

Case 5: Addiction and Policy

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HPRB 3700

December 5, 2023

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Written Narrative:

Randy is a 24-year-old man who was prescribed pain medication (an opiate) after ACL surgery during his sophomore year of college. He moved to using heroin when he could no longer access opiates. He eventually dropped out of college when he could no longer keep up with the school work. His parents were very angry and kicked him out of the house. They have dropped him from their health insurance. He would like to get his life back on track but sees no hope in that. He works part-time but can barely keep that together. What is available to help Randy and his family with his situation?

Health Section

Introduction, Clinical Description of Opioid Use Disorder

Opiates are a class of drugs that are also referred to as painkillers or narcotics (US Department of Health and Human Services, 2023). Opioid Use Disorder involves chronic or long-term use of opioids resulting in distress or impairment (Dydyk, 2023). Opioid Use Disorder consists of increased opioid tolerance, opioid dependence, and opioid addiction (Dydyk, 2023). In opioid use, opioids travel through the bloodstream and into the brain, then, chemicals in opiates attach to opioid receptor proteins (Kosten, 2002). When opiates link to these receptors, dopamine is released into the nucleus accumbens and causes intense feelings of pleasure (Kosten, 2002). All opioids activate nerves in the brain and body that block pain signals (Johns Hopkins Medicine, 2023). Opioids are prescribed to relieve severe pain, however, when opioids activate dopamine release in the nucleus accumbens in the absence of severe pain repeatedly,

people can become motivated to use the opiate when they are not experiencing pain (Kosten, 2002).

There are many ways that opioids can be used. Opioids can be in pill form, a skin patch, injected through intravenous therapy, a suppository, or a lozenge (American Society of Anesthesiologists, 2023). Examples of prescription opioids include oxycodone, hydrocodone, fentanyl, and codeine (National Institute on Drug Abuse, 2023). Examples of illicit opioids include heroin and illegally lab-developed fentanyl (National Institute on Drug Abuse, 2023). Opioid use disorder, opioid addiction, and opioid dependence are currently at epidemic levels globally and in the United States (Azadfard M, Huecker MR, 2023). Three million people in the United States have had or currently have an opioid use disorder (OUD) (Azadfard M, Huecker MR, 2023). More than 500,000 people in the United States have become dependent on the illegal opioid heroin (Azadfard M, Huecker, MR 2023). Anyone can become addicted to opioids (Centers for Disease Control and Prevention, 2020a). In many cases, like Randy's, individuals have been legally prescribed opioids as a short-term treatment after surgery or injury and become addicted (Centers for Disease Control and Prevention, 2020a). Long-term use of opioids, which is common for people with chronic pain conditions, can cause permanent changes in the brain's reward system and the way the brain perceives pain (Kosten & George, 2002). One in four individuals receiving long-term opioid treatment from their primary care doctor has an opioid addiction (Centers for Disease Control and Prevention, 2017). In 2016, more than 11.5 million Americans reported misusing opioids (Centers for Disease Control and Prevention, 2017). Opioid use disorder may involve injecting drugs that increase the risk of HIV, Viral Hepatitis, and other blood-borne pathogens (Centers for Disease Control and Prevention, 2023).

Risk factors

Various risk factors can increase the likelihood of initially trying opioids, opioid addiction, and death from an opioid overdose. Genetics, mental health conditions, social factors, geographical location, and having chronic pain conditions, are associated with becoming addicted to opioids (Webster, L. 2017).

Genetics

Genetics is an important risk factor in becoming addicted to opioids. Genetics directly influences the number of opioid protein receptors in brains, how quickly bodies metabolize opioids, and how quickly they can become addicted to opioids (National Institute On Drug Abuse, 2014). The OPRM1 gene is located on chromosome 6 and encodes endogenous G protein-coupled mu-opioid receptors (AL-Eitan et al., 2021). OPRM1 is an extensively studied gene associated with drug addiction, and various genetic variations have been strongly correlated with susceptibility to drug addiction. Additionally, the OPRD1 gene has been linked to an increased risk of heroin addiction (AL-Eitan et al., 2021). Genetic mental health conditions and susceptibility to mental distress can also increase the likelihood of trying and becoming addicted to opioids

Mental Health Conditions

Stressful life events and untreated mental health conditions are risk factors for initially trying opioids and becoming addicted to opioids. Psychological factors play a large role in initially trying and becoming addicted to opiates. It is common to turn to opioids to treat the symptoms of depression or anxiety by utilizing their euphoric effects. However, over time, this abuse will only make the depression worse (Sullivan M. D. 2018). Opiate use can cause

depressive symptoms like social withdrawal and issues with sleeping (Sullivan M. D. 2018). There is a correlation between having substance abuse disorders and reporting suicidal thoughts and self-harming behaviors (SAMHSA, 2014). Patients with a diagnosed mental health disorder are more likely to have access to opioid prescriptions, however, they are also more likely to abuse opioids and have a fatal overdose (National Institute of Health, 2023). Individuals diagnosed with depression were more than three times more likely to use opioids than those who were not diagnosed with depression (Tumenta T, 2021). Current psychological models of addiction emphasize the use of opioids as a coping mechanism for stress management, tension reduction, self-medication, and the lessening of withdrawal-related distress (Sinha, 2021). Parental loss, parental conflict, divorce, abandonment, and unfaithfulness by a close partner can influence an individual to start using opioids to relieve stress (Sinha, 2021).

Social Factors

Peer influence, lack of support and treatment, and opioid accessibility are risk factors for initially using opioids and becoming addicted to opioids. Peer pressure is a significant influence on an individual's drug abuse initiation (Om Prakash Giri et al., 2014). Peer pressure can influence a person's attitudes, behaviors, and substance use decisions (Abraham et al., 2021). Peer pressure can result in opioid addiction due to social norms, eagerness to be accepted, experimentation, curiosity, and conflict avoidance (Abraham et al., 2021). Teens may misuse prescription opioids under the influence of peer groups and family members (Abraham et al., 2021). Watching peers or family members abuse opioids may cause teens to feel interested in initially trying opioids (Abraham et al., 2021).

Geographical Location

Geographical location can play a large role in the risk of death due to opioid overdose. Since the mid-2010s, Appalachia, Oklahoma, and Southwest areas have been experiencing surging rates of fatal opioid overdose deaths (MONNAT, S. M. 2022). Rural residents are more likely to be prescribed opioids and due to this, illegal markets of opioid distribution are likely in rural areas (Keyes KM, 2014). Rural residents often experience economic stress, resulting in higher rates of opioid abuse (Keyes KM, 2014). Lower levels of education, limited employment opportunities, reduced infrastructure investment, and higher poverty rates contribute to elevated rates of opioid use disorder in rural areas (NIH, 2018). Rural residents face challenges in accessing early and timely addiction treatment due to limited availability, a shortage of mental health professionals, and the need for extensive travel to reach healthcare facilities (K. A. Look et al., 2019). While every county typically has at least one neighborhood pharmacy, the absence of formal substance abuse treatment centers is notable, with several counties lacking such facilities (K. A. Look et al., 2019). Barriers to physician involvement in addressing these challenges in rural areas include a lack of federal or state-level provider recognition, and insufficient administrative and integrated support services (K. A. Look et al., 2019).

Chronic Pain Conditions

In 2021, an estimated 51.6 million adults in the United States reported experiencing chronic pain, and 17.1 million adults experienced high-impact chronic pain that limited their ability to complete daily tasks (Centers for Disease Control and Prevention 2021). Having a chronic pain condition or disorder such as arthritis, fibromyalgia, obesity, diabetes, and cancer, can increase the likelihood of becoming addicted to opioids due to being prescribed opioids

(Vowles, K. E., McEntee, M. L. 2015). As previously stated, anyone who uses opioids can become addicted to them, even during short-term treatments (Centers for Disease Control and Prevention, 2020a). Adults with arthritis accounted for more than half of US adults with at least 1 opioid prescription dispensed (Centers for Disease Control and Prevention. 2022). Up to 40% of those with rheumatoid arthritis are opioid users (Centers for Disease Control and Prevention 2022). There is currently little evidence that opioids provide long-term effective pain relief and functionality when used for chronic pain conditions and can cause more risk than benefits (Centers for Disease Control and Prevention 2022).

Mortality

The percentage of all deaths attributable to opioids increased by 292% between 2001 and 2016, resulting in 1.68 million person-years of life lost in 2016 (Gomes et al., 2018). Deaths attributable to opioids were higher among adults aged 24 to 35 years (Gomes et al., 2018). Opioids were involved in 75.4% of all drug overdose deaths in 2021 (Centers for Disease Control and Prevention, 2023a). Anyone who is prescribed opioids or uses opioids illicitly is at risk for a lethal opioid overdose (Centers for Disease Control and Prevention, 2023a). Signs of an opioid overdose include slow or absent respiration, cold skin, blue lips or nails, slow or absent heartbeat, low blood pressure, and unusually small pupils (Centers for Disease Control and Prevention, 2020c). Combining opioid medications with benzodiazepines such as Lorazepam, Diazepam, Alprazolam, Clonazepam, alcohol, and or non-benzodiazepine sedatives such as Ambien or Lunesta, can increase the risk of death by overdose (Centers for Disease Control and Prevention, 2020c). In 2021, almost 14% of drug overdose deaths involved opioids combined with another central nervous system depressant drug (Centers for Disease Control and

Prevention, 2023c). People without health insurance, who have a history of incarceration, or who are living in poverty are at a higher risk of dying from opioid overdose (Altekruse et al., 2020).

State and Country Mortality

In the State of Georgia, there were 2,390 drug overdose deaths in Georgia, 71% of deaths were attributed to opioids, and 57% of those overdose deaths were caused by fentanyl, a synthetic opioid (Georgia Department of Public Health, 2023). Synthetic opioids are substances that are synthesized in a laboratory (United States Drug Enforcement Administration, 2023). Fentanyl can be prescribed in small amounts for pain conditions, however, illicit fentanyl is primarily manufactured in foreign labs and is found in drugs such as cocaine, heroin, and counterfeit pills (Georgia Department of Public Health, 2023). Fentanyl is currently the main cause of opioid overdose deaths in Georgia and the United States (Centers for Disease Control and Prevention, 2023b; Georgia Department of Public Health, 2023). In 2021, nearly 88% of opioid-involved overdose deaths in the United States involved fentanyl (Centers for Disease Control and Prevention, 2023a). Fatal and non-fatal opioid overdoses have been steadily increasing in the state of Georgia since the Coronavirus pandemic in 2020 (Georgia Department of Public Health, 2023).

Local Mortality

In 2022, Athens-Clarke County police reported 127 Narcan deployments and 26 Narcan deployments (Ford, 2022). In 2023, Athens-Clarke County police reported 18 suspected drug overdose deaths (Ford, 2022). In 2021, Clarke County reported 115 opioid overdoses (Georgia Department of Public Health, 2022). Athens-Clarke County police reported that a majority of opioid overdoses are linked to a synthetic opioid called fentanyl (Ford, 2022).

Treatment Options for Opioid Use Disorder or Opioid Addiction

Opioid withdrawal refers to the symptoms that occur after stopping the use of opioids (Shah & Huecker, 2023). Opioid withdrawal can cause symptoms like vomiting, agitation, nausea, sweating, and cramps (Medline, 2022). The withdrawal period after long-term opioid use can make it extremely difficult for users to stop using opioids and increase recurrent relapses (Shah & Huecker, 2023). Medications like Buprenorphine, Naltrexone, and Methadone can reduce cravings and reduce withdrawal symptoms (National Institute on Drug Abuse, 2016). Suboxone or Buprenorphine/Naloxone is a common combination prescription skin patch used to treat opioid dependence (Substance Abuse and Mental Health Services, 2023). Combining Cognitive Behavior Therapy with Suboxone can decrease relapses in those addicted to opioids (Velandar, 2018). To prevent deaths due to opioid overdose, Narcan or Naloxone is commonly recommended in conjunction with opioid treatment (National Institute on Drug Abuse, 2022). Narcan is an opioid receptor antagonist that is usually in the form of a nasal spray but can also be injected (National Institute on Drug Abuse, 2022). Narcan binds to opioid receptor proteins to reverse or block the effects of opioids (Substance Abuse and Mental Health Services Administration, 2023a). Narcan significantly decreases the risk of death by overdose and opioid emergencies (National Institute on Drug Abuse, 2022). Opioid addiction treatment plans and interventions should be adjusted according to the individual's environment, lifestyle, and available resources to increase effectiveness (American Society of Addiction Medicine, 2016). Currently, there is a vaccine being developed to reduce the euphoric effects of opioids and make opioids easier to quit after long-term use (Columbia University, 2021).

