Public Attitudes towards Heroin Addictions:
Spatial Consequences for Treatment Options and Access

Geography 565

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Abstract

Over the past 20 years, heroin has become one of the most deadly street drugs available in the United States. This national narrative is reflected in Madison, where, increasingly, city agencies are allocating resources towards combating this epidemic. The purpose of our research was to determine what the attitudes of Madison residents are in regards to heroin addiction, and how these attitudes impact treatment options and access. We surveyed members of the Madison community using social media networks and Madison Neighborhood Association e-mails, receiving over 500 responses from the majority of Madison’s ZIP codes. Additionally, to gain an understanding of the existing treatment landscape in Madison, we interviewed four experts in the field. From survey data, we found respondents support funding expansion for both behavioral and medical treatment, with the majority of respondents viewing heroin addiction from a public health perspective rather than a punitive one. These attitudes support what each interviewee asserted is the best approach to treatment: long term combined medical and behavioral treatment. Furthermore, some stigma exists among respondents in terms of their perceptions of individuals with heroin addictions being dangerous and, to a lesser extent, personally culpable for their addiction. Both statistical and spatial analysis of the survey data reveals the presence of the socio-spatial stigmatization phenomenon, an extension of the NIMBY concept. Though stigma towards individuals with heroin addiction persists, this stigma does not dramatically impact current treatment programs and clinics. Rather, Madison residents are generally receptive and supportive of public health approaches to heroin treatment.

Keywords: Heroin, Opioid Epidemic, Socio-spatial Stigmatization, Public Health, Addiction Treatment
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Introduction

The ubiquity of the heroin epidemic in the United States is undeniable. Once confined to America’s cities in the 1970s, heroin has crossed the white picket fence of the suburbs and infiltrated itself into the American heartland. The effects have been devastating; in 2015 alone, the total number of reported deaths from heroin overdoses surpassed that of gun homicides, a first in America (Bosman 2017). The over prescribing of opioids in the late 1990s and early 2000s has been cited as the main cause of the recent upsurge of heroin use, particularly among the white middle-class demographic (Kolodny et al. 2015, 563). While the face of the average heroin user has changed, stigma around addiction still prevails (Cicero et al. 2014, 822).

The current opioid crisis has exposed the inadequacy of the American healthcare system to provide accessible and quality treatment for heroin and opioid addiction. For many who are trying to beat their addiction, traditional treatment options such as abstinence are unsustainable in the long term because they do not address the multifaceted issues involved with addiction. Instead, modern practices encourage a combination of medicated assisted and behavioral treatments. Opioid medications work through their ability to control drug cravings and withdrawal symptoms, but are still critiqued due to their opiate character. They are misunderstood by many, and thus almost as stigmatized as heroin itself (Peterson et al. 2010, 36). Despite hundreds of thousands of Americans using methadone, a common replacement medication, stigmas still linger over this treatment method and greatly limit the availability and appeal of treatment centers across the nation (Keilman 2016).
Madison, Wisconsin is no exception to this trend. In 2003, public health officials began to observe an uptick of heroin and opiate usage in Madison and Dane County (Figure 1) (Kittner 2010). Since then, heroin continues to be used across the region due to its cheap cost and accessibility, which has resulted in an increase of morbidity and mortality cases throughout the county. In 2016, heroin overdoses were up by 77 percent from the previous year within the city of Madison (Becker 2017). These staggering statistics show the epidemic is growing, and needs to be addressed accordingly. Luckily, there is hope for the future of addiction treatment in Madison. Discussions about addiction and efforts to mitigate it have been increasing at the local level, as are research grants to the University of Wisconsin-Madison from the federal government. Allocating funds towards local programs such as the Madison Addiction Recovery Initiative (MARI) and the Madison branch of Addiction Technology Transfer Centers (ATTC).
play a major part in changing the treatment landscape in the area. Our decision to investigate
treatment options for heroin addiction is not only timely on a national level, but extremely
relevant to the City of Madison as it implements city-wide efforts to combat this growing
epidemic. Through the distribution of our survey combined with interviews with local experts in
the field, we hope our research will shed light on the attitudes of Madison residents towards
heroin addiction, and how that may affect availability, access, and longevity of treatment options
for the City of Madison.

Research Question

What are the attitudes of people in Madison towards heroin addiction and how does
this impact access to and type of treatment options available?

Our question aims to dive deeper into stereotypes and assumptions regarding what heroin
addiction looks like to residents in Madison. We will specifically explore our research question
in relation to Not in My Backyard (NIMBY) attitudes relating to socio-spatial stigmatization to
explain the ‘where’ of clinics. In regards to the question of ‘which’ treatment options are
available, we will explore public health versus punitive approaches.

Site Setting & Background

Drug overdoses are now the leading cause of death amongst Americans, killing 52,404 in
2015. Of that number, heroin overdoses alone were responsible for 12,0989 of those individuals
(Centers for Disease Control and Prevention 2017, 7). Madison is not exempt from this national
narrative. Although the year is not yet over, as of December 6, 2017, officers from the Madison
Police Department (MPD) responded to 224 heroin overdoses in 2017; representing a 57 percent
increase when compared to the 143 overdoses responded to in 2016 (Zaluska 2017). Heroin is considered to be one of the most addictive and fatal street drugs available today, and is increasingly used in place of prescription opiates for non-prescription opioid users.

Because of their highly addictive capacities, opiate pain relievers (OPR’s), such as morphine, were highly regulated by American health professionals before the 1990s. Before this time, doctors would prescribe a patient in pain a multitude of weaker painkillers – or nothing at all – to avoid the possibility of addiction to stronger drugs. However, in the 1990s, a cultural revolution in medicine occurred: both the broader public and healthcare professionals began to view the undertreatment of pain as an injustice to patients and thus, malpractice. Sensing the change in demand for aggressive painkillers, the pharmaceutical company Purdue Pharma introduced its OPR, OxyContin, to the market in 1996 (Figure 2). An aggressive marketing campaign ensued, with the company claiming that OxyContin held minimal chance of causing addiction due to its delayed response capabilities (Jayawant and Balkrishnana 2005, 77). This aspect of OxyContin was enough to convince doctors and the U.S. Food and Drug Administration (FDA) that the painkiller was safe enough to prescribe to a mass market. Over time, prescribers became increasingly liberal in prescribing OPR’s, setting the stage for a sweeping epidemic of addiction.

It quickly became clear that prescription opiates were not as addiction-resistant as Purdue Pharma had made health professionals believe, with the addiction and abuse of prescription opioids following close behind its FDA approval as a major ramification. One of the issues with diseases and medical epidemics is the lag time between when federal agencies receive data on overdoses, deaths, and cases of abuse, and when they actually happen. In 2012, nine states had over 100 OPR prescriptions per 100 people, pointing to the abuse of opioids (Paulozzi, Mack and
Figure 2: Timeline of Heroin and Opioid Addiction 1950s–2016

Timeline of Heroin and Opioid Addiction

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Hockenberry 2014). Citing statistics like these, local and national governments started initiatives to impose prescription quotas. This is an ongoing effort. Just this past March, Wisconsin’s mandatory Prescription Drug Monitoring Program was modified in an attempt to curb inappropriate opioid prescribing, requiring Wisconsin doctors to check patient histories before writing certain prescriptions (Hart 2017). This initiative is a part of Wisconsin’s Heroin, Opioid Prevention Education (HOPE) agenda and is considered a preventive measure in that it inhibits patients from ‘doctor shopping’ for certain narcotics (Ibid.).

Once quotas were enforced to limit prescriptions, those who had lost access to those prescriptions sought out other sources (Compton, Jones, and Baldwin 2016). While some continued to find ways of obtaining OPR’s, some turned to a more readily available form: heroin (Peterson et al. 2010, 39; Compton, Jones, and Baldwin 2016; Cicero et al. 2014, 822; Kennedy-Hendricks et al. 2017, 463). Heroin is essentially morphine in its chemical composition, but in a more pure form than seen in OPR’s. It has become a cost-effective choice among opioid users due to its ability to be injected straight into the bloodstream for immediate effects, its abundance on the illicit drug market, and its low cost (Compton, Jones, and Baldwin 2016, 157). The City of Madison has seen a rise of heroin on the streets, in terms of both usage and dealing, due to its central location in the state. Madison is regarded as Wisconsin’s secondary ‘heroin hub’, after Milwaukee, and is a convenient pickup spot for users from the Wisconsin Dells and as far away as Wausau; a contributing factor to why the drug is so prevalent in the city (Kittner 2010).

While not all users are driven to heroin via a previous addiction to OPR’s, the overprescribing of them has been the catalyst of the epidemic as a whole. In a survey of heroin users across the US, 75 percent of respondents reported a prescription opiate as their first regular-use opioid (Cicero et al. 2014, 823). This fact elucidates two key components of our
research project. First, it highlights both the geographic and demographic spread of heroin use to rural and suburban areas, where populations are majority white, middle class individuals - contrasting its history of being considered an urban street drug in the 1960s (Kolodney et al. 2015, 562; Compton, Jones, and Baldwin 2016, 158; Cicero et al. 2014, 823). Reflective of this trend, in 2016, 84 percent of those who died in Dane County due to an opioid involved death were white (Johnson and Gibson 2017, 3). People who use heroin living in urban areas have been stigmatized as violent criminals, and thus undeserving of assistance due to their individual agency in continuing to use heroin (Small, Palepu, and Tyndall 2016, 74). Due to long histories of unequal political agency amongst racial and economic lines, the shift in demographics for heroin use has garnered much more visibility and political attention to heroin addiction than if white, middle class populations were not affected. The changing face of heroin is especially applicable to Madison, Wisconsin, where the population in Dane County is approximately 81 percent white (A Greater Madison Vision 2017, 7). Secondly, admitting that the spread of OPR abuse and heroin use is indeed an epidemic, one that happened at the hands of the FDA by trusting avaricious pharmaceutical companies, ought to have a major influence on how people with a heroin addiction are perceived and medically treated (Volkow et al. 2014, 2064). Aside from government involvement and the FDA’s agency in creating the epidemic, the sheer number of people dying from heroin use is enough to start calling into question prevailing narratives that negatively stigmatize addiction. Eliminating stigmatization begins with treating heroin addiction as a chronic mental illness rather than a moral failure, something many health professionals and academics have already called for (Kolodney et al. 2015, 563; Volkow et al. 2014, 2064; Peterson et al. 2010, 39; Compton, Jones, and Baldwin 2016, 160). In Madison, this effort is spearheaded by an array of individuals, organizations, and city government groups. Most
notably, the department of Public Health Madison and Dane County has worked on a number of educational campaigns and presentations to help change the current narrative around addiction.

The most crucial aspect of entering into opioid addiction treatment and recovery is understanding that treatment is an ongoing – sometimes lifelong – process. Due to the fervid nature of opioid addiction, treatment can oftentimes manifest as carefully managing relapses rather than staying completely abstinent (Brown et al. 2013; Bukten et al. 2011, 397; Volkow et al. 2014, 2065; Haug et al. 2005, 152, 153, 155, 158). “The reality is that a majority of opioid abusers relapse after completing or leaving treatment, and may cycle through the drug treatment system for years,” (Haug et al. 2005, 152). Although hardline abstinence programs show the best outcomes for health, crime, and relapse statistics, it can be extremely difficult for some to adhere to a zero-tolerance treatment plan (Ibid.). Through a better understanding of addiction, high rates of relapse are now being combatted with increasing implementation of opioid replacement treatment (ORT), via controlled substances such as methadone, buprenorphine, and naloxone. This has led to the rise of methadone dispensary clinics, supervised heroin injection sites, and doctors certified to distribute these medications. Although these types of treatments can be seen as controversial, a combined approach of medical and behavioral treatment has been proven as being the best long term deterrent against complete relapse (Ibid., 170).

Madison and Dane County as a whole are beginning to ambitiously implement some of these treatment ideologies. The county, along with the rest of southeast Wisconsin, sees some of the highest rates of heroin related deaths in the state, with 90 deaths occurring between the years of 2013-2015 (Prescription and Nonprescription Opioid Harm Prevention Program 2016, 20). Dane county has a higher death and hospitalization rate from heroin use than Wisconsin as a whole, and this has garnered the attention of public health officials as well as researchers and
academics within UW-Madison (Zgierska and Nelson 2017; McHugh, Robson and Trainor 2016, 10). Research and prevention programs through UW-Madison have had a monumental impact on treatment options available to people addicted to heroin and other opiates within Dane County. Programs such as the Madison Addiction Recovery Initiative (MARI) and the Great Lakes Technology Transfer Center (ATTC) are providing innovative approaches to combating the criminalization of addiction, in addition to increasing access to opioid dependence treatment (Zgierska and Nelson 2017; City of Madison 2016; Addiction Technology Transfer Center 2014). Due to the urban nature of Madison, people with heroin and opioid addictions within the city have much greater access to treatment than their rural counterparts throughout the state (McHugh, Robson and Trainor 2016, 13-15; Rosenblatt et al. 2015, p. 24).

**Literature Review**

**Keywords and Concepts**

Based on a review of relevant literature, several keywords and concepts emerge as important to discuss. These keywords range from basic terms, including ‘heroin’, ‘opiates’, and ‘addiction,’ to more complex concepts like ‘socio-spatial stigmatization’ and types of treatment. In this section we seek to provide the utmost clarity of these terms, providing explanations for often stigmatized words, such as ‘addiction’ and ‘overdose,’ as well as for treatment options, which are given many different names. We will also set a precedent for which terms we will use in order to promote consistency and understanding.

