2019 OUTCOMES REPORT
Cumberland Heights Foundation

Produced by the Research Institute

Summary

In 2018, Cumberland Heights Foundation launched a Measurement Based Care (MBC) system. The explicit focus of our MBC system was grounded in:

1. ***Improving outcomes,***
2. ***Providing patients and families with data informed resources,***
3. ***Increasing our ability to communicate with external stakeholders.***

Since that time, our investment into research and outcomes has grown. The establishment of our Research Institute highlights our commitment to better understand how our treatments affect our patients and contributing those observations to the larger field. We believe that as a provider, we are responsible for effectively monitoring and measuring our own outcomes.

Building off our successes from 2018-2019, our teams have worked to improve our measurement systems by providing our staff with dynamic feedback monitoring tools, expanding measurement for our patients' post-discharge, and increasing our external partnerships. We are pleased to have researchers from Texas Tech and Vanderbilt Universities, collaborating with our Research Institute staff in support of our research goals. The attached report represents a brief summary of the patient outcomes observed within our health system throughout 2019. All analyses were completed by the Cumberland Heights Foundation's Research Institute. The data represented in this report are completely deidentified and represent average change.

The future practice of effective addiction treatment rests in measurement. For without measurement, how do we ensure our treatments are creating change in our patients' lives? The mission of Cumberland Heights Foundation is to "To transform lives, giving hope and healing to those affected by alcohol or drug addiction". The data outlined in this report represent more than significant positive results, they represent individual's lives. We are grateful to be able to tell their story and highlight how treatment impacts our patient's over time.

Respectfully,
Nick Hayes, PhD, Chief Science Officer
Cumberland Heights Foundation

Nick Hayes

Key Findings

In 2019, (*N* = 2140) patients were surveyed at regular intervals throughout treatment. Known as Progress Monitoring or Measurement Based Care our system works to support patient change through measuring reported change states and reporting these results back to clinicians[1]. Although our Measurement Based Care system uses several indices of measurement, this report will focus on four of them. More specifically, the Patient Health Questionnaire (PHQ-9) measuring depression severity; the Generalized Anxiety Disorder Scale (GAD-7) measuring symptoms of anxiety, the Brief Assessment for Recovery Capital (BARC-10) measuring positive supports associated with recovery, and the Heroin Craving Questionnaire-Short Form (HCQ-SF-14).

1. On average, patients spent **31.45 days in our health system** (e.g. Residential, Outpatient, or Extended Care).
2. On average, patients reported a **69.75% decrease in depression symptoms.**
3. On average, patients reported a **61.32% decrease in anxiety symptoms.**
4. On average, patient reported a **29.15% decrease in craving symptoms.**
5. On average, patients reported a **15% increase in recovery capital resources.**

These findings demonstrate how treatment at Cumberland Heights Foundation positively impacts patient well-being and reported symptomatology.

Novel Measurement Applications

- ✓ PHQ-9
- ✓ GAD-7
- ✓ BARC-10
- ✓ HCQ-SF-14

Each patient is measured upon admission, 7 days, 14 days, 21 days, 28 days, 6 weeks, 2 months, and one month thereof.

The use of novel measurement applications in behavioral health contexts increases our team's ability to effectively support each patient's unique treatment journey.

