throughout most of high school. After smoking marijuana regularly for a year, her parents found drug paraphernalia:

> *When my dad found the pot bowl [pipe], he said "this is for crack" and I laughed. They knew I smoked cigarettes and they knew that the bowl meant something, but they didn't do anything. They sent me to my room and that was it. They didn't ask anything… my parents missed an opportunity then – they could have asked what are you doing? They didn't do anything.*

It is interesting to note that C's parents, especially if they did indeed think that C was using crack cocaine, did not care to probe further into their daughter's drug activities. An important intervention point might have been missed by not asking C more questions. C, too, indicated that this was an important point for her parents to have "done something."

C's parents overlooked suspicions, and explanations for suspect behavior were accepted unequivocally:

> *They didn't really do anything when stuff would end up missing. They took a hair from my hairbrush one time and got it tested and it came back positive for opiates and they asked me about it and I told it was from Vicodin for my teeth and they believed me. They didn't ask more.*

It became clear that C's feeling of not being accepted—and overall lack of family connectedness—affected her considerably. She appeared to be seeking a connection to someone, a connection of emotional substance. She seemed to have found that in her boyfriend, P, whom she met during her senior year:

> *It was through friends of mine [that she met boyfriend] and they said he [boyfriend] always had pot so it became the hangout spot. His mom knew what was going on. He had a little pot plant growing in there and his mom didn't stop it and kind of enabled him… I thought he was so cool. He had so many friends, he was a little older, he had a big truck.*

Another factor that drew C to her boyfriend was the fact that she liked his mother and their close relationship to one another. His mother was warm and demonstrative, qualities C found to be lacking in her own family dynamic:

> *We never had a close relationship – me and my parents. My boyfriend and his mom are real affectionate and we never had that… I've never kissed my dad and it almost feels weird to hug*

them. To hug my dad. We ate dinner together every night. It was happier when I was younger. I think I was kind of lonely. My boyfriend would talk about playing board games and watch movies and we never did that.

During C's senior year, she began to use cocaine with her boyfriend, even though she was scared to try it:

The first time I did it [cocaine], I worried that people would die. But the two people I was with said "no, no" and that was all I needed and I did it. I was still going to school when I started coke. I only would do it on the weekend. It was exciting and I almost felt high before even doing it. And then it became starting on Thursday night. Then Wednesday night.

C's other friends began to be replaced by her boyfriend's friends, particularly as she continued to use cocaine more frequently:

My girlfriends didn't really do coke. They dropped away. Then it was just mostly my boyfriend and his friends since they were using and I was using.

It was after a cocaine binge that C and her boyfriend first used heroin:

The first time I used I threw up immediately but I thought it was so cool. It made me feel sick the first time and real down.

C and her boyfriend went to Chicago the next time that they used it:

Then the next time [used heroin] was about a month later… It lasted a week when we got the 3 bags the second time. We had to use a little bit because it would get us so sick.

For C, heroin provided comfort from an uncertain future:

Heroin made me feel real mellow like I had not a care in the world. I had a lot of "what am I doing with my life" and physical pain that I was covering up. When I first started it was mostly my parents on me and what I was doing with my life. I chose to go to community college and not college. For [boyfriend].

The precarious factors involved in obtaining heroin also played a role in C's attraction to the drug:

The excitement of going to the city, of getting the drugs, of doing the heroin. The whole thing. The drugs were secondary to the whole getting it and doing it.

Dependency to heroin occurred so rapidly that C was taken by surprise:

And then there was a day that it clicked when we were using and got sick when we didn't use one day. And I lost my job and then we had no money and we couldn't use and then we got really sick and we were like "oh, we gotta do anything we can to get it." and we didn't know we

were sick from the heroin. But we talked to my boyfriend's friend and he told us "you guys are addicted." I never know and I still didn't know when I was doing it that I was addicted. I figured it would happen to "those people" and not me.

C found herself doing things she never thought she would in order to pay for heroin:

Paid for H mostly through my job but then after losing that, pawn stuff, steal stuff, sell stuff. Got money how we could. Never did that (prostitute) but I had heard of a couple girls that did. I stole everything from my house and we broke into a house. I feel horrible to this day that I did that but in the moment I didn't care. I needed to do what I did to get the heroin.

After witnessing her boyfriend get pistol-whipped and robbed during a drug buy while a gun was held to her head, C began to think that using was "too much hassle. All the problems and it is not worth it." This traumatic event proved to be a turning point. C contacted a methadone clinic after 3 years of actively using heroin. She was not scared to seek help at that point because she thought "I won't be sick anymore."

C's story is illustrative of the powerful role relationships can play in drug use evolution. C's need to feel wanted and valued superseded all else:

I can see why [boyfriend] turned to drugs. But in my case I didn't have any of that. If not involved with [boyfriend], would not really have done heroin. I did other drugs before [boyfriend], so it's not [boyfriend] that made me that way. Maybe if it hadn't have been [boyfriend], it might have been someone else. Wanted someone that thought I was cool and liked me.

Case Study #3, B, Male, Age 28, Polydrug Use to Heroin

B, a 28 year old male, is an active heroin user who lives with his girlfriend in a wealthy western suburb. He appears physically fit, tan, and athletic. B does not look like the stereotypical image of someone who uses drugs, much less heroin. B enjoys outdoor activities, such as boating, waterskiing, wakeboarding, and skateboarding. B is employed full time and his girlfriend's family is very well off financially. The majority of the money he earns goes directly toward the purchase of heroin. His girlfriend hates that he continues to use heroin, and it has become a topic of contention between them. At present, B's heroin habit is approximately $80 to $100 a day.

Before beginning the interview, B excused himself to go to the men's room. When he came back, it was clear that he had injected heroin. Both the interviewer and the note-taker noticed the signs of intoxication, as well as the injection mark on his neck. B later revealed to the researchers that he had injected heroin before the start of the interview. He seemed surprised that the researchers were able to tell that he was intoxicated.

Right away, B wanted to make it clear that he was a reputable individual who did not engage in illegal activities to fund his use. B began the interview with the following statement:

> *I hold a job. I am a junkie, but I don't rob cheat or steal. I go to a job every day and make my money for it [heroin].*

B's parents were prosperous, and his demeanor was indicative of someone who had grown up in affluence. His mother stayed at home and his father worked in real estate. B recalls his parents having used a number of substances around him when he was a child:

> *My parents smoked it [marijuana] my whole life. Looking back I always smelled it. I would sneak out and watch my parents with their pool parties and they would be smoking it with their friends. They both drink, but they are not alcoholics. My father has a gambling problem. They did cocaine here and there.*

Although B never witnessed his parents using cocaine, he did have a suspicion that his father sold cocaine:

> *Me and my friends were searching for [parents'] weed one day and ended up finding a few ounces of coke. Which means that my father was selling it because you wouldn't have a bag like that for your own habit. I don't remember seeing them coked up. No, never. I was surprised when I came across that.*

At one point, when he was 12, he moved from one suburb to another. At this time, B was placed in a special education class. He did not like it and felt he did not belong there:

> *In [suburban town], I think I was being a class clown because I was the new kid and I wanted to fit in. So I thought if I did stupid s*** and disrupted the class, that kids would like me. I would do*

anything I could do to make kids laugh. The school talked with my parents and then the next thing I know "Tomorrow you are going in this class." And it sucked because once you go to junior high, you get to move around from class to class. But then here I was stuck in one classroom with 12 idiots and we stayed in that class the whole time….I mean the kids were all there drooling on themselves and I wasn't like that.

B felt he was unjustly placed in special education at a vulnerable period in time, after moving to a new school. B was moved to the regular class the next year. After his transition into a general education class, B did well in school. He earned good grades and played sports. Although B was not diagnosed with ADHD, he believed that he had the disorder.

