



Addressing Health Disparities, Substance Abuse and Mental Health in Tuberculosis Treatment

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- No conflict of interests
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Texas Center for Infectious Disease

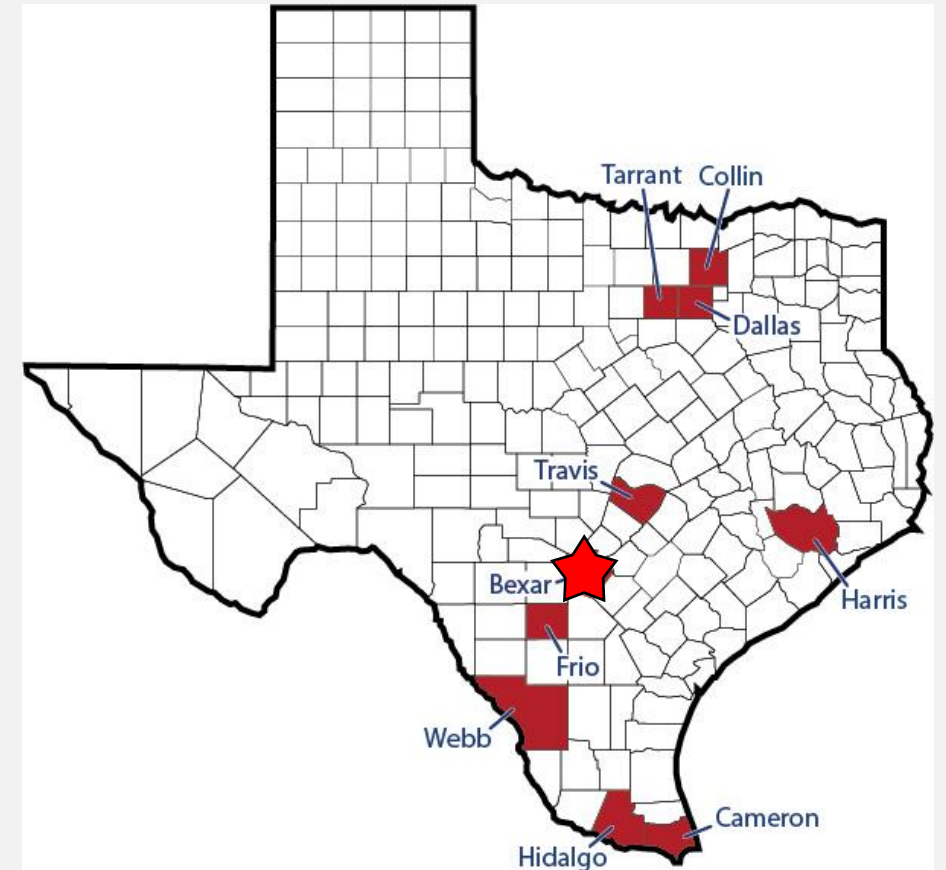
Texas Center for Infectious Disease (TCID)



- Established in 1953, TCID is the only specialty TB hospital in the United States.
- The facility's mission is to medically, behaviorally, and socially rehabilitate patients nationwide who are unable to complete TB treatment due to side effects or social factors.

Tuberculosis in Texas

- TB rates are higher among the Texas – Mexico border with co-infection of diabetes being more common.
 - In 2022, border counties represented 21.2% of TB cases in Texas.
- High rates of TB/HIV co-infections are prevalent in the urban areas of Texas; especially in areas with international airports and seaports.



Common Barriers to Tuberculosis Care

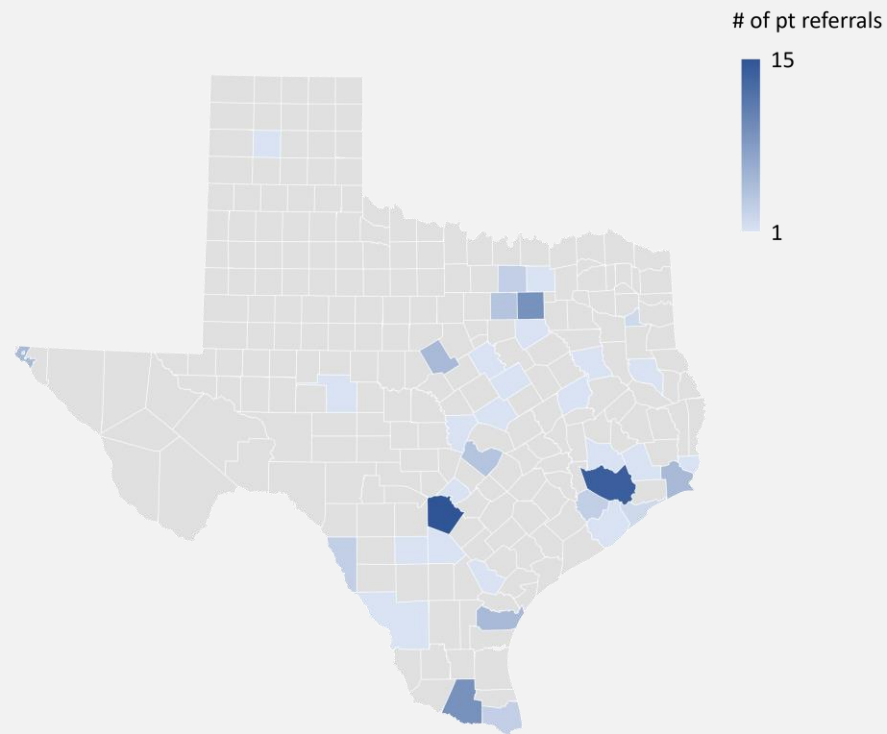
- Homelessness
- Foreign Born
- Mental Illness
- Substance Abuse
- Unemployment
- Lack of Social Support
- No Medical Insurance