General Prevention for Opioid Use Disorder, Opioid Addiction, and Drug Overdose Death

Currently, the best ways to prevent opioid overdose deaths and opioid-related emergencies are to improve opioid prescribing methods, reduce exposure to opioids for those who may not need them, prevent misuse of opioids, increase access to Narcan, and treat opioid use disorder earlier (US Department of Health and Human Services, 2022). Those prescribed opioid drugs should never take greater amounts of the opioid than prescribed or more often than prescribed (Centers for Disease Control and Prevention, 2020a). Storing opioids in a safe place that is not easily reached by children, family members, friends, or visitors can reduce the risk of an accidental drug overdose or initial use of opioids (Centers for Disease Control and Prevention, 2020a). Avoiding combining opioids with benzodiazepines, alcohol, or other types of sedatives reduces the risk of drug overdose death or suppressed breathing (Centers for Disease Control and Prevention, 2020b). When prescribing opioids, healthcare providers should counsel patients about the risks and potential side effects of opioids before prescribing them (Centers for Disease Control and Prevention, 2020a). Providers should explain the risk of opioid tolerance, the health effects of an opioid overdose, the risk of death from an opioid overdose, how to dispose of opioids, and safe places to store opioids (Centers for Disease Control and Prevention, 2020b). The Prescription Drug Monitoring Program (PDMP) is a digital system that can aid prescribers when prescribing opioids. The PDMP is a database for prescribers that tracks past prescribed controlled substances and how frequently they have been prescribed in the United States (Centers for Disease Control and Prevention, 2022). The PDMP can flag patients who are at higher risk of drug overdose and who have taken long-term opioids in the past (Centers for Disease Control and Prevention, 2022). Checking the PDMP can be helpful for providers when the patient's medication history is unavailable if the patient has recently moved to another state, or if the patient has recently switched providers (Centers for Disease Control and Prevention,

2022). Prescribing nonopioid pain relief can decrease the risks of taking opioids (Centers for Disease Control and Prevention, 2021). Healthcare providers can prescribe treatments to help with pain that are not opioids such as topical lidocaine, ibuprofen, acetaminophen, physical therapy, cognitive behavioral therapy, acupuncture, and massages (Centers for Disease Control and Prevention, 2021). To reduce identity theft, most pharmacies require photo identification for any patient picking up a Narcotic (Centers for Disease Control and Prevention, 2021). Narcan is available over the counter for purchase by anyone with no federal restrictions and is an essential part of reversing opioid overdose (Substance Abuse and Mental Health Services Administration, 2023b). However, the average price of Narcan can range from free to \$75 (Narcan, 2023). Healthcare providers can also prescribe Narcan in conjunction with an opioid prescription to prevent an overdose (Substance Abuse and Mental Health Services Administration, 2023a).

Culture Section

Social Determinants

As part of assessing the culture of this particular case, it is important to analyze any social determinants that might be present. Some common social determinants include the non-medical factors that influence health outcomes in communities such as educational, political, familial factors, and other social factors. A variety of social determinants have created health inequities which have been a primary cause of certain communities being negatively affected by the opioid crisis.

Familial Factors

Trauma within generations, intergenerational substance abuse, families who live at the poverty line, and childhood experiences that induced trauma have all contributed to the issues that communities face when combating the opioid crisis (*Social Determinants of Substance Use & Overdose Prevention*, 2022). Family structure and how individuals grow up often have either a negative or positive effect on the determination of drug use later in life. According to a study conducted by the American Academy of Pediatrics about childhood abuse, neglect, and household dysfunction, it was found that each experience of adverse childhood experience among adults had a strong relationship with drug use, drug addiction, and parenteral drug use (Dube et al., 2003). This study exemplifies the fact that the trauma that one is subjected to during childhood can exacerbate the risk of developing a drug addiction problem which could in turn contribute to worsening the opioid crisis. In addition, family structure in general can have a highly influential impact. The role of marriage and children play in the complicated dynamic that has led to the rise of the opioid crisis. As a result, it was found that adults who were married or living with their children were less likely to abuse prescription painkillers such as opioids. This article went on to say that this also argued how the familial bonds that result from living with family can help reduce the prevalence of individuals engaging in risky opioid drug use. To add to this, the other finding of the study showed that those who were not married or not living in the same household as their children were the individuals most likely to misuse opioids (Chapman et al., 2021).

Educational

Lack of education is an influential factor among communities that show high rates of opioid abuse. A study determined that those with only a high school education or their GED

certificate accounted for over a third of all opioid-related deaths. Moreover, those with no high school education or no GED accounted for over 20% of all opioid-related deaths. These deaths include overdoses related to opioid misuse (Judd et. al, 2023). In addition, the issue that occurs is that those without a college education or high school education often have problems finding jobs, which will be covered in depth later. Another study found that there are a wide variety of reasons that less educated individuals are more at risk for being included in the opioid crisis. This included reasons like those that are less educated tend to work in environments that can be very dangerous which in turn put them at greater risk for injuries that might require prescription opioids from their doctor. Those who obtain less education often live in rural areas where it might be much harder to receive urgent medical care to respond to situations of opioid overdose (*Opioid overdose epidemic hits hardest for the least educated*, 2018). Moreover, these individuals might feel it is their only option to start reselling opioids as a means to make an income as obtaining an occupation without a college or high school degree has proven to be hard. Those who get their hands on these opioids and try to resell them put themselves at great risk of becoming addicted to the drug. To double this fact, those who are less educated often have less access to financial, social, and drug therapy programs that could help them combat their addiction (*Opioid overdose epidemic hits hardest for the least educated*, 2018). Among non-Hispanic white men, the opioid crisis has led to a 99% percent growth rate in the life expectancy gap between men with college degrees and those without high school diplomas. Only 42% of the growth in the life expectancy gap between opioid use between the two education levels was due to women (*Opioid overdose epidemic hits hardest for the least educated*, 2018). Overall, it can be seen that the type of quality of education one obtains has a dramatic effect on life choices in the future. Those who are under-educated are predisposed to opioid addiction.

Political

The opioid crisis has largely affected both Democratic and Republican states. Although the opioid crisis has affected Republican states, many Republicans don't agree with the expansion of Medicaid which is one of the main insurance that individuals with addiction have. In addition to not supporting Medicaid expansion, Republicans don't support the idea of increasing government spending on treatment. Contrary to Republican views, Democratic professionals and supporters support the expansion of Medicaid and government spending (Pyra et al., 2022). In recent years, this bipartisan issue has finally gained some recognition in areas that were lacking federal and state response. The issue with the opioid crisis is that even though federal funding to combat the issue has increased over the last few years, more individuals than ever have died as a result of opioid-related deaths. One study found that in the face of the opioid crisis, voters did not appear to hold the Democratic party accountable for opioid overdoses. In addition, voters showed they prefer more liberal policies for managing the opioid crisis (Kaufman & Hersch, 2020). This does shine a light on how those in the United States feel when it comes to what parties in the country are doing the most to help combat this opioid crisis. In addition, it should be noted that the opioid crisis has caused drastic political issues as the Centers for Disease Control collected 475 million dollars to reduce the number of deaths this epidemic has caused. The National Institutes of Health also launched an initiative in 2017 to help combat the number of lives lost (Kaufman & Hersch, 2020). The overwhelming political influence this issue has caused exemplifies the need for added policy to be made. Several other political factors have also contributed to the opioid crisis. Recently, there have been many changes to the illegal opioid markets. The excess supply of prescription opioids has encouraged the illegal distribution

and recreational use of such drugs. In addition, the demand for heroin and fentanyl has increased as fewer prescription opioids are readily available and the price for the former has dramatically decreased. Fentanyl is especially dangerous as it is relatively cheap to make in lab settings. Furthermore, the drug itself is incredibly strong which allows it to be transported in small quantities making it very easy to go undetected (*The Opioid Crisis and Recent Federal Policy Responses*, 2022).

Occupation status

As stated previously, lower-income individuals are much more likely to suffer from addiction to opioids compared to others in the United States. However, for those who are addicted to opioids and those who contribute to the opioid crisis, it heavily depends on the type of occupation they are engaged in as well as employment rates. Overall, a study found that higher poverty and unemployment rates were associated with higher rates of opioid sales as well as drug overdose deaths. Furthermore, it should be noted that it was found that the employment-to-population ratio had a negative correlation with these indicators. This factored in an exception with overdose death rates where the correlation was positive between the variables (Ghertner & Groves, 2018).

One study was able to determine that physical labor resulting in injury as well as trauma relating to labor has been highly correlated to the overuse of prescription opioids. This has been the case to reduce pain or for self-medication purposes in general. Many occupations require the use of strenuous physical labor including commercial fishing, construction, and even nursing aides. These jobs can take a drastic physical toll on those who are employed (Shaw et al., 2020). These jobs often require highly mentally demanding tasks, repeating tasks over and over, long

periods of uncomfortable positions, and heavy lifting which all increase the risk of injury. Thus, this increases the risk of opioid use. Individuals with jobs that encounter minimal sick leave and high amounts of physical stress are at the greatest risk for opioid use. Furthermore, it was found that 57% of opioid-related overdose deaths occurred after a work injury (Shaw et al., 2020). The study also mentioned that among women, those working in health care and service-related occupations had higher rates compared to the average female population when it came to opioid-related overdoses. It should be noted that these industries in general have some of the highest rates of injuries related to working (Shaw et al., 2020).

The United States workforce as a whole has also influenced the lives of other workers and employers when it comes to the opioid crisis. One study found there were differences in occupation groups regarding why they started using opioids as well as the kind of work environment they are placed in. Data showed that from across 26 states, opioids were specifically prescribed anywhere from 50% to 80% of injured workers who received any kind of pain medication (Morano et al., 2018). Lastly, the environment where one works is also important in that people might be more likely to self-medicate with opioids or work in an environment where it is normalized to use illicit drugs like opioids (Morano et al., 2018). The disparities in occupations that have high rates of injuries should be noted as it has led to the ever-growing opioid epidemic.

Race/Ethnicity

Although opioid misuse has been an issue for all ethnicities, through the years, the issue has been seen to significantly impact certain populations. Throughout the late 1990s and 2010s, Native Americans had the highest rates of opioid misuse when compared to other ethnicities. An

8% prevalence rate of past-year prescription opioid use for Native Americans was noted in the early 2000s, after 2010, the rate significantly decreased to 5%. Following the high prevalence rates for prescribed opioid misuse were non-Hispanic Whites with an average of 5%. Hispanics and non-Hispanic Blacks had an average prevalence rate of 3%. Although the two minority groups had an average of 3%, when compared to the Hispanic population which had a decrease in prevalence during the period, non-Hispanic Blacks had an increase in prevalence. Asians have had a significantly low prevalence rate of misuse when compared to all the other ethnicities considered. When considering specific opioids such as Heroin misuse, the prevalence rate is higher in non-Hispanic Blacks when compared to Hispanics, non-Hispanic Whites, and Native Americans (Schuler et al., 2021).

In addition to considering the prevalence rates of misuse, it is essential to consider the rates of opioid overdose. In 2021, for Native Americans the overdosing rate was 38.7, for non-Hispanic Whites it was 28.4, for non-Hispanic Blacks it was 33.5, for Hispanics it was 16, and for Asians, it was 2.6 (Foundation, 2021). Overall, the rates of misuse of opioids are higher among the non-Hispanic Whites but the rates of overdose deaths have been seen to increase in minority groups especially Native Americans and non-Hispanic Blacks when focusing on specific opioids such as heroin and fentanyl (CDC, 2023). Although Native Americans and non-Hispanic Blacks have a higher rate of overdose deaths, non-Hispanic Whites are 80% more likely to have access to treatment for their opioid use disorder when compared to non-Hispanic Blacks and 25% more likely when compared to Hispanics (Health, 2023). The following racial inequality is one of the various factors that has caused the increase in mortality rates seen among minority groups.

Gender/Age

Opioid addiction and overdose deaths are seen to affect men more than women. In 2021, men made up 70% of overdose deaths while women made up 30%. 26% of men were between the ages of 35-44, 23% were between 25-34, and 21% were between 45-54. 26% of women were between the ages of 35-44, 22% were between 25-34, and 22% were between 45-54.