B described his relationship with his parents as "very close," and by the time he was 13 or 14 he was smoking marijuana with his parents. By his freshman year, he was smoking marijuana most every day and by his sophomore year tried psychedelics. B described his house as the "party house":

My house was always the party house. Kids would come and hang out at our house. It was – I don't want to say a free for all – but we could get away with anything. Smoke, drink.

Although B's parents allowed his friends to drink and smoke at his home, B did well in high school. He played sports, and earned good grades. B first tried heroin during his senior year of high school:

I was exposed to it. I didn't seek it out. Someone had it and they offered it to me and I saw that they were fine. The person that offered it to me was not some strung out junkie. They looked like me or you….If you are at a party and someone opens a pack and dips a key into the powder and then puts it under your nose and says sniff, that's not so scary. That's how we did it.

B indicated that many of his friends were using heroin in high school and after graduation. Since he moved away to college it did not become a problem for him at that time:

The people I knew in high school that used heroin all got addicted. Most of the kids that were using in high school stayed around. I went away to [college], so I wasn't around it down there. They stayed and got habits up here. There were maybe 30 people I knew that using heroin that I went to high school with.

B dropped out of college because he was "partying," smoking pot, drinking and not attending classes. His parents approved of a plan for B to move to another city. They wanted him to "go and have some fun and then get it out of [his] system and try school again." He moved with a friend and discovered opiate pills. B never got a job; instead he earned money from selling pills. After some time, he realized that he had become dependent on opiates:

We did this selling for about a year. I was using the pills every day. I didn't realize how bad my habit was because I had access to all the pills. I didn't realize I had a habit until it was a big habit. I was in [large city] once and I didn't have any pills or dope and I got sick.

If he did not have access to pills he would use heroin. B used heroin and pills interchangeably. Shortly thereafter:

> *I had to come home for my grandma's funeral and my family saw me and they knew I was a mess. I had track marks and things like that…. So when I came home, my parents put me in rehab.*

B attempted to get clean, but would always go back to using. He tried to stop using many different times. At one treatment facility, he was able to not use and earned a certification that would further his career. But B continues the start/stop cycle of addition:

> *It's not fun. It's a job. I take Suboxone, I get clean for a week and then I say "Oh, you know how high you'll get now?" And then I start using again and this is what it looks like. Get clean, stop using heroin, then start using again and then use a lot.*

B had a hard time sitting still so at one point the interview was paused for a cigarette break. While outside he said that heroin helped him deal with all of the unfair things in the world:

> *I use heroin because it numbs me to pain – bigger pain. It does not make me worry about injustice in the world. It makes me numb to my surroundings. There is a lot of injustice – hunger and everything. And I thought I could help fix that but I can't. And heroin makes me forget that.*

B expressed much ambivalence about his use and made several contradictory statements. For example, B declared that, "if [heroin] was free, I would see no reason to quit." Yet in another breath B expresses some regret:

> *I thought I was smart enough that I was not going to let myself become that guy. I was just going to try it and then walk away.*

Despite acknowledging that heroin has affected every aspect of his life, B continues to believe there is nothing wrong with using. For B, his habit has assumed the form of a hobby:

> *I don't see anything wrong – heroin is not a sin. Heroin has ruined my life pretty much. I've been arrested, I've broken hearts, I've got no money in the bank because of it. Without heroin, I'd have been much better off. I f***** up school because I was young, but then because I was a junkie I never went back to fix it. Heroin has not made my life any better. But I enjoy it. I am looking forward to going and doing some. I enjoy it. It's my hobby.*

Case Study #4, F, Female, Age 22, Polydrug Use to Heroin

We met F at a Starbucks in the suburbs. F carried a designer bag and sun-glasses, and was very well dressed, with a short, stylish haircut and carefully applied make-up. When she took off her sunglasses, it became clear that she was a very attractive girl, one whose appearance would never belie the harrowing experiences she endured both before and during her addiction to heroin.

During the warm-up phase of the interview F found it very difficult to come up with activities that she liked to do for fun. Even though F was working and going to school to become a hairstylist, she was disconnected from her participation in these activities and appeared depressed.

F's father died suddenly when she was 9 years old, and her mother was diagnosed with breast cancer shortly thereafter. Neither one of her parents suffered from a substance use disorder or used substances problematically. After her mother became ill, F's older sister's friends became her friends. Due to her mother's time consuming cancer treatment, there was a general lack of parental or adult monitoring. F began to experiment with drugs, generally using with others. One of her sister's friends told her to try the Vicodin that her mother had left over from surgery:

> *When I was 12, my mom had 3 bottles of pain pills left over and I took them all. I took them while I was drinking because that is what my sister's friend told me to do.*

Perhaps because of her history of depression and anxiety disorders that preceded her heroin use, listening to others guided F's experience of using drugs and other social activities. F had a terrible fear of being alone.

> *I can't stand to be alone – when I am with someone, I feel OK. I feel loved. Even if I don't really like the person – I can't stand being alone. I always have to have someone.*

In order to avoid being alone, F did what people, older people in particular, told her to do. By the time F was a freshman in High School she was dating an older boy and had started to use cocaine quite frequently.

> *But then when I started doing coke with my boyfriend – he was very bad. He would ditch school and he got kicked out of regular school. [He was] sent to an alternative school. So I was hanging out with his friends then. Once I started using the coke, that was a new group – that was his friends.*

Soon after, she began to use heroin with her boyfriend and another friend. F quickly became addicted, and went to rehab about 7 months later. A group of F's friends started using heroin as well, and all of them became addicted. Even though F expressed fear about using heroin, she wanted to do it because her boyfriend was doing it:

I was doing coke every day my freshman year. I was doing it with my boyfriend and then he switched to heroin and then so did I.

F was heavily influenced by others, and had a tendency to comply despite reservations:

It was huge in my high school. Everyone was doing it – we had thousands of people in the school. Our campuses were split in half. So maybe hundreds of people that tried it. We started out snorting it. I didn't shoot it the first time. I didn't think that it was really bad. I was scared the first time – scared of overdose. And my friend was scared. And I was really tired and I didn't like it. But she liked it. And I wanted to get coke the next day only and she was like "let's get heroin too." So we did, but I wasn't into it. But that second time, I loved it. I was happy and felt no – I wasn't worried about anything. I have really bad anxiety and depression. I had been diagnosed before I took the heroin.

For F, heroin served two functions: to self-medicate her feelings of depression and anxiety, and to maintain closeness to others, regardless of how detrimental those relationships proved to be:

Because people deal with things in different ways. I found something that worked – that I thought worked. Plus – for me – at this one point I didn't want to lose my boyfriend to a girl that was using.

The friend F used with was also her older sister's friend. He alerted her sister to her coke and heroin use. Her sister told their mother, which prompted a series of out-patient and inpatient treatment programs:

My mom made good money. We were upper middle class. After all my rehabs, she spent a lot of money and we are middle class now.

During a period of intensive treatment, F met her boyfriend in a treatment facility. F enrolled in another treatment program, but left early to get an apartment with her boyfriend in another state. F's mother knew of this living arrangement and supported it. F was able to pay for her drugs because her mother continued to give her large amounts of money:

We went to [another state] to visit my friend – she graduated from [a treatment program] and then went to a sober living program. So she was using even though she was in the sober living program. And we used together. And then when my boyfriend and I got back to [different state], we found a dealer – this guy – and we were using hard every day. He [boyfriend] liked crack and I liked heroin and we would use both. My mom would give me $1,000 for rent every month and then his parents were very wealthy. So we had them [roommates] pay the rent and then we had $1,000 to use. And then I had the account attached to my mom's, so I could take money out of there any time that I wanted to take it. And then we would also get $150 a week for food. But that money went by really fast, especially when you are doing crack too. All we did all day was crack and heroin. We overdrew our banks and credit cards. We'd rip off our friends during drug

deals. This lasted less than a year. It seemed like forever – but it was probably about 6 months. We fought, we argued. It was just a mess.

