The UNIVERSITY of VERMONT

The Vermont Legislative Research Shop

Methadone

Heroin use statistics in Vermont

Heroin treatment admissions in Vermont have risen from around 200 patients in 1994 to 833 patients in 2002 (see Figure 1). The largest admitted group is 19-24 year olds, who in 2002 accounted for 45% of heroin admissions. Men comprise 56% of admitted persons, and women are disproportionately admitted for heroin compared to other drug treatment admissions. Heroin use also varies greatly by ethnicity as shown by high school heroin use statistics (see Figure 2). The Vermont Department of Health estimates that there are two to three thousand Vermonters addicted to heroin and approximately 1100-1300 people seeking treatment for opiate dependence (Vermont Department of Health, n/d). Heroin use had not changed since 1994 in Vermont high schools according the 2005 Vermont Youth Risk Behavior Survey (Vermont Department of Health 2005). Heroin arrests doubled between 1999 and 2000 (78 to 159) and they doubled again in 2002- 2003. From 1990 to 2002 eighty-five Vermonters died from heroin overdoses (Leahy, n/d).

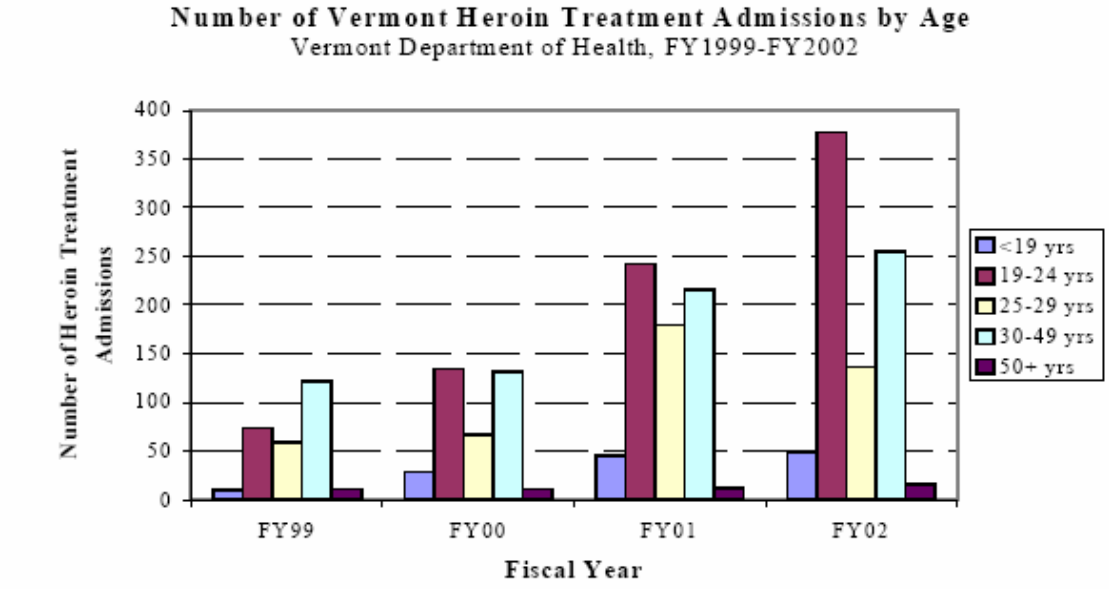

Figure 1: Heroin Admissions

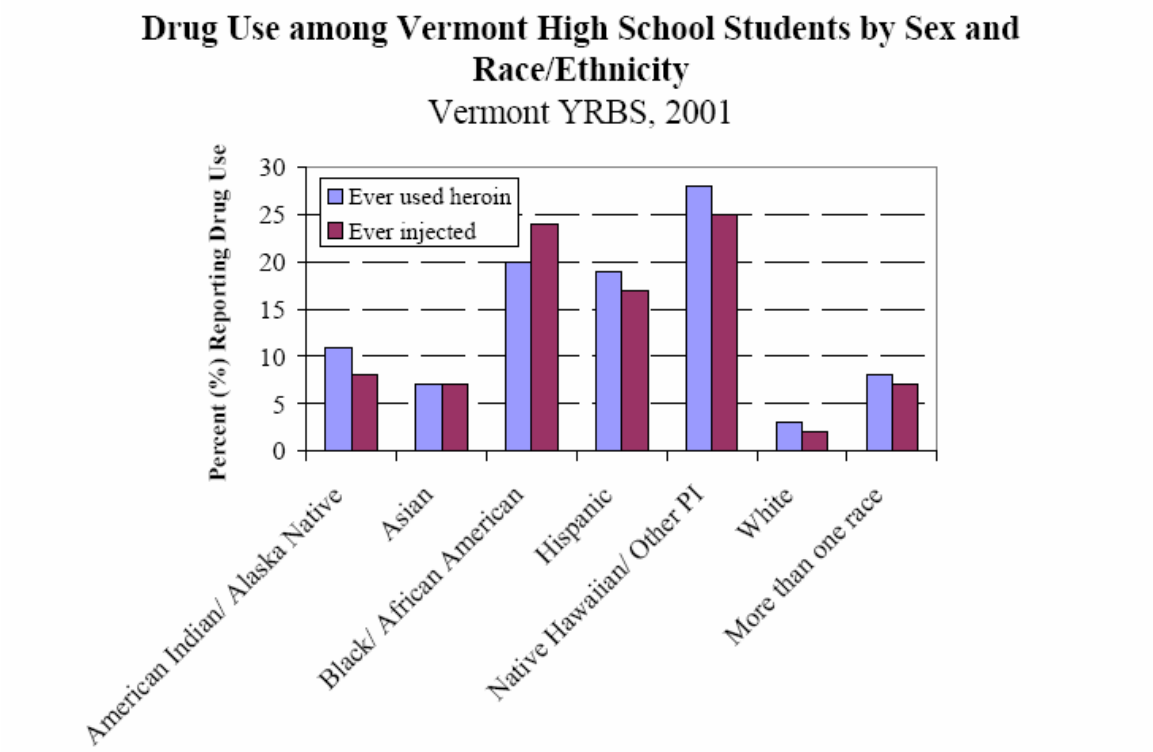

Figure 2: Drug Use by Sex and Race/Ethnicity for Vermont High School Students

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What are the current treatment options available for heroin addiction in Vermont?

In 2004, resources available through the Drug Education, Treatment, Enforcement & Rehabilitation (D.E.T.E.R.) enabled the state of Vermont to add additional counselors and case managers throughout 10 Vermont counties. Currently, Vermont has one program, located at the Fletcher Allen Health Care Center in Burlington that serves 100 people with a similar number on the waiting list. One way to offer treatment in a rural area is to use mobile opiate addiction treatment units. This type of service is currently being developed to serve people in the Northeast Kingdom. Aimed towards providing additional communities with methadone treatment, the Department of Health is seeking a contractor to provide mobile assistance units throughout Vermont A mobile facility is typically a van that follows the same route (Vermont Department of Health).

What are the advantages of clinic-based methadone treatment?