‘Opioids’ are a class of drug which include both illegal heroin and synthetic opioids, as well as OPR’s such as oxycodone (OxyContin®) and hydrocodone (Vicodin®), opioids which are legal with a prescription. This chemically related class of drugs reacts with the body and
brain’s opioid receptors to numb pain (National Institute on Drug Abuse 2017). ‘Heroin,’ the focus of this paper, is derived from morphine, a substance found naturally in particular types of poppy plants (Ibid.). Heroin use can induce what users describe as a ‘rush of euphoria,’ but also cause dry mouth, heaviness of limbs, and cloudiness in mental functioning (Ibid.). The dramatic increase in the number of prescriptions of OPR’s has led them to become more closely connected with heroin addiction, as individuals with revoked OPR prescriptions find their new opioid of choice in heroin (Compton, Jones, and Baldwin 2016, 157). Heroin also has ties to illegal synthetic opioids. Heroin can be laced with synthetic opioids, such as Fentanyl, which increases the overall strength of the heroin by a factor of 25 to 100, and facilitates faster binding to the brain’s receptors (Becker 2017). Even a small amount of Fentanyl can increase the strength of heroin substantially, and recently there has been an uptick in overdoses due to the mixing of these two opioids (Ibid.).

Opioids can be highly addictive, depending on the dosage and type. ‘Addiction’ is defined as “the continued use of a drug despite negative consequences” (Kolodny et al. 2015, 560). In general, opioids are addictive because they create a system of positive reinforcement with use (inducing feelings of euphoria) and a system of negative reinforcement (negative withdrawal symptoms) with cessation of use (Ibid.). Furthermore, long term use of opioids can structurally and functionally alter the regions of the brain responsible for mediation of impulse, rewards, and motivation (Ibid.). Both heroin usage and overdose have negative health impacts. Short term effects of heroin usage include heaviness of limbs, nausea and vomiting, clouded mental functioning, and drifting between consciousness and semi-consciousness (National Institute on Drug Abuse 2017). Long term effects include negative reproductive health impacts, insomnia, collapsed veins, damaged tissues and abscesses, heart infection, liver and kidney
disease, lung complications, and mental disorders (Ibid.). Furthermore, injection needle sharing can facilitate the spread of HIV/AIDS and Hepatitis C (Ibid.). Heroin ‘overdose’ occurs when those using it long term develop tolerance, requiring progressively higher dosages to feel high - (Ibid.). Although overdose is sometimes considered to be synonymous with death, an overdose for some is not fatal but rather results in loss of consciousness or coma. While overdose can be treated - possibly saving a life - if a medicine like Naloxone is administered immediately, an overdose may have long term consequences beyond the event itself.

The concepts of ‘Not-In-My-Back-Yard (NIMBY)’ and ‘socio-spatial stigmatization’ are two core themes in our study pertaining to how attitudes shape the geographic distribution of different types of treatment. According to the Dictionary of Human Geography, NIMBYism is “an attitude adopted by individuals resisting the siting of a source of perceived negative externalities…” (Gregory et al. 2011, 501). In regards to social services, there is a large body of literature that focuses on homeless shelters and HIV/AIDS service facilities related to the NIMBY phenomenon (Smith, 2010, 861). Socio-spatial stigmatization - the process in which the stigma attached to people extends from, and to, the stigma associated with places - is closely tied to the concept of NIMBY (Takahashi 1997, 904). When spaces become attached to negative characteristics (become stigmatized), people may not want those spaces close to their home, work, or other places central to their lives. Socio-spatial stigmatization is the process by which inequality becomes spatial phenomena, and groups of people considered lower on the social hierarchy are physically excluded from a space by those higher up, resulting in social distance becoming physical distance (Tempalski et al. 2007, 1252). This phenomenon relates directly the stigmas attached to people who have an addiction to heroin, and how those stigmas are transferred to the treatment centers they utilize. Recent studies, as will be discussed in the
“Prevailing Explanations” section, extend the NIMBY concept and socio-spatial stigmatization to include how public attitudes shape availability and access to heroin addiction treatment.

One of the most important concepts addressed in our paper is the treatment of the opioid and heroin epidemic as a ‘public health’ issue, and not a criminal one. Although the federal government acknowledges the grave extent of this epidemic, intervention efforts often fall short in many communities across the nation due to strong stigmas attached to drug addiction and treatment (Olsen and Sharfstein 2014, 393). Drug addiction has for too long been pushed as the responsibility of the criminal justice system, but this approach is beginning to be challenged by efforts for ‘treatment over incarceration’. A growing number of cities have begun to develop programs, carried out by local law enforcement, that provide individuals with substance dependencies the option to be entered into treatment programs, as opposed to legal sanction. For example, Seattle’s Law-Enforcement Assisted Diversion (LEAD) program has been a model of this approach for many cities (LEAD, 2017). A public health approach, compared to a punitive approach, has been proven to be more effective in that it accounts for the fact that recovery is a lifelong process, not a quick fix that can addressed from a short stint in jail or rehab (Haug et al. 2005, 152).

Oftentimes the communities that suffer most from the greatest absence of treatment are those in rural America (Rosenblatt et al. 2015, 23-24). This is in part due to the lack of resources to implement programs, but also due to the strength of lingering stigma attached to heroin addiction (Ibid.). In fact, only 16 percent of US physicians hold certified waivers from the Drug Enforcement Administration to prescribe patients with buprenorphine, and of those, only 1.3 percent had practices in rural areas (Ibid., 24). Therefore, opioid dependent individuals in rural
America lack access to medication and counseling, both of which play extremely important roles in the recovery process (Hayes et al. 2004, 681).

With the exponential rise of the heroin and opioid epidemic across the nation, the quest for lasting treatment methods has been a top priority. While there is a distinct difference between ‘treatment’ and a ‘recovery plan’, both options stress the importance of the presence of a ‘behavioral’ approach. Treatment usually entails a set start and end date for a program; often taking the form of a rehabilitation or transition homes (Haug et al. 2005, 170). While recovery accounts for the daily struggle to fight off addiction, it emphasizes the fact that addiction cannot be treated in a set period of time and that it varies for every individual. The ‘medical treatments’ route includes opioid agonist (methadone and buprenorphine) and opioid antagonist (naltrexone) prescriptions. While effective for some individuals, these medications do not always support long term treatment (Ibid., 156). Behavioral approaches on the other hand, focus on reforming or eliminating the social situations that drive opioid abuse in the first place, through contingency management, community reinforcement, psychotherapeutic counseling, and family therapy (Ibid., 160). Countless studies found that opioid abuse is best treated with a combination of medical and behavioral therapies, but the access to both options can be limited due to availability and cost (Ibid., 159-163).

Treatment through medication has been rising in appeal among many physicians and patients over the past decade, due to its efficiency at quelling heroin induced cravings (Lopez 2017). ‘Methadone’, one of the best known medication options, is an opioid that reduces withdrawal symptoms and cravings in people who suffer from heroin and opioid addiction (Amato et al. 2005, 322). It works by blocking the euphoric high produced by opioids in certain parts of the brain and spinal cord, and eases opiate withdrawal for up to 36 hours. Methadone is
predominantly administered at clinics and treatment facilities through pill, liquid, and wafer forms (Bawor et al. 2015, 2). While studies have proven methadone maintenance treatments (MMT) to be effective in both reducing heroin usage and HIV transmissions among people suffering from addiction, these treatments are in short supply across the United States (Peterson et al. 2010, 36). Even if methadone clinics are available, many barriers stand in the way before a patient is able to receive treatment; specifically, the lack of state mandated photo ID and insurance, or ability to pay (Ibid., 38). Furthermore, the upkeep in following MMT can be challenging due to the time and resources needed in order to commute to treatment facilities in order to receive administered doses of methadone. Another opioid medication similar to methadone addressed in this paper is ‘buprenorphine’. Buprenorphine, unlike methadone, is only a partial agonist which works to suppress the euphoric high induced by opioids on parts of the brain and spinal cord.

Recently, more attention has been placed on expanding progressive ‘harm reduction’ initiatives in regards to curbing the recent heroin epidemic. Harm reduction treatment refers to a set of public health policies, programs, and practices that aim to reduce the health, social, and economic consequences of drug abuse (Langendam et al. 2001, 778). Three harm reduction programs that will be touched on are ‘syringe exchange programs’ (SEP’s), ‘heroin assisted treatment’ (HAT), and ‘supervised injection facilities’ (SIF’s). Syringe exchange programs, the least controversial of the three, supply clean syringes and dispose of used ones in attempts to reduce the harm associated with injection drug use (IUD) (Tempalski et al. 2007, 1250). Medical heroin assisted treatment is when heroin is administered as the main pharmaco-therapeutic agent for individuals who are prone to relapse (Cruza et al. 2007, 54). Finally, supervised injection facilities are supervised and hygienic environments available for people to utilize when
consuming heroin; these sites aim to reduce associated morbidity and mortality (Ibid.). While these three programs promote safer consumption methods for individuals suffering with heroin addiction, they are highly controversial. Often, harm reduction treatments are highly stigmatized, which plays a large role in where these services are offered and located. In relation to Dane County, only syringe exchange programs are set up at a handful of locations, while heroin assisted treatment and supervised injection facilities have yet to be instituted.

While access to methadone, buprenorphine, or harm reduction programs may play a large role in the success of an individual's heroin addiction recovery plan, another fundamental component to this process is access to a reliable support network. This may take form in a variety of ways: counseling, residency in a sober living home, or group networks. Behavioral treatment is just as important as medical treatment because it validates the notion that relapses should be viewed as a learning opportunity for an individual’s recovery plan, and are an expected part of the treatment process (Haug et al. 2005, 158). Additionally, providing individuals with access to a readily available support group or person makes recovery after relapse much easier to sustain.

Case Studies

We read and analyzed a wide range of articles to better understand the climate of the current opioid epidemic facing America. Among the various articles read, numerous recurring themes appeared, ranging from the history of heroin usage in the United States, to the future prospects of treatment approaches. The various articles also situated us with the knowledge to evaluate how treatment options - as well as the public’s perception and awareness of the heroin epidemic in Madison - compare to those not only across the nation, but the world. The following
is a selection of articles which best provide context to our research question and summarize the current state of the opioid epidemic in America.

Over the past decade, heroin usage among white middle-class suburban and rural populations has skyrocketed; Cicero et al. (2014, 822) examines this recent phenomenon. This article analyzed the results of two nationally spanning surveys: Survey of Key Informants’ Patients (SKIP) and the Researchers and Participants Interacting Directly (RAPID) program to pinpoint heroin’s evolving user demographic in America. The SKIP program consists of data collected from anonymously completed surveys, which were distributed at 150 public and private treatment centers across the continental United States (Ibid.). The focus of this study was to identify respondents preferred drug of choice and associated abuse patterns, while simultaneously recording the following demographic variables of sex, age, and race/ethnicity. The RAPID program was a supplementary online questionnaire, detailing individual’s opioid abuse patterns, which was sent to a subset of patients who completed the SKIP program (Ibid., 823). Unsurprisingly, when compared to countless other studies, the new ‘average’ American who suffers from heroin addiction is not an urban ethnic minority, but a white middle or upper-class rural resident (Ibid.). This is consistent with the circumstances in Dane County. In 2016, 84 percent of individuals whose death involved heroin in Dane County were white (Johnson and Gibson 2017, 3). Furthermore, the SKIP survey found that 75 percent of addicts that began abusing opioids in the 2000s reported that their first exposure to opioids was in form of a prescription opioid (Ibid., 823). The study indicates that many heroin users transitioned from prescription opioids to heroin due to heroin’s accessibility and affordability, which is a theme evident in various articles (Ibid., 825).
The barriers one must overcome when seeking treatment is a defining characteristic of the narrative of America’s opioid crisis. As detailed in their article, Peterson et al. (2010, 37) conducted interviews with 26 opioid-dependent adults from the streets of Baltimore, Maryland who met the criteria for methadone maintenance program, yet were not enrolled in a methadone treatment during the time of study. The primary barriers that excluded people from methadone treatment programs included: the lack of availability of openings at treatment centers, money and health insurance coverage, and/or ability to produce an identification card (Ibid., 38). When interviewing Julia Olsen, from the department of Public Health Madison and Dane County, she noted that while Madison is a city rich in treatment resources, considerable barriers remain in the way of receiving treatment. Similar to the finding of Peterson et al., one hurdle Julia has observed over her career is the difficulty many individuals have in securing an intake assessment. This ‘first step’ appointment helps a clinician determine the treatment needs of a patient and a subsequent plan of action. Julia noted that oftentimes when someone decides they are ready to seek treatment, they may very well be at their breaking point, and thus might feel deterred by a three week wait time before they can come in for an assessment. It is common that a person may very well forgo treatment altogether in a situation like this because “it is not meant to be.”

Matheson et al.’s article (2017, 407) focuses on the effect public stigmas surrounding opioid addiction have on a community’s willingness to financially support or live in proximity to an opiate replacement treatment center (ORT). Although the survey was conducted in Scotland, its results mirror views observed currently in America. This study was conducted through a mailed questionnaire to a random sample of 3,000 Scottish adults from the electoral registry, concerning attitudes, knowledge, experience, and willingness to pay for drug treatment
strategies. They discovered many strong negative attitudes associated with people addicted to opioids, as well as beliefs that addiction is purely self-inflicted (Ibid., 412). Unlike Peterson et al., Matheson et al. concluded that an individual’s greatest barrier to effective, but potentially controversial treatment, is the perceptions of the community they reside in.

Another recurring theme throughout many articles was reframing the epidemic as a public health issue. Volkow et al. (2014, 2064) found that addressing the situation as a public health issue furthered its discussion in the public arena. They determined that there must be a greater emphasis on improving prescribing knowledge for physicians; reducing inappropriate access to opioids; increasing treatment availability; and spreading knowledge of substance abuse and resources available. Furthermore, Peterson et al. (2010, 41) called on the need for policymakers, public healthcare system administrators, and treatment providers to better understand the barriers of treatment in order to create effective public healthcare programs. The creation of the MARI program in Madison highlights the transition in perception of city officials and administrators towards heroin addiction, from a moral misguidance to a public health issue - consequently needing to be addressed by public health programs.