F's life so far had been characterized by multiple treatment attempts and multiple suicide attempts. Following a string of failed treatment attempts, F's mother would not allow her to return home and F became homeless. In order to support her habit, F turned to sex work. During this period, F was gang-raped by drug dealers, sexually abused during a treatment episode, and contracted the herpes virus. F experienced numerous traumatic events during her short 22 years, including the death of multiple friends from overdose, unintended pregnancies, and nearly dying from an overdose on more than one occasion.

My older sister's friend – the one that told me to take the pills – died of an overdose to heroin.

At the time of the interview, F was living with her mother, but the relationship was strained. Her mother was helping her to stabilize her life financially. F continues to struggle with unresolved trauma and depression. At the end of her interview she said:

I get depressed when I am by myself. I feel like – I don't know. When I was using, I could go to getting high. And now that I am clean, when I get depressed, I go straight to thinking about suicide.

Case Study # 5, A, Male, Age 30, Pill Use to Heroin

We met with A in downtown Chicago. He wore a baseball cap and an oversized sports jersey. A spoke softly, but was extremely engaging. A is a tall, white, 30 year old male from the western suburbs. It was clear from the interview that A was intelligent, reflective and thoughtful. He was able to think carefully about his actions and demonstrated a great deal of self-reflection. A provided many suggestions and was interested in thinking about prevention ideas.

A enjoys watching sports, playing video games, and reading. He is not a fan of playing cards, however, since they remind him of his time in detention centers as a teen.

A and his two younger brothers were raised in a western Chicago suburb. A's parents divorced when he was about 5 or 6 years old. A described his father as an "alcoholic," as well as his grandmother, who in turn abused his mother growing up. A's mother suffered from both anxiety disorder and depression, and A has a panic disorder. After the divorce, A's mother began dating a man who was physically abusive toward him and his mother, and who was also criminally involved:

> *He was a bad guy – into coke and associated with the mafia in [a suburb]. He used to beat me a lot and he beat my mom. I have 2 brothers – one 6 years younger than me and one 4 years younger than me. All from the same dad. But I was the only one that was hit.*

As a result, his relationship with his mother during his adolescence was "on and off." A had minimal supervision growing up, and was given responsibilities that were not age appropriate. This combination allowed A to engage in risky behavior:

> *I was babysitting at my aunt's house and they would go out and I would come over and babysit – a newborn and a 1 year old – and they had a bottle of hard liquor in the fridge and I drank it and got real sick. I was like 11 or 12. I don't know why I did it – bored I guess.*

Left unmonitored, A began to experiment with friends:

> *First time I smoked pot was when I was 13. My grandma lives in Chicago and she rents out the bottom apartment. And my friend lived in the bottom part and he was smoking weed and one day I tried it. So when I would go there, I would smoke it. And I never sought it out when I was younger.*

When A was 14 years old, his family moved to a different suburb. A and his mother continued to be abused by her boyfriend. A felt frustrated in the face of this continued abuse. A began to take part in delinquent behavior that had an effect on his emerging personality:

> *I was in the gang from when I was 14 to19. I lived the whole time in [suburb]. We drank in the park, but it was never an everyday thing. When I first joined the gang, I was innocent. And then maybe 6 months to a year into it, I started changing. And I liked it. I was really popular in school and I had a lot of girls chasing me. And people were afraid of me. My personality changed – well*

– maybe my eyes opened to the world more and I was exposed to more stuff. I was never in fights or rarely was around violence – well at home I was. But I was never exposed to drug dealing until I was in the gang. And then I wanted to be the toughest, baddest guy around. I went from being a normal kid to wanting everyone to be afraid of me.

A thought that his desire to be "the baddest" and wanting others to fear him came from the continual feelings of powerlessness over his and his mother's abuser. In, addition, A's connection to his family was extremely tenuous because of his mother's work schedule and the abuse he continued to face.

A became increasingly oppositional, and would get into fights at school. A was arrested and put on probation, but had decided he was "on a mission to get kicked out of school." His friend had gotten kicked out and told him "it was the best. So I did everything to get kicked out. Break sh**, tag the bathrooms. Wore gang colors to school and then told the school cop to f*** himself." Ultimately, A was sent to another school, but was beat up daily by rival gang members. A's mother then placed him in into an alternative school at 16:

And that's what I wanted. To be with my friend in that school.

Despite his reckless and destructive behavior, the level of supervision at home did not change:

My mom did not know what was going on. She worked really long hours. I would hide all my stuff behind my dresser drawers. My mom would never be home and my brothers would go to a babysitter. She worked like a 12 hour shift.

A was free to try different substances. At the age of 16, A snorted his friend's Ritalin, tried acid, and drank a couple of times a month. A would smoke marijuana with his "pothead" girlfriend at the time, but his use overall was minimal. Around this time A began to sell coke, but was too scared to try it at that time. A did try coke when he was 17 but "never really cared for it." A would pay for drugs by stealing or working at local establishments.

A was in and out of youth homes over 20 times during his teens for a variety of offenses. He was involved in a crime when he was 18 that resulted in his arrest. That event made him seriously consider leaving the gang. A left the gang and moved to another town when he was 20 years old.

During his early 20s A broke his foot, setting off a turbulent chain of events:

I didn't use heroin first – I broke my foot and I was out of pain pills in like 2 weeks, but he [the doctor] kept me on Vicodin for 8 months. I kept calling for refills and he kept giving them to me. I didn't know it was from addicting. I figured it was safe because it was from a doctor and he kept giving it to me. That was all I was using when I was with my girl. And then the doctor cut me off completely. And I didn't know – I got sick and I had a horrible headache. It was only 2 weeks that I needed it for my foot. A few weeks later I noticed it would put me in a good mood and want to be around people. I was popping them all the time. The feeling would wear off and then I would have to take more.

It was A's trust in members of the medical community that led A to believe that "if [his doctor] was still filling [the prescription], it must not be that bad." A was able to refill his prescription of 40 pills for 8 months. There came a point when A acknowledged that he was abusing pills in order to get high, but rationalized his actions by thinking, "if it was bad, then the doctor would stop it."

After the doctor ended A's prescription, he did not use pills again for about a year. His girlfriend was then given a prescription to treat a medical concern:

> *And I took her Darvocet and it gave me that same feeling as the Vicodin. I would take them on the weekends to party. She didn't know I was taking them. I would never get that bad – just in a good mood. I didn't take tons. Just pop 3 or 4 to feel good. So for 6 to 8 months I would only use them on the weekends, but then it started to become - well it makes me feel better on the weekends, so I started to take them a few times a week. And then every week. And I would refill her prescriptions. And then one day she needed a pill and she tried to refill a prescription. And the pharmacy wouldn't fill it because they told her she had just refilled it the previous day. And they gave her a printout of all the refills. And she came home screaming. And then she cut me off. And then I went hospital hopping, telling the docs that I had really bad back pains or migraines. But that became hard because I was going through them too fast.*

Although unable to easily access pills, A's need to use did not diminish. At 23, A was approached about a drug that mimicked the effects of Vicodin, a drug he was familiar with. A hesitated only momentarily:

> *And then this kid on the corner – I had no idea about heroin. He was an addict. And he said that it was like Vicodin but better. And I was working at the gas station and he came over and was like "I got some." But I was scared 'cause I had heard of rock stars ODing [overdosing]. But he told me that it would be fine just to try a line. And I did and it was great. And so I told him to get me a few bags.*

For A, heroin use was a form of self-medication, a self-prescribed remedy for any and all ailments:

> *It just takes you into a different world. You care about nothing. You are physically addicted to it. You are in your own world. You can't just wake up in the morning and feel normal – it sucks that you have to take something to feel normal so that you can function.*

A was too scared to go to the city to buy drugs, so he would ask a non-using friend to accompany him. After six months A's use gradually increased, and his friend told A's girlfriend about his use.