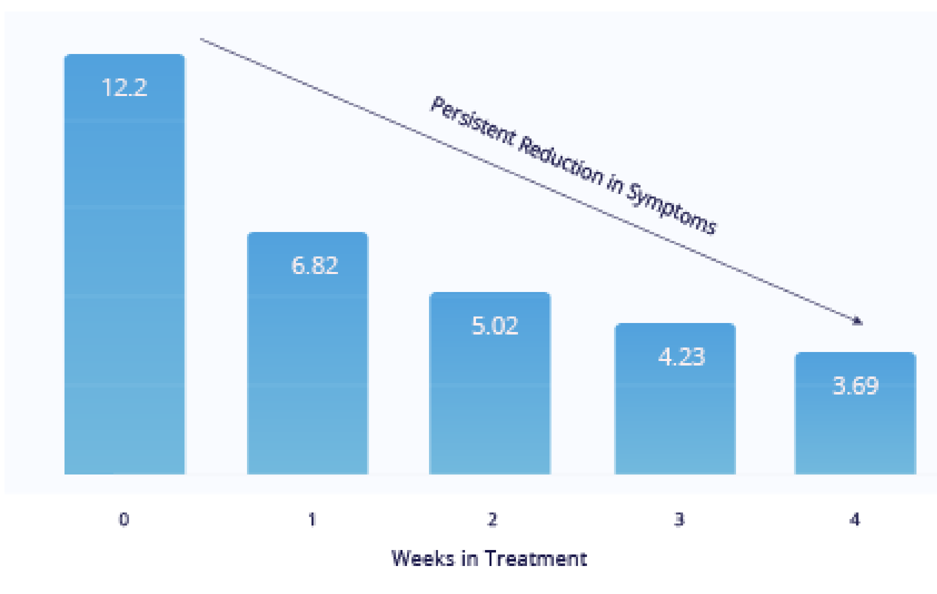
Symptom Reduction

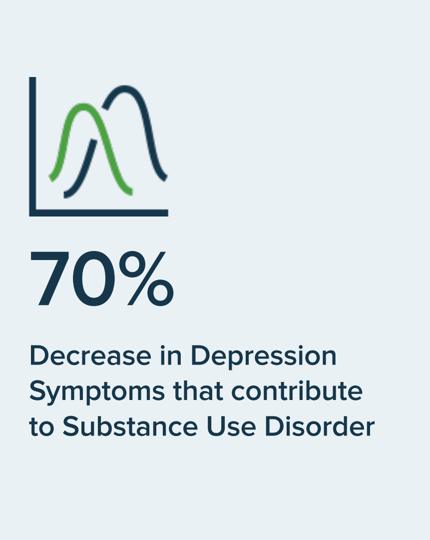
DECREASED DEPRESSION SEVERITY

Instrument Description.
The Patient Health Questionnaire (PHQ-9) is a standardized assessment used to measure patient levels of depression[4]. The following represents an example of an indicator taken from the PHQ-9: “Little interest or pleasure in doing things” [8]. The PHQ-9 is a continuous variable, with scores ranging from (0 – 27), where higher scores indicate elevated levels of depressive symptoms.

Outcome Visualization.
The following visualization uses exploratory data analysis techniques to demonstrate the observed changes in average patient change, as measured by the PHQ-9. These data highlight the significant positive effect that our treatments have on patient outcomes throughout engagement in our clinical programs.

REDUCTION IN DEPRESSION SYMPTOMS IN PATIENTS





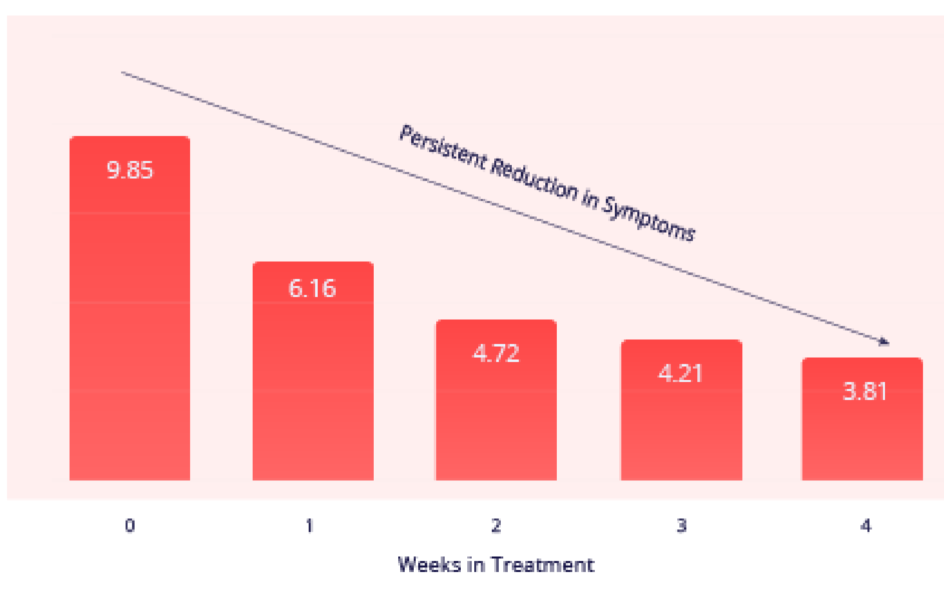
Results:
In 2019, on average, patients report a **69.75%** decrease in depression symptoms throughout the course of treatment.

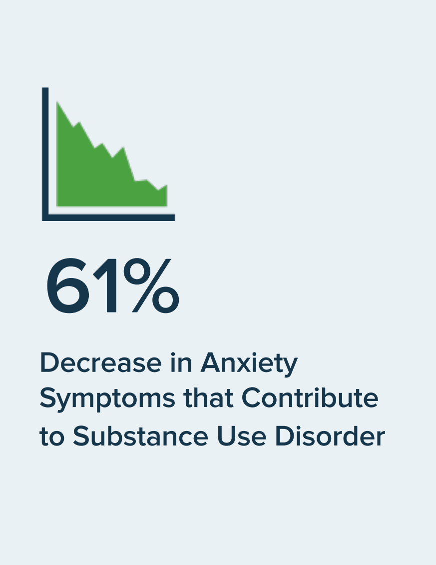
DECREASED ANXIETY SYMPTOMS

Instrument Description.
The Generalized Anxiety Disorder Scale (GAD-7) is a standardized assessment used to measure patient levels of anxiety[7]. The following represents an example of an indicator taken form the GAD-7: “Feeling nervous, anxious or on edge” [7]. The GAD-7 is a continuous variable, with scores ranging from (0 – 21), where higher scores indicate elevated levels of anxiety symptoms.