Additionally, most of the deaths were made up of Native Americans, non-Hispanic White, and non-Hispanic Black individuals (CDC, 2023). Although men have a higher rate of overall opioid usage, women have a higher use of prescribed opioids which is due to women experiencing more chronic pain when compared to men (Serdarevic et al., 2017). Additionally, it was found that women are more likely to communicate with their providers regarding their addiction. Even though women are more likely to seek treatments for their prescribed opioid addiction, more men are in substance abuse treatment facilities. In recent years, there has been an increase in opioid addiction, overdose deaths, and treatment in women (NIDA, 2020).

Economic /Insurance Status

Between the years 2016 and 2017, 18% of individuals with an opioid use disorder had no insurance. 25% had an income less than 100% of the federal poverty level, 35% had an income between 100-200% of the federal poverty level, and 39% had an income over 200% of the federal poverty level. 82% of individuals had some form of insurance with a majority having Medicaid. Of those uninsured, 21% were addicted to heroin, 65% to prescribed medication, and 14% to both. For those who had insurance, 20% were addicted to heroin, 68% to prescribed medication, and 12% to both. Furthermore, only 28% of uninsured individuals were able to

access some form of substance abuse treatment which is significantly lower when compared to the 63% of insured individuals who were able to obtain treatment (KFF, 2019).

Geographic Location/ Neighborhood Conditions

Although the opioid crisis is an issue seen throughout all of the U.S., high-poverty rural communities are seen to be the most affected. Over the years, the prevalence rates of opioid misuse and overdose deaths have increased in urban areas considerably after 2016. The types of opioids used depend on the geographic location in which the individual lives. In areas that have both high poverty and physical disability rates, prescription opioids were the most common opioids used. This could be due to the county having limited access to health care which does increase the rates of physical disability as individuals are not able to get the proper care (McGranahan & Parker, 2021). Between 2013 to 2020, 100 hospitals were closed in rural areas alone. The following has caused individuals to have to travel to nearby communities to access common healthcare services such as an annual check-up or getting vaccinated. Individuals who need access to substance abuse treatments may need to travel further as not all communities have treatment programs. For access to common healthcare services, individuals in rural areas may have to travel around 20 miles while for substance abuse treatment individuals may need to travel more than 40 miles (GAO, 2023). In the state of Georgia, individuals in 71 counties have to travel more than 20 miles to access clinics that offer opioid treatments such as methadone. Most treatment centers that offer medications such as methadone are located in urban areas such as Atlanta which does limit access to treatment for many as most are not able to afford to drive to such locations (Beeson, 2022). Although services like telehealth are improving access to healthcare, not all individuals have adequate internet or have insurance that covers the service. In

states that have expanded Medicaid, which is the primary insurance that most individuals who have a substance abuse disorder have, telehealth services are covered (GAO, 2023). Additionally, factors such as poor community infrastructure and limited education access could play a role in the high disability rates. States such as Kentucky and West Virginia which have numerous high-poverty rural counties had high overdose death rates due to prescribed opioids. On the contrary, in areas that were more populated and had limited growth opportunities, illicit opioids were seen to be used. In urban areas, it is easier for the distribution of opioids to be formed as there is a large population of individuals who are willing to buy the drug. Northeastern states were seen to have higher mortality rates due to the usage of opioids such as heroin and fentanyl (McGranahan & Parker, 2021).

What Is Needed

Randy is a 24-year-old man who lives in Athens, Georgia. Randy was prescribed opioids after an ACL injury during his sophomore year of college. After becoming addicted to prescribed opioids, he began using heroin. His opioid addiction resulted in him getting kicked out of his parents' home, dropping out of college, and barely being able to keep his part-time job. The health implications and cultural issues surrounding opioid addiction present multifaceted needs to be addressed in Randy's situation. Randy has a lack of a support system financially and emotionally, which is associated with high stress and uncertainty. High stress is associated with opioid use, addiction, and relapses (Mantsch et al., 2016). Randy's needs must be addressed to determine what resources will be the most helpful to increase his chances of full recovery from opioid use disorder, adequately support his recovery process holistically, improve his overall well-being, and reduce the risk of relapse.

Access and Funding for Rehabilitation Services and Medication

Addiction is a medical condition and disease (Colon-Rivera, 2020). Many barriers can prevent an individual from seeking and receiving treatment for opioid use disorder. Randy may feel ashamed about his addiction and may be afraid to ask for help due to the stigma surrounding opioid addiction. To prevent further progression of opioid addiction and to ease the effects of opioid withdrawal, rehabilitation services, and medication are necessary (Substance Abuse and Mental Health Services Administration, 2023). In Randy's situation, funding is limited due to working part-time and having a lack of a financial support system. Randy has an unpredictable weekly schedule because he works part-time, so he may have a fluctuating income. Inpatient rehabilitation can be extremely expensive. The average individual cost of inpatient rehabilitation is \$55,475 in Georgia (National Center for Drug Abuse Statistics, 2016). Randy's friends and family will not help fund his treatment plan. Inpatient rehabilitation is a full-time facility that supports the individual with full-time 24-hour care, daily opioid withdrawal medication treatments, detox support, psychiatric care, behavioral treatment, and therapy (Pantiel, 2023). Opioid use disorder may require long-term maintenance medications after inpatient care to aid with withdrawal depending on the severity of addiction (Dydyk, 2023). Randy would benefit from a stay in an inpatient rehabilitation service because he has been addicted to opioids for a long time, has a lack of support system, and a lack of stable housing. Outpatient treatment helps people understand addiction, their triggers, and reasons for drug use (Centers for Disease Control and Prevention, 2023a). Outpatient treatment for OUD can be done at a physician's office or through a telehealth appointment (Centers for Disease Control and Prevention, 2023a). Recovery from Opioid Use Disorder typically involves several relapses, which can be discouraging and difficult (Centers for Disease Control and Prevention, 2023a). The maintenance phase of the Opioid Use Disorder recovery process begins six weeks after the first initiation of medication

therapy (Dydyk, 2023). The maintenance phase can last years up to an entire lifetime (Dydyk, 2023). Tapering off recovery medications, like Methadone, can take weeks, months, or even years depending on the severity of opioid dependence and tolerance (Dydyk, 2023). Randy would also benefit from outpatient counseling treatment to prevent relapses and aid in long-term support. It may be difficult for Randy to access rehabilitation services and support services due to unreliable transportation, lack of technology, and high cost.

Access to Support Services

In 2021, only 1 in 5 adults in the United States with OUD received medications to treat it (National Institute on Drug Abuse, 2023). Stigma or fear of judgment may stop someone from sharing health information and prevent them from seeking health services and or support services that they need (Cheetham et al., 2022). Randy has a lack of support system since his family kicked him out of the house. OUD is often described as isolating and lonely (Hosseini et al., 2014). Social isolation and loneliness are risk factors for both initial substance use and persistent substance use (Hosseini et al., 2014). A support system is extremely important for an individual in recovery because social networks significantly impact the effectiveness of opioid use disorder treatment (Kumar et al., 2021). Negative social associations and friendships can reinforce addiction while positive social support can amplify the benefits of medication, counseling, and recovery treatments (Kumar et al., 2021). Peer support groups are often described as helpful and are commonly used to support opioid use disorder (Tracy & Wallace, 2016). Peer support groups are delivered in a variety of ways, including, in-person self-help groups, internet support groups, peer-run or peer partnerships, peers who work in health care settings who serve as peer advocates, peer specialists, and peer case managers (Tracy & Wallace, 2016). Support groups can increase members' efforts to develop and strengthen their ability to

manage their emotions and interpersonal skills as they recover (Tracy & Wallace, 2016). Randy may be surrounded by other addicts in his friend groups and social circles who are not interested in recovery, which can increase the risk of relapse (Zeng et al., 2021). Being surrounded by others who are also recovering from Opioid Use Disorder can allow Randy to learn from their life and addiction experiences and recovery achievements.

Access to Syringe Services Programs, Clean Needles, and Testing

We can assume that Randy is an injecting drug user because heroin and some opioids are used by injecting a hollow needle into the bloodstream through a vein. During the last decade, there has been an increase in injection drug use due to the increase in opioid abuse in the United States (Centers for Disease Control and Prevention, 2023b). Since Randy is injecting drugs, he must have access to low-cost or free sterile injection equipment to reduce his risk of contracting HIV or Viral Hepatitis (Centers for Disease Control and Prevention, 2023b). Unsafe injection practices in drug use, such as sharing used needles, are associated with an increased risk of acquiring HIV and Hepatitis C and B viruses (Muñoz et al., 2015). Hepatitis, HIV, and other blood-borne diseases can be spread through injection drug use when users share needles, syringes, or any injection materials (Centers for Disease Control and Prevention, 2023b). Unsafe and nonsterile injection can lead to other serious health issues besides acquiring HIV or Hepatitis C, such as skin infections, abscesses, and endocarditis (Centers for Disease Control and Prevention, 2023b). To reduce the risk of disease and infection while injecting drugs, Randy should ensure needles and all other injection equipment are sterile (Centers for Disease Control and Prevention, 2023b). Using completely sterile injection equipment for drug injections can prevent widespread outbreaks in communities (Centers for Disease Control and Prevention, 2023b).

Randy can benefit from syringe exchange and syringe service programs by having access to free clean needles, access to free HIV, hepatitis, and STD testing, and by being taught how to prevent and respond to a drug overdose. These centers can also provide free or low-cost Narcan to reduce the likelihood of death from an opioid overdose (Centers for Disease Control and Prevention, 2023b). Syringe services programs are evidence-based programs that provide access to sterile syringes and injection equipment, safe syringe disposal, vaccination, testing, and referral to infectious disease care and substance use treatment (Centers for Disease Control and Prevention, 2023b). Syringe Service Programs are safe, effective, and cost-saving, do not increase illegal drug use or crime, and reduce viral hepatitis, HIV, and other blood-borne infections (Centers for Disease Control and Prevention, 2023b). Testing for these infections is vital to prevent outbreaks, treat infections early, track spikes in infections, and save lives in communities (Centers for Disease Control and Prevention, 2023b). New users of Syringe Service Programs are five times more likely to enter drug treatment and are about three times more likely to stop using drugs than those who don't use the programs or do not have access to the programs (Centers for Disease Control and Prevention, 2023b). Syringe Service Programs that provide naloxone decrease opioid overdose deaths (Centers for Disease Control and Prevention, 2023b). Syringe Service Programs protect first responders, drug users, and the public by facilitating the safe disposal of used needles and syringes and by providing clean needles (Centers for Disease Control and Prevention, 2023b).

Access to Public Transportation

According to the Federal Transit Administration, an estimated 28 million Americans depended on public transportation in 2022 (Administration, 2022). While so many Americans

rely on public transportation, not all cities offer free fares (Administration, 2022). In Athens-Clarke County, public transportation is free for everyone which is beneficial for Randy (Government, 2023b). Considering Randy's situation no longer lives with his parents and has a part-time job, access to the free public would aid him in saving money and accessing resources and services for his addiction. During the week, Athens-Clarke County transportation operates between 6:00 a.m. to 9:45 p.m. On the weekend, transportation operates between the hours of 7:00 a.m. to 10:00 p.m. The long operation hours would allow for Randy to still have time to make it to his peer support group or pick up his Methadone medication after his part-time job. Additionally, the numerous stops that are made would aid Randy in accessing various treatment program centers around the Clarke County area. If Randy has a phone, he can access the <https://bustracker.accgov.com/InfoPoint/> website to see all the routes, the stops made, and the destination time for each stop. He can also use the website to see any new updates regarding a route that he plans to take (Government, 2023b). The following would allow Randy to see what times he can travel before or after work to access any resources available. Having access to public transportation would aid Randy in wanting to continue his addiction recovery as transportation wouldn't be such a significant barrier anymore. As time passes, Randy may also be able to save enough money to buy his car or afford to pay for services such as Uber which will make his recovery a lot easier for him to complete.