> *And then I started slipping away from the relationship. She was on my ass all the time. Calling me on my cell phone all the time. So she started going out and she ended up meeting someone. And then I moved up to like 2 bags a day and she wanted to break up with me. And I was like "if that's what you want, do it." And I was relived. Because then I figured she was gone and I could do whatever I wanted whenever I wanted. So then I moved up to 2, 3, 4, 5, 6 bags a day.*

A had been living at home ever since he broke his foot. He had difficulty keeping a job since he was constantly sick at work. A's mother became suspicious:

> *My mom started suspecting things – she found burnt spoons, empty tinfoil packets. And one day I was wearing a sweatshirt and she told me to lift my sleeves. And I had missed a shot and had a huge bruise on my arm and she saw it and flipped out. She told me I had 24 hours to get help or get out.*

A's first attempt to quit on his own lasted only a few weeks. Once A felt he had regained some of his mother's trust, he would date other users and pawn items to purchase heroin. A used his car as a tool to get drugs from users in exchange for a ride. As a result, A's mother would take his keys away when she felt he was using again.

After a series of attempts at forced sobriety, A moved to live with his father in Chicago, "because he didn't give a sh** about what I did." A used during that time, and would steal money from this father. When his car broke down, A realized he had no way of obtaining heroin so he told his mother he was using and moved back home.

> *So I told my mom again and she told me I needed treatment. So I called a whole bunch of places and they had 3 month waitlists. So I found the methadone place and my mom was like 'no.' She didn't want me on that. But I asked her to at least come with me for the appointment. And she did and she liked what she heard so I started methadone.*

In the end, A continues to blame his doctor for his initiation into the world of opiate use:

> *If I had a doctor that would not have kept me on it for 8 months – I know if I would never had had that doctor, I am almost 99 percent positive I would never have used heroin.*

Case Study #6, E, Female, Age 29, Cocaine to Heroin

We interviewed E at a Starbucks in the western suburbs. E was quiet, slightly nervous, and not very forthcoming during the interview. She was heavily made up, was wearing a low-cut shirt, and her clothes and accessories appeared expensive. She was not quite engaged, but not disengaged either. She presented with blunted affect, as though she was disconnected from her emotions. She was willing to provide great detail, but at the same time her tone was expressionless. The interview was quite lengthy, lasting well over three hours. After the researchers paid her for her time, she remained seated, as though she had something more to say. It seemed as though she was looking for something, or wished to reveal something more. Throughout the interview, she admitted that she was depressed and often bored. Perhaps that was why she did not want to conclude the interview – perhaps she was just getting warmed up.

E is Latina; her parents are married and she has an older sister. E was involved in many extra-curricular activities, including drama club, Hispanic club and sports such as basketball, but her attendance in the events decreased as she got older. Her father's relationship with E (and the rest of the family) was extremely volatile and abusive:

> *He was never sexually inappropriate but everything else. I had bruises. Nothing on the face. Always on my arms. He was arrested by never charged because my mother would drop the charges.*

E also indicated that her father was an alcoholic, and though no one in the family was diagnosed with a psychological condition, many of the relationships in her family were both abusive and secretive:

> *My family puts up a front towards other people: we're happy, we're fine and nothing is wrong. At home [it] was the complete opposite….*
>
> *I kept a lot of the father abusiveness inside. We didn't even talk about it in the family. None of the verbal or physical abuse stuff. Living with my father was bad. Any little thing would set him off and he would yell or hit me…We'd leave a few times but always come back. And the police were called a few times.*

E also felt depressed and lonely as a child:

> *When I was in the hospital, I was diagnosed with depression. As a kid and a teen I would cry a lot, so maybe I was depressed then.*

E's experience of high school was not always positive, despite the fact that she her friends were "squeaky clean":

> *At that time I thought it [school] was stupid and I should just go through the motions and get it over with.*

It was during her sophomore, and into her junior year, that E began to use marijuana with her male cousin. She became more involved in using marijuana when she was 17, and experimented with LSD, Ecstasy, and other pills. E found that this pattern of drug use escalated after her father became more physically abusive. E found that her girlfriends from school were not interested in drug use, so E started spending more and more time with her cousin. It was during her senior year that she first tried cocaine with her cousin:

> *I started just on the weekends as a senior and then I would take it more. Then I would start taking it in school. My parents would give me money every day. I couldn't get the coke at school. I had to go out and get it from my cousin's people in the neighborhood. He knew someone – the preacher's son – he was in a gang and got the coke. At first, I bought $20 in little bags and then 8-balls on the weekend.*

Despite her escalating cocaine use, E graduated from High School. She didn't think cocaine was much of a problem for her, despite her increasing usage:

> *[I] didn't ever think that I was using too much. [It] didn't feel problematic because I was able to go to school and I felt fine and I didn't feel sick or anything. I wanted more. The urge to want more was there.*

In wasn't until her first year at college that she tried heroin, after a late-night cocaine binge:

> *[We] were not scared to do it, [we were] scared to get it. We didn't know that you would get sick. We split one bag-- all three of us and just came down and shut down. We didn't like it at first. And then the following weekend we tried it again to come down. We didn't like the feeling but it helped us come down [from the cocaine]. We didn't know anything about heroin.*

It wasn't long afterward that E realized that cocaine and heroin were very different drugs, and that her drug information was sorely lacking:

> *I didn't have any information. Nothing at all. I thought heroin would be like coke. That kind of addicted. I was clueless. I found out everything on my own while I went through it…. I had no family, no one I had seen go through it so I assumed it would have been fine. I wish I would have known. When I did coke, I did it because I wanted to and it was fun. But then with heroin, I did it because I had to. At first it was fun, but then I had to [use it]….The more we used the more we liked it and by the time we realized we were using a lot, we were hooked. It was fast. A few months of doing it on the weekend only and then I don't know what triggered it but then we switched and started using every day.*

E's mother gave her money when she wanted it. Although E indicated that her behavior had become more erratic, her mother did not question her about what she was doing, or why she needed money. Her parents seemed somewhat disconnected from her life and this pattern of secrecy, and not asking

questions continued. E's knowledge of heroin and other drugs was very limited. She did not understand the physical dependency related to heroin:

> *I didn't even know habit. Habit? What's a habit? I thought if you didn't want it, you didn't do it. But heroin had a hold on me.*

E went to a treatment facility after confessing to her mother that she had a heroin problem. At that time, she was diagnosed with depression and placed in the psychiatric ward. After her release, she quickly relapsed. She was still able to buy heroin:

> *My mom was still giving me money because she thought I was fine, but I started using about a week later.*

E's cousin went into treatment and stopped using, but E found another friend who used. This friend introduced E to sex work:

> *J knew this guy that was a pimp and he lived in the city. So he was a dealer too and we would just go with him and he would supply the drugs and we would supply the rest. Never got money from that, just the drugs. I didn't like it and I felt like "Oh my god, what have I become," but on the other hand I just wanted to get high so I didn't really care.*

E's family found out she was still using heroin, and forced her to leave the house. She continued to use heroin—more than $200 a day— and supported her habit through sex work, forgery, and check fraud. She did not make money from these illicit activities; rather she earned drugs to support her habit. E relived the cycle of abuse that she had experienced as a child by allowing men to continue to take advantage of her:

> *I didn't really see a penny of the money. I got drugs. I got used in the scenario. They would take me to the bank and would be out in the parking lot waiting for me. I got used and abused big time.*

Soon after, E began to date one of her customers, named M who eventually set her up in an apartment. She continued to use, but when she became pregnant with M's baby she stopped and got on a methadone program. The longest period E has been clean was during her pregnancy.

Today, E continues to struggle with using. She lives with M, the father of her child, a man more than 30 years her senior, and their young daughter. Her relationship with M is somewhat explosive, but that perhaps has more to do with E than with her boyfriend:

> *M would probably say that I am crazy. There are a lot of issues between us and I show a lot of anger between us and I snap a lot. Not just when I am sick but in general.*

> *I don't know if he [M] is scared to say something because I have become my father. I yell loudly and I get really, really mad, like I am ready to hit. And I have. I've hit him and I feel really bad*

because he's done so much for me. I've become what I said I never wanted to. I don't like it, but that is what it is.