Methadone is a synthetic oral narcotic that works like morphine to suppress withdrawal symptoms among opiate addicts (primarily heroin). It does not produce euphoria, rather it blocks the euphoria associated with other opioid drugs, i.e. preparations or derivatives of opium. It does, however produce dependence (Farley, 1994).

Studies have found methadone maintenance programs are more effective than drug-free treatment in that they reduce: (1) illicit opiate use; (2) the risk of acquiring HIV associated with injection and; (3) criminal activity (Farrell *et al*., 1994). The reduction in drug use and crime are directly related to the length of time in the program (Farrell e*t al*., 1994). "Patients stay in [methadone] maintenance programs at a rate two-and-a-half times that of patients in self-help residential programs, and five times that of patients in drug-free outpatient programs" (Farley, 1994). Also according to Farrell *et al*., better treatment outcomes are achieved with better support services. And while treatment is costly, it is "substantially cheaper than the cost to the community of the active or incarcerated drug user" (Farrell *et al*., 1994).

It has become clear that Methadone Maintenances Treatment (MMT) is the most widely used form of Heroin treatment in the country and through significant research the effectiveness of the treatment can be examined. An study done by Mattick, Breen, Kimber, and Davoli for the Cochrane Review (2003) concluded that MMT is an effective method of treating heroin addiction in that it retains the individual within the rehabilitation setting and reduces the risk of using heroin at substantially greater rate than non-use of MMT. The Mattick *et al.* report was compiled through the use of many medical databases, agencies and journals from 2001 onward. The compilation of data came from six studies conducted with a total of 954 subjects (Mattick *et al.* 2003)

The National Addiction Center conducted a follow-up study in 2001 examining the effects of methadone treatment and found positive results associated with Methadone Treatment. Fifty-nine percent of the subjects showed a substantial reduction in their illicit drug use as well as criminality, as well as a reduction of physical and psychological symptoms. Twenty-two percent showed poor outcomes across a broad measure of progress. The study indicates that, “[a] majority of patients achieved widespread improvements across a range of outcome measures after treatment in existing methadone treatment services” (Gossop *et al.* 2001).

What are the disadvantages of methadone clinics?