**Prevailing Explanations**

Authors refer to the concept of socio-spatial stigmatization, originally introduced by Lois M. Takahashi in 1997, in multiple articles about the location of drug treatment and harm reduction services. Takahashi explains NIMBY syndrome in the context of the location of social services related to homelessness and HIV/AIDS. Prior to this article, community opposition to environmental hazards (such as landfills and nuclear power plants) had been studied, but little research was done on opposition to social service siting (Takahashi 1997, 903). Since
Takahashi’s research, NIMBY-ism, and the concept of socio-spatial stigmatization, has been applied to other types of social services, such as those related to drug use. When socio-spatial stigmatization is applied to heroin use, it means that characteristics assigned to people addicted to heroin also become assigned to addiction treatment centers, sober houses, and other associated services. This also occurs in reverse, with anyone who utilizes these services (and the spaces they occupy) acquiring the stigma associated with them. For example, socio-spatial stigmatization creates a socially-constructed accessibility barrier for people addicted to drugs seeking treatment (Tempalski et al. 2007, 1260). The stigma of treatment centers may cause its clients to be hesitant in utilizing their services out of fear that they will take on the stigma attached to those services.

Negative attitudes around treatment originate from negative attitudes towards heroin addicts, which multiple researchers have found evidence of. For example, Matheson et al. (2017, 407) surveyed the Scottish public about their attitudes, knowledge, experience, and willingness to pay for drug treatment, and found that people held many strong negative attitudes about drug addicts, as well as beliefs that addiction is self-inflicted (implying a personal weakness of character of the addict) (Ibid., 409). Furthermore, over half of the respondents said they were not willing to pay for drug treatment (Ibid.). There has also been research on public attitudes towards addiction in the United States. By surveying adults the U.S., Kennedy-Hendricks et al. (2017, 465) found high levels of stigma throughout the population towards opioid dependent adults. Thus, given that public stigma towards heroin addictions exists, according to Takahashi’s concept of socio-spatial stigmatization, this stigma transfers to treatment clinics. If people believe addicts to be dirty, criminal, disorderly, and morally depraved, then they will believe that
the spaces they occupy take on these characteristics. As a result, given the NIMBY concept, a community is likely to oppose the siting of such spaces near the spaces they occupy.

Multiple studies in North America detail instances of community resistance to the siting of drug treatment services in different neighborhoods. Smith’s article (2010, 859), detailing the relocation of a methadone clinic in a neighborhood of downtown Toronto, describes the immediate public attention and fear in reaction to the re-siting proposal. Residents exhibited explicit forms of socio-spatial stigmatization in which the (methadone) ‘addict’ was treated as an agent of disorder, deviance and disease throughout the social body of the city. In this metaphor, residents believed the clinic would serve to attract more agents (addicts seeking treatment), ultimately inflicting greater damage upon the city (Smith 2010, 865). This theme of community opposition also appears in Davidson and Howe’s study of the San Francisco Haight neighborhood conflict in which the Homeless Youth Alliance (HYA) attempted to move its needle exchange service from a commercial strip (an injecting hotspot) to a close by community center. A sharp increase in housing prices in the residential area resulted in almost exclusively wealthy homeowners, creating a sharp cultural, social, and economic contrast to the nearby commercial strip. Davidson and Howe found that the homeowner opposition was less about the needle exchange itself, but about the broader contestation of the changing identity and character of the neighborhood. The authors suggest residents engaged in “defensive place making,” the phenomenon in which a small part of a broader neighborhood is reimagined as a different neighborhood. These residents felt the tentative identity of their “new neighborhood” was being threatened by the new proposed location for the needle exchange service, and, therefore felt under siege by those seeking to use it (and the unsavory behaviors they believed the clients
exhibited) (Davidson and Howe 2014, 631). In these and other cases, community opposition had political consequences.

Community attitudes towards drug treatment differ, and are linked to their attitudes towards addicts. As discussed earlier, Matheson et al. (2014, 57) found that along with having negative attitudes, most of the people surveyed said they are not willing to pay for treatment. Furthermore, the respondents had a preference for which treatment methods they deemed appropriate, with methadone maintenance treatment being the least popular treatment method, and community rehabilitation being the most popular (Ibid.). This differential support for treatment methods holds true in Kennedy-Hendricks et al.’s (2017, 465) U.S. example. They found low support for public health approaches, with stringent punishment being more popular with survey respondents (Ibid.). An implication of this differential is that people are more likely to support the funding of certain treatment methods over others. These differential attitudes have ramifications for heroin addicts seeking treatment.

Differential public support for treatment based on stigma rather than a true understanding of heroin addiction, its treatment, and recovery, has important implications for drug policy and access to treatment; public attitudes towards heroin addicts and the services they require become institutionalized. According to Kennedy-Hendricks et al., “Stigma is an important health determinant that may inhibit advancement of evidence based policy” (2017, 462). This holds true in downtown Toronto, where residents, organized by the Corktown Residents’ and Business Association (CRBA), sought to influence urban planning policy, specifically appealing to the government to change zoning codes that would prevent a methadone clinic’s relocation to their neighborhood (Smith 2010, 862). Public opposition to particular treatment can also impact federal-level policy. As a consequence of public hostility to harm reduction strategies, there has
been limited federal funding to syringe exchange programs despite their proven effectiveness in reducing incidents of HIV/AIDS and Hepatitis C, and their acceptance in many other countries (Tempalski et al. 2007, 1253). Thus, multiple authors conclude that greater public education and understanding of heroin addiction and treatment is required to reduce stigma, thereby allowing addicts to access most effective treatment methods and harm reduction programs.

**Methods**

To gain an overarching view of treatment options for heroin addiction in Madison, we conducted four interviews with local experts in the field of addiction. Their responses provided crucial insights into the accessibility, demographics, and new initiatives. In addition, we distributed an online Qualtrics survey via email to students, faculty, and homeowners associations in Madison to assess levels of stigma and spatial patterns of Madison residents. 518 responses were collected from this survey.

**Interviews**

The first interview conducted was with Anthony (AJ) Ernst, a professional with over thirty years of experience in the addiction recovery network. While his expertise is situated across different substance addictions besides just opioids, his experience working at sober houses such as Aaron’s House - a local house for men to find community in their journey to recovery - provided a unique perspective on addiction treatment as a whole. His approach to treating substance addiction focuses on long term, behavioral and medical treatment in order to address the multitude of factors that drive substance dependency. He stressed the need to ensure housing and employment for people struggling with addiction, as it creates a social framework where individuals are deterred from behaviors that can lead to substance use or full relapse.
Our second interview was conducted with Madison Public Health Supervisor, Julia Olsen. Her interview provided a broad overview of the city government’s knowledge and initiatives to solve opioid dependency within Madison. In discussing a public health approach to addiction treatment, Olsen highlighted how difficult it is for departments across the city government to coordinate and implement lasting programs and solutions. One success that the city has had, however, in a collaborative effort across the Department of Public Health and the Madison Police Department, is the creation of the MARI program.

The third interview, conducted with MARI’s primary investigator, Aleksandra Zgierska, aimed to further explore the program. Zgierska is an assistant professor at UW-Madison in the Department of Family Medicine, and began formulating MARI in 2016. MARI introduces a public health approach to policing illicit drug use and possession. In an effort to decriminalize addiction and drug use, the program aims to use police interactions involving illicit substance abuse (such as heroin) as a platform to direct individuals to treatment facilities instead of placing them within the criminal justice system. MARI hopes to help facilitate the reframing of addiction as a chronic disease rather than an individual failure, and to reduce criminal charges and penalties by connecting individuals with treatment options (Zgierska and Nelson 2017; Brown et al. 2013, 500; City of Madison 2016). Individuals in sustained treatment programs have lower crime rates than those who do not receive treatment, so the implementation of MARI has the potential to reduce crime as well as curb stigmas around how dangerous people addicted to heroin are perceived by other citizens (Bukten et al. 2011, 393-395). Although Zgierska stated that the program is still relatively new to Madison, she has high hopes for its future.

Our final interview was conducted with another researcher affiliated with UW-Madison, Todd Molfenter. His research with the ATTC was recently awarded a $3.8 million dollar grant
from the U.S. Department of Health and Human Services (Schmidt 2017). Molfenter’s research is focused on creating a smartphone app, addressing some of the shortcomings of medical treatment options. Molfenter explained that one of the difficulties of treatment for medical professionals is the inability to keep in touch with patients once they leave treatment facilities. The app he and his team are working on aims to keep tabs on the location of patients and provide them with on-call support if they are getting too close to a space that is known to trigger them. Additionally, ATTC hopes to create culturally competent treatment in terms of understanding the needs of underserved and minority populations for the Great Lakes region as a whole (Addiction Technology Transfer Center 2014).

Survey

The survey we distributed attempted to gain insights on public attitudes and stigmas towards heroin and opioid addiction treatment, as well as determine how stigmas impact the distribution of treatment facilities within the Madison area. Treatment is often seen as a controversial issue, so we expected to see a disconnect between public perceptions and the perspectives of the professionals we interviewed (Matheson et al. 2014, 407-409; Tempalski et al. 2007, 1250-1252; Smith 2010, 859-862; Davidson and Howe 2014, 626; Kennedy-Hendricks et al. 2017, 465). We asked each respondent to provide their ZIP code in Madison, so we would be able to map aggregate responses over space. In choosing stigma-related survey questions, we considered the three central characteristics of socio-spatial stigmatization for addiction treatment facilities: non-productivity, dangerousness, and personal culpability (Smith 2010, 860). From these, we chose to ask about dangerousness and personal culpability regarding individuals with heroin addictions.
American adults throughout the U.S. have significant biases towards individuals with opioid use dependence (Kennedy-Hendricks et al. 2017, 465). Kennedy-Hendricks et al.’s (2017, Ibid.) web-based survey found that there were high levels of stigma towards opioid dependent individuals, and low support for public health approaches. Alternatively, survey respondents showed favorability for more stringent punishment. It is interesting to note that survey respondents did not perceive a difference in risk of dependence based on racial or ethnic categories, and that personal experience with, or around opioids did not reduce stigma (ibid., 466). Our research will utilize these findings - that there are stigmas around prescription opioids - and assume that people also have biases towards individuals with heroin addiction. From this assumption, we used our survey to do two things: prove this assumption, and map socio-spatial stigma by ZIP code within Madison to determine patterns of stigma.

![Figure 3: Survey Comparison](image)

*Figure 3: Survey Comparison. The above left column contains questions from Kennedy-Hendricks et al.’s research used as inspiration in developing the questions listed in the above right column.*

In developing our survey, some of the questions from Kennedy-Hendricks et al. jumped out as being specifically useful to our own research. We repeated and rephrased both response categories and questions of theirs in the making of our own survey. First, we used their age and
education breaks for Questions #2 and #3 in our survey, respectively. Question #6 also reflects a question asked in the Kennedy-Hendricks et al. article; theirs stating “Individuals with prescription OUD (opioid use dependence) are to blame for the problem,” whereas ours reads, “People with a heroin addiction are primarily responsible for their addiction.”. Question #7 in our survey comes directly from Kennedy-Hendricks et al., where they state, “People with prescription OUD” (whereas we say) “People with heroin addictions,” “are more dangerous than the general public,”. The Kennedy-Hendricks et al. article provided a solid baseline for our project to compare to and expand upon, and reflects the timeliness of opioid addiction research in the US.

Results and Analysis

Statistical Analysis of Survey Data

In creating our survey, we held two main objectives. First, we sought to prove that there was a significant correlation between assumptions, stigmas, and implicit attitudes towards people with heroin addictions, and how close individuals felt comfortable being to heroin and opioid addiction treatment facilities. Secondly, we wanted to map this data spatially to discover socio-spatial stigmas, and whether or not survey results had any relationship to how close respondents within a given ZIP code actually were to treatment clinics and police responses to heroin overdoses.

The demographic data we collected from respondents can be easily explained by our distribution methods. Our sample most represents ZIP codes located in the downtown and central areas of Madison, reflecting numerous responses from undergraduates, who were contacted via email and Facebook with the anonymous link. Age distributions were fairly even, yet skewed to
Figure 4: Survey Demographic and Characteristic Data.
Figure 5: Survey Results. The above table shows the breakdown of each survey response.
favor the ‘18-29’ and ‘60+’ categories (Figure 4). Our respondents were also highly educated. Out of the 518 responses, only 8 selected ‘High School Diploma’ as their educational attainment to date, and none selecting ‘Less than High School Diploma’ (Figure 4). It was also interesting to note that many of the respondents had lived in Madison for over ten years (Figure 4).

We asked some questions unrelated to our formal analysis, but which are still worth noting in our findings. Overwhelmingly, Madison residents see heroin addiction as a serious issue in the city, support greater behavioral and medical public funding to treat heroin and opioid addiction, and believe that it is most important to treat heroin use as a medical issue as opposed to a criminal one (Figure 5). This shows that individuals feel strongly about resolving the opioid epidemic and attending to people addicted to heroin and other opioids, yet still might feel uncomfortable being close to them.

To determine whether or not stigmas and attitudes towards heroin usage are related to people’s preferences in proximity, we ran three Chi Squared tests of independence between our three questions of interest: Questions #6, 7, and 12 (See Appendix). Because our data held categories with less than five responses (Figures 6,7 and 8), we aggregated responses for ‘Strongly Agree’ and ‘Somewhat Agree,’ as well as ‘Strongly Disagree’ and ‘Somewhat Disagree,’ respectively (Figures 6,7 and 8), in order to run the tests properly. For each pair of questions, we found the correlations to be significant at a 99% confidence interval (Figures 6,7 and 8). Thus, we can conclude that attitudes and perceptions held about people addicted to heroin correlates with how close Madison citizens would prefer to be to them.
Figure 6: Chi Square testing independence between Questions #12 and 7.

Question 12: I would feel comfortable living in a neighborhood that has a clinic where the treatment of heroin and opioid addiction occurs

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neither</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
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</thead>
<tbody>
<tr>
<td>8</td>
<td>15</td>
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<td>37</td>
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<tr>
<td>20</td>
<td>12</td>
<td>2</td>
<td>1</td>
<td>2</td>
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</tbody>
</table>

We reject the null hypothesis. We can say with 99% confidence that there is a correlation between Question 7 and Question 12.