M was able to support her heroin use for a long time, but no longer has the same resources he once did:

M told me to go out there and do what I need to do to get money. Told me to put out an ad and get money because he told me we were getting low on money. That was about 2 weeks ago. He wants me to work because of the money. He doesn't care if I use.

E continues to practice sex work when she needs money for heroin, although for a long time methadone was working for her:

And I wasn't using until recently. I would say the past 3 weeks I have been using every day. My kid doesn't know, but it's getting harder. She's looking at my hands and feeling them and she asks me "what are you doing?" she asks me where I am going and wonders why she has to stay with daddy when I go out because she usually goes everywhere with me.

But for E, the struggle is complex, despite her child, despite her sex work, despite the expense, because:

It [heroin] makes everything just feel better.

WHAT YOUTH WANT IN DRUG EDUCATION

Methods

Recruitment and Focus Group Moderation

The focus group participants were recruited through a number of avenues. Advertisements were placed on all west suburban TribLocal "reader submitted news" pages. Advertisements were also placed online at craigslist.org and circulated through student networks on Facebook. Online and paper advertisements were provided to professors teaching summer courses at the Roosevelt University Schaumburg campus. Research assistants passed out recruitment flyers at North Avenue Beach in Chicago and Woodfield Mall in Schaumburg. Flyers were also posted in community locations (libraries, coffee shops, sandwich shops) in Naperville, Downers Grove, Lisle, Wheaton, Roselle, Bloomingdale and Schaumburg.

The criteria for participation in the focus groups included the following: (1) Attend high school in the suburbs; (2) Be between the ages of 18-24 years old; (3) Have some experience with drug use in high school. Participants were asked to call or text the dedicated study cell phone, or email their interest to a confidential Gmail email.

The focus groups were conducted in private classrooms at the Roosevelt University Schaumburg campus; each focus group lasted 2 hours. All focus group participants were compensated for their time in accordance with Roosevelt University's Institutional Review Board. Twenty-eight individuals participated in the three focus groups (~ 8 to 10 persons per focus group).

The focus group moderator led the discussion of the focus groups using a written moderator guide. The questions were developed following reviews of literature on themes and challenges in drug education and prevention, as well as preliminary analyses of the heroin-involved youth interview and focus group data.

The focus groups were not recorded due to the sensitive nature of the discussions. Four note takers were present during the focus groups to record the participant responses. Note takers recorded the responses in a word document on laptop computers to prevent the need for further transcription. Three of the note takers were assigned to record the responses from a set number of participants (i.e. in a group of 9 participants, each note taker recorded the responses of 3 participants) to ensure quote accuracy and details. A fourth note taker recorded the responses of all participants to capture the flow of the discussion. This allowed the note takers to compare their responses, enhancing accuracy of data collection. At the conclusion of the focus group, the note takers shared their notes with one another to identify any inconsistencies and rectify any errors. The recorded responses from the individual note-takers were then compiled into one comprehensive document for ease of analysis. The researchers did not write down the interviewees' names in any document. The researchers did not know the last names of the interviewees and were very careful to keep interviewees anonymous because of the sensitive nature of the project. As a result of the privacy and confidentiality protocols for recruitment and

interviewing, the researchers do not know the full names of the participants. The note-takers transcribed the focus groups using the participants' first initial, age, gender and the community in which they now lived. The study used a dedicated cell phone for this project. No links currently exist between the researchers and the focus group participants, as the phone number call log and text messages were deleted from the phone at the conclusion of the focus groups.

Data Analysis

The focus groups were coded twice for themes. First-pass coding resulted in a number of themes pertaining to drug use, drug education and prevention, and messaging and messengers. Second-pass coding narrowed this list of themes into broader "code families." The larger number of themes was collapsed into broader categories (e.g. "didn't talk about all drugs," "left out details," "limited information" → "drug education content concerns"). These second-pass themes created the foundation for the information contained in the potential consumer focus group summaries.

Drug Education Experiences

We asked participants to examine the types of drug education or prevention programs the participants had experienced in their lives and their opinions of these programs. We asked participants to tell us about the best and worst things about drug education now, and whether they remember learning about heroin in any of their lessons. We hoped to learn more about what they believed worked and didn't work in current programs, and whether they had any knowledge about heroin or other opiates.

> ***They try to prevent use when you are young, but we need it in high school. We are more vulnerable then. And we need it to be specific. –*** *Participant*

- Many participants reported experiences with the D.A.R.E. program in elementary school. While a few thought the program was interesting, or liked the giveaways, most felt the program was boring or forgettable.
    - *The message from D.A.R.E. was…you should be an upright citizen, not, here is the effect of drugs.*
- Some of the participants had health classes with presentations about drugs and drug use. These participants said that the information presented in health was better than in the D.A.R.E. program, but that it was not very comprehensive. They described it as being limited to short, 2-week sessions or bullet point presentations. Health class was perceived to be more focused on pregnancy and STD prevention.
    - *You learn a little bit more in health. It was a short unit and I took it in summer school. It was for one day with some PowerPoints and then we never talked about it again.*
    - *Our health class was more focused on STDs and pregnancy.*
- Participants that did not have health classes with drug education sessions remembered assemblies with guest speakers or videos about the consequences of drug use.
    - *We had a lot of those slippery slope videos. Like you would smoke pot and it would lead to coke and heroin and you would die.*

- All of the participants responded that their drug education was not comprehensive, regardless of the format or program.
    - *They kind of categorized the different drugs, but they didn't go deep. Like how much it cost or the effects of it.*
- Refusal skills are often a component of drug education programs because of the assumption that young people will face peer pressure. Participants stated that peer pressure is generally not direct (i.e. "Take this or you're a loser!") but indirect offers from friends (i.e. "Want to try this? I find it cool.")
    - Commonly used refusal skill suggestions were seen by several participants as insulting (e.g. "No I won't smoke pot because it makes you get the munchies and get fat") or juvenile (e.g. "Let's play ball instead").

Problems with Current Drug Education

We asked participants to think specifically about the elements of the drug education programs that they did not like as recipients in elementary school and high school. We were interested in their concerns about the content, the method of delivery and the presenters. We hoped to learn more about their opinions on these issues to identify components that may not work well in future programming efforts.

I don't remember them being so specific. It was just a general don't do drugs. – *Participant*

- Participants overwhelmingly believed that they were being told partial truths about drugs or were given incomplete information in their drug education programs.
    - *They would show you these pictures [of the effect of drugs on the person]. Like a before and after picture. And they would say, '[Drugs] will ruin your life.' But how? They show the pictures but then don't tell us about them.*
- Participants felt that drug education was not realistic nor was it relevant to their needs and experiences. Some believed it focused too heavily on alcohol and marijuana and not on the other substances.
    - *By the time I got to health class, I had already used marijuana. <Another participant nods in agreement> I remember that other drugs still sounded scary, but I knew that marijuana was not scary.*
- Participants believed that they were placed at a disadvantage when the assumption was that they were learning all that they needed to know through their drug education program. One participant remarked that he realized just how little he must have known in high school when compared to how much more he had learned through his college public health course.
    - *I learned everything later. I had information when I was 20, but not when I was 12.*

- Exaggerated stories and warnings as a component of the drug education program were perceived as insulting and discrediting by some participants.
    - *D.A.R.E. would show you pictures of what could happen to you. Like bad teeth or what would happen to your physical appearance. Like, the repercussions of really heavy drug use. But if I try it once, it's not like my teeth are going to fall out.*

Prevention Messages about Drugs and Drug Use

We asked participants to recall the messages they have received about drugs (in general and about heroin specifically), drug use, and the individuals that use drugs, and reflect on how these messages made them feel. We wanted to learn more about the messages that were resonating with them and the ones that they perceived as inaccurate, misleading or condescending in some way.