Outcome Visualization.
The following visualization uses exploratory data analysis techniques to demonstrate the observed changes in average patient change, as measured by the GAD-7. These data highlight the significant positive effect that our treatments have on patient outcomes throughout engagement in our clinical programs.

REDUCTION IN DEPRESSION SYMPTOMS IN PATIENTS





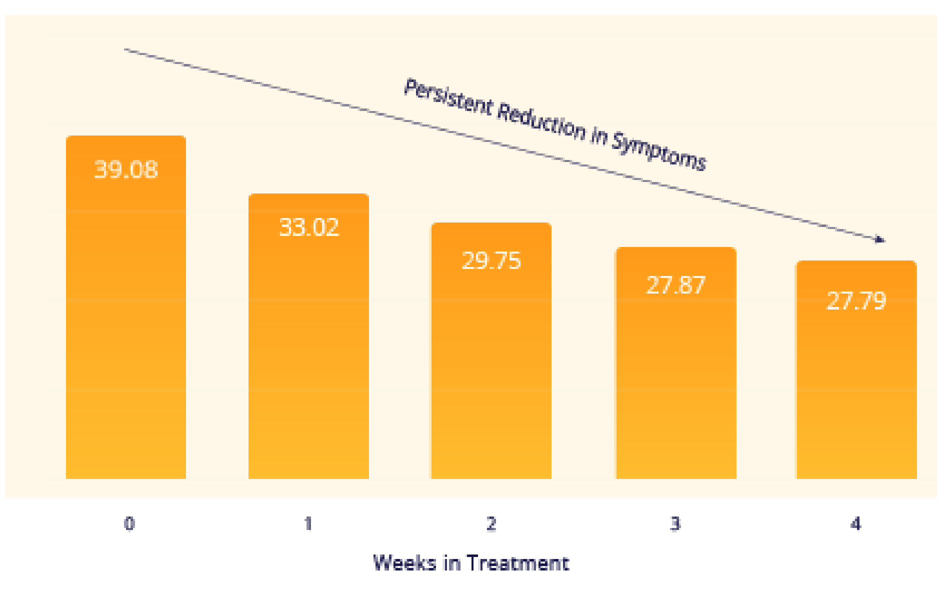
Results:
In 2019, on average, patients report a **61.32% decrease** in anxiety symptoms throughout the course of treatment.

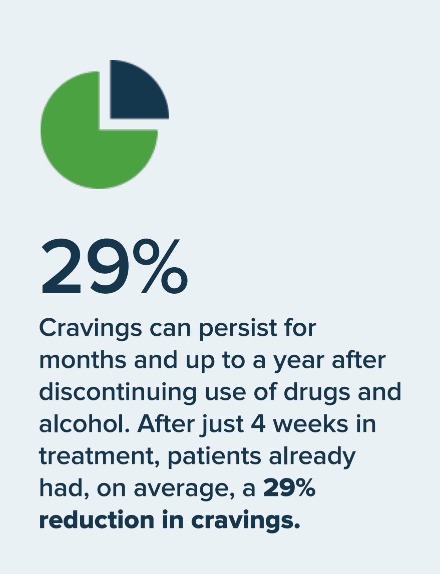
DECREASED CRAVING LEVELS

Instrument Description.
The Heroin Craving Questionnaire-Short Form (HCQ-SF-14) is a standardized assessment used to measure patient levels of craving[2]. The measure was adapted for use in measurement of craving across all substance categories. The following represents an example of an indicator taken from the HCQ-SF-14: "I would be less irritable now if I could use alcohol/drugs". The HCQ-SF-14 is a continuous variable, with scores ranging from (0 – 49), where higher scores indicate elevated levels of craving symptoms.

Outcome Visualization.
The following visualization uses exploratory data analysis techniques to demonstrate the observed changes in average patient change, as measured by the HCQ-SF-14. These data highlight the significant positive effect that our treatments have on patient outcomes throughout engagement in our clinical programs.