Figure 7: Chi Square testing independence between Question #12 and 6.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Neither</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
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</thead>
<tbody>
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<td>26</td>
<td>17</td>
<td>7</td>
<td>5</td>
<td>2</td>
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We reject the null hypothesis. We can say with 99% confidence that there is a correlation between Question 6 and Question 12.
Spatial Analysis of Survey Data

In order to visually analyze and represent the spatial dimension of our survey data, we mapped survey Questions #6, 7, and 12 using the ZIP codes linked to each of the responses. Because each ZIP code had a range of responses to each question, we assigned a numerical value (1-5) to each response type (ranging from Strongly Disagree to Strongly Agree) and averaged this number for each response. We then used this average value to generate the color shade for each ZIP code for each choropleth map. We also note on the map that each ZIP code has a different sample size, which has implications for analysis of the maps.

Overall, we observe variation across ZIP codes for Questions #6, 7, and 12, with no question yielding unanimous degrees of agreement or disagreement. Figure 9A displays
responses to Question #6, “People with a heroin addiction are primarily responsible for their addiction”, over space. For this question, attitudes vary greatly across ZIP codes, with some clustering. The distribution of treatment clinics, marked as red points with shapes varying based on treatment type, does not appear to affect whether respondents believe people with heroin addictions are primarily responsible for their addiction. This suggests that for this question, presence of treatment clinics neither encourages nor inhibits the stigma attached to heroin addiction.

In Figure 9B, it is apparent that there is nearly universal agreement among respondents that people with heroin addictions are more dangerous than the general population. That said,
there is some variation to degree of agreement for this question, denoting a greater or lesser degree of variation of responses within each of the ZIP codes. ZIP codes 53703 (central Madison), as well as 53706 and 53715 (both adjacent to 53703) display the lightest shades of orange, representing weaker agreement to the statement. The one outlier, which shows disagreement to this question, is ZIP code 53593. However, we do not consider this significant, as the sample size is merely six respondents.

Question #12, which asks whether respondents agree or disagree with the statement: “I would feel comfortable living in a neighborhood that has a clinic where the treatment of heroin and opioid addiction occurs”, is represented over space in Figure 9C. Once again we see variation, with ZIP code 53716 being the most significant outlier due to its fairly large sample
size of 40 respondents. This suggests that within this ZIP code there may be a particular conflict or phenomena which requires future, finer-scale study. Essentially all ZIP codes in which treatment clinics are located contain respondents who feel some level of comfort with living close to a heroin and opioid addiction treatment clinic. This indicates that the presence of treatment clinics does not encourage negative attitudes or stigmas towards them. Alternatively, presence of treatment clinics may denote greater exposure of the public in those areas to heroin addiction. More exposure and familiarity could in fact positively impact attitudes.

The proposal that exposure to heroin addiction encourages positive attitudes - thereby combating stigma - is consistent to the result of overlaying a heroin overdose hotspot map layer onto Figure 9C. Figure 9D is a map from Johnson and Gibson’s (2017, 10) Public Health of
Figure 9D: Public Health Madison and Dane County Map of Madison Police Department Responses to Heroin Overdoses.

Madison and Dane County presentation. The map represents MPD’s response to heroin overdoses, using a heat map to highlight high incidence areas and points to indicate location type. The map emphasizes (in text) that 59 percent of these incidents occur in public locations such as a car, store or restaurant, where the general population is easily exposed to them. When Figure 9C is overlaid with the overdose heat map layer from Figure 9D, producing Figure 9E, one can see that the highest incidence areas coincide with highest comfortability levels.

Furthermore, when comparing these same hotspots on Figure 9A and Figure 9B, one can see greater levels of disagreement to personal culpability for addiction where hotspots would be located on Figure 9A and lower levels of agreement with addict dangerousness in ZIP codes.
where hotspots would be located in Figure 9B. This further indicates that exposure to heroin addiction, whether in the form of overdose prevalence or presence of clinics, may actually correlate with positive attitudes rather than negative attitudes.

*Figure 9E: Map of Question #12 responses by ZIP code with overdose heat map overlay.*

**Interviews on Treatment Climate in Madison**

To get a better grasp on the initiatives taking place in Madison involving heroin and opioid addiction treatment, we conducted four interviews with professionals in the field. Although each of these experts came from different backgrounds, experiences, and perspectives on heroin addiction treatment and addiction as a whole, they were all supporters of some common themes. Long term treatment emerged as one of the most important components of a full recovery, with occasional use and possible relapse being addressed as normal occurrences.
within the treatment process. Reframing addiction as a mental health issue, as opposed to a criminal issue or moral failure, was also a theme amongst the four interviews. Each professional recognized addiction as a chronic mental illness or symptomatic of other mental illnesses. Reframing public attitudes to view addiction in this way was commonly expressed as a barrier for treatment. While all four interviewees noted there is still a considerate amount of work left to be done, a cultural revolution concerning how addiction is addressed is currently under way in Madison.

One issue addressed throughout all four interviews was the presence of barriers in the Madison community for those trying to seek treatment. Even though Olsen noted that by many standards Madison is considered a community rich in treatment resources, both behavioral and medicated-assisted, the real barrier remains: who is able to access these resources? This is a question that reappeared throughout the work of all four individuals, who openly spoke about the struggles many people in Madison face. These barriers range from the inability for individuals to afford the cost of treatment, to the technicalities of who is able to participate in the MARI program. More often than not, these barriers target Madison’s inflicted minority populations. This is why MARI is conducting an equity analysis throughout the length of the program: to see who was and was not included. Julia noted that, while the Public Health Department of Madison and Dane County’s equity report is only skimming the surface, many other communities across the nation look to Madison “as a model when they are starting to incorporate an equity component in their organization.” Furthermore, while Molfenter noted that stigma is not as present a barrier in the Madison community, it is still common throughout other parts of the state. Specifically, it is a major issue for rural counties, where physicians and advanced practice
nurses may not want to serve this population because they do not believe it is a priority of the clinic.

The treatment needs of individuals differ, therefore no two treatment plans should be the same. Over the course of the four interviews, all interviewees could not stress enough how treatment plans should be individualized. When discussing the MARI program, Zgierska emphasized that treatment providers “cannot generalize which (treatment) is effective versus not effective, because each person should get what each person needs”. She explained this is why the MARI program requires participants to go to Connection Counseling for only the initial assessment, and from there the patient can be enrolled in whichever treatment program they feel is best suited to their needs. Not only is creating an individualized treatment plan necessary, but throughout the interviews everyone noted the importance of including the patient in the creation of any treatment plan. One feature that stood out in ATTC’s approach was the value placed on the shared decision making process, which allows for the patient and doctor to collaborate when deciding between treatment options. Molfenter noted that while intuitively, involving the patient might seem quite logical, however many providers do not always value their input or take the time to ask. However, he is starting to see a change in the field, with more doctors taking the time to incorporate their patients opinions into the process.

A promising theme throughout the interviews was how receptive the Madison community has been to the various local initiatives. This not only mirrored the results of our survey question “I would feel comfortable living in a neighborhood that has a clinic where treatment of heroin and opioid addiction occurs” where the majority of survey takers agreed, but also the implementation of the MARI program. When we interviewed Zgierska, she noted how the program has yet to receive any opposition from the community. It is actually the contrary;
Zgierska noted that MARI has been “welcomed with open arms” by the community and a variety of partners. She mused that either they (MARI) are doing things really well, or that the timing is right. Zgierska’s sentiments were echoed throughout the other interviews. Olsen has observed increased participation through the community coming together to construct a harm reduction network; “we have a safe prescribing taskforce that has a lot of members of various hospital systems and pharmacists working on how to put guidelines in locally.” Moreover, Ernst mentioned how the Madison, and national, community is starting to recognize and value those who are in recovery as professionals (recovery coaches) with firsthand experience, instead of ‘ex-heroin users.’

During the closing remarks of each interview, the interviewees stressed that although substantial progress has been made in the field, there is still the need for further research. Especially when thinking outside of the Madison community, national perception of heroin addiction still may be stuck in the 1970s. Ernst and Olsen vouched that more emphasis needs to be placed on programs throughout the lifespan; to not only encompass the treatment period, but a recovery plan for life. Olsen concluded that while the Madison area is rich in treatment options, the city lacks preventive programs; “primary prevention; really trying to build resiliency skills and being able to think about prevention from an early childhood throughout of the life span.” Ernst would like to see greater collection of data concerning the effectiveness of long term recovery, he noted that this is often difficult to achieve due state and federal funding distributed to more ‘sexy’ short term treatment programs. Zgierska has observed an evolution of use of terminology among stakeholders in the community when discussing the nature of addiction from “kicking the habit” into a productive discussion surrounding the nature of the “disease of
addiction”. Nonetheless, she concluded: “we still need a lot of cultural shifts to happen- no question”.

**Discussion**

The overwhelming majority of city residents believe that heroin addiction is a serious issue in Madison, and should be treated as a medical issue as opposed to a criminal issue (Figure 5). This indicates that city residents are not only concerned about heroin use, but also want to see people who are addicted cured, rather than punished. Furthermore, a majority of residents responded that they support greater state funding for both behavioral and medical treatment (Figure 5). This contradicts prevailing research on funding for medical treatment for opioid addictions. Matheson et. al (2014, 409) found that over 50 percent of Scottish citizens were unwilling to pay for opioid replacement treatment in the form of methadone. Although we cannot assume all the individuals who took our survey completely understand the full spectrum of medical treatment, attitudes around medical treatment (methadone, buprenorphine, etc.) in Madison are positive, and do not reflect negative stigmas that may be held towards people addicted to heroin, as is found in Scotland. In terms of expanding treatment options available in Madison, this is encouraging information. Through our interviews, we discovered that combined medical and behavioral treatment is crucial for full addiction treatment because each realm of therapies focuses on different aspects of addiction. Curbing cravings via medications such as methadone and buprenorphine is just as important as changing behavioral patterns that drive individuals to use heroin.

One of the major barriers for individuals seeking treatment is the criminalization of drug possession and use. While our survey found that heroin use ought to be treated primarily as a medical issue, as opposed to a criminal issue (Figure 5), state policies on illicit drugs and
addictions to them have not changed. Initiatives to decriminalize addiction, like MARI, can only be implemented in areas where these kinds of attitudes prevail. Zigerska confirmed this in her interview. She had not seen much backlash from either Madison residents or government employees in developing MARI, but instead widespread support and genuine concern for people with addictions. These findings suggest that Madison is ready to approach the opioid epidemic as a public health and mental health issue, as opposed to zero-tolerance policies perpetuated by the War on Drugs.

From the results and analysis of our spatial data, our main finding is that presence of treatment clinics does not cause negative impacts. Rather, exposure to heroin addiction, whether in the form of treatment clinics or police responses to overdoses, might actually lessen negative attitudes. This is contrary to the results of Kennedy-Hendricks et al.’s (2017, 466) survey, as their research showed no relationship between personal experience with addiction and attitudes. We believe this may be explained by the idea that increased exposure to people who suffer from heroin addiction could provide opportunities for empathy, and therefore understanding, for the need for treatment. As stated earlier, with the majority of survey respondents saying that they feel heroin addiction is a medical rather than criminal issue, this implies that Madison residents are receptive to the fact that people addicted to heroin have a disease and need treatment, rather than a jail cell. While they may still believe people addicted to heroin to be dangerous, the majority of ‘medical’ survey responses (Figure 5) suggests that they do not believe this dangerousness should be met with imprisonment, but instead with treatment. Perhaps the reason 57 percent of respondents would feel some degree of comfort living close to a treatment center is that treating heroin addiction - which is what causes the danger they perceive in addicts - neutralizes the threat they seem to pose. Thus, in the eyes of survey respondents, treatment
clinics may serve to both treat individuals with the disease of addiction, and also neutralize the
danger caused by addiction.

Another reason for the lack of discomfort towards clinics may be due to their inoffensive
appearance. A majority of the treatment facilities within the city are private practices of
physicians who specialize in addiction medicine. Many other facilities are a part of hospital
complexes, which directly situate the treatment center in the public health spectrum. By
comparing the results of our survey to Google Earth images of the exterior of treatment facilities,
it is worth noting the impact their appearances may have on the community’s perception of
heroin addiction. We further found that increased exposure to the inflictions associated with the
disease of addiction or even recognition of a treatment center, may actually contribute to
dismantling the age-old stigma of not only heroin addiction, but also the treatment of addiction in
general.

Analysis of the survey yielded that there is a statistically significant relationship between
the stigma questions (pertaining to heroin addicts being viewed as dangerous and personally
culpable for their addiction) and the question of comfortability with living close to a clinic where
heroin and opioid addiction are treated. This is consistent with the concept of socio-spatial
stigmatization, and we have determined there is a relationship between stigma questions attached
to individuals addicted to heroin, and treatment clinics (the spaces they occupy). This link is
further supported, as we utilized two of the three central characteristics of socio-spatial
stigmatization - dangerousness and personal culpability - to inform our two stigma questions (#6
and #7) (Smith 2010, 860). That said, our statistical test cannot determine the nature of the
relationship between the stigma questions and comfortability with close proximity to treatment
clinics. Our spatial analysis suggests that more positive attitudes (that heroin addicts are not
dangerous or personally culpable for their addiction, and that respondents would be comfortable living close to a treatment clinic), have a positive relationship with exposure to spaces connected to heroin addiction (treatment clinics and overdose locations). While this hints that there is a positive relationship between presence of heroin addiction-associated spaces and positive attitudes, we cannot say with certainty that this is the nature of the relationship found in our statistical analysis. Therefore, further research is required.

While the positive perception of the presence of treatment clinics in Madison is promising, it is worth noting, once again, the type of treatment options that are and are not present in the city. Currently, the available treatment options in Madison would not be considered too controversial. Although Madison is rich in its array of behavioral counseling and medication-assisted options, the city lacks many harm reduction programs that are seen elsewhere (Langendam et al. 2001, 778). While harm reduction programs (syringe exchange programs, heroin assisted treatment and supervised injection facilities) are often met with controversy and opposition, they have been proven to be effective at reducing the rate of overdoses, as well as the spread of HIV/AIDS and Hepatitis C (Tempalski et al. 2007, 1253). Even though syringe exchange kits are available at all of Madison’s Public Health offices, the accessibility of them is questionable. Olsen noted that people often complain about the location of kits. While the East Madison syringe exchange branch is utilized, the City County building branch is not - which may be explained by the presence of the city jail a couple floors down. Thus, while the Madison community has been relatively accepting of the array of treatment options currently offered in Madison, it is unsure what the reception - influenced by preconceived stigmas - of more progressive options would be. For example, having a syringe exchange station in a more centralized public location may be met with opposition. The attitudes
of the community can be detrimental to the success of a treatment program due to the implications these perceptions have on shaping drug policies and the availability of treatment within a community.