There was no in-between. Either you don't do drugs [or alcohol] or you do drugs and you die. – *Participant*

- None of the participants could recall any direct messages about heroin or heroin use, nor could they recall being given information about heroin. If heroin was mentioned at all, it was as part of a list of drugs to avoid or not use or part of a table reviewing the short and long-term physiological effects of all substances on the body.
    - *They touched on heroin briefly. Like, 'Don't do it,' and that was it.*
- Most participants did not believe in the "gateway theory" message and felt that it was a simplistic view of substance use. Participants believed that use was a very individual process, and that drugs would impact people in different ways.
    - *Some people can go out and smoke [pot] and do their jobs and others can't. Don't blame it on the drugs, blame it on the person. Well, not blame them. Addicts can get addicted to watching TV, eating, anything. It's not the drug. That might not happen to everyone.*
- Participants felt that the manner in which progression of use was described in drug education programs was also overly simplistic, and ended in one outcome.
    - *They always showed that the end result of using was that people die.*
    - *They would put [drug use] with, like, a car crash or something. But I figured if I didn't do it that way [use and then drive] I would be ok.*
- Participants saw the takeaway message of drug education to be "don't do it." All participants felt this was not adequate and that people needed more education about drugs.

- Some participants perceived that messages may have been portraying use as a sign of personal weakness or deficit.
    - *D.A.R.E. was about: Be above this and don't give in.*
- Several participants mentioned the confusing messages offered by guest speakers, including one presentation that was loosely related to suicide and another that appeared to be a stand-up comedian doing skits. An additional speaker was very unclear about the drugs he had used or the impact they had on his life, speaking only in generalizations. This lack of clarity confused and irritated the participants.
    - *I remember one time we had someone come in to talk and he was a good looking guy and he seemed really well put together. And he was talking about doing drugs and that it really messed him up but he looked better put together than me!*
    - *I was in a rehab program and they took us to a school to talk about our experiences. We couldn't say what we used. We just could say we used drugs.*
- Messages focused on the extremes of drug use. Some participants felt that the videos of worst case scenarios or MRI brain scans were fabricated or exaggerated.
- A few participants mentioned that they were most interested in scientific messages about drug use, but that these were not provided through traditional drug education and prevention programs.
    - *[My brother and I] were into science and actively researching drugs so we didn't take what the people were saying for true…I was interested in the scientific basis of all this stuff.*

Drug Representations in Prevention, Education and Media

We asked participants to think about the images of drug use they have seen through various mediums (drug education literature, TV shows, movies, books, etc.) and discuss their opinions about this imagery. We wanted to learn where young people were acquiring their information about heroin and other opiates, since our earlier review of drug education curricula suggested that few of them would have received heroin-specific prevention messages from teachers, parents, or their schools. We also wanted to understand whether there were differences between the public images of heroin and substance use and what they had been taught in school or by their parents.

Have people watch Requiem for a Dream to see how bad heroin use can be. – *Participant*

- Only one participant could recall any representations of heroin use and its consequences as part of their prevention programming, but the presentation was not well-received by his classmates.

- *One guy came in and he was a stand-up comedian and he would act as different characters and one was a heroin addict that went to rehab. We thought it was stupid because he was trying to be cool and connect with the kids.*

- Some participants mentioned popular culture sources of heroin imagery. The movies "Trainspotting" and "Requiem for a Dream" were both listed as believable representations of heroin use.

- Participants believed that depictions of drugs and drug use in prevention programming did not seem realistic. As one participant put it, the drug-using individuals in the videos and stories seemed to come from "another corner of society." Another participant mentioned that the scenarios were often not relatable and appeared to be something that would never happen in real life.

    - *D.A.R.E. would show you pictures of what could happen. Like bad teeth and a bad physical appearance. Like the repercussions of really heavy drug use. But if I try it once, it's not like my teeth are going to fall out.*

- Many of the participants mentioned the A&E television show "Intervention" as a source of drug information and imagery. Reactions were mixed on the usefulness of this show as an educational tool.

    - Some participants believed that the realism would prevent people from using because they can watch the negative consequences for the individual and their family.

        - *I watch a lot of Intervention and I think it's one of the best shows that portrays [drug use]. They show you the lowest of the low. And they show you their families and they are not doing this to prevent you. They just show you the story. And it is really real.*

    - Others were concerned that Intervention glamorizes use by making "a construction worker or a teacher look like a rock star."

    - Others felt that the show only portrayed extreme cases and that one could convince themselves that they would never let things get that bad.

        - *It's crazy. Like you can watch them and see how much they do and you think that it will not be you because you won't do that much.*

    - Others were concerned that the show might actually encourage drug use or experimentation with new substances.

        - *I can't speak from the perspective of someone that has not done drugs. I mean like with Intervention, maybe it's just my personality, but I thought it was cool.*

Like even though they passed out and almost died, I still wanted to do that. The high looked cool.

- A final criticism is that the show only hints at the progression from experimentation to addiction, but it leaves out many of the details of this escalation.

Participant Drug Knowledge

We asked the participants to share their drug knowledge with us as it pertained to patterns of use, addiction and dependence. We asked general drug questions, as well as questions pertaining to heroin and other opiates. We wanted to learn more about the accurate and inaccurate drug information young people possessed to understand their knowledge gaps and areas in need of improvement.

I am not really familiar with all these drugs you are talking about. *– Participant*

<u>Heroin and Other Opiates Knowledge</u>

- All participants knew of heroin, but none could describe the addictive nature of the substance, the physical dependency or the withdrawal. Few could explain what the drug would do to your body when taken.
    - *It's not like what people think. It's not. They think nodding is like falling asleep, but really it's like being in your own little head world.*
    - *See, to me, I always thought that heroin was something like a complete out of body experience. Like a different kind of weed.*
- Participants mentioned the following concerns in relation to their heroin drug knowledge:
    - Heroin-specific information was lacking from school programs.
    - Participants indicated that school programs "half explained" heroin effects, if at all.
    - Heroin and other drugs were "lumped together," which prevented heroin from standing out as a particularly problematic drug when compared to something like marijuana.
- Participants reported relatively high disapproval of heroin use, but comparatively low disapproval of using opiate pills. Participants were not necessarily clear about the linkage between opiate pills and heroin.
    - *More of the wealthier kids used prescription drugs and it was socially acceptable to do so. I didn't think that oxys had the same effect as heroin… I thought that heroin was a lot worse.*
- Several participants viewed heroin as more dangerous than opiate pills, even if they had used neither.

- *The major factor for me is that with pills you know what is in there and it is stamped with a number. Heroin comes in off the street and you never know what could be in there.*

- *All I know is it's really addictive. It's one of the 'bad drugs.' People will say it's ok to do pot or drink, but heroin and cocaine are the bad drugs.*

- *To me, heroin is the worst, the heaviest drug. That's why I was scared to try it at first. It is the worst drug out there.*

- One participant claimed to have good friends that used heroin and described experiences that did not fit the profile of the expected physiological response to heroin use, withdrawal or overdose. We suspect that they were fabricated stories, but these fabrications were very useful in highlighting how little people know about heroin and its effects on the body.

    - *I had a friend that did it… one time she overdosed. She went really stiff because she got really rigid. She would leave the room and go to the bathroom every 10 minutes… last time she used it was cut with Benadryl and that made it more deadly.*

- Participants disagreed on whether heroin or cocaine should be viewed as the most harmful drug. Some believed that cocaine was more problematic because you could do so much more of it and you would obsessively want it (binge). Others believed heroin was more problematic because of the strong addiction potential and consequences of injecting. It was clear through the discussion that participants were not sure what to believe.