Job Search Assistance

Considering that Randy is having a difficult time with his current part-time job, what Randy needs is help finding a full-time job that he will be able to maintain with no problem and provide all the benefits that he needs. Having a full-time job will allow Randy to have benefits

such as steady income, health insurance, and paid time off. The following would help Randy have access to more resources as a lot of current resources are not accessible and affordable to him as he is most likely making minimum wage. Financial issues are one of the main barriers that limit individuals with addiction from accessing proper substance abuse treatments (Center, 2023). Such issues make it more difficult for individuals to fully recover from their addiction. Additionally, by having a higher income to help pay for treatments, Randy will have the opportunity to join his employer's health insurance. If the health insurance that the employer has offers mental health and substance use disorder benefits, the Mental Health Parity and Addiction Equity Act of 2008 would require the health insurance to offer benefits for treatments and services (HHS, 2023). Some employers such as Randys may also provide additional assistance in addition to their insurance for their employees who have a substance abuse disorder to aid with their recovery (HHS, 2023). Assistance may include allowing the employee to take a certain amount of time off to have time to access all the resources that they may need. Such assistance would significantly aid as it would also provide a support system for the employee in addition to having time to access other resources. Randy can call or commute using public transportation to local sites such as the Human Resource Department, Athens Regional Library System, or the Athens Career Center to get assistance during his search for a full-time job that can help during his recovery period (Government, 2023a).

Counseling and Mental Health Resources

Due to the hardships that Randy has continuously faced in his fight against his addiction, he will more than likely need a variety of counseling and mental health resources as well as a rehabilitation center. By having access to these resources Randy will have someone to communicate with too. Currently, Randy has no hope regarding his recovery which does make

the entire process a lot more challenging as he has to be the one willing to access resources for his addiction. It is incredibly difficult to have to fight an addiction alone without the added help of familial or any kind of social support. Randy has been kicked out of his parents' home, as well as off of their insurance, and most likely does not have any friends who offer him social support. The friends he does have are more than likely on drugs as well, which would continuously feed his addiction as he surrounds himself with other individuals like himself dealing with substance abuse. The following resource will allow Randy to communicate with professionals and other individuals who may be facing similar issues. This may aid Randy in forming a support group which has been known to help addicts amplify their benefits during their recovery. Counseling may also offer Randy a safe space to share his emotions and thoughts which can help in wanting to continue treatments.

Treatment for opioid addiction through the use of mental health resources as well as rehabilitation centers that provide counseling has proven to be very effective for those who struggle with this disease. One of the main reasons why rehabilitation is so effective for getting individuals off of opioids is the fact that the drug is highly addictive. The Addiction Center mentioned that when opioids are used as pain relievers, the drug binds to opioid receptors in brain cells, the spinal cord, and other organs which are all associated with pain and pleasure in our bodies. When opioids are used, they cause intense relaxation which is another reason why they become so addictive for the individual who uses them (*Opioid Treatment and Rehab*, 2023).

Rehabilitation treatment, before counseling can begin, often starts with detox which then often follows with withdrawal symptoms. Detox is the process of removing a toxic substance from one's body, in this case, the opioid, and this process is usually done in a medically assisted way. Medically assisted detox is the best method for opioid addiction as the withdrawal

symptoms that follow detox can be incredibly uncomfortable for an individual. Oftentimes medically assisted detox should be the only method that is used for opioid users as withdrawal could potentially be dangerous and sometimes fatal for the addict (*Opioid Treatment and Rehab*, 2023). During detoxification, there is often a high rate of relapse, and it was found that more than 90% of people who completed detoxification returned to opioid use over the coming months (Providers Clinical Support System, 2023). As a result, there should be multiple goals that are focused on when having an individual undergo medically assisted detoxification, such as Randy. A long-term plan should be implemented for individuals such as himself to promote sustainable sobriety once treatment is completed. Without maintenance of sobriety after treatment, with the help of a plan after detoxification, there is no evidence to support the individual will be successful in their attempt to completely discontinue opioid use. It was found that with no clear goal of why the individual wants to become sober, or an idea of how they will continue to stay off of the substance, the likelihood of returning to the drug and overdosing from the drug is incredibly high (Providers Clinical Support System, 2023). Overall, there are multiple goals of detoxification, aside from the intent to continue one's sobriety journey. This includes, as already stated, ridding the body of its physical dependence on the drug, but also addressing other medical issues the individual might have. Lessening the pain that is associated with withdrawal symptoms is also important. Detoxification can prevent relapse by connecting the individual with other continued treatments, providing education on ways to stay healthy and the risks associated with relapsing, and finally providing help during the worst parts of withdrawing from such an addictive substance (Providers Clinical Support System, 2023). It is also important to note the kind of withdrawal symptoms that Randy could potentially experience. The onset of these symptoms happens quickly, sometimes as few as a couple hours after the last use of the opioid.

These symptoms include vomiting, cold flashes, leg movements that are uncontrollable, muscle pain, bone pain, overdose, uncontrollable cravings, and diarrhea (*Opioid Treatment and Rehab*, 2023). It is also important to discuss opioid rehabilitation levels of care that Randy could receive. The level of care that each addict requires is unique specifically to themselves. Level zero includes early intervention, while level one includes outpatient treatment. Levels two through four are most likely where Randy would be placed which include intensive outpatient, inpatient or residential treatment, as well as intensive inpatient treatment (*Opioid Treatment and Rehab*, 2023).

After completion of detox, it is important Randy also receive aftercare recommendations based on his personal sobriety journey. This is where it is important that Randy participates in mental health counseling as well as support groups that will help him utilize skills and reinforce healthy behaviors that were learned in rehab. Randy would most likely benefit the most from behavioral therapy after his completion of treatment, which would allow him to work on the negative patterns of his thinking that have led to his addiction issues (*Opioid Treatment and Rehab*, 2023).

It is important to discuss mental health resources as part of counseling as many of Randy's addiction issues are most likely rooted in difficulties with his mental health. Counseling that focuses on cognitive behavioral therapy (CBT) would be especially beneficial for Randy to participate in. CBT was established to change the inaccurate beliefs individuals hold, change negative patterns of thinking, as well as learn new mechanisms for coping instead of turning to opioids for relief. Substance abuse is rooted in many of these negative patterns of thinking and unhealthy coping mechanisms, which highlights the need for such therapy (American Addiction Centers, 2023).

In addition, CBT helps those with substance abuse disorder, such as Randy, as it is designed for individuals to understand why they do the things they do. Counselors would give Randy the opportunity to learn realistic problem-solving skills that would allow him to address his issues head-on instead of returning to unhealthy habits. He would learn he could manage the weaknesses and issues he faces in his daily life on his own, which would allow him to reduce the negative patterns of thinking he was once used to. This would allow him to continue to build his confidence, which would also help to decrease his want or need to turn to opioid use (American Addiction Centers, 2023). Cognitive behavioral therapy is also helpful when it comes to substance abuse disorders as it can help to prevent any relapses that might occur after one becomes sober. The American Addiction Centers noted that CBT targets both environmental and cognitive triggers an individual might experience. Again, this promotes healthier coping skills instead of drug use. Various coping skills that might be learned in cognitive behavioral therapy include learning effective communication skills, various forms of exercise, skills training, psych education, as well as social support. An effective form of social support includes meetings with similar individuals who experience addictions. These meetings are called Narcotics Anonymous (NA) and have been proven to be very effective for those who deal with the disease (American Addiction Centers, 2023).

Resources/Asset Map

In Athens-Clarke County, there are many local resources that can help Randy recover from Opioid Use Disorder, encourage a substance-free lifestyle, and encourage behavioral change. In successful recovery from opioid use disorder, many individuals require a multifaceted and holistic approach involving a combination of support, behavioral counseling, medication,

inpatient rehabilitation, and peer recovery in order to increase the chances of a full recovery. Without access to these resources, recovery can be extremely difficult.

Advantage Behavioral Health Systems, Athens Georgia

Advantage Behavioral Health Systems is a public center in Athens Georgia that provides addiction recovery services and mental health services. Advantage offers addictive disease support, inpatient recovery services, outpatient recovery services, peer-led groups, family counseling, and group counseling. Advantage Behavioral's mission is to provide holistic care while serving uninsured and underinsured populations. During the first appointment at Advantage, a clinical assessment is completed to determine what services are best suited for the patient and meet their needs. At the first initial appointment, Advantage Behavioral requires insurance documentation if patients are insured, financial status information including W-2, state-issued identification, social security number, previous medical documents, a list of all current medication, and previous psychological test results if applicable. Advantage also has an onsite financial counselor to help patients with their documents and help them determine their payment options. Advantage offers a translation hotline to ensure non-English speaking individuals can be provided with services. Low-cost Hepatitis C and HIV testing are also offered which is necessary for injecting drug users.

Advantage Classic City Recovery is located on Miles Street in Athens, Georgia. Advantage Classic City Recovery is a licensed residential treatment and recovery program that serves both men and women. The program works with those who have various substance use disorders gain back their autonomy, and regain regular functioning, and daily living skills. Individual and group counseling is utilized in residential treatment to educate and provide skills

for on lifelong recovery management. The target population for the residential services is adult men and women, age 18 and older who reside in the State of Georgia. To be eligible for this program, individuals must meet the DSM-5 criteria for substance use disorder. Admission is based on availability with pregnant women and IV users as priorities. The individual must exhibit a pattern of severe substance use and dependency with significant impairment in social, family, scholastic, or occupational functioning. The program's average length of stay is 6 weeks. Residents who finish the program will be provided with resources for treatment and recovery support services in the community they are going back to.

Advantage offers a male transitional living and aftercare program called Refresh. Refresh is a program that provides a safe, stable, substance-free inpatient residence with power and water included for no more than 12 months to any male or person who identifies as male over 18 years old. The average length of an inpatient stay at Advantage is 6 weeks. To qualify for Refresh, Applicants must have completed all recovery services from an intensive outpatient program and applicants must be able to live independently without assistance of daily activities such as eating, bathing, and mobility.

Advantage Behavioral has a program called Peers in Recovery from Opioid Use and Dependency (PROUD) on Mitchell Road in Athens, Georgia that connects any person with an opioid use disorder diagnosis to resources to achieve recovery and overall wellness. It is a peer-led, outpatient opioid-specific program that provides peer support to those in recovery from opioid dependence. The program provides holistic, ongoing long-term support throughout the recovery process including medication-assisted treatment if needed. PROUD is not designed to treat opioid use disorder alone but is designed to be combined with other Advantage programs to

ensure holistic treatment. Participants in PROUD will have access to detox support, linkage with community services and programs, and a sense of belongingness to a supportive group.

The Active in Recovery (AIR) Program which is located on Mitchell Bridge Road is another program that Advantage Behavioral offers. This six-month program which is divided into three phases provides individuals in recovery access to individualized treatment and support services. Additionally, AIR offers individuals access to psychiatric and addictive disease support services. The program predominantly focuses on providing group treatment as it is the most effective way of helping individuals with an addiction. During the first phase, individuals are required to complete ten hours of group or individual counseling in addition to addictive disease support services. In the second phase, individuals are only required to do six hours of the same activities. The last phase consists of individuals only doing five hours of psychiatric and addictive disease support services. After completion of all three phases, individuals are recommended to do a weekly one-hour group session to help maintain their recovery.

Advantage provides a Supported Employment Program that helps clients in recovery to prepare, obtain, and maintain employment to clients currently receiving services from Advantage and desire to obtain a job. Advantage follows the Individual Placement and Support Model to help clients with mental illness, significant life challenges, or substance use disorders find and keep a job. To be eligible for this program, individuals must be currently receiving services from Advantage and desire to obtain a job.

Advantage Behavioral offers clinic-based mental health services for recovering adults. Group counseling, short-term individual therapy, and psychiatric services are necessary during the recovery process to ensure all of the client's needs are met to live substance-free in their community. Group counseling includes groups focused on depression, bipolar, anxiety, dual

diagnosis, trauma, dialectical behavior therapy (DBT), DBT Process Group, and anger management. Advantage also offers a 24-hour crisis hotline for those who need immediate mental health crisis services 1-800-715-4225.

Advantage offers Drug Court programs for those who have a nonviolent drug offense. Intensive treatment and case management are provided. However, attendance at 12-step meetings, frequent random drug tests, and close community supervision are required. Drug court programs can last an average of 18 to 24 months. In addition to this, Advantage also offers Family Dependency Treatment Court. This court focuses on child abuse and neglect that involve any parent that has a diagnosed Addictive Disease. Family Dependency Treatment Court was created to protect the safety of children. The parent will receive medication treatment, tools, and support to support sobriety and recovery.

Advantage accepts Medicaid, Medicare, Peachcare, Amerigroup, Wellcare, Blue Cross Blue Shield, and United Health Care to aid in paying for addiction services. Advantage serves all people who are eligible for substance abuse treatment. Advantage will never turn away clients who are experiencing a crisis. Uninsured patients may qualify for a State Assistance Program and financial counselors will help with navigating this. Uninsured clients will be asked to pay an amount determined on a sliding fee scale based on their income after they bring their W-2 forms. If individuals are not eligible for services, Advantage Behavioral refers individuals to other local organizations to ensure that they receive care.