**Future Research**

Though the topic of heroin addiction is vast, the limited resources and time of this single-semester project with no budget required significant narrowing of the topic. Heroin addiction issues occur and can be studied at many different scales, and from many different perspectives. Furthermore, there are many socioeconomic and policy implications associated with heroin addiction. Based on shortfalls or gaps in our research from this semester, we suggest several avenues for future research.

As discussed in the “Results and Analysis” section, mapping Question #12 concerning comfortability, the ZIP code 53716 emerges as a significant outlier, with a sample size of 40 respondents. Figure 9C illustrates moderate disagreement with the question statement, and therefore discomfort with close proximity to heroin and opioid addiction treatment clinics. This suggests that further study must be done to determine whether there are particular circumstances which may drive this discomfort, and whether it is centered in a particular neighborhood. Multiple studied instances of community resistance to heroin addiction treatment or harm reduction programs occur at the neighborhood level (Smith 2010, 865; Davidson and Howe 2014, 631). This suggests that unique, neighborhood level circumstances such as neighborhood identity, historical factors, or neighborhood demographics could explain why 53716 is an outlier. In order to better understand barriers to treatment access in Madison, as well as public stigma attached to heroin addiction, it is worth studying this area further.
We were very excited to receive 518 responses to our survey from individuals across Madison, given the time constraints. However, many of these responses were centralized in a couple of ZIP codes, due to our distribution techniques. Our distribution plan relied heavily on whether or not a person lived in an area with neighborhood association, and was able to receive emails from their person of contact for that neighborhood association. Thus, our sample is skewed to favor homeowners, as well as more centrally located ZIP codes. Our survey did not reach a couple of periphery ZIP codes, resulting in no spatial data for those areas. Additionally, our sample respondents were highly educated. 72 percent of our respondents selected their educational attainment to date as a Bachelor’s degree or higher, whereas census data suggests this number is actually 56.3 percent (United States Census Bureau, 2016). This demographic characteristic of our sample may have an impact on the results. In future research, we would hope to focus more on targeting these areas to obtain a more representative sample of Madison.

In addition to demographic issues, some of our sample sizes by ZIP code were quite low. In our maps, we only included samples that were greater than five, which covered most of the city of Madison but not all. One of the biggest disappointments in the distribution of our survey was the lack of sufficient survey responses from South Madison. Only four responses were collected within this ZIP code 53713, the dominant ZIP code for the area. South Madison is known to be more ethnically diverse and economically vulnerable than other areas of Madison, and may hold a different perceptions on heroin addiction treatment than other areas which have a higher percentage of white and affluent citizens (Statistical Atlas, 2015). Although our survey did not explicitly ask respondents on their ethnic identity or income level, keeping demographics in mind is important for interpreting our results. Additionally, there were two clinics that treat heroin and opioid dependencies, one being a methadone dispensary. Proximity to treatment
facilities also positions this ZIP code as an important area for responses, because of the increased likelihood of contact compared to ZIP codes that do not have treatment services in them. Thus, a top priority in any future research would be to gain significant survey responses from South Madison.

Not only would we have liked to have gathered more in-depth data from select ZIP codes within Madison, but ideally, we would have administered our survey across Dane County. Due to the limitations of a semester we decided to focus on the perceptions of Madison residents. By collecting survey results from communities across Dane County, we would have been provided with a more rural perspective; which is an important perception seeing that the average American heroin user is a white middle-class individual from suburbia. Furthermore, conducting research outside of Madison would illuminate the availability and accessibility of treatment facilities, in more rural areas.

Further, after conducting our interview with Julia Olsen we are aware that communities across Dane County are dealing with issues similar to the ones observed in Madison. Research done at the department of Public Health Madison and Dane County, found that most of the people who experience a heroin overdose in Madison may not even be residents of the city, but often come from surrounding communities within Dane County. This information has raised questions at the Public Health Department on how preventive and intervention programs should be conducted. The best solutions often point towards stronger county-wide initiatives in order to have lasting and far-reaching effects. By expanding our research to include Dane County, we could gather data useful for formulating county-wide treatment programs. Thus, while ambitious, we believe it would be to vital to administer our survey throughout all of Dane County if we were to continue our research.
Conclusion

Our research question concerns discovering firstly, what are the attitudes of people in Madison towards heroin addiction and secondly, how do these attitudes impact access to and type of treatment options available. Based on our research, we found that Madison residents attitudes towards treatment differ from their attitudes towards addicts themselves. Interviews and survey results both indicate that there is some stigma in regards to perceived dangerousness of individuals with heroin addictions, and to a lesser extent, personal culpability for their addiction. However, due to very positive attitudes towards behavioral and medical treatment, and thus high receptivity, this stigma does not negatively impact access to treatment. It is worth noting that treatment options currently available in Madison are not as controversial as other approaches such as syringe exchange programs, heroin assisted treatment, and supervised injection facilities. While Madison does have a syringe exchange program, locations for exchange are sparse and not publicly visible. We cannot assume that respondents considered these more controversial approaches when answering the survey, as we did not specifically ask about them or inform the respondents what they are. Thus, we do not know how these types of treatment methods would be received in Madison, and they therefore have potential to prompt opposition should Public Health attempt to incorporate them further.

Though attitudes towards people with heroin addictions (stigma) are mixed, attitudes towards treatment are overwhelmingly positive. In terms of attitudes toward treatment, the majority of respondents recognize that heroin addiction is a serious issue in Madison. Furthermore, attitudes towards treatment are very positive, with the majority of respondents supporting expansion of publicly funded behavioral and medical treatment. This sentiment was mirrored throughout our interviews; where each expert regarded that the best approach to long
term treatment is a combination of medical and behavioral approaches. Most view heroin addiction as a medical rather than criminal issue, which has created an exceptionally positive reception of the MARI program, which takes a public health approach.

Statistical and spatial analysis shows that there is a relationship between stigma and space, indicating the presence of socio-spatial stigmatization; though we cannot definitively state the nature of this relationship. That said, there appears to be a positive relationship, as lack of stigma (positive attitudes) seems to coincide with exposure to heroin-related spaces. Thus, the presence of treatment clinics does not appear to prompt negative attitudes. Another promising finding for treatment is that a majority of respondents said they would feel comfortable living near a heroin and opioid treatment clinic. This suggests that community opposition to new clinics may not be a significant issue in Madison, and therefore may not serve as a barrier to the inception of new clinics and programs.

Overall, Madison residents are both receptive and encouraging of public health approaches to treating heroin addiction. Less prevalent stigma, and programs like MARI, show that the city is moving towards a new conception of treating addiction and mental illness. Decriminalizing addiction and providing expanded treatment options allow individuals to find the help they need as opposed to reinforcing prevailing narratives around substance abuse being of moral failure. It appears that Madison is willing and ready to accept holistic initiatives to care for some of its most misunderstood community members.

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Base-Map Data Sources


Appendix

Interview Transcription with Julia Olsen
11/08/2017 1:30 PM, City County Building
Julia Olsen: Public health is unique. We are not treatment providers. We are working on big picture changes. How can we change policy, community conditions to prevent some of these problems from occurring (addiction, obesity, chronic diseases). We get to work with human services who are primarily the treatment providers to help structure the work they do.

JO: There is usually primarily a perception at what people think public health does and what we actually do. I did receive my master degree in counseling.

Michelle Johnson: What are some available treatment options currently in the Madison area?

JO: Quite honestly Madison is rich with resources. A lot of times systems and resources are concentrated where the population is. Do have quite a few treatment options for treatment (that I know). Independent options at private institutions, behavioral health options at hospitals, and then community based options Journey and Connection Counseling for mental health services. Human services provides a fair amount of services for people who don't have insurance; unemployed, low income, disabilities. So there are some options for people without insurance.

A limitation I’ve found throughout my experience; sometimes difficult to get in with an assessment. When someone decides they are ready to seek treatment they may be at their breaking point. So when you pick up that phone and someone tells it will be 3 weeks before they can get you in for an ‘intake’ (intake is the first appointment that helps a clinician find out what type of care you need) this can be a huge barrier because you finally have gotten some motivation to change, but it can be heartbreaking to hear it might take 3 or 4 weeks before you can begin your first steps. This length of time for someone struggling with substance use disorders, trying to stay sober for this amount of time can be a large barrier for relapse and prevents someone from seeking treatment & not being able to address the issues in the way you want.

“Pros and cons a rich community when it comes to resources and resources available, but available to who?” Monday morning there is an assessment clinic for people who don't have insurance, I think on the North side, for people to walk in to and have a baseline assessment which will referrer them to treatment options. But it is a short window of time- only about 3 hours that it is open, can't get a lot of assessments done in that time. Another barrier that they’ve heard about this clinic is the location. Depending where you live and you access to transportation, this may be at least two bus transfers to get there. Things to consider when looking at the challenges for people to access them. Who gets to use them is the big question?

MJ: I saw that there are 3 places for needle exchange (in Madison)
JO: Yes. Needle/syringe exchange. You could access needle exchange at any of our offices (there is a sharp container on our wall & can pick up a kit for safe injection practices). But again access-who. How many people are going to walk into the City County building to access these resources underneath the city jail. But a huge barrier for people trying to access, but we do have it available even though it is not used much. The highest volume of needle exchange is at our East Washington office, right next to the library next to our WIC clinic. Collect services that people need to use in one spot, more likely to get them in the door. The ARCW (Aids Resource Center of Wisconsin) also offer needle exchange. They are a great organization- have mobile units that goes out into the community to promote education on how to use naloxone & safety. We do have some great resources, but some things happening… For our numbers of overdoses are increasing dramatically, we are starting to see an uptick in fatalities again. So lots of challenges, but we have a variety of treatment programs and ways to access naloxone at pharmacies (most of the locals one).

MJ: Do you need a prescription for naloxone?

JO: So technically yes, but there is a standing order. Where essential a physician has written a standing order for the prescription that a pharmacy can utilize. Here at the health department we can give out naloxone to people who use our (clients) needle exchange because our Medical Director has written a standing order so that if you walked in here one of our clinic staff could give it to you. It's like a blanket prescription. So there are ways for you to do it without having to go to a clinic for the prescription, which is the way a lot of pharmacies have done it.

MJ: In many other cities/counties around the nation the cost of naloxone has been overwhelming some local governments, has Madison felt this?

JO: So naloxone and Narcan same thing but different companies make them- do the same thing to save someone who is experiencing opioid overdose. Yes, the cost has been a bit overwhelming- not so much for public health, so not that much of a hit to our budget. But certainly a thought for us especially if we want to continue to do things and expand, it’s starting to become cost prohibitive. Have to think of creative ways to work with other agencies to reduce costs or share costs. An example, the medical examiner’s office called me if there is a way that we could get/resources/grant to get fentanyl testing strips because they can be very dangerous with skin contact. There is worry with first responders or even those performing autopsies that contact with fentanyl may be deadly. The effects can be pretty instant and sometimes you don't know what the scene is/what to expect, so this is a safety concern. So looking for ways to include things like this into the budget. If you talk to Fire they had a huge issue with the cost- it skyrocketed for them! They have been able to get grants for free or at a reduced cost, but that is not sustainable. What happens if you don't get the grant? Does your budget just triple for that? So that has been an issue felt here and especially at police/fire.
Caitin Hartnett: Are you seeing more funding from the city government going into services like that or did it just plateau?

JO: That's a good question, but hard to answer a little because I don't see police & fires budget where the cost has really been felt (11:48). We certainly worked with others to try and secure grants to try and get it covered as much as we can, if it doesn't have to come out of the taxpayers….. There has been a couples grants that we have applied towards

So far been pretty successful getting outside grants, but it's not something that is sustainable. It is something that EMS and fire have been talking about to have more of a conversation about the effect it might have on the budget in the future…. People now might need multiple doses of naloxone etc.

MJ: There has been a little bit of a steady increase with fentanyl?

JO: Yes. Nationally and here (see slides she sent us). It shows that deaths have gone up dramatically of deaths related to an opioid overdose as well as overdose in hospitals too. It's a huge increase. If you look at heroin things are started to level off a little bit in relation to heroin overdose deaths—that's great- but, part of that is due to increased access to live saving medicine like naloxone. But synthetic opioid use has gone up dramatically. The potency is so great of synthetic opioids & fentanyl that the dosage between overdose and death is very little- grain of salt. We are definitely seeing deaths and overdoses related to fentanyl increase. It’s hard to because someone who is using opioids doesn't necessarily know it is in what they are getting, some do, but many don't. Sometimes maybe the dealer, who isn't the maker, doesn't even know what is in there. Hard to trace back.

MJ: What factors have led to the increase in heroin overdoses in the Madison area?

JO: In the Madison area we aren't immune to the problems everyone else is experiencing across the country; from what we know our story mimics what is happening in the rest of the country. If you look back the last 10 years you can see just the way that prescription opioids went up and up and up. If you look at our data (Madison) we have more fatalities due to prescription opioids than heroin- it still outpaces. I think there is somewhat of a false perception that we have done so much at the national, state, and local level that we have done so much to regulate and contain access to these to drugs that it's not as much of an issue. Lead to people becoming addictive or dependent to opioids. Heroin is SO much cheaper especially on the street market, which lead to many people switching from prescription opioids to heroin. But there are also other reasons. We also have to remember that people who are using illicit drugs, who struggle with addiction, have/there are other things going on in their life that precipitate that use.
Other risk factors; poor coping skills, mental health disorder/illness a lot comorbid factors- they occur with each other. Many things occur with one another when you see people suffering with drug use sometimes as a way to cope with said mental illness... There are a lot of risk factors that exist that lead to, once you are sort of in a system where you are experiencing some of these problems there are a lot of factors you to need to change to get out of it (system of drug use). Hard to break this cycle because you really have to change a lot of factors that have been enabling you like friends, the environment you are living in; it’s a real lifestyle. It's a cultural change, when someone with a substance use disorder is trying to change. That’s a huge issue.