DECREASE IN CRAVINGS IN PATIENTS





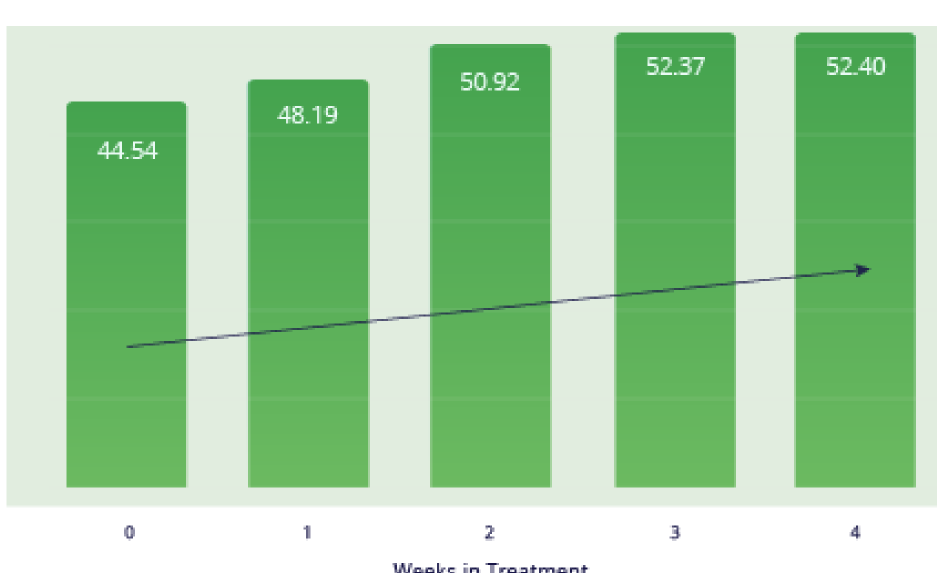
Results:
In 2019, on average, patients report a **29.15%** decrease in craving symptoms throughout the course of treatment.

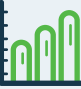
INCREASED RECOVERY CAPITAL

Instrument Description.
The Brief Assessment of Recovery Capital (BARC-10) is a standardized assessment used to measure patient levels of recovery capital[9].

The concept of Recovery Capital is defined as "...the quantity and quality of internal and external resources that can be brought to bear to initiate and sustain recovery from SUD." [9]. The BARC-10 increases our ability to measure patient success as the measure is associated with "recovery progress that extends beyond mere abstinence." [9]. The BARC-10 is a continuous variable, with scores ranging from (10 – 60), where higher scores indicate higher levels of Recovery Capital resources.

Outcome Visualization.
The following visualization uses exploratory data analysis techniques to demonstrate the observed changes in average patient change, as measured by the BARC-10. These data highlight the significant positive effect that our treatments have on patient outcomes throughout engagement in our clinical programs.





What is Recovery Capital?

Recovery capital is defined as the internal and external resources someone has to stay sober (Cloud & Granfield, 2004). This can include spirituality, mindfulness, routine, community, being of service and going to a meeting.