    - *I think with cocaine it's different. Because you are using and using and it makes your heart race and you still keep using.*

    - *But more people die from heroin. And I think it would be worse because you could get diseases from the shooting.*

<u>General Drug Knowledge</u>

- Participants had general knowledge about drugs like marijuana, but there were some answers that highlighted knowledge gaps. When asked which substances caused physical dependency, some participants included cocaine, crack and methamphetamine in their responses.

- The differences between dependency and addiction were not clearly understood. Several participants believed that marijuana was a very addictive drug, though other participants clarified that they saw it as more of a mental addiction and not a physical addiction.

- Participants often brought up urban myths or legends about drug use and believed them to be true.

Personal, Peer and Family Experiences with Drug Use

We did not specifically ask participants to reflect on their own drug use, but almost all of the participants shared this information in the focus groups. We believe this is because the participants could not answer the questions about drug effects and drug use knowledge without framing it in the context of their own use. From these discussions, however, we were able to learn some additional information about parental attitudes towards drug use and how they perceived drug effects on the mind and body.

> ***It's absolutely an escape. When you're going to go to the store you escape from the sober mindset and experience a new mindset that makes the experience you are participating in more exciting. It's a new consciousness.*** *– Participant*

- All of the participants had used marijuana and others alluded to the use of other substances. Only two of the participants in the non-heroin involved groups had used heroin, but one participant mentioned problematic opiate pill use. A few other participants mentioned occasional opiate pill use.

- Several of the participants knew people that had used heroin during their time in high school. All of these participants responded that they were turned off by the impact of the drug on their friend, citing the ways in which the drug was problematic (led to lying, overdose, etc).

    - *Someone in my high school died from it. He moved from Connecticut and he hung out with a good group of people. Then he met people that were into that sort of thing and then a few years later he was found in a parking lot dead. The people he hung out with always creeped me out because they were older and always messed up.*

- Many of the participants believed that their own experiences of drug use, as well as the drug use experiences of friends and family, were the best sources of education about drugs and drug use.

    - *You have the idea that you are going to just try this right now and then you won't do it again. And then you try it and you don't die and you realize you learn more this way - outside school.*

- Many participants felt that the bad experiences of friends and loved ones helped them to decide not to do something, just as good experiences might encourage them to try something.

    - *If a friend gave me something and I trusted him and he said I would like it, I would use it.*

    - *In my neighborhood we have a lot of people like crackheads and they have holes in their face and they're all itchy. My auntie and her husband used to do crack and he overdosed next to her in the bed. I never wanted to be like that. I never wanted to do more than marijuana.*

- Participants perceived that parents had differing opinions on the participants' personal drug use. Some parents were very vocal in their disapproval of drug use and other parents never talked about the issue with their children.
    - Some participants felt that there were unspoken, conflicting expectations about abstaining from use.
        - *I smoked a lot but my grades were up. They had to have known – I reeked. One time they found some and dumped it down the toilet but let me go out that night.*
    - Another participant mentioned that drug use was not discussed in the house because there was a lot of stigma around use.
        - *There was a lot of shame because there were people in the family battling drug addiction. I knew there were people in the family doing marijuana and heroin and cocaine, but I couldn't really talk about it.*

Mental Health and Drug Use

We did not ask specific questions about the relationship between mental health and drug use, but a number of participants independently mentioned this link. It is included here in the findings because it seems relevant to the issue of drug use prevention.

I think it is important to talk about the psychological aspect. *– Participant*

- Some participants talked about the need to emphasize potential links between mental and emotional health and drug use. They mentioned the importance of looking at your feelings and your past when you are trying to understand your own drug use and why a particular drug might be interesting to you.
- Another participant stressed the necessity of addressing psychological issues through healthier forms of help before thinking about using drugs.
    - *If you feel like you are missing something or you are unhappy then you need to explore that. Go to therapy. Find something or someone that lets you talk about that.*

Content of Drug Education/Prevention Programming

We asked a number of questions about the desired content of drug education programs and suggestions for improvements. We hoped to learn more about what the participants believed was missing from current programs, and how these deficits could be rectified through their suggestions.

> ***They just say 'Drugs are bad, drugs will kill you.' But I want to know, what's the difference between them? I shouldn't have to get to rehab to learn this stuff.*** *– Participant*

- Most participants believed that drug education and prevention programs should be very clear about the risks, consequences of use, and how drugs make one feel. Failing to talk about how a drug "might make the person feel good" leads to the presenter losing credibility.
    - *If you don't talk about the benefits then the question comes up: 'Why are you doing it then?'*
- Some of the participants felt that talking about the benefits might make people more curious and want to use, but this did not seem to prevent the participants from recommending full disclosure as an important part of drug education.
- Most of the participants believed there was value in attempting to rank the drugs from least to most harmful to help people understand that all drugs are not created equal.
    - *Drugs all have consequences, but they don't all have the same consequences and I need to know the difference.*
- Most participants believed that people should be given information on how the drugs make a person feel when using them because it acknowledges the reason behind why people try and use drugs in the first place. Also, this allows educators to give information on the differences between the highs, which can lead to conversations about the different harms compared to something like marijuana.

Messengers

We asked participants to give us their impressions of the different people that serve as educators and messengers of drug knowledge. We wanted the participants to think about whom they would prefer to receive information from, and how other messengers could improve their delivery. Our goal was to learn more about which messengers were seen as authentic and relatable, and which messengers were viewed as uncool, unlikable or lacking credibility.

> ***I think kids need to hear from people of varying social statuses. Like teachers. And then people that have used and never had a problem. And then people that have used that have. And then a medical provider that is completely unbiased. And then someone coming along saying this is what happened to me – it's amazing. And then another one that says – it was amazing at first and then***

it turned awful. And then a police officer that is really against it. And then a police officer that does not have as much of a problem with drug use. I think people need to see all the perspectives for it to be real." – *Participant*

- Peers were seen as possible messengers, particularly if they had use histories and had been through recovery. People that were perceived to be about the same age as the intended audience (up to age 25) were viewed as being the most relatable.
    - *Definitely someone that was not really old. Someone our age that could say, 'Hey, I really was just like you.'*
    - *I think someone that had been through hell and back with their drugs.*
    - *Someone that could go into the school and say, 'Hey, I went to this school and I grew up just like you did. Here is a picture of me in sports. And here is a picture of me in prison with a bunch of inmates.'*
- Parents were seen as potential messengers for some participants, but not others.
    - Some participants mentioned that their parents were open about their use of drugs in their youth, but then sent conflicting messages about their expectations for their children's' use.
        - *My dad seemed to enjoy it when he was younger. But then he would tell me not to use.*
    - Some participants felt like their parents were offering them a clear warning based on experiences they had.
        - *My mom said she used to smoke pot a lot and she tried to scare me and tell me that I would lose brain cells and become a junkie. She used to smoke pot all day every day and I think she was starting to forget a lot of stuff. She was trying to scare me.*
    - Participants believed that parents needed training to be able to effectively speak to them about drug use. They needed to learn about the drugs and their effects, but also general conversational skills.
        - *They don't open up a dialogue. They don't ask questions. They tell you.*
        - *It's like you are being given information from someplace higher than you and that is condescending. And if they didn't do that, and they talked to you in a more friendly manner, [their worries] might be heard better.*

- Most participants mentioned that they would "tune out" when a parent would lecture on drug use, but would be engaged in a conversation that allowed for questions and a give and take between the child and parent.
    - *Look, if your kid goes to a party, ask questions. Not like at a parent-level. Talk.*
- Some participants explained that their parents never talked to them about anything, though they expressed a desire to talk more.
    - *My parents never tried to talk to me about anything. They didn't want to talk to me about sex or drugs. And if it didn't come from school, then it wasn't going to be learned. They weren't going to talk about it.*