I think a lot of these issue with heroin we really did, I’m saying a royal we who have been in the government world for a long time, we saw the signs this was going to happen. When we saw deaths due to the drug Opana in a small community in Indian in a couple months- that was pretty off the chart. Then you started seeing all these things. We jumped in too late to hold people accountable. But now we do have things like a prescription drug monitoring program looking at whose prescribing what, you're having states communicate with one another- I can see if you went into Illinois to get all these prescriptions and came back to Wisconsin. There is more communication, access is being reduced. We have some great efforts locally about physicals who do pain management work who are creating educational programs for other physicians and students on other ways to manage pain for patients, instead of just giving them an opioid. I think here in Madison there have been so many things that have played into how we got to where we are.

I’m a strong believer in prevention. I think sometimes we try to focus all our energy and resources into treatment and recovery, versus putting systems in place across the lifespan that would reduce those risk factors across the life course. Sometimes you are starting trying to address things after the risk is already there, and the problem is already presenting. More for preventive measures, but prevention not a ‘sexy’ thing. With prevention I can’t show you what didn't happen- hard to get funding at a federal level. So much more money goes into treatment over prevention.

CH: Another question about treatment- what do you think the role of long term treatment is, what have you seen in Madison related?

JO: One of the things that I think has been a big shift in the way we think about addiction, is that more people understanding that this is a chronic relapsing condition. it's not just a moral failure, which is what the conversation was in the past. “Something is wrong with you”. Stigma is it's a choice. I’m seeing much more now a shift in how people are seeing and speaking about it.
Madison Police Department has a program- MARI. That's been a really interesting and great program to work with them on. It started with police recognizing that they are putting/sending people to jail overnight/arresting and it's not solving anything. Police getting frustrated that they thought people needed help/treatment but I'm their not meeting that need (don't know what to do). Madison Police Captain Corey Nelson started talking to some other departments nationally who were doing some interesting things- getting people treatment instead of sending to jail- and he wanted to see if something like that could work in Madison. So the initial concept was we can't arrest our way out of this problem, these people need treatment and we need to be able to find a way to get them into treatment. The grant is essentially a diversion program, but a little different that existing diversion programs because these charges aren't filed. And that's important because one of the barriers in recovery is that even if you went through a diversion program, but I did a background check on you it would show up (the charge would show up diverted but there is still some stigma to that). If you said are trying to seek employment, go to school, scholarship this could be a great barrier in recovery- this could be an incentive for the program. Its incentive you to start a program because you'll never have this charged filled, which is amazing. But there have been some challenges. We’ve never guessed how long it would take to start up something like this and all the layers that go into it. Just started the program and think have about 30 people enrolled. But were trying to look at the outset/deep dive in- who's getting referred, who’s not getting referred, who’s not following up… I’m not ready for treatment, to you don't have anybody who looks like me that I feel comfortable with. Big initiative that's going on.

In the county we have a long list of different programs; whether it’s a diversion programs that exist- many drug related charges. MARI is the one I work closest with.

MJ: We’re actually going to be interviewing Alek. too.

JO: If you need anyone from MPD to talk about MARI with I could give you Dan Swason’s contact- from MPD works closely with MARI. Dan is really the person at MDP that has taken on this program and advocate. One great thing talking to him after he’s been working on this program has really changed the way he views this topic and people- his job and how he’s dealing with people. You starting seeing this cultural shift in the way people are understanding and thinking about addiction, that we didn't see before. So I’m hopeful for what that means for the future as far as the strides we can make for treatment. I think taking that approach makes people understand that you’re not just going to go to rehab for 28 days or 6 months and you’re going to be fine. It's a chronic relapsing condition and that there has to be a treatment and maintenance plan over the rest of someone's life course for them to really be successful. Trying to let people understand that you’re not cured. Even with the MARI program its 6 months, we only require people to successfully complete a treatment program for 6 months. Even structuring the program we know that you're not going to be kicked out of the program if you relapse, because relapse is a part of the process. We basically count success as you have not reoffended and you followed
your treatment program for 6 months. If we can get someone to adhere to their treatment plan for 6 months we feel like that's going to make them have a better outcome than someone who hasn't adhered for that length of time.

CH: With MARI do they direct people after those 6 months to different programs to help them continue their treatment? Is it privately or publicly funded?

JO: With the MARI program, one thing that I should mention is that we don't actually have funding to cover the treatment. What we were able to provide funding for is to cover the recovery coaches, who are sort of like peers who have been trained, maybe who have even been down the same road before. Who can provide somebody with some additional assistance and support like when they are not in treatment or have made a referral and are waiting for their assessment or waiting to see their treatment provider. What we have been able to fund are those recovery coaches, but also the assessors. So part of that barrier is getting that intake- that first initial appointment to even tell you what level of care is best able to meet your needs. What we have been able to do is entered into a contract with Connection Counseling where they are doing the assessment, the intakes, and they are helping people based on their assessment results and other things; insurance status, where they live and make a referral to the appropriate place. That's another barrier people don't know what it is that they need. I might just google a counseling facility or counselor, but when I get there I realize what I actually need is intensive inpatient treatment which is a totally different game you'd have to go through. This helps cut down on some of that. We wanted it to be sort of a hub to refer people out. Some people decide to stay with Connection Counseling and actually choose to get their treatment there, but that might not be the case with everyone. Get them to the right place, which is the best fit for them. With that knowing that we are not necessarily paying for them to have the treatment, it's likely that they will continue to see that the person who they received treatment from for those 6 months.

JO: I should of told you I'm quite the talker-

MJ: No, that's amazing! Especially seeing that there is so much and many new things coming about.

CH: It's really a multifaceted issue.

J: People don't realize how much goes into all of these issues. You have all of these systems trying to work together, that aren't really set up to work together. We thought this was going to be so easy to get this started, but it's taking this vision that you wrote for this grant and trying to get public health, police, UW, the city attorney, human services, the DA office's, community members to advise to get all of these issues to jive with each other and make a plan.
It wasn't up to us what charges—that's one thing I should mention. We as MPD, public health, and human services—we didn't get to decide what charges make people eligible or ineligible. That was up to the DA and the city attorney to make those charges/decision.

A barrier that has come up so far—one of the things they said to us is that if someone is currently on probation or parole they are not eligible for this program. So what we are doing related to evaluating this program, is were tracking from the get go we are recording who’s not getting referred and why. Why wasn't someone eligible? For example, from these 30 some cases we are looking at we are trying to do an equity analysis—which we will begin next week. So far, we have 5 people of color, 5 black people, who were referred to the program. Three of the five were not eligible. Because of probation or parole; 3 were ineligible due to probation/parole. One didn't follow through and I forget what happened with the fifth. The fifth was a miss.

That's the other thing we are looking at. Dan is vetting all the documents he gets from his officers to try and identify if there was there someone you encountered that should've been referred and wasn't. Those were 5 people he deemed that should of been referred. Four of the five those people were actually referred. One was a miss that wasn't referred to the program. All things we are looking at.

It's kind of telling what some of the barriers can be. That's a big thing for us when we were structuring the program. Who has access and who does not. For us excluding probation and parole are we inherently just targeting this program at a younger demographic to begin with? Who is less likely to have any previous involvement with the criminal justice system. Then you look at our data related mass incarceration and you’ll see that people of color are much more likely to be involved in the criminal justice system at a younger age. We are trying to think and talk about how do our systems change to a much more equitable process? So that is just something I wanted to mention. Equity is something that we are very concerned with and what is happening with these populations.

That made our program MARI stand out from the other programs that were funded in the same cohort that we received funding from, one of five or seven. One of the things at the Federal level that the bureau of justice assistance communicated with us is that we were the only applicant that is including an equity analysis in your action plan. They are extremely interested in seeing how this unfold for us and we are fortunate that at the city level in Madison we have Racial Equity and Social Justice Incentive RESJI; they have an equity tool and analysis you can go through whenever you are trying to implement something new. So it has been really helpful for us.

CH: That's great what you guys are doing. I’m surprised that other cities that received funding didn't have a similar outlook.
JO: Well to be honest, the work we are doing related to equity in Madison and Dane County we are sort of leaders in this line of work. When we go to conferences we hear about how others think we are so far ahead and look to us as models when they are starting to incorporate an equity component in their organization. At the same time we feel like we have so much farther to go. So it's surprising, but not too surprising for me. Hope more jurisdictions will adapt more of these practices.

MJ: Shifting gears- in relation to treatment and addiction stigma are there certain concerns from the community, in Madison, surrounding treatment options and addiction itself?

JO: A couple of things. In concerns you see, sometimes I hate Facebook so much, if you looking at a news article related to an overdose response typically you get a handful of comments that save things like “don't save them”, “it's their choice”, “their a junkie”, you can fill in the blank; which is disheartening because their people. You’ll also see things like “it’s that neighborhood, it makes sense” so that is one of the biggest pieces of stigma that we’ve come against lately. You’ll hear a lot of dialogue about “those people” and “those neighborhoods” being a driver/contributor for this problem. Or it those people coming from another state or the drugs are coming into here and we need to disrupt the system.

One of the things we did in public health with some data that we had from police (pulling up map from PowerPoint she sent us) was we created a map of overdose responses just for heroin from Madison police were in 2016 just in Madison (MPD). 143 heroin overdoses in 2016 almost 60% of those occurred in a public location car, stores, restaurants, libraries and what we did is mapped where the response calls were concentrated (represented by the dark red). Some of the things to us that stood out are you’ll notice that a lot of these are among major transport corridors. East Town-isthmus (Explaining the map a little more where the high concentration & transport corridors collide). One of the things this tells us is that it's not necessarily those people in those neighborhoods, those people are victims of trafficking because they happen to live adjacent to these major transport corridors. More people it’s harder to see what you are doing. We hear people in Stoughton who have the same issues- you get off the interstate and you experience a lot of overdoses, experiencing similar issues. We hear a lot of comments about “these things happening in these homes”, but you'll see that almost 60% of our response calls have been to public spaces. There could be a lot of reasons for that, could be that people are more equipped with naloxone and they have it in their home, so they don't need to call as much/decided not to call. But we try and do things like this at public health to think about what are those narratives and how do we change that or interrupt that narrative. The other thing we did and it’s not on this map here is, we mapped the last known address of these people. Last known address not a great indicator because a lot of those people could be homeless or in transit. Most of these overdoses these people didn't live in Dane County, did not live in Madison, didn't
always live in Dane County, some didn't even live in the state. That kind of tells us to think a little bit differently about how we might do intervention work, you could see this and say “we did to do work right here”, but if you focus on the community- but it might not even touch the people who are overdosing. These people could be coming from surrounding counties, Milwaukee- one was actually from Milwaukee which was pretty interesting and they have pretty good resources there. The other thing we hear a lot is “those people coming from Chicago coming to Madison”, but none of these people were from Chicago just some people from Minnesota and Iowa. Those are things we hear a lot. It’s because of these people, it's because of these neighborhoods, its somebody choice and it’s hard for us in public health. But our goal is to disrupt that narrative and we do that through data and trying to look at information in a different way.

The thing this also told with these public spaces is that we need to be thinking more about how do we train restaurants, gas station workers, people who work at businesses who are around these areas where overdoses are happening a lot how to identify the signs and know what they need to do. Is there naloxone on premise somewhere? How do we equip them to do that and be able to do that. To respond and be able to identify. That is one of the initiatives we are going to be working on EMS, with fire, with ARCW how do we train people who work in these businesses. This is an example when you look at things a little differently you can also see the dots show up everywhere and if you looked at this at a county you would be able to see this, it's not just a Madison issue. It's happening everywhere. There was another part to that question..

MJ: Yes. Treatment.

JO: The treatment aspect. The thing we hear a lot of stigma or community concern about is medication assisted therapy. People who are on suboxone or Buprenorphine which there is a lot of evidence nationally that shows it is really an effective strategy. I would argue that we should be more opened minded about it. I don’t think- and this is just my own perceptive- having been a clinician before, I’ve never been an advocate of giving someone a pill to fix the problem. In my opinion it’s always been a combination of Medication when it is needed and other behavioral therapy, that is most effective in my opinion. So I think that's also a part of the stigma for medicated assisted treatment people just assume I’m giving you your suboxone and that's it. That's not all that is happening for these people, their also going through a course of other types of treatments. But that is a common stigma we hear from people. Also that we ”shouldn't be offering methadone etc.”. It is one of those things from a policy standpoint we don't have a policy statement on it, but from public health we would likely argues that it's shown to be an effective strategy and that access to these treatments should be expanded. There is a lot of policy from the Federal level that inhibits the states from doing more; who offers medication assisted treatment, how many providers in an area, how much can they offer, how many clients can they
have on their course load, etc. So some of those barriers I would like to see reevaluated at the Federal level, but there is a lot going on.

MJ: Is there a lot of access to medicated types of treatment in the Madison area?

JO: That’s a good question for Alek, that’s her area. She would say yes, but… There is compared to other places, but there a still a lot of people experiencing barriers to access I'm not as familiar with all the different options offered in Madison for that area. Medication assisted treatment hasn't been my wheelhouse as much. I’ve been more on the prevention end. Especially when I worked in Indiana. There are so many regulations and policies that go into these OTP (opioid treatment programs) treatment programs, so you almost have to be an expert to navigate those waters.

MJ: No thank you. We’ve gone through a lot, gave us a lot to work with.

JO: This topic is really nuance. There are so many intricacies. There is so much going on in Madison and Dane County. I think we have done a good job when trying to do harm reduction work. We have a safe prescribing taskforce that has a lot of members of various hospital systems and pharmacists working on how to put in guidelines in locally. We have seen a nice decrease in the amount of opioid prescriptions being written in Dane County. We have groups that work on things like that. We have the Parent Addiction Network trying to provide resources for parents and families, who are struggling with a child or family member. We have trainings for family members with naloxone. We have the ARCW, needle exchange programs, we have a lot of great programs- we have diversion programs.