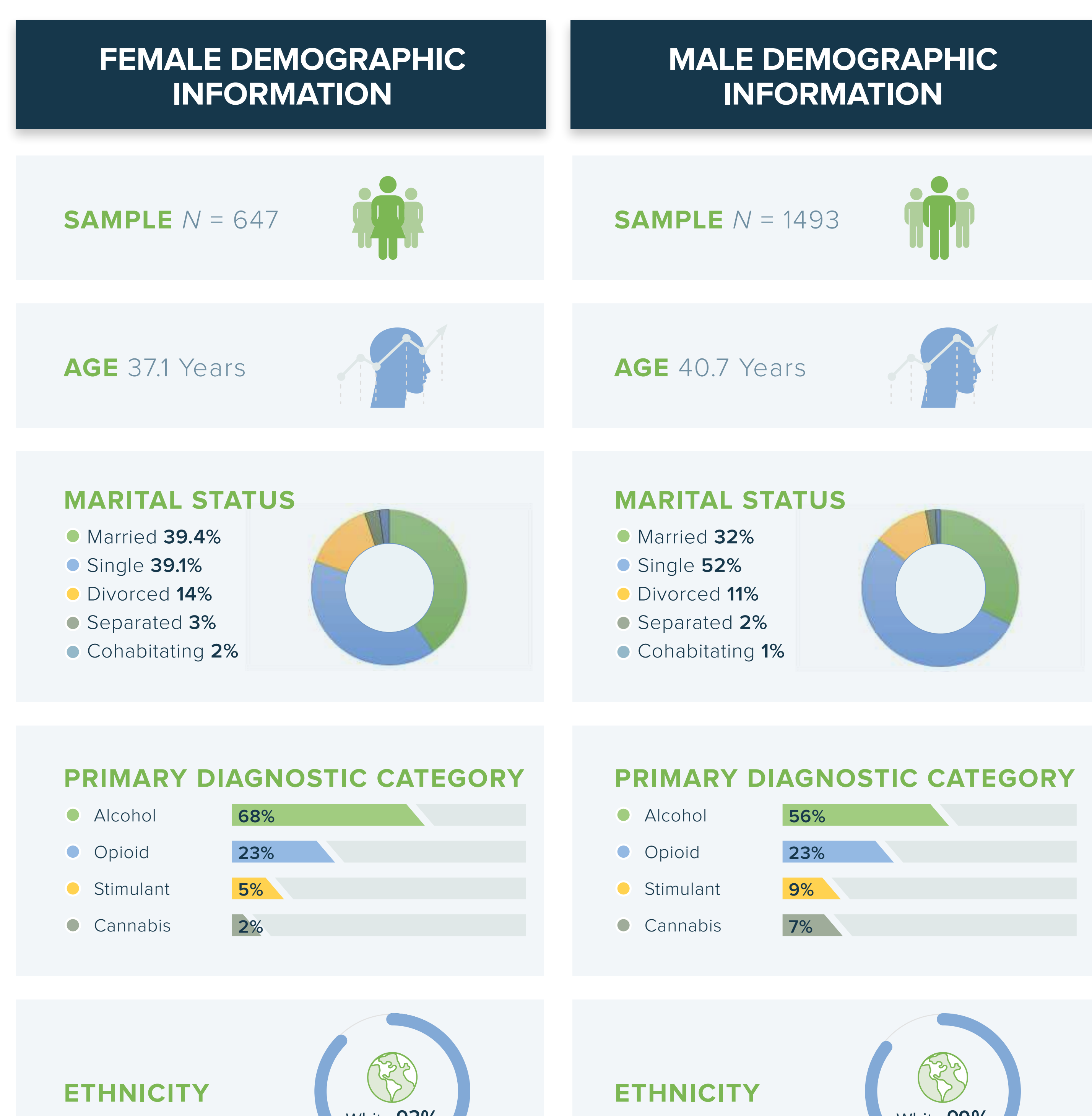
Our patients enter treatment with few tools if any and leave with **15% more recovery resources after just 4 weeks.**

15%

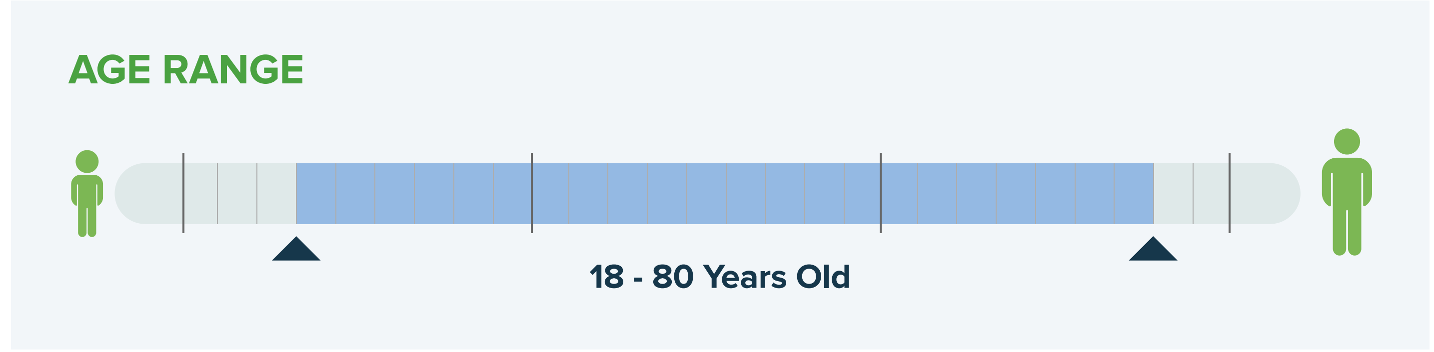
Patients on average reached **15% increase in recovery capital resources** throughout the course of treatment.