- Health providers were listed as a potential messenger, and possibly credible, if they could present health information in an unbiased way.
    - Participants believed that doctors had a very good opportunity to talk about opiate dependency and withdrawal when writing a prescription for a painkiller.
        - *Doctors don't talk to you about [dependence]. They don't say that. They talk about liver or kidney failure. They don't tell you it can be highly addictive.*
        - *At my university, the medical doctor would give out medicines very easily. And he never tells people not to drink when taking them.*
        - *A doctor would be less of a scare tactic if they don't just say 'Don't do it,' but they actually tell you what can happen.*

- Participants were mixed on their opinions about police officers. Some felt that police officers could not be questioned and that this would make a dialogue difficult. Others believed that the police officer would be a more credible source of information because they are around people that are using and being arrested for drugs.
    - *The police officer, you are not supposed to question. That makes it harder to talk to them.*
    - *The police officer isn't so bad. He's around it more and I would believe him more than a teacher.*

- Participants were also mixed on the use of teachers as messengers. Some participants felt that their ability to question teachers allowed them to talk about drugs and drug use. Others felt that they were not credible, but that this would depend on the individual teacher.
    - *You are meant to question your teachers. You are meant to think critically in class. So I would prefer a teacher.*

- *But teachers are bad. Even if they are cool, they are teachers. Bad.*

- Participant opinions were mixed on the use of guest speakers to present drug information. Many of the participants stated that the speakers at their schools lacked authenticity and did not seem credible.
    - Speakers were unclear about their drug use and the impact it had on their lives.
    - Speakers were not relatable to the audience – too old, different SES, too dressed up.
    - Participants remember feeling uncertain about what the takeaway message from the presentation was to be when the speaker addressed too many issues in one talk.
    - Speakers did not talk about their progression from first use to dependency and addiction, an omission that participants felt led to reduced credibility.

Tuning In and Tuning Out of Drug Conversations

We asked participants to explain how adults and other messengers could best get their attention when it comes to issues like drug use and prevention, and the types of things they might say and do that would lose their attention. We wanted to learn more about how we could approach young people with our concerns about drug use and have them take us seriously, rather than discounting what messengers had to say before even hearing the content of the message.

> ***I think it's different at different times. Sometimes I can hear [my mother] walking down the hall and I know she is angry. And then I can be talking to her and she gets angry. When do I talk?*** – *Participant*

- Participants remarked that they would <u>tune out</u> of conversations when they felt:
    - Attacked
    - Like the messenger was a hypocrite
    - Compared to someone else not engaging in a problematic behavior
    - Like they were not asked questions but are told what to think
    - Like the messenger was condescending or rude or unfriendly
    - Like they could not live up to the expectations

- Participants would <u>tune in</u> to conversations when they felt:
    - Like the messenger was asking questions
    - Like the messenger seemed genuinely interested in them
    - Like the conversation included the messenger's relevant personal experiences
    - Like the messenger was not rushed and was respectful of their time constraints
    - Like the conversation was properly introduced and did not "come out of left field"

CHALLENGES PARENTS FACE WHEN TALKING ABOUT DRUGS

METHODS

Data for the parent survey analysis was provided by the PEP Project of the Robert Crown Center for Health Education (RCCHE). RCCHE staff developed an online survey to be distributed to a mailing list of Chicago metropolitan area parents. Consortium staff included a number of questions about parental drug knowledge, experiences with drug education and gaps in knowledge or skills.

RCCHE supplied the Consortium with an Excel spreadsheet of data from the 105 respondents to the online survey. Data analysis included quantitative frequencies of "yes" and "no" responses and qualitative thematic coding of the open-ended questions.

Parents Survey

The data that emerged from the focus groups indicated that nearly all of the participants felt that their parents did not know how to communicate with them effectively; this was echoed in the life-map interviews. In addition to the research conducted with young people, a survey of suburban parents was conducted in order to gauge their feelings and their preparedness for conversations regarding substance use with their children. 105 parents provided valid and substantive answers to the survey.

Challenges Faced When Talking to Kids about Drugs

A large number of parents indicated that they faced challenges in talking to their kids about drugs; specific challenges described by parents fell into six categories: (1) knowledge deficits, (2) concerns about age appropriateness, (3) uncomfortable situations, (4) threats to parental authority, (5) their children's comprehension, and (6) concerns about the content of the conversations.

(1) Knowledge Deficits

Parents felt that they did not know which drugs their children would encounter or what the biophysical consequences would be of those drugs. Some also expressed concern about knowledge gaps due to their own lack of experience with personal use.

(2) Concerns about Age-appropriateness

Parents were concerned about knowing at what age to start having the conversation about drugs, and about knowing what types of information to present and in how much detail, to children of varying ages. Parents were also concerned with how to develop a continuum of conversations throughout the child's early years and into adolescence.

(3) Uncomfortable Situations

Parents felt awkward talking about drugs and being honest about their own feelings about drugs (both positive and negative). Some parents expressed discomfort with how to handle their own use history and how to tell their children not to do things they themselves had done, while others were unsure how to address problematic substance use in family or friends.

(4) Threats to Parental Authority

Parents were unsure how to get their children to see them as a knowledgeable, reputable source of drug information when their children displayed the typical adolescent "know-it-all" attitude; they wanted their children to understand that they as parents wanted to be open and approachable, rather than preachy, lecturing or commanding. They feared that their children would disregard their warnings as hypocritical or uninformed depending on the parents' drug use history or lack thereof, and they wanted to be seen as a more authentic agent than their children's peer groups.

(5) Children's Comprehension

Parents were worried that they would overwhelm their children with too much information, or that the materials and information would be too advanced for their children. They expressed uncertainty regarding how to ask for feedback or input from their children following a conversation about drugs.

(6) Concerns about Content of Conversations

Parents wanted to create a balance between educating their children and making them aware that drugs are a serious threat. They were unsure about the types of scenarios to present to their children about how they might encounter drugs, such as at parties or in school.

Parents Indicating No Challenges

Some of the parents indicated that they did not perceive any challenges in talking to their children about drugs; reasons cited included open communication or "quality conversations," high levels of parental involvement in their children's lives, and children who were still at a very young age.

Where to Get Accurate Information

Of the 105 parents that responded to this question, 49 parents responded that they would not know where to find accurate information, as compared to 51 parents that would know where to find information. All "none" and "n/a" responses were removed from the analysis.

Among those parents who felt that they did know where to find information, bookstores and libraries, the internet and their children's school were mentioned as resources. Among those parents who did not know where to find information and provided further clarification, potential sources listed included the internet, videos, the school's reference library, and government agencies or private foundations.

Drug Resource Materials Used

Of the 105 parents that responded to this question, 81 parents responded that they had never used any materials, as compared to 15 parents that had used materials. All "none" and "n/a" responses were removed from analysis.

Among those parents who indicated that they had used materials, resources mentioned included materials from D.A.R.E. or handouts from school or church, discussions of TV ads, books on healthy living or being a teen, celebrity substance use problems as teachable moments, and The Bible.

What Parents Needed To Know

Parents cited a number of knowledge and skill deficits that could be addressed by a parent education intervention. All "none" and "n/a" responses were removed from analysis. The findings are presented in ranked order (from most mentioned knowledge deficit to least mentioned):

- Current drug use trends (19 responses)
- Age appropriate content (13 responses)
- Biopsychosocial consequences of drug use (11 responses)
- Local drug availability (9 responses)
- Techniques for getting children to listen (7 responses)
- Authentic/relatable stories (5 responses)
- Effective prevention messages (5 responses)
- Drug slang (4 responses)
- Frequency, timing and location of conversations (4 responses)
- Techniques for starting the conversation (4 responses)
- Creating open, approachable relationships to enhance communication (3 responses)
- Overcoming peer pressure (3 responses)
- Conflict management (What to do when parents/child disagree about drug use) (1 response)
- Drug use initiation patterns (Why? Where? When? With whom?) (1 response)
- Enhancing children's refusal skills (1 responses)
- Warning signs of drug use (1 response)

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