The thing that we don't do so well is prevention. Primary prevention, really trying to build resiliency skills being able to think about prevention from an early childhood throughout of the life span. People think of prevention they think of DARE, which does not work. They think of just schools doing drug education- it's not effective. Actually looking at evidence based programs that can be implemented. Address different levels of risk and do it throughout the life course. Those risk factors that are really universal. Reading level by third grade, being able to build that attachment to school, to having safe spaces. Participate in activities in your community, feeling connected to your community. Having clear communication from parents, caregivers, family, authority about their expectations. Perceived risk and your peers; there is so much that goes into it and prevention can look very different across the spectrum. I’d argue, that is one thing that we don't do very well in Dane County. But we are working towards trying to improve. We have a couple different grants we are working on in some communities in Dane County (Drug Free Community grant). Our hope is to have a few more in Dane County and one into Madison over the next few years. That's the one I’d argue that we don't do as well as we could. We’ll get there.
Interview Transcription with Todd Molfenter
11/24/2017 at 2:15 PM

Caitin Hartnett: Okay! So, I think we’re just going to start out with asking you about your research; with AACT and the grant that you just received. Congratulations on that.

Todd Molfenter: Well thank you, I appreciate that. Well we, right now we have two grants on opioids and the opioid epidemic that look at the implementation and adoption of what we call MAT, medication assisted treatment. The things we’re really advocating for is greater usage of a medication called buprenorphine, or buprenorphine / naloxone and injectable naltrexone which in vivitrol – which is the trade name at least. And so, in what we do here in engineering – we all sort of have our own interesting connections – but what we do here in engineering is systems development work. And so we’re working with health systems on how to really develop the capacity to provide those medications. And then with the AACT, we were just awarded that so we’re really just getting started on that, truthfully. We’re really looking at workforce development kind of pieces, and in capacity expansion. And in doing that, making sure that evidence-based practices are being used in helping train a workforce around those. And of course, one of those practices is this MAT stuff.

CH: Okay. So then going off of that, what kinds of options, besides just MAT, are available within the Madison area? Is it widely used in the Madison area or is it just certain hospitals that like to use that?

TM: Yeah, the Madison area – it’s better here. Where there’s less use of it is in the northern part of the state, you know, as you get into the rural areas there’s not as… What you need is a physician who’s willing to prescribe the medication. There’s a study that’s recently which says… First of all there’s the demand compared to the need – there’s a pretty big gap there. And then also in every state there’s just a number of counties that there are no prescribers at all. And really for us too, with the work we’re doing here in the state, is we – of course we have the specialty treatment centers, which would be like Connection or Tellurian that are doing this kind of work. But we’re also trying to get it more a part of what health systems are doing. So when someone comes into a primary care setting and appears to be using more pain medications than they should, or when they ask the question on ‘how many questions do you have a week,’ and they say ‘30,’ you know, to be able to respond to that. And right now, I had a couple of conversations earlier today, where a lot of health systems say, ‘hey, well we don’t have the expertise for that, we aren’t quite sure what to do with folks who answer to those questions, so we either don’t ask them or just sort of ignore them.’ And so it’s really becoming a pretty big deal. It’s becoming
really pretty important that as people are saying those things that people can respond to them in a proper way and provide resources as they need it. And for a sort of geography piece, I think the whole prescriber capacity – where it is and where it isn’t – is one natural linkage I can see. Another linkage we’re starting to see – the AACT is getting in to it – is if you have certain disparity of disadvantaged populations, especially if you have certain ethnic, or based on sexual orientation, or gender, things like that, do you have treatment providers in the area who are culturally competent? And I think there could be some pretty cool geography / geo-mapping stuff to do around that if the data is there.

CH: Mhm. And is that in training professionals differently, or having separate facilities that cater to those needs, based on demographics?

TM: It could be both. I really like more – just as a person who looks at system flow and all of that – that the more you can have people in the current system who are culturally competent so you don’t have to have these segmented systems.

CH: Definitely.

TM: Like, ‘oh you’re Latina, you should go there,’ you know ‘oh you’re LGBT you should go…’ rather than having it that way, I think people who either have that background as part of the workforce or if they don’t, they can be culturally competent to work in workforce.

CH: Mhm. Do you think that, with the work that you’re doing – MAT is one of the most effective treatment programs for people to go through, or should it be supplemented with behavioral treatment?

TM: With the MAT? The evidence is strongly in support of MAT. And then from that it gets a little controversial. I think what we prefer is that its MAT and behavioral therapy. You know, because, for a lot of us in the field it’s intuitive, one is handling the physical issues, the other is handling ‘who is your social group? What are your triggers and what are you going to do when those triggers happen?’ you know, things like that where the medication isn’t going to get you new friends, let’s say. Stuff like that.

CH: What would you say some barriers are to and for providers – besides the spatial thing – is there any other barriers to prescribing MAT?

TM: Yeah. I wrote a paper on this where we did a lot of interviews, like what you’re doing.

CH: We’ll have to check it out!
TM: I can forward it to you –

CH: That would be great, we would love to read it.

TM: What we talk about is sort of the barriers are: financial, can people pay for and access it; stigma, is also sometimes a barrier, like, ‘do we want to treat those people with those issues?’ Which is sort of interesting because a lot of those people they’re currently treating, they just don’t realize it often. And then just workforce issues like if there are prescribers in the area willing to issue. So those are the three main barriers that we came up with.

CH: What is inhibiting care providers or treatment facilities from prescribing? Say in the Northern part of the state or having more prescribers in the Madison area as well. What inhibits them from prescribing? Is it just the distribution of hospitals and treatment clinics?

TM: There is a little of that. But mostly, well for Buprenorphine you have to have a special license for it. But anyone who is a physician or advanced practice nurse can do that, they’ll have to go through the training. Once you get beyond is there a primary care clinic in that county, which most there are, it becomes an issue if the clinic. Well let me go back- you could have less coverage is the specialty providers. You're going to have more clinics that don't have the specialty providers because there aren't that many of those out there. But most counties will have at least one primary care clinic. But then it becomes the issue of the physicians and advanced practice nurses do they want to service this population? Then it becomes the issue of they don't get paid enough to do this or we don't have training in that area so we won't be confident to do it. Or hey, these folks tend to take more time because they have other stuff happening, other things going on in their life and we don't have time to treat that population. So those the general answers we get.

CH: Buprenorphine versus methadone- what is the difference between the two?

TM: Let's talk about the differences between the two. Here's an opioid receptor. An injectable, naltrexone, is called a full against; it completely fills it up. So if you've taken any opioids after you've taken the naltrexone it's like a sponge that no longer will suck up water or a cavity that will no longer fill. With methadone and Buprenorphine they’re called a partial against, so they just fill up parity. In doing that what it does it meets the need for it, the physical need for it, and also since it's partially filled if you start putting other opioids in there there's only so much room, so it greatly reduces the effect of those. That’s sort of the criticism with buprenorphine, at the very least, people divert it. It's a diversion. Where there will sell it to other people. Typically the larger market behind it is for people who don't have the money for other opioids and they don't want to go through withdrawal because they have been taking it regularly, so they will buy it on the market. The judges hear about that and they don't like that- “hey this is another illegal drug
out there”- but really with Buprenorphine user term get “high” you can only get so high on of it. It is rare that someone dies on it (Buprenorphine) compared to other opioids, fentanyl, stuff like that.

CH: Do you see more stigma from providers on Buprenorphine versus methadone?

TM: No, that's a good question. Methadone sort of has a stigma because a lot of times it's these stand-alone clinics, people are out the door not always dressed very nice- things like that. They sort of have a reputation that way, but it's a very good medication- it does a very good job. Buprenorphine is that diversion issue, that some people don't like. With the clinics, we work with we have a set of practices to help prevent that. Where we say you should really be showing up for behavior therapy if you are taking this medication and by the way we do want to do random urine and drug screens to see if it is in your system. Sometimes they do things like strip counts- suboxone comes in strips. You call someone up and they have a 30-day prescription- you call them up 20 days in and say we’d like you to stop in and bring your medication with you; do they have 10 or do they have none? So those kinds of things. So those are sort of the pros and cons with that. Injectable naltrexone you have none of that. It’s a 30-day injectable- there's no way to divert that, they shot it in your butt. There's really no street value for it- even with oral naltrexone, which is another version, if someone is having DTs it's not going to help with that Buprenorphine will. That’s where the street value comes in. That's why a lot of judges say let's just do vivitrol, the problem with vivitrol is you have to be opioid free for a week. So if someone is really having some serve DTs they’re not going to be up for that, so that's why they want to get on Buprenorphine because it takes their desire for it away. Their also not puking and sweating and all that kind of stuff. They’re not going through withdrawal.

CH: Do you often see judges having a large impact on what kind of treatment people with dependency issues receive?

TM: Yeah, they can. I wouldn't say a large impact, but they can influence sort of community perception. Particularly sometimes here in Wisconsin and Ohio we work on a county systems and if the local judges are telling the county folks “hey, you shouldn't be doing this”- they don't always listen, but they take it into account.

CH: Do you know what the situation is in Madison at all?

TM: I don't know. I don't think so. Right now, we have a statewide project, but none of the sites are here in Madison. So I just don't know. I sense it's not a big deal. But if you want the answer to that just call one or two of these clinics and say “hey, if I wanted to get on Buprenorphine how soon could I do that? How would that work?” We often do that- the old I’m calling for a friend and they’ll tell you within minutes. They’ll either say hey come on in it
doesn't matter what your insurance is or they’ll ask you right away- what kind of insurance do you got. Or say we don't do that here. You can probably call Connections, that the local big one, or Journey or Tellurian and they can tell you.

CH: Earlier you went into… You were talking about the check-ins that providers have with individuals with prescriptions with MATs is that part of the shared decision-making process that ATTC has?

TM: Shared decision making. Where the shared decision making comes in is when you are actually setting the treatment regimen up. They do this with different areas of medicine. As you are setting up the treatment regimen that you are working with the patient on it. So it is shared, rather than just the doctor or nurse saying this is what you are going to do. You’re saying hey, here’s your different options, here are the pros and cons, what do you think will work best for you? That tends to work better, intuitively yes, but providers don’t always value that or take the time to do it. More and more I think that is changing.

CH: Does your research do anything with long-term treatment at all? Do any research on long-term treatment? Over 6 months? A year?

TM: No. Not really. We really haven't. Within our center here, we have an app we give people to help them with treatment and recovery. In there we’ll look at 6 months to a year, just to see how they are doing. But a lot of stuff we do within my grants is more just organizational or applying these practices- we don't get into patient research as much.

CH: What are the characteristics of the app? Is it a check in with people in what services they are using?

TM: The app is pretty cool. It is there. It came out of our earlier work, where we did a lot with breast cancer support. We took a lot of those same tools that helped with breast cancer patients and integrated it into addiction. Things like discussion groups are big. Things like information, for people to get information as they need it. What are cool about smartphones is you got that little GPS function, so we have people early on identify hot-spots or trigger spaces, so if they are getting close to a bar they typically drink at or a park where they use to buy drugs at, as they close to it will say “hey Todd, you’re getting close to Olbrich park. What are you doing? Are you sure you want to go there? Do you want us to contact one of your peer supports to talk about what you're thinking about?”

CH: That's awesome.
Yeah. With the video part, too. We usually have them give ‘life lines’ and stuff like that of people who are there if they are feeling like ‘I just got in a fight with my boyfriend or girlfriend I don't know how I’m going to handle all of that’. They can get in touch with that person maybe meet them for a cup of coffee- or just whatever they can work out or at least have a conversation.

This technology is great. As far as, that's where we see it sort of revolutionizing how treatment is done. Right now, treatment is very much what we’re doing right now. Versus what this can do. As far as just constantly being able to reach out to people, talk to people, find stuff out.

Are you seeing a lot of providers be accepting of that? Implementing it into their programs? It seems like it's a great resource for people.

Some. I think what we have going on now is that it's not always paid for, that's an issue. For some it's just getting use how to make that apart of how they provide their services. Right now, it sort of nice, every half an hour/hour someone comes in or you do a group. What do you do when someone, one of your patients, one of the people on your caseload text you? What if it is severe- “I’m thinking about hurting myself?” How does that work? Things like that have to be worked out.

Certainly. It's kind of like an on-call system?

Yes, it could be. From a liability standpoint, it could be so trying to figure how to develop those boundaries. Keep everyone safe and not being sued. Basics.

That's pretty much everything that we have. If there is anything else you would like to add that you think is important or that we should know about your research or Madison?

No… I’m thinking more about this geography piece- I see a lot of opportunities around that is where there is need and demand in how the resources line up with that. Whether it's around prescribers or different ethnic and diversity and how those things line up. Do you guys do stuff with social networks at all?

No…

With that it's sort of looking at whose friends with who? Who talks to Who? Sometimes when you see those it sort of has a geography look to it.
CH: That would be an interesting thing to further the project. What we’re finding is that there are a lot of multifaceted issues within this topic, that were just delving into. Things like that would be awesome.

TM: For instance, in Baltimore, right now they have this app. What they’ve done, I guess you’d call it a blog an app—what have you, and they go out—the outreach workers— and find people who are shooting up heroin or using opioids. They are telling them we’re putting you on (the blog) we’re not going to tell the police, but if anyone in the network gets bad drugs their going to tell everyone what they’ve gotten and where they’ve gotten it from. Especially with fentanyl. Fentanyl that is being made outside of pharmaceutical it is really wild. The quality of it is really varied and the intensity of it because they don’t have a way to really calibrate that the way they would in the lab. That’s what is killing people. They take one and it has 20 milligrams and the next one has 40 and it kills them. There is some bad Fentanyl that is out there and able to hit that network, so people know what is going on—just an example to think about.

TM: Well good luck with this! You picked a good topic, for better or worse, that's been in the news.

Interview Transcript with Aleksandra Zgierska
11/27/2017 at 10:30 AM, phone call

Michelle Johnson: Hello Aleksandra. Thank you so much for taking this call. Brief description of project overview. Is it ok for us to record this interview? We will send over a transcribed copy of this interview for you to look over to make sure we are quoting correctly.