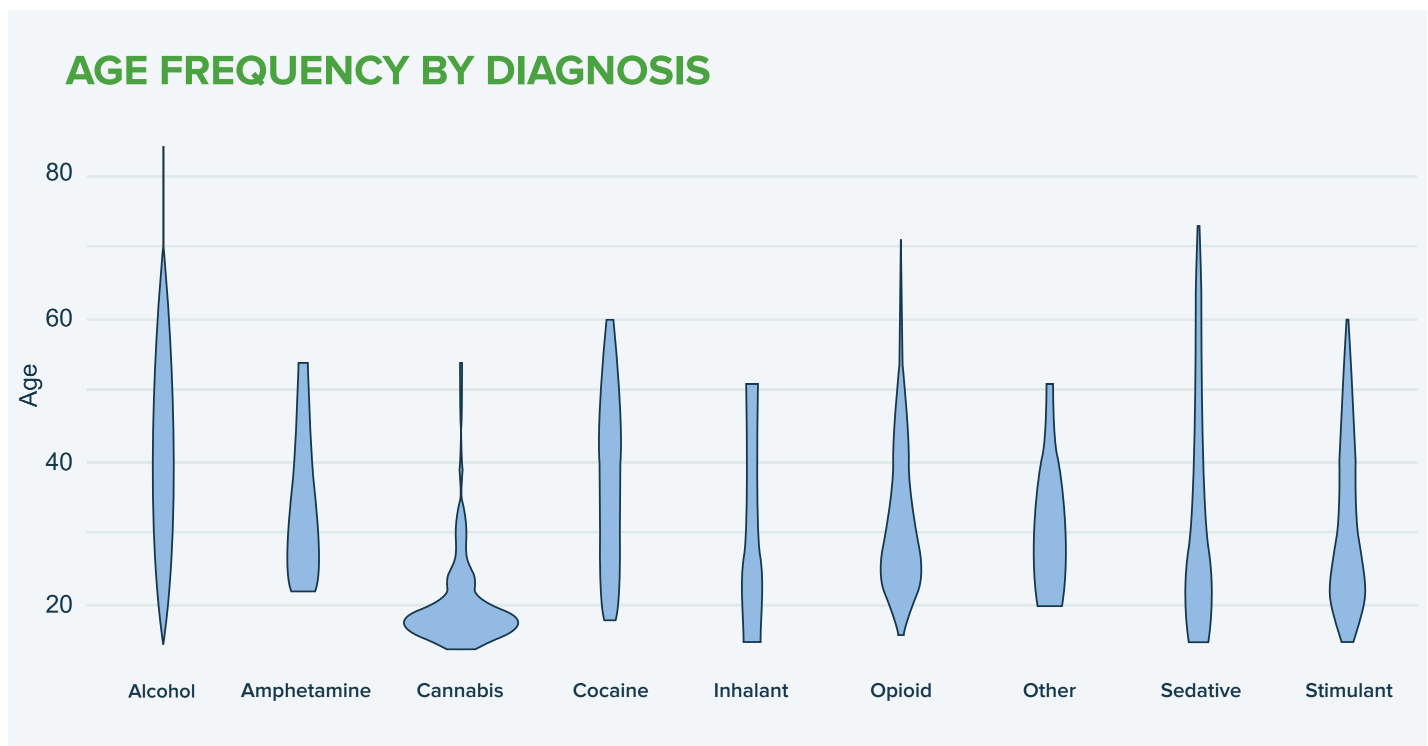
Who We Serve

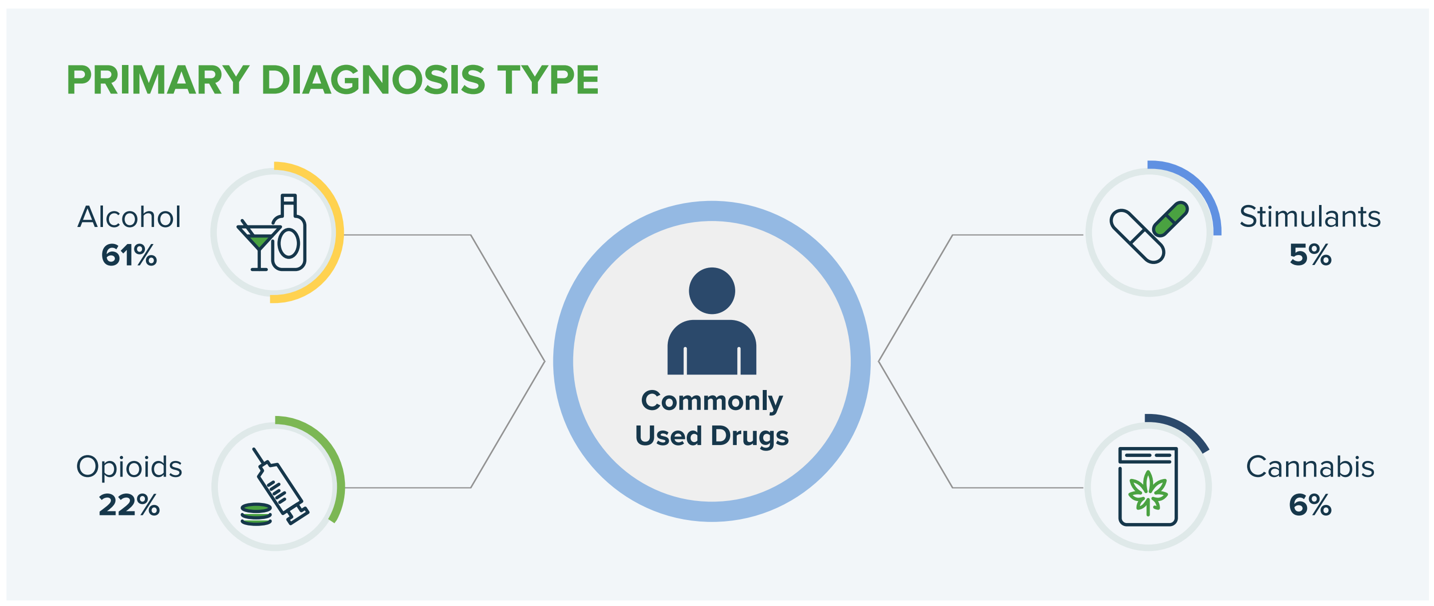
Since 1966 Cumberland Heights Foundation has been treating individuals affected by the debilitating effects of Substance Use Disorders (SUDs). Our mission centers on providing the resources and tools needed to navigate recovery away from SUD, helping the individual and family heal from addiction in all forms. The following visualizations demonstrate aggregate representation of the individuals whom received treatment from Cumberland Heights Foundation in 2019 (*N* = 2140).