Healthcare.gov And the Athens Clarke County Library

HealthCare.gov is a website that provides health insurance plan options for those who are not insured by their employer or are not eligible to receive governmental insurance. Randy is not

eligible for Medicaid in Georgia because he is not disabled, pregnant, and does not have any dependents. Randy is considered an Able Bodied Adult Without Dependents (ABAWD) and therefore, is not eligible for Medicaid in Georgia. Randy needs to gather his social security number, residential information, income information, and tax information to apply for an insurance plan. The Athens Clarke County Library provides free access to computers, books, resources, printers, and other technology. The Athens Clarke County Library can allow Randy to access the internet where he can search for addiction support resources, compare different rehabilitation center pricing, and apply for governmental support programs. In addition to helping Randy apply for governmental support, the Athens Clarke County Library can help him in applying for jobs that can provide all the benefits that he needs. Through the library, Randy will be able to access the <https://dol.georgia.gov/find-job> website and find possible full-time employment. While searching through the website, Randy will be able to find information on how to contact the Athens location and where the organization is located. The following website also provides information on techniques to use while looking for employment, employment data, and resources that are available after losing a job and while looking for a job. The website also has a page that provides information on other state websites that can help individuals have a better understanding of benefits that they may be eligible for. Some of the websites included were <https://www.benefits.gov/> and <https://dfcs.georgia.gov/> which include information on assistance that Randy would find helpful. Although the library isn't open all day, it is available for Randy to access all week which is beneficial considering that he has a part-time job that may be having him work an inconsistent schedule every week.

Access Point of Georgia

Access Point of Georgia is a 501c3 nonprofit located in Athens, Georgia. Access Point believes that people who use drugs are often stigmatized. All of Access Point's services are 100% confidential and free. Access Point of Georgia provides free clean needles and free HIV and Hepatitis testing every Tuesday and Wednesday. Access Point provides free condoms, fentanyl test strips, free syringes, clean needle exchange, and naloxone/Narcan kits. Peer specialists at Access Point offer support, help navigate recovery resources and can recommend other agencies to aid in the recovery process. Participants who are in active addiction can meet with Harm Reduction Specialists to discuss safer practices with drug use.

The Athens Clinic

The Athens Clinic is an opioid treatment clinic in Athens, Georgia with certified and licensed addiction counselors, licensed practical nurses, a licensed Nurse Practitioner, an on-site Psychiatrist, and a highly qualified administrative staff. The Athens Clinic offers free HIV Testing and free Hepatitis C antibody and viral load testing. The Athens Clinic is regulated by The Georgia Board of Pharmacy, the Drug Enforcement Agency, the Georgia Department of Community Health, and the Joint Commission for the Accreditation of HealthCare Organizations to ensure quality care to those suffering from opioid use disorder. The Athens Clinic provides intervention and treatment with Methadone maintenance, drug use education, counseling, medical and nursing care, group therapy, and peer support to allow the addicted person the best opportunity to save their own life and live a life of recovery. The Athens Clinic accepts Georgia Medicaid. There is no intake fee or transfer fee from another program. The Athens Clinic offers low-priced treatment fees. The initial daily dosing fee of Methadone is \$12.00 per day or \$79.00

per week. The initial daily dosing fee of Buprenorphine is \$16.00 per day or \$107.00 per week. The guest dosing fee is a \$25.00 one-time fee or \$12.00 per day.

Alliance Recovery Center

Alliance Recovery Center is an opioid use disorder treatment center in Athens, Georgia. Alliance Recovery Center uses medications, such as methadone and buprenorphine, therapy, peer support, and other support services to help people recover from opioid use disorder. Alliance Recovery Center uses medication-assisted treatment (MAT) because MAT is considered the gold standard in treating opioid use disorder. Alliance Recovery Center treats the underlying problems causing the symptoms of addiction through individual and group therapy, peer support, and other support services to meet all of the individual needs. Alliance Recovery Center provides access to care from medical doctors, nurses, and pharmacists to monitor medications and overall health over time. Alliance Recovery Center accepts Medicaid. Admission to Alliance Recovery Center, Transferring, and Annual Physical Exams are free. Monthly drug testing, HIV testing, and Hepatitis C testing are free. Phases 1 through 5 of Methadone treatment is \$12 per day and phases Phases 6, 13, and 27 are \$11 per day for Methadone treatment. Buprenorphine Treatment is \$16 per day. The guest dosing fee is \$12.00 per dose. A lock box to store treatment medications is \$12.

SAMHSA Website or Hotline

SAMHSA also known as Substance Abuse and Mental Health Services Administration is a government website that provides information and resources regarding substance abuse and mental health. Individuals can access the website to find information regarding opioid

treatments, rehabilitation options, and overdose rates. To come in contact with the organization, individuals can call their hotline which is 1-800-726-4727. Additionally, individuals can access their website, which is <https://www.samhsa.gov/>. Individuals will need to have access to the internet and some form of technology that can be accessed through their community's library if they don't have one of their own. Referral services to treatment centers are free of charge. If the individual does not have insurance the organization will refer them to state officials which will aid them in finding a state-funded treatment program. If the individual has Medicare or Medicaid, they will be referred to a treatment program that accepts the following insurance. The organization will also help find treatment centers that charge on a sliding fee scale. When communicating with a specialist, individuals can be sure that their information will stay confidential. When Randy first accesses the website, he'll be able to click on the link to findtreatment.gov. From the link, Randy will be able to enter his current address and find nearby treatment facilities. Since Randy does work, he will also be able to take into consideration how far he will be able to travel to one of the treatment facilities. The website does allow individuals to see facilities that are up to 100 miles away from them, the type of care that the facility offers, and which insurance they accept. After considering a possible treatment facility, individuals can return to the primary page and look for information on various topics that range from alcohol, tobacco, and drugs to mental health conditions.

Collegiate Recovery Community also known as CRC

The CRC was established in 2013 with the goal of helping students be able to access sources and maintain a sober life. The community is located in room 216 in Memorial Hall and can be contacted by calling 706-542-8690 or by emailing crc@uhs.uga.edu. In addition to

working with current students, CRC does also work with former students which is important considering that Randy no longer goes to college. The community offers individuals access to peer support groups and other sources that may aid them during their recovery period. This community may also aid Randy in returning back to UGA to continue his education which helps motivate him to continue accessing treatment. (UGA, 2023).

Student Care and Outreach

Student Care and Outreach at the University of Georgia would be another great option for Randy as tries to get his life back together after dropping out of college and becoming addicted to painkillers. The Student Care and Outreach department at the University of Georgia intends to provide student assistance by creating networks of support and offering referrals to resources for both past and present enrollees. They want to help individuals who are dealing with hardships and less-than-favorable circumstances by providing them with specialized assistance specific to them (Student Care and Outreach, 2023). Their website can be found at <https://sco.uga.edu/>.

There are multiple services that Student Care and Outreach could provide Randy. One service includes campus and community mental health resources. They provide both clinical and non-clinical mental health as well as well-being support that is intended to help those who are going through difficult times such as Randy. The counseling and psychiatry services are open Monday through Friday from 8 in the morning until 5 in the afternoon. They can be found at the University Health Center. Virtual counseling is also available to Randy if he does not want to go in person (Student Care and Outreach, 2023).

As part of the university, the University Health Center also provides the Fontaine Center which gives resources to those who are dealing with substance abuse disorders. Randy can call

their number at 706-542-8690 or walk in and schedule an appointment to meet with one of their counselors. Their comprehensive support services are free for Randy to use. Their primary goal is to help past or present students who are struggling with their addiction and want to create changes in their lives for the better. There they will help Randy explore his options for reducing his use of opioids as well as provide referral information. In this case, those that need more intensive support services can choose this route. Referrals can be provided for intensive outpatient or residential treatment programs. The staff, according to their website, are well versed regarding community services in the surrounding area and can provide resources outside of Athens if Randy is in need (*Early Intervention Programs*, 2023)

Narcotics Anonymous

The Narcotics Anonymous program is an expansive, global, and community-based organization that was established in 1953 for those that are dealing with addiction to narcotics, similarly to Randy which in his case is opioids. The organization spans more than 143 countries, with members holding more than 72,000 meetings every week. The organization describes itself by saying they are a nonprofit organization that serves to be a place of gathering for both men and women to help keep each other clean. The group makes it known that there are no initiation fees, pledges to sign, or promises that have to be made to anyone. The organization is not affiliated or connected with any religious, political, or law enforcement organizations. They do not discriminate based on age, race, sexual orientation, or religion. Even though there are no requirements, fees, or applications that need to be completed in order to take part in these meetings, there are multiple paper and online materials that Randy could buy to make the most

of his experience. This includes recovery literature, spiritual principles, and service material (Narcotics Anonymous, 2023). Their website can be accessed at <https://na.org/>

The first step that Randy should take when wanting to be a part of Narcotics Anonymous is to find a meeting to attend. There are multiple meetings that take place during the week in the Athens area that Randy could try out before deciding which one he feels would be the best fit for him and his sobriety journey. In the Athens area, there are a variety of meetings that are open to the public. The first meeting in Athens is located at 24th Street Clubhouse, 150 Collins Industrial Boulevard with meetings being held on Sundays and Wednesdays at 1:30 in the afternoon and later at 8:15 in the evening. Another meeting is held at The Sparrow's Nest on Prince Avenue on Mondays and Wednesdays at 1:00 in the afternoon. Another option for Randy is a meeting that is held at 115 Sycamore Street, with this meeting occurring every Tuesday and Friday morning at 8:30 (*Narcotics Anonymous Meetings*, 2023).

After Randy attends a couple of meetings and finds one that he enjoys going to as well as enjoys seeing the people that also regularly attend those meetings, he will want to find a sponsor. A sponsor will help Randy along his journey of sobriety. This will be another addict who also has experienced the same things Randy has gone through. A sponsor is someone that Randy will be able to share anything with such as any concerns he might have as well as any issues that he might encounter in his journey. The main job of a sponsor is to help addicted individuals follow a twelve-step program. A twelve-step program will help Randy tackle the issues that were related to his drug addiction. They are a set of guiding principles intended to allow addicted individuals like Randy to grow in their sobriety (Narcotics Anonymous, 2023).

The Kind Recovery Center

Kind Recovery is an addiction and trauma treatment center in Athens, Georgia. Located at 740 Prince Ave STE 14, Athens, GA 30606. The organization focuses on providing specialty care to underprivileged areas of the county. Services offered include individual and group counseling, opioid dependence counseling, relapse care and prevention, and telehealth counseling packages that can be customized to meet each individual's specific needs for recovery as well as outpatient treatment. Kind Recovery offers various accommodations which include evening sessions and hybrid approaches for their services. Charlie Shockley who is the founder of kind recovery charges individual Sessions and couple sessions for \$140 per session. This can be paid by American Express, Discover, Health Savings Account, Mastercard, or Visa. Additionally, the organization collaborates with nearby prescribers to obtain medications that aid in the recovery process.

Serenity Grove

Serenity Grove is an end-to-end care for drug and alcohol addiction in Athens, Georgia. Serenity Grove is a full-service addiction treatment facility committed to supporting people with co-occurring mental health disorders and substance abuse. Their website is a critical tool for individuals looking for advice and information about the path to recovery. On the website, you can find comprehensive details about their specialty services, which include medication-assisted treatment, therapy and counseling, inpatient and outpatient treatment options, and detoxification. In addition, the website offers testimonies, blogs, and educational materials to promote understanding and give hope to people who are struggling with addiction. Those who are interested in exploring treatment options or seeking guidance from their compassionate staff can obtain contact information and get in touch directly. The organization additionally provides

information about its evidence-based treatment programs via its online platform, with a focus on individualized care catered to the particular needs and circumstances of each patient. The team of skilled practitioners and medical specialists at Serenity Grove is dedicated to offering a caring and supportive atmosphere that promotes long-term recovery and holistic healing. To help individuals seeking addiction treatment who are going through financial issues, Serenity Grove provides a range of payment options and plans. Serenity Grove offers services with a flexible fee structure that includes a sliding scale for eligible individuals. The facility accepts a variety of payment methods, such as ACH Bank transfer, American Express, Cash, Check, Discover, Health Savings Account, Mastercard, Paypal, Visa, and Wire. Serenity Grove is committed to supporting individuals with their insurance needs and is in-network with several major providers, including Aetna, Anthem, Beacon Health Options, Blue Cross, Blue Shield, BlueCross and BlueShield, Magellan, Optum, and UnitedHealthcare UHC | UBH. It's important to note that while the facility may work with a range of insurance plans, not all plans may be listed, and individuals are encouraged to reach out for assistance in verifying benefits. Additionally, for Kaiser plans, Serenity Grove operates as an out-of-network provider. The facility offers a free benefit verification service and places a high priority on client care. People are encouraged to speak with Serenity Grove directly to discuss their unique needs and receive accurate, individualized assistance, as well as for up-to-date, comprehensive information provider. Moreover, Serenity Grove provides information about possible grants and scholarships to individuals who are struggling financially.