Approximately one quarter of patients continue to inject heroin during treatment, "even in the most effective programs." In addition, relapse rates are 70% for patients after leaving treatment. There is also concern that take-home doses of methadone are sold rather than consumed, encouraging strict regulation of clinics (Farrell et. al., 1994). Some deaths have occurred during initiation of methadone maintenance, when tolerance is incorrectly assessed and during maintenance when several days’ doses are combined. Those responsible for maintenance programs are often not in a position to monitor increased mortality in the community (Harding, 1993).

One problem that was uncovered about methadone treatment was that its limited duration and dosage affected an addict's ability to stay off of heroin. Frequently, a patient could not give any input as to what the course of their treatment should look like and were completely at the mercy of state rules and regulations. When heroin addicts are able to give some say about their dosage, they are more likely to stay the course of the treatment (Stocker, 2000).

What is the relationship between heroin use, HIV, and methadone therapy?

The relationship between heroin use through needle injection and contraction of the HIV virus is important to consider. Because patients are receiving controlled methadone treatment the risk of users being infected by HIV through injection is reduced (Harding, 1993).

Also important to consider are the effects of methadone on patients already infected with HIV. According to researchers at Yale University and VA Healthcare System in West Haven, Connecticut, HIV-positive patients who are simultaneously receiving methadone treatment and the AIDS drug *zidovudine* may be at risk of high level exposure of zidovudine and subsequent side effects (McCance-Katz, 1998).

Are there alternative methadone treatment settings?

Primary care-based opioid maintenance treatment (as opposed to clinic treatment) may improve access to treatment. Properly trained clinicians could offer this treatment to their patients. This approach also offers the possibility of opioid maintenance treatment in communities, such as smaller towns, where methadone maintenance programs are not available. Traditional primary care settings may avoid some of the negative aspects of opioid maintenance programs, including the interactions with patients who continue to use illicit drugs and the stigma associated with drug treatment settings. Primary care settings also allow patients to receive drug treatment services and primary medical care under one roof (O'Connor et. al., 1998). The primary care approach has exhibited high retention rates and reduction in illicit drug use, comparable to "optimal methadone [maintenance] programs" (Farrell et. al., 1994).

Are there alternative treatment drugs available?

Levo-alpha-acetyl-methadol, also known as Orlaam or LAAM, was approved in 1994 for opioid treatment works much like methadone, but its effects have a longer duration, 48 to 72 hours, versus 24 hours for methadone. This reduces the required visits, allowing more patients and permitting patients the chance to lead a more normal life. Take-home dosing is not permitted with LAAM due to the risk of overdose (Farley, 1994).

Buprenophrine, a new alternative to methadone for maintenance treatment of opioid dependence, may have important advantages compared with methadone as it is easier to withdraw from and less likely to cause overdose (O'Connor et. al., 1998).

Pharmacological treatments can be significantly improved by the addition of behavioral treatment. Behavioral treatments are classified as either residential or outpatient, and are employed depending upon the circumstances of each patient. Contingency management therapy and cognitive-behavioral interventions are new treatment types that have indicated efficacy. "Contingency management therapy uses a voucher-based system, where patients earn ÒpointsÓ based on negative drug tests, which they can exchange for items that encourage healthy living. Cognitive-behavioral interventions are designed to help modify the patient's thinking, expectancies, and behaviors and to increase skills in coping with various life stressors" (http://www.drug-rehab.com/heroin.htm).

Availability of Methadone

Due in part to work done by the American Methadone Treatment Association, Methadone Clinics are on their way to becoming accredited institutions. In July of 1999, the U.S. Department of Health and Human Services released a Notice of Proposed Rulemaking (NPRM) for the use of methadone (Broekhuysen 2005). Instead of exclusively exercising control over the administration of methadone, the Department of Health and Human Services will now encourage the creation of quality insurance programs. Additionally, physicians will be able to use more of their own discretion when it comes to treating patients that are addicted to heroin due to the abandonment of stern rules and regulations. Responsibility for controlling the diversion of methadone to those that would abuse it will continue to be that of the Drug Enforcement Administration.

What help is available to states from the Federal government?

The Center for Substance Abuse Treatment (CSAT), housed in the Department of Health and Human Services, provides technical assistance, training and financial support to states and communities as well as their "TIPs" or Treatment Improvement Protocols. Another project educates judges about the use of treatment programs as alternative sentencing for crimes related to heroin or other drugs (Farley, 1994). CSAT also helped Arkansas open its first program and Texas was another state that requested assistance to remedy problems with its treatment centers- both the FDA and the DEA were involved in a conference with state officials. (Farley 1994).

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