Cumberland Heights Patients at a Glance

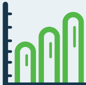






Our Treatments

At Cumberland Heights Foundation, our teams strive to provide the best available treatments to our patients and their families. We accomplish that goal through the reliance on Evidence Based Practices (EBPs). Our multidisciplinary treatment teams work synergistically to effectively assess each patient, create robust treatment plans of intervention, and work to produce the resources and skills needed to effectively engage in recovery.

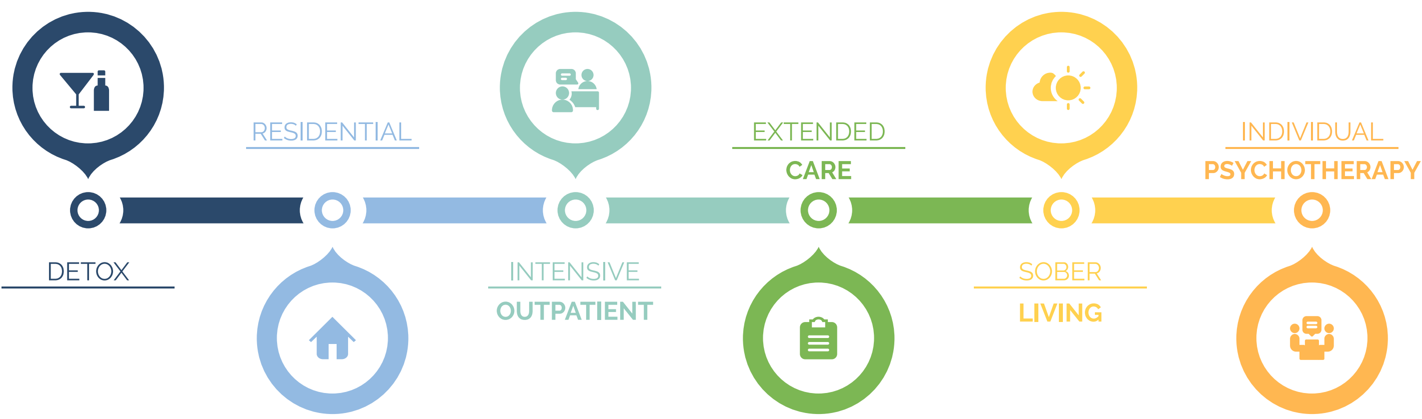


SYNOPSIS
What are Evidence Based Practices (EBPs)?

- ✓ Motivational Interviewing (MI)
- ✓ 12 Step Facilitation (TSF)
- ✓ Cognitive Behavioral Therapy (CBT)
- ✓ Emotionally Focused Therapy (EFT)
- ✓ Solution Focused Brief Therapy (SFBT)
- ✓ Dialectical Behavior Therapy (DBT)

Evidence Based Practices (EBPs) are defined as "The integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences." (p. 271) (APA Presidential Task Force on Evidence-Based Practice, 2006)

Levels of Patient Care



Experienced and Compassionate Professionals

- **70 clinical licensed professionals** (e.g. LADAC, LMFT, LCSW, LPC), **60 masters trained clinicians, 5 PhDs, 30 licensed nurses and 2 MDs.**

- Each patient interacts clinically with **18-24 licensed clinical professionals.**

- Clinical staff to patient **ratio is 2.4 to 1**

1st in Tennessee

As part of our ongoing commitment to quality patient care, Cumberland Heights Foundation sought and received the American Society of Addiction Medicine's (ASAM) certification for Levels 3.7 (Medically Monitored Inpatient Services) and 3.5 (Clinically Managed Residential Services) (the first provider in Tennessee).