Sustainable Solutions

Medicaid Expansion and Access to Affordable Medical Services

Randy is a 24-year-old man who works part-time and was removed from his parent's health insurance plan. In the state of Georgia, to qualify for Medicaid, an individual must be low-income and pregnant, a child or teenager, 65 and older, legally blind, disabled, or in nursing home care. (GEORGIA DEPARTMENT of HUMAN SERVICES, 2023). Medicaid in Georgia covers individuals who make less than 100% of the federal poverty rate and meet additional eligibility. (Georgia Medicaid, 2023a). Medicaid is financed by the Georgia Department of Health and pays for medical and healthcare services with state and federal tax money (GEORGIA DEPARTMENT of HUMAN SERVICES, 2023). There are currently no affordable options for individuals who are low-income, have no dependents, and are not disabled in Georgia (GEORGIA DEPARTMENT of HUMAN SERVICES, 2023). Nearly 12 percent of Medicaid-insured individuals over 18 have a substance use disorder (Medicaid.gov, 2023). The Mental Health Parity and Addiction Equity Act of 2008 requires Medicaid plans to provide benefits for mental health and substance use disorder treatment and services equal to medical and surgical care (Georgia Medicaid, 2023b). This policy was strengthened in 2016 and restricts Medicaid and CHIP Plans from imposing more restrictive benefit limitations on mental health and substance use disorder benefits than on medical and surgical benefits (Georgia Medicaid, 2023b). Medicaid plans ensure that co-pays, deductibles, and limitations for treatment of mental health and Substance Use Disorder are not any more restrictive than the requirements or limitations applied to medical and surgical benefits (Georgia Medicaid, 2023b). The chances of Randy finding affordable and accessible treatment for Opioid Use Disorder is very slim without governmental support because it can be very expensive to pay out of pocket for inpatient substance abuse services (Centers for Disease Control and Prevention, 2021). If Medicaid was expanded in Georgia, Randy may have access to fully or partially covered treatments. Effective

treatment of Opioid Use Disorder requires medication and several maintenance visits with a physician (Centers for Disease Control and Prevention, 2021). If Medicaid was expanded in Georgia, Medicaid may cover any additional necessary services for Randy like mental health care, counseling, primary care visits, and prescription drugs (Georgia Medicaid, 2023b).

Considering the urgency of Randy's situation, the waiting period for Medicaid processing of 45-60 days is not ideal (Georgia.Gov, 2023). Applying to Medicaid can be difficult for those who do not have access to technology or their legal documents. Georgia is one of only 10 states that has not adopted Medicaid expansion under the Affordable Care Act (MCKOY, 2023). Expanding Medicaid in Georgia would allow low-income adults with no dependents or disabilities, like Randy, to have access to the medical services that they need to survive.

Increase Comprehensive Drug Use Education/Harm Reduction in Schools

Harm Reduction is a comprehensive approach to substance use disorders that incorporates drug use prevention, risk reduction, and health promotion, to allow people who use drugs to live a healthy, safe life while emphasizing autonomy (Substance Abuse and Mental Health Services Administration, 2023). Harm reduction has been proven to prevent death, injury, disease, overdose, and substance misuse (Substance Abuse and Mental Health Services Administration, 2023). Harm reduction also reduces the overall stigma surrounding drug use (Substance Abuse and Mental Health Services Administration, 2023). Harm reduction supplies include access to free or low-cost naloxone, free clean needles, increasing safe sharps disposals, and fentanyl test strips to reduce drug overdoses, diseases involving injection, and death (Substance Abuse and Mental Health Services Administration, 2023). Harm reduction can also refer drug users to mental health services and cessation and prevention resources (Substance Abuse and Mental Health Services Administration, 2023). Instilling Harm Reduction-based

education and comprehensive substance use education in schools increased students' knowledge about drug effects, and drug research, and instilled positive behaviors related to substance use, and drug policies (Substance Abuse and Mental Health Services Administration, 2023). After increasing Harm Reduction in schools, students show enhanced knowledge about drug abstinence, how to detect an opioid overdose, and school-specific drug policies (Substance Abuse and Mental Health Services Administration, 2023). Increasing comprehensive drug use education in schools can reduce the likelihood of drug use initiation in younger adults and can also connect teens with substance abuse resources before addiction worsens (Griffin & Botvin, 2010). Randy could have benefitted from comprehensive drug use education in his high school.

Alternatives to Incarceration and Improving Treatment Conditions

People who abuse opioids or are dependent on opioids are more likely to get arrested (Fisher et al., 2014). Many states currently do not offer access to medications to treat opioid use disorder for arrestees or inmates which can increase recidivism (National Institute on Drug Abuse, 2021). In 2022, in the United States, 1 in 13 people who were arrested and had a drug use disorder received medication treatment while in jail or prison (Pew Research Center, 2022). In 2022, almost 90% of arrests for drug crimes were for possession of drugs, not sale or manufacturing of drugs (Pew Research Center, 2022). The criminalization of opioid abuse further stigmatizes addiction (National Institute on Drug Abuse, 2021). Criminalization of opioid abuse instead of increasing access to addiction treatment has not led to a drop in drug use or overdoses (Public Broadcasting Service, 2022). The rate of drug deaths in jails has increased and relapse after being released from prison is common (Public Broadcasting Service, 2022). Drug courts are used to reduce the costs of repeatedly processing non-violent drug use offenders through courts, jails, and prisons while providing offenders with education, treatment, and

resources (United States Health and Human Services, 2022). Due to the extensive resources that drug courts require, it is expensive and is not always available for every offender (United States Health and Human Services, 2022). In Georgia, there are strict exclusion criteria to be eligible for Drug Treatment Court (Council of Accountability Georgia, 2022). Randy is at risk of getting arrested because he uses heroin. Having available opioid disorder treatment while he is incarcerated and access to drug court could increase his risks of full recovery and reduce the risk of recidivism.

Increasing Non-Opioid Pain Management and Increasing Prescription Drug Monitoring

About 45% of people who use heroin started with an addiction to prescription opioids (American Psychiatric Association, 2022). Prescription opioid abuse costs the United States \$78.5 billion yearly in the form of healthcare, legal programs, and lost productivity (Florence et al., 2016). In 2017, pharmacies filled about 153 million opioid prescriptions and doctors wrote enough opioid prescriptions for 46.7% of Americans to receive one (National Center for Drug Abuse Statistics, 2020). In 2017, more than 191 million opioid prescriptions were dispensed in the United States (National Center for Drug Abuse Statistics, 2020). Anyone who takes opioids is at risk for developing opioid use disorder (Centers for Disease Control and Prevention, 2023). All patients should receive pain treatment that maximizes the benefits relative to risks (Centers for Disease Control and Prevention, 2023). Physicians should assess the risks and benefits of opioid therapy and ensure patients are aware of the serious risks of opioids and alternative therapies to opioids (Centers for Disease Control and Prevention, 2023). Many acute pain conditions can be treated and improved without using opioids (Centers for Disease Control and Prevention, 2023). Nonpharmacologic and nonopioid therapies do not have the same risks as opioids (Centers for Disease Control and Prevention, 2023). Nonopioid medications for pain

include topical or oral nonsteroidal anti-inflammatory drugs (NSAIDs), Acetaminophen, antidepressants, anticonvulsants, and Lidocaine patches (Centers for Disease Control and Prevention, 2023). Many noninvasive, nonpharmacologic approaches can improve pain and overall function without serious risks including light exercise, physical therapy, mind-body practices, psychological therapy, mindfulness practices, acupuncture, massage, and spinal manipulation (Centers for Disease Control and Prevention, 2023). Health insurers can improve access to other forms of pain management, reduce opioid use, and reduce serious risks by increasing reimbursement to providers who prescribe effective nonopioid therapies (Centers for Disease Control and Prevention, 2023). Increasing insurance coverage of nonopioid pain relief options and lowering the costs of these treatments could potentially reduce opioid prescriptions and opioid abuse (Centers for Disease Control and Prevention, 2023).

In Georgia, prescribers are not required to check the Prescription Drug Monitoring Program (PDMP) before prescribing opioids if the prescription is for no more than a three-day supply, and or no more than 26 pills, if the patient is in a hospital or healthcare facility if a patient had outpatient surgery, and received no more than a 10-day supply and no more than 40 pills, or if the patient is receiving cancer treatment (Georgia Department of Public Health, 2023). Considering opioid abuse still increases every year with the current PDMP policy, states should consider implementing a policy that requires prescribers to check the PDMP before prescribing any controlled substance in all circumstances to reduce overprescribing or duplicative prescribing.

Making Treatments More Affordable

In 2019, less than 35% of the population with an opioid use disorder was able to access some form of treatment (The National Academies of Sciences, 2019). Additionally, due to the lack of affordable and accessible treatments, mortality rates have significantly increased in recent years (NIH, 2023). This increase in mortality rates has been seen to impact the young adult population especially, the male population (NIH, 2023). As a result, making treatment available to individuals with the disorder at a reasonable price is essential to decrease the number of mortality rates and help individuals progress in life. Around 373,000 individuals with an opioid use disorder didn't have some form of health insurance in 2019 (KFF, 2019). Without insurance, the probability of accessing some form of treatment does decrease significantly as treatments available are costly even with aid. Individuals with an opioid use disorder may benefit from other treatment services such as drug detox and rehabilitation programs. Detox programs aid individuals in eliminating any consumed drugs from their bodies at a ranging cost of \$200 to \$800 per day (AAC, 2023). This service may also be offered as part of an individual's rehabilitation program. In rehabilitation programs, individuals are provided with all day care which is done through various services. Programs as such can last a long period as it does depend on when providers believe that the patient has made adequate progress. Due to the following, the cost can range from \$5,000 to \$100,000 (AAC, 2023). Providers may also recommend treatments such as medications when rehabilitation programs are not seen as necessary for the patient. The cost of medication treatment does depend on various factors but on average a methadone treatment with additional services costs around \$130 per week (NIH, 2021). In a year, the total cost for such treatment can total up to around \$6,500. If a methadone treatment is not recommended, a buprenorphine or naltrexone treatment may be offered which can total a ranging cost of \$6,000 to \$14,000 (NIH, 2021). For many individuals, the following amounts can

be unaffordable as they may have a minimum wage and have to pay other services such as housing. In addition, it is important to consider that such treatments may be more expensive in some states and may not include all the services that an individual needs. Changing the current system to be able to be used by individuals who truly need it will aid in decreasing the increasing mortality death rates. In Randy's situation, opioid use disorder treatments must be more affordable and accessible as he is working a part-time job, and the probability of him having all-day transportation is low. By having the following, Randy will be able to afford treatments such as rehabilitation programs that may also include mental health services that will aid in improving his outlook. Currently, Randy is losing hope which significantly impacts his commitment to the treatment he is recommended. Overall, Randy will have increased access to treatments that will significantly aid in his recovery period.

Increasing access to treatments/medications

Additionally to being expensive, treatments for opioid use disorder can be inaccessible for many as not everyone's residence has an addiction center nearby. In 2020, the state of Georgia had 348 addiction treatment facilities which were mainly located in the northern part of Georgia, specifically the city of Atlanta (AAC, 2023). Due to a large portion of treatment centers being located in Atlanta, many individuals living in southern rural cities are limited from accessing such facilities (Anwar et al., 2022). Moreover, in numerous rural cities, it is a challenge for individuals with the disorder to access medications like methadone. Around half of rural communities in Georgia don't have clinics that provide methadone which causes individuals to have to drive to nearby cities. In the case that methadone is not available, buprenorphine or naltrexone may be offered. It is important to consider that only half of all counties in Georgia have a health professional who can prescribe buprenorphine (Anwar et al., 2022). To be

prescribed methadone or one of the two other medications, Randy may also need to travel to nearby cities as Athens does have three methadone clinics that accept payments from Medicare or Medicaid (Recovery, 2023). No clinics in the community were found to prescribe buprenorphine or naltrexone (Recovery, 2023). By increasing access to the numerous opioid use disorder treatments such as rehabilitation and medications, Randy will be able to find a treatment that will significantly aid him during his recovery.