Aleksandra Zgierska: Yes. I will not have time to read the whole thing. But whatever you are planning to use within your paper/synthesized information I would be interested to see what you use.

MJ: Of course. First off, concerning the general questions about the opioid epidemic in Madison from what you know from experience and knowledge; what treatment options are available for people in Madison?

AZ: Did you talk already to others because you’ve probably already heard some responses.

MJ: Yes. We’ve talking to some people about long-term treatment, as well as to Julia Olsen from the Public Health Department about options; like needle exchange programs and medicated assisted treatment. I guess a shorter question would be what type of treatment do you believe to be most effective?
AZ: This is not the right question to ask (lol). Every single person is different. One cannot generalize this is effective versus not effective because each person should get what each person needs. The fact that a given treatment works for Mr. Smith does not mean it will work for Ms. Young. So it's really individualized. I would caution you to look at what is most effective versus what is not because it is really person specific it depends on what other conditions they have, what is their history, etc. But in general terms, we know that opioid addiction is somewhat different than many other drug related problems because, it is highly, the success of treatment is related, in general population based terms, to the availability of medicated assisted treatments. We also know, research behind that is not weak it is really strong research showing efficacy of medication. Particularly, Methadone and Buprenorphine particular because there is more research and longer term research on these medications. There is also research injectable naltrexone for opioid disorders. In general, we have all types of treatment available in Madison. Mainstream treatment is also behavioral therapy or people call it counseling. We would love to see each treatment program have all those modalities available so that they can offer the treatment that would really work best for each individual. Currently some programs offer medication assisted treatment and some don't. Following what evidence shows us every single treatment program, or plan, it doesn't have to mean everything should be offered through one treatment provider but every patient should be offered the full spectrum of choices so the clinician has the ability to choose what will work best for the patient. Does it make sense?

MJ: It does. That's maybe even similar to what the MARI program does. We've heard a little bit about that from Julia, as well as through research from articles. But going into MARI, for that initiative, could you give a little more depth about the process once a police officer does make initial contact with an individual.

AZ: The contact for the MARI program means that a person, the participant, commits a crime (they) he or she is an offender- that's how the contact takes place. If that person is interested on one hand, but also eligible so there are certain criteria for what type of crimes is eligible for the MARI program. For example, violent crimes do not qualify for it. The crime has to be drug use, not drug selling, related. So if the person meets the eligibility, we call it the criteria, and agrees to participate in the program they sign a document right there, on the spot to document in writing that they are aware of the program and agree to the program. At that point they are given the information on how to contact the program, the counselor, for the assessment which will then determine what their specific needs are. The participant has 72 hours to contact the counselor, we are working with Connection Counseling who delivers that assessment. If they don't contact us in 72 hours, what if they contact in 72 hours, well we are looking at things case by case basis, but the general guidance is 72 hour contact time to show commitment to the process. Then the counselor schedules an appointment with them in person, but also links that person as soon as possible, so that means usually immediately to a peer support person- a recovery coach. Who then follows up with the participant throughout the program. The assessment helps determine
where the participant, where would be best fit for treatment. We look not only at medical and mental health problems, but also what type of insurance, what type of coverage a given person has that helps figure where to recommend for them which existing local treatment programs to recommend for them and whether to recommend medication assisted treatment or not. That being said, it's the treatment program later on that verifies, double checks, making sure that this is all appropriate there are many levels for making sure there is hopefully the best match between the person’s needs and what is offered. We then follow up each participant for 6 months to make sure they stay in treatment, if that’s how its recommended by their treatment provider, and that they do not reoffend over that 6 month period. After that time, if they successfully go through it, the initial crime related charges are not entered. Which is the incentive among others to complete the program, hopefully.

MJ: One of the incentives. Going back on the funding for treatment is it purely based on the insurance and what they can cover. Is there any help for someone who doesn't have coverage?

AZ: MARI does not have funds to cover treatment. So we do not cover treatment per say. But people who have insurance are expected, their insurance, is expected to cover treatment. For those who do not have insurance then we talk to Dane County Human Services who are often able to step in, depending on individual circumstances and availability of treatment beds, and help with that process. So there is a safety net, but we as MARI do not have funds for that particular purpose.

MJ: Going off of if someone is unable to complete the whole 6 months of treatment in the future can someone enter MARI more than once?

AZ: That's a good question. I don't know for sure. We have not established that, yet. That's something that we have started talking about because now as we started running the program I’m sure the question will come up. That's a very good question.

MJ: The program did begin around September, correct?

AZ: Or October.

MJ: How many individuals have been already enrolled in the program?

AZ: Let me clarify that. The program started last year, but the first participants... There's a lot of work that is needed to happen- it's like building a house, one puts in a lot of efforts to build a house before people can move in. We have been building the house since late last year. Our clients were able to start truly going through the program as of September first. It was a lot of upfront work putting all details in place. Including working with the city and district attorney
office to make sure that the type of crimes are not just our desire, but these are things that are approved by the attorneys’ offices. So it's just leg work upfront to make the program successful. Right now, as of a week ago or so, we had approximately 30 people going through the program or 30 people approached and identified, but this is really just the beginning.

MJ: That’s a great beginning. I know you said for the counseling service you use Connection Counseling, so then it is a very detailed individualized program. But is there any other long term treatment or check ins after the 6 months- or has that not been decided on due to the infancy of the program thus far?

AZ: Well we do not use Connection Counseling for counseling; counseling is a treatment and they are sent wherever is appropriate for their needs and insurance coverage. Connection Counseling provides the initial assessment to determine where they should go for treatment. Some of these patients might be app to stay with Connection Counseling, but that's the same approach with many other treatment programs. But our contract with CC is to provide assessment and not treatment.

MJ: Thank you for clarifying that. From the process of getting everyone involved and connected (in the starting year of the program) has MARI faced opposition from the Madison community and if so from who and why?

AZ: I must say we either are really doing things right or the time is right, but we have not, to my knowledge, faced opposition. It's to the contrary. We’ve been welcomed with open arms from all groups. We have strong support from the community and variety of other partners and I think overall by in. The areas we were cautious so it's not the opposition but more about its ‘hey, let's make sure we are working up front and to make sure we are doing things right’ is to pay attention to racial and ethnic makeup of the program participants. To just keep track and ensure there isn't any subconscious unattended discrimination against one particular racial or ethnic group or across genders etc. We are very deliberate about this approach.

MJ: Julia was talking about this component too. Especially with this program there has been quite a lot of equity research on who is excluded or not able to take part. That’s even something new Julia said she hasn't see in many other programs in other cities. That sounds really great.

AZ: Yeah but then again, this is one of those reasons, is it good to take time upfront to make sure we are avoiding certain pitfalls? I believe that yes that's the right approach. One can rush much faster through these things, but my experience shows that one pays for it later on. We are more likely to make mistakes and suffer some unintended consequences, which of course we still can. But at least we are trying to intentionally think things through to make them equitable and best match the disease of addiction. This kind of comes back to treatment, I’ve been watching
with interest but also pride how the discussion around addiction among stakeholders has been changing from using terminology, often people say “to kick the habit”. Which I really don't like because this is not a habit, this is a disease. Right now the terminology is the ‘disease of addiction’ and law enforcement officers participating in the initiative they understand that this is a disease. A chronic disease. That this requires individualized long term treatment and everybody is also understanding that relapse can happen- because it's part of the disease. We are not planning to kick out anyone from the program based on relapse; as long as they are engaged and trying. We will leave a lot of that judgement, to whether the person is progressing versus not, to their treatment providers. Again we will deliberately not try to decide whether a given person is progressing through treatment appropriately or not, because, well, we don't know this person’s individual story or engagement in treatment. So we consensually decided to step back from this approach and rely on the treatment providers. Who can give us essentially thumbs up or down without disclosing details of what's really, in this granular way, happening with this person. We don't want to be interfering with their treatment

MJ: That might be all the questions that I have for right now. Thank you so much for providing more details about this process with MARI. I’ll make sure to send the parts of the transcript we are planning to use in our paper in the coming weeks. Thank you so much for your time, especially seeing you’re at the beginning stages of recruitment for MARI- it must be a very busy time.

AZ: Just one thing from my side. It's a very sensitive area to talk about treatment, as you probably noticed, but many people look at treatment in a way that is historically kind of pushed upon us. Because historically addiction was viewed essentially as a habit or ill will. From that concept the treatment, what people called treatment, could be just detox. It's not treatment. It’s one of the components that sets a person up on the right pathway, but the treatment is a really long term process. That is something that we should work on emphasizing that this is not an overnight solution. Even 6 months of MARI this is a great starting point for them, but we do not claim that treatment is over in 6 months it’s just our cutoff for success from the legal perspective. But we do know that treatment should last for longer, so as soon as 6 months happens their prior charges will be dismissed, but it doesn't mean their treatment ends.

Also what I see, and will hopefully see less and less, people focusing on the question which treatment works best. Unfortunately, this question has been twisted sometimes by people being driven with a specific agenda. For example, some groups wanted to get the support for just one type of treatment, so they started offering just one type of treatment across the board. It's a seemingly innocent question you asked, yet with the background out there actually it is potentially a very polarizing question because some people try and set one treatment against the others now days. There were quite a few articles in the press, particularly Vitriol, who have potentially been engaged in not some of the best practices that would not only promote their
medication, but also trying to discredit other medications. Just kind of the background it would be worth to be aware of.

MJ: Yes- thank you so much!

AZ: Thank you. Overall, it seems like over all you’ve done quite a lot of work in this area- you sound like you know what you are talking about.

MJ: Yes, it's been a semester long project. Especially this past month we have really gone in depth for our research of options in Madison. It's been exciting too, to work on, in Madison with all the work that is being done for effective long term treatment and just the change in the atmosphere how it is regarded as a disease and not just as a habit.

AZ: Yeah and then keep in mind Narcan- that's another debate among some people “why should we offer Narcan to everybody all the time”. Some places tried to push limits on how many times a person can be given Narcan by first responders. It was an Ohio councilman, who proposed a three strike rule because it is too expensive to keep administering Narcan. People can have different views- it's worth remembering comparing like addiction to other chronic conditions just noticing the differences and disparities. Because no one proposes a 3 rule for Epipens- that would be unheard of to propose- but somehow people feel ok proposing this kind of approach for people with addiction. We still need a lot of cultural shifts to happen- no question. Thank you for your work on this subject!

MJ: Thank you! Thank you for your time today. Have a great rest of the day!

Interview Notes with AJ Ernst
10/5/2017 at 4:00 PM

Notes concerning Aaron’s House

● $625 a month to live in Aarons House (AH)
  ○ Cost is rising; becoming progressively more expensive
  ○ Changes underway with the treatment length & experience
● Treatment does not equal recovery
  ○ Peers play a large part in the recovery process
● Men and women have different recovery needs
  ○ Women often have been exposed to sexual abuse/assault
● Grace’s House: transitional home; short term treatment
● Sober home vs. transitional home
● Transitional home = short term stay, in between treatment and getting back into the “real world”
  ○ What AH is turning into
  ○ Success based on the number of people who walk out the door
● Originally, AH long term recovery situation
  ○ Stay up to 2 years
  ○ Completely comprehensive living situation; other boarders were family and not just housemates

Notes in relation to Interview Questions
● Recovery community
● Ranked by most in need to least in need (treatment options)
  ○ Determine by threat to life
● Mental health treatment important in recovery process**
  ○ Can’t address one ‘issue’ without address the other(s)
● Community of care; co-occurring disorders
● Politics plays a big role in the treatment policies (in relation to the first question)
  ○ There are now no more long-term treatment options available in Madison (due to changes with AH)
  ○ Have to live in Dane County to receive treatment options available
  ○ County of residence an issue in WI in general
    ■ ‘Don’t want to serve everybody’
    ■ To an extent, don’t have the resources to treat everybody
● In general, people in the community are unaware of the nature of addiction (question 3)
  ○ Want problems to go away, without having to do much about it
  ○ Education plays a huge role; educating the community
    ■ Need funding for education
  ○ Relapse in NOT a weakness
  ○ Need to educate the difference between treatment vs. recovery
● Opioid task forces
● People in recovery to take greater charge in the community
  ○ Connect with people; other people recovery & community leaders
  ○ One way to help educate people
● Need greater attention placed on the OUTCOME → not just the treatment length
  ○ Outcome/the real target = quality of life, change in life, get back to ‘old’ life, maintain job/relationships/housing
  ○ Need to understand the bigger picture
  ○ Need to collect the data to find out truly what are the best methods for recovery and a higher standard of living
● Employment gives a person value
- A funding for their treatment
- Gives a person purpose and another reason to stay sober
- Being listed as a felon limits job opportunities - certain drug possession charges lead to a felony

**Recovery is different for everybody**
- AH works because everybody is moving in the same direction
- Everyone is responsible for everyone in the house
- Building relationships with their peers

**Long term outcome**
- Outcome and interpretation - expectative for certain results
- State not collecting data PAST treatment period or for long term treatments

**Success of a treatment**
- Measured differently among people
- No one wants to put in the time/effort to collect the data/need funding
- Want to know as much as possible, but stigma/politics/other barriers gets in the way
- Effectiveness of a treatment
- Data is important for long term recover so then we can truly help those in need

**Need more advocates for people in recovery - in order to get their message across**
- (politics/community/’former recovery’ individuals)

**Treating addiction (specifically opioid/heroin) as a terminal illness**
- Medical over criminal

**Treatment failure is not a good thing to go through!**
- Often spurs relapse
- Can aid in convincing the person that recovery is not for them - not worth it
- Hard not only on the individual but also the family and friends

**No malpractice in the field of addiction**
- Bad treatment options can openly exist
- Need the data/accountability for services and providers

**Shift of paradigms of treatment**
- 20 years ago: shirt in treatment to allow/recognize that medication can be a part of the recovery process
- Current shift: treating people in recovery as professionals and not just volunteers
  - **Recovery coaches**
  - Valuing their information → giving people long-term purpose
  - Valuing their information as the best/first hand