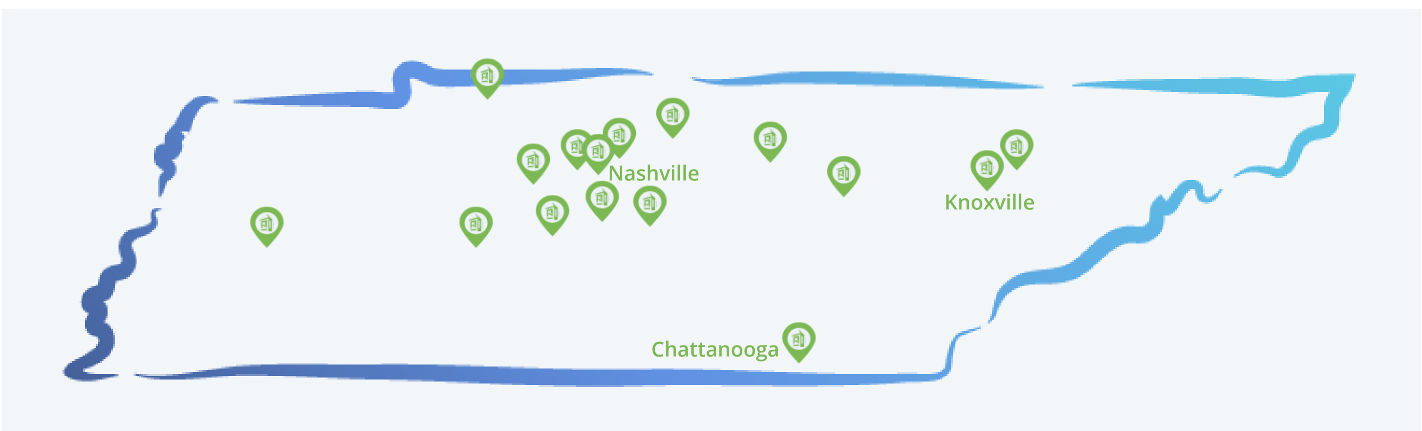
Cumberland Heights at a Glance

MISSION

To transform lives, giving hope and healing to those affected by alcohol or drug addiction.

LOCATIONS

Nineteen (**19**) locations throughout Tennessee



EMPLOYEES

350 Employees

PATIENTS

On average, treating **2,500** patients every year

TELEHEALTH

Intensive Outpatient and Individual Psychotherapy

TREATMENTS

Residential, Intensive Outpatient, Extended Care, Sober Living, Family Care and more.

References

[1] Goodman, J. D., McKay, J. R., & DePhilippis, D. (2013). Progress monitoring in mental health and addiction treatment: a means of improving care. Professional Psychology: Research and Practice, 44(4), 231.

[2] Heinz, A. J., Epstein, D. H., Schroeder, J. R., Singleton, E. G., Heishman, S. J., & Preston, K. L. (2006). Heroin and cocaine craving and use during treatment: measurement validation and potential relationships. Journal of substance abuse treatment, 31(4), 355-364.

[3] Löwe, B., Decker, O., Müller, S., Brähler, E., Schellberg, D., Herzog, W., & Herzberg, P. Y. (2008). Validation and standardization of the Generalized Anxiety Disorder Screener (GAD-7) in the general population. Medical care, 46(3), 266-274.

[4] Löwe, B., Kroenke, K., Herzog, W., & Gräfe, K. (2004). Measuring depression outcome with a brief self-report instrument: sensitivity to change of the Patient Health Questionnaire (PHQ-9). Journal of affective disorders, 81(1), 61-66

[5] Miller, S. D., Hubble, M. A., Chow, D., & Seidel, J. (2015). Beyond measures and monitoring: Realizing the potential of feedback-informed treatment. Psychotherapy, 52(4), 449.

[6] Substance Abuse and Mental Health Services Administration (SAMSHA). (2018). Key substance use and mental health indicators in the United States: Results from the 2017 National Survey on Drug Use and Health (HHS Publication No. SMA 18-5068, NSDUH Series H-53). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/

[7] Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. Archives of internal medicine, 166(10), 1092-1097

[8] Spitzer, R. L., Kroenke, K., Williams, J. B., & Patient Health Questionnaire Primary Care Study Group. (1999). Validation and utility of a self-report version of PRIME-MD: the PHQ primary care study. Jama, 282(18), 1737-1744.

[9] Vilsaint, C. L., Kelly, J. F., Bergman, B. G., Groshkova, T., Best, D., & White, W. (2017). Development and validation of a Brief Assessment of Recovery Capital (BARC-10) for alcohol and drug use disorder. Drug and Alcohol Dependence, 177, 71-76.