Strengthening public health data collection and reporting

The basis of any successful public health initiative, including the fight against the opioid crisis, is surveillance. Through public health surveillance, healthcare professionals monitor changes in opioid use, distribution, methods of use, or effects, identify targets for intervention, and comprehend trends in the populations affected by opioid use (Johnson, 2021). More timely data is required due to the opioid crisis's rapid evolution. As a result, rather than the previous 18-month lag, provisional counts of opioid-related deaths are now being released with a 7-month delay. Similarly, the CDC's Enhanced State Opioid Overdose Surveillance program collects detailed data from states—including EMS data—about both fatal and non-fatal overdoses with a 6-month latency. There are still many information gaps. For instance, in approximately 22% of overdose deaths, medical examiners/coroners reports are missing, which limits the ability to examine drug-specific causes in many jurisdictions. In non-fatal overdoses, data on the administration of naloxone as well as more detailed toxicological information about specific substances detected in emergency department patients are missing. Current treatment outcomes and recovery trajectories are also poorly understood. Given the promise of adapting the continuum of care model (used successfully in HIV treatment) to improve opioid treatment, improved engagement and outcome surveillance are required (Johnson, 2021).

Improving recovery support services

Having access to support services is essential for individuals who are going through the recovery process. Such support services allow individuals to overcome any difficulties that they may be facing and communicate with others who are going through their recovery process. Peer-led community-based programs, housing resources, support groups, social activities, education, and other services are examples of recovery-supportive services. Community-based organizations are the best places to offer services that support recovery. Such organizations have greater access to local resources than larger organizations or institutions and are significantly effective at engaging at-risk populations and helping individuals continue their treatments (Opioid Litigation Principles, 2023). Moreover, community-based recovery support services are more successful when compared to services such as medical detoxification when done on their own. Community organizations can also offer wraparound care, which includes case management services, to help guarantee that patients receive thorough treatment throughout their recovery. Offering comprehensive care is essential as such programs can spot issues that might hinder the patient's recovery and help the individual in having a successful long-term recovery (Opioid Litigation Principles, 2023).

Removing methadone from Medicaid preferred drug lists

Methadone is a common medication that is used to treat opioid use disorder. This drug acts as an agonist, which means it mimics the effects of opioids. This drug is very effective for those who are in treatment as it can help individuals reclaim their lives and safely get off of using opioids. The drug can help reduce opioid cravings, and withdrawals, and can also help block the effects of opioid overuse. However, this drug should only be used in combination with a treatment plan determined by the individual's healthcare provider, which should also include

cognitive behavioral therapies and other counseling (SAMHSA, 2022). The drug can also commonly be used for pain management for those who are not addicted to opioids. In these cases, the drug should be removed from Medicaid preferred drug lists as there is a risk of developing an addiction that could turn into a full-blown opioid addiction. Methadone on its own can be a highly addictive drug and the risk for overdose is extremely high if they were to take the drug in combination with others. If the drug was not used under the guidance of a physician, with a comprehensive opioid treatment plan enacted, the drug could be abused and cause a coma, depressed breathing, and even death if used with another sedative (American Addiction Centers, 2022). As previously stated, the main issue is that the drug is listed on drug lists as a preferred medication for pain management. The American Academy of Pain Medicine and Centers for Disease Control recommended insurers remove the drug from lists as it should not be considered the first choice in defense for chronic pain management. The drug has been stated to be responsible for every one out of three accidental overdose deaths. It should only be used on an as-needed basis, in special circumstances such as under the guidance of a physician for those with actual opioid use disorders. This would require action from the state, with many including North Carolina already having done so (Vestal, 2015).

Raise public awareness in the community regarding opioid use

Another important aspect of finding solutions for the opioid crisis is increasing public awareness. Promoting healthy behaviors and awareness regarding the dangers that come with the opioid epidemic is an important part of reducing the number of deaths in one's community. By providing community members information, regarding illicit opioid use, substance abuse, and misuse, treatment plans can be incredibly helpful when it comes to reducing the number of individuals who might become addicted to the drug as well as any deaths that result from

overdoses. In addition, by increasing education, the social stigma that surrounds opioid addiction that might prevent someone from gaining the help they need can be diminished as well as getting rid of any common misconceptions that surround the use of the drug (Comprehensive Opioid Stimulant Substance Use Program, 2023). There are a variety of ways to do this that have proven to be effective methods in communities. Evidence-based practices for awareness surrounding opioids have included peer navigation, motivational interviewing, television and public radio service announcements, websites, social media, and even billboards. All of these techniques can and have been implemented by a variety of campaigns to reach the target audience in communities when it comes to opioid addiction. (Comprehensive Opioid Stimulant Substance Use Program, 2023). One study determined an educational program that was given to a community of graduate students that focused on the opioid crisis as well as the benefits of medications for opioid use disorders was highly effective. After presentations were given, which lasted about one hour, it was found that there was an increase in positive attitudes regarding the treatment of those addicted to opioids as well as the willingness to want to work with those who are addicted. The community's knowledge and attitudes surrounding medications for opioid use disorder also significantly improved according to the study (Williams et.al, 2022). This study is a great example of how increasing the knowledge of a community can be a sustainable solution to combat an issue such as the opioid crisis.

Avoiding inappropriate physician opioid prescription

Avoiding inappropriate, and overprescription, of opioids from the physician's perspective is a major solution that could help combat the excess of opioids that are circulating in communities. As stated previously, overprescription is a major issue when it comes to opioids as it increases the risk of addiction. One component of this process is unnecessary prescriptions that

physicians give to patients who might be at risk for addiction. Studies have shown that there have been increasing rates of opioid prescriptions every year since 2004. This statistic was the case for prescriptions after low-risk outpatient surgeries. This included surgeries such as carpal tunnel repairs, knee arthroscopies, laparoscopic cholecystectomies, and laparoscopic appendectomies. It was said the percentage of patients who went to get an opioid prescription filled increased with every procedure (Neuman et. al, 2020). These low-risk surgeries do not require the unnecessary prescriptions that are occurring and are in excess of what is needed for proper pain control. As a way to combat this issue, provider education can significantly increase. According to the NIH, education for providers, including nurses, physical therapists, physicians, and pharmacists, has fallen short. The educational efforts have failed to provide appropriate guidelines when it comes to pain management and prescribing. There is very minimal education as there is evidence to show only a few hours of lectures over multiple years has been given during training. In addition, the range of the number of opioid pills that were prescribed for the same procedure, like an inguinal hernia repair, ranged from 15 to 120 pills (NIH, 2023). The article suggests developing rigorous clinical trials for these professions by establishing guidelines that a single entity could have jurisdiction over pain management. This would also include clinical pain competencies as well as opioid prescription practices, such as the number of pills that are prescribed to an individual (NIH, 2023). By having a single organization determine strict guidelines to improve the education of these individuals, unnecessary prescription of opioids could significantly improve. This would also help reduce the amount that private industry influences the increasing opioid crisis. The private industry has long had other gains in mind when it comes to pharmaceutical profit.

Affordable housing after treatment

Supportive and affordable housing has the potential to help thousands of individuals who are currently under treatment for opioid addiction. Many who are undergoing recovery require housing as they may have lost or do not have the resources to access such help. Treatment is especially hard to maintain without housing as a continuous cycle can begin by using opioids, then losing jobs, and then housing. Supportive housing can provide an environment of security and stabilization that one needs to continue to reach goals in the recovery process (Housing Matters, 2023). It was found that over half of the individuals who died as a result of opioid overdoses were also experiencing homelessness in the Santa Cruz area in California. This same issue is being seen all across the country (Housing Matters, 2023). Easier access to housing can greatly improve this situation, which starts with increasing the accessibility of low-barrier housing. This can start by increasing housing near places of public transit, improving housing voucher programs, and even setting aside public land and using it specifically for building affordable housing (Housing Matters, 2023). This also can be done specifically for those who are undergoing recovery and can be placed near opioid recovery centers.

Resource Handout

Group 5: Addiction

Agency Name: Access Point of Georgia

Agency Address: 955 Danielsville Rd Athens, GA 30601

Phone Number: (762) 234-6068 Email: admin@accesspointga.org

Website: <https://www.accesspointga.org/>

Access Point of Georgia is a 501c3 nonprofit in Athens GA that serves some of North East Georgia's most vulnerable populations and advocates for Harm Reduction. Access Point of Georgia advocates to decrease the stigma around people who use drugs. Access Point aims to increase access to clean injection equipment, access to healthcare, housing, and recovery and mental health resources for people who use drugs. Access Point holds free HIV and Hepatitis C testing and wound care every Tuesday and Wednesday from 6 pm to 8 pm. All services are 100% confidential and free with no ID required. The access point offers free syringes, clean needle exchange, naloxone /Narcan kits, fentanyl test strips, and condoms. Access Point offers referrals for Crisis Stabilization, Inpatient Treatment, Sober Living, and Opioid Treatment Programs. Access Point also holds a support group for those whose recovery plan involves medication such as methadone. Peer specialists can discuss harm reduction and safe drug use with people who are in active addiction. Peer specialists at Access Point can support and help clients navigate recovery resources and can recommend other agencies to aid in the recovery process.

Agency Name: Advantage Behavioral Health Systems

Agency Address: Clarke County Behavioral Health Center: 250 North Avenue, Athens, GA 30601

Phone Number: 706-389-6767 and Fax: (706) 389-6740

Drug & Alcohol Center: 195 Miles Street, Athens, GA 30601

Phone Number: (706) 369-5745 and Fax: (706) 369-6328

Website: <https://www.advantagebhs.org/>

Advantage Behavioral Health Systems is a public center in Athens Georgia that provides addiction recovery services and behavioral health services. Advantage offers Individual Counseling, Psychiatric/Nursing Services, Addictive Disease Support Services (ADSS), Family and Group Therapy, Group Training, Peer-Led Support Groups, Group Counseling, and Transitional Living Programs for addictive diseases. Advantage has PROUD that connects any person with an opioid use disorder diagnosis to resources to achieve recovery and wellness. Advantage has AIR which provides individuals with access to psychiatric and addictive disease support services through a six month program that is divided into three phases. Advantage also provides a Supported Employment program that helps clients to prepare, obtain, and maintain employment to clients currently receiving services from Advantage and desire to obtain a job. Advantage offers Hepatitis C and HIV testing, which is necessary for people who inject drugs. Advantage accepts Medicaid to aid in paying for addiction services. Advantage accepts insured and uninsured individuals and serves all people who are eligible for substance abuse treatment. Advantage has a 24/7 hotline for those who are unable to pay for services and need urgent help.

Uninsured patients may qualify for a State Assistance Program. Uninsured clients will be asked to pay an amount determined on a sliding fee scale based on their income.

Agency Name: Alliance Recovery Center

Agency Address: 19 Sycamore Dr, Athens, GA 30606

Phone Number: (706) 850-2121

Website: <https://www.alliancerecoverycenter.com/>

Alliance Recovery Center is an opioid use disorder treatment center in Athens, Georgia that offers low-cost medication treatment. Alliance Recovery Center uses medications, such as methadone and buprenorphine, therapy, peer support, and other support services to help people recover from opioid use disorder. Admission to Alliance Recovery Center, Transferring, and Annual Physical Exams are free. Monthly drug testing, HIV testing, and Hepatitis C testing are also free. Phases 1 through 5 of Methadone treatment is \$12 per day and phases Phases 6, 13, and 27 are \$11 per day for Methadone treatment. Buprenorphine Treatment is \$16 per day. The guest dosing fee is \$12.00 per dose. A lock box to store treatment medications is \$12. Alliance Recovery Center does not charge an admission fee but does charge a per-day rate for treatment. Alliance Recovery Center accepts most private insurance and Medicaid as most insurance plans cover medications used for treatment. Alliance also provides paperwork for reimbursement.

Agency Name: Athens-Clarke County Library

Agency Address: 2025 Baxter St, Athens, GA 30606

Phone Number: (706) 613-3650

Website: <https://athenslibrary.org/location/athens-clarke/>

The Athens Clarke County Library provides free access to computers, books, printers, and other resources. The Athens Clarke County Library can allow Randy to access the internet where he can access addiction centers' phone numbers and websites, compare different rehabilitation center pricing, and apply for governmental assistance.

Agency Name: The Athens Clinic

Agency Address: 1710 Commerce Road Athens, GA 30607

Phone Number: 706-552-0688 and Fax 706-546-0689 Email: athensclinic@hotmail.com

Website: <https://www.theathensclinic.com>

The Athens Clinic is an opioid treatment center that provides methadone maintenance (MAT), substance use education, individual counseling, support groups, peer support and medication therapy. The Athens Clinic has certified and licensed addiction counselors, licensed practical nurses, a licensed Nurse Practitioner, an on-site Psychiatrist, and a highly qualified administrative staff. The Athens Clinic offers free HIV Testing and free Hepatitis C antibody and viral load testing. The Intake and Transfer fees are free. The Daily Dosing Fee for Methadone is \$12.00 per day or \$79.00 per week. The Daily Dosing Fee for Buprenorphine is \$16.00 per day

or \$107.00 per week. The Guest Dosing Fee: \$25.00 one-time fee or \$12.00 per day. HIV Testing and Hepatitis C Testing (Antibody and Viral Load Testing) are both free.

Agency Name: Collegiate Recovery Community also known as CRC

Agency Address: Room 215, Memorial Hall

Phone Number: 706-542-8690 Email: crc@uhs.uga.edu

Website: <https://healthpromotion.uga.edu/crc/>

The Collegiate Recovery Community also known as CRC is a UGA student organization that provides support and services for current and returning students who are recovering from addiction. Students part of the organization will have the opportunity to be included in support groups and events while continuing their education to make their recovery process easier.

Agency Name: Narcotics Anonymous

Agency Address: Some meetings that Randy could attend are located at:

1. The Sparrow's Nest: 745 Prince Avenue Athens, GA 30606-5901
2. 115 Sycamore Street Athens, GA 30606

Phone Number: 818-773-9999 Email: fsmail@na.org (for general questions);

Website: <https://www.na.org/meetingsearch/>

Narcotics anonymous is an expansive, global community-based organization that is designed to help individuals who are suffering from addiction to narcotics such as opioids. The nonprofit holds meetings all over the world to provide a space where men and women can support one another in their journey of becoming clean, starting with a 12-step process. There are no associated fees with the meetings, and locations and times can be found on their website.

Agency Name: SAMHSA Website or Hotline

Agency Address: 5600 Fishers Lane, Rockville, MD 20857

Phone Number: 1-877-726-4727

Website: <https://www.samhsa.gov/>

The Substance Abuse and Mental Health Services Administration also known as SAMHSA is a website that provides access to information on substance abuse and mental health and ways in which individuals can find treatment near them. Additionally, the agency has a free hotline that allows individuals to communicate with professionals for treatment referrals and information regarding potential services. The website does have links to other hotlines which are for suicide and disaster distress.

Agency Name: Serenity Grove

Agency Address: 315 Newton Bridge Rd, Athens, GA 30607

Phone Number: (844) 904-3485

Website: <https://www.serenitygrove.com/>

Comprehensive drug and alcohol addiction treatment is provided by Serenity Grove in Athens, Georgia, which also provides support for co-occurring mental health disorders. Evidence-based treatment programs with an emphasis on individualized care are among their services. They offer details on detoxification, inpatient and outpatient alternatives, therapy, counseling, and

medication-assisted treatment. Serenity Grove takes several forms of payment, such as flexible financing, insurance coverage, and installment plans. For individuals who are struggling financially, grants and scholarships are also an option. It is advised to visit their official website or get in touch with the facility directly for the most up-to-date and comprehensive information.

Agency Name: Student Care and Outreach

Agency Address: 318 Tate Student Center Athens, GA 30602

Phone Number: 706-542-8479 Email: sco@uga.edu

Website: sco.uga.edu

The Student Care and Outreach division of the University of Georgia is the hub of care and support for both past and present students. They help students who are dealing with hardships and unforeseen circumstances by providing them specialized assistance including counseling, psychiatric services, and referrals to more intensive rehabilitation, as well as the Fontaine Center which offers counseling specifically for those dealing with substance abuse disorders. These services are free and they are open Monday through Friday from 8 AM to 5 PM.

Agency Name: The Kind Recovery Center

Agency Address: 740 Prince Ave STE 14, Athens, GA 30606

Phone Number: (706) 308-7664

Website: kindrecoverycenter.com

Athens-based Kind Recovery is a telehealth provider that specializes in treating trauma and addiction. Our secure video counseling brings specialized care to North Georgia's impoverished areas. In addition to outpatient care, we provide individual and group counseling packages that can be customized. In addition to offering companion behavioral health services and working with nearby prescribers to promote safe recovery, They also offer opioid dependency counseling. For those who are experiencing or about to experience a relapse, we also provide Relapse Care and Prevention.

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Individual Critical Reflections

Allie Leitz

Overall, searching for community resources and solutions for Randy made me realize that there is a lack of sustainable solutions and resources for individuals suffering from Opioid Use Disorder who do not have familial support, insurance, reliable transportation, and job stability. I learned that Opioid Use Disorder requires comprehensive and holistic treatment that can be expensive and require a lot of maintenance. To increase the likelihood of successful treatment, treatments may incorporate behavioral counseling, psychiatric treatment, family counseling, and support groups in addition to medication. These multifaceted treatments require access to many different community resources and can be expensive. Because Georgia did not expand Medicaid, individuals who do not have insurance through their employer and are not disabled, pregnant, or have no dependents have no affordable option to help pay for needed medical care like substance abuse treatment or therapy. When gathering what was needed for Randy's case, I quickly recognized that some resources required many other resources in order to work. For example, without public transportation, Randy would be unable to travel to a treatment center. Without access to a computer, Randy would be unable to find the address for a treatment center. There are many multifaceted barriers that hinder Randy and other people who use drugs from seeking treatment. Without expanding Medicaid, a large amount of the population is left with no accessible treatment option, thus worsening the opioid epidemic. My investigation into community resources frustrated me because there are few affordable resources that incorporate both mental and behavioral healthcare and other types of support needed for addiction. Most of the resources are strictly treatment clinics and refer patients out for other resources. There is also a need for resources to make their websites more client-friendly. Pricing, requirements, and

eligibility on resource websites should be stated in a simple way that is easily readable and not difficult to find.

Considering the severity of the opioid epidemic globally, it is important for public health professionals like us to work towards making treatment more accessible for everyone.

Throughout investigating the opioid epidemic, I quickly realized people who abuse opioids are highly stigmatized, and opioid use disorder is not treated like a disease. We should encourage and advocate for humanizing addiction and recognize addiction like any other disease. I also will advocate for major healthcare reform in the United States to make accessing all healthcare including substance abuse treatment and mental health treatment easier and less expensive. Expanding Medicaid in all states is the first step to reducing healthcare inequity. In my future career, it is my goal to implement more comprehensive drug use education and harm reduction in schools. With more education about how to administer Narcan, what to do in the case of an overdose, and how to test drugs for fentanyl, improving the opioid epidemic is possible. In my future career in health policy, I hope to increase access to healthcare by advocating and pushing Medicaid expansion for all states.

Lyang Lugo

During the process of searching for resources that could aid Randy during his recovery process, I realized that while there are numerous resources for addiction most of them are not as accessible and affordable for those affected by substance abuse. Additionally, most resources don't offer all the services that an individual may need to fully recover. A lot of individuals may require counseling in addition to access to medication, which can be difficult to afford for many with the disorder as many are low-income and uninsured. In Randy's case, he is most likely both

low-income and uninsured which made the process of gathering resources that offer various effective services at a reasonable price difficult. While looking at possible rehabilitation centers for Randy, I wasn't able to find one that he would be able to afford as most were costly or only accepted private insurance. Although we were able to find other resources that could aid Randy, Randy may not be able to access all due to various factors. Taking into consideration all the factors that may impede Randy from accessing possible resources, we included solutions such as making treatments more accessible and affordable and expanding Medicaid. Most of the solutions that we included would significantly aid Randy during his recovery but would be difficult to change due to insurance and pharmaceutical companies being against it. Realizing the following is essential as it helps one see how the current needs to be changed to truly be able to help individuals like Randy. Randy wants to be able to recover but is having a hard time due to the system making it hard for him to access the services that he needs. Until changes are made I think recovery is going to continue to be a challenge for many. As a future public health professional, I have learned that it will be essential to raise awareness and try to find ways to make change occur to truly be able to help those in need.

Caleb Yarbrough

My exploration of local resources and solutions illuminated the stark deficiencies in long-term assistance for individuals struggling with Opioid Use Disorder (OUD), especially those without stable employment, insurance, family support, or reliable transportation. Throughout my investigation, it became clear that a comprehensive approach to treating OUD, encompassing family counseling, behavioral counseling, psychiatric treatment, support groups, and medication, is crucial, even though it can be expensive and time-consuming. The complexities I uncovered revealed a network of obstacles preventing people like me from

accessing treatment. To compound the issue, Georgia's lack of Medicaid expansion means that a significant portion of the population lacks access to affordable options for essential medical care, particularly therapy and treatment for substance abuse. One key discovery was the interdependence of resources; the absence of one could render others ineffective. For instance, the inability to use public transit made it challenging to reach a treatment facility, and difficulty with using a computer hindered the ability to locate one. Dealing with drug use disorders is exceptionally challenging due to the intricacy of these obstacles, exacerbating the opioid epidemic. The frustration lies in the scarcity of reasonably priced resources that combine behavioral and mental health care with other essential types of addiction support. Additionally, resource websites need to present pricing, requirements, and eligibility criteria in a more user-friendly manner. Given the severity of the global opioid epidemic, there's an urgent need for a paradigm shift in the understanding and treatment of addiction. Instead of stigmatizing individuals with OUD, we should promote empathy and understanding, treating addiction as a disease. The call for significant healthcare reform in the US, aiming to lower costs and increase access to all healthcare services, including mental illness and substance abuse treatment, is crucial. The emphasis on Medicaid expansion is seen as the initial step toward addressing healthcare disparities. Looking ahead to prospective career, the goal is to introduce harm reduction strategies and more comprehensive drug use education in schools. This, coupled with support for expanding Medicaid and enhancing healthcare access, reflects my dedication to bringing about positive change in the field of public health. Despite opposition from powerful entities and challenges posed by entrenched systems, my commitment to raising awareness and supporting individuals like Randy remains unwavering.

Samantha Clarke

When searching for the necessary information to complete this needs assessment for Randy, I realized that the resources that were available to Randy were often tricky to access and would make him go through multiple obstacles in order to receive the help he desperately needed. I think the main issues that Randy encounters are that he is unemployed, he has been kicked out of his parent's home, and he has no insurance to utilize resources that could potentially help him. These issues make it so Randy cannot afford proper treatment, such as rehab, but also make it so he cannot hold a job to then be able to receive some kind of insurance. The sustainable solutions we highlighted in this needs assessment were analyzed in order to help address some of the issues Randy is facing, which included expanding Medicaid, avoiding inappropriate provider prescriptions, making treatments and medications more affordable, improving recovery support services, and improving affordable housing, strengthening public health data collections. After conducting our research, we were able to determine that these solutions would give Randy an opportunity to have easier access when it comes to getting his life on track as well as getting the treatment he needs in order to get off of opioids. During the course of this needs assessment, I was able to learn a lot about the importance of changing the way our current society views addicts. Unfortunately, the stigma that surrounds addicts can be really damaging as it harms the quality of care that an addict, such as Randy, can receive. There are individuals who believe that Randy chose this life for himself, but by raising awareness and improving recovery support services, there is hope that society can start to understand that this disease is incredibly painful and damaging. I also learned, which is incredibly important to note, that expanding Medicaid could greatly improve the situation that Randy has been forced into. The first step that Randy can take to improve his life and his addiction issues is to take advantage of mental health resources as well as attend an addiction recovery program. By expanding

Medicaid, Randy would actually have the chance to make this happen for himself. After his dependency on the drug ceases, he would have the opportunity to keep a job and start a life that does not involve opioids. Expanding Medicaid in Georgia has not been an easy task to overcome, however, it has the potential to expand access to treatment that those with low income could not previously receive and allow for individuals to receive proper medications when detoxing. I am excited to move forward in the future as a public health professional as I hope to see changes in public health for those who struggle with addictions, as well as other individuals who struggle with finances and insurance access.