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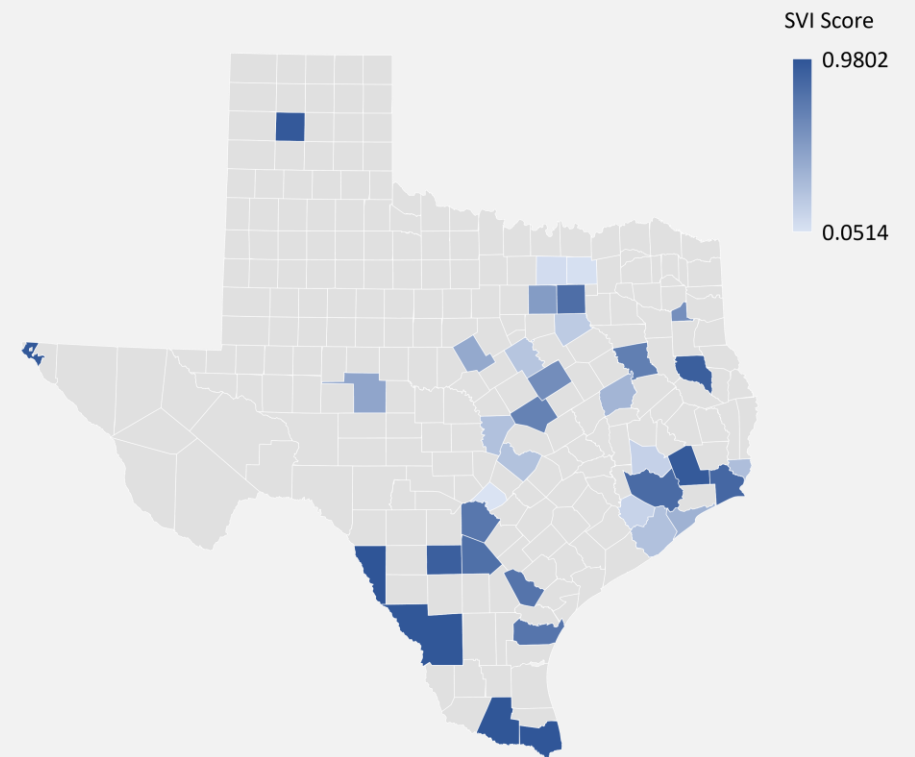
Social Vulnerability of TCID Referral

Tuberculosis Patient Referrals to TCID



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Overall SVI



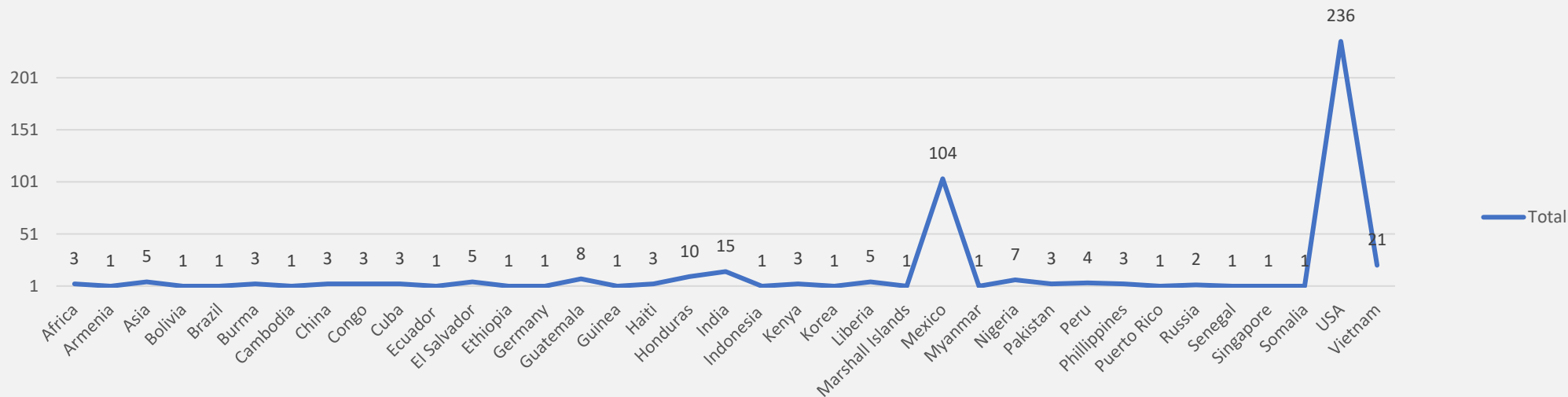
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Foreign-Born Patients

TCID Admissions by Country of Origin FY2018-2023



In the last five years, 49.3% of patients admitted to TCID were born outside of the U.S.



A guide to
locating local
resources to
address
barriers to
care



**01. Understanding
Health Disparities**

Start by identifying the barriers to care your patient may be experiencing

Common barriers to TB treatment include: homelessness, migrant services, mental health, and substance abuse.



02. Research

Identify local community resources, the internet can be a valuable tool for locating resources.

Helpful sites include city and state websites, 211, local library websites, 1degree.org, findhelp.org, united way and other community directories.



03. Network

Attending public health fairs and other community events can help you find organizations in your area.

Connecting with the organizations by reaching out to their intake or outreach team will allow you to understand their eligibility and enrollment process.



04. Results

Connecting your patient to appropriate resources will help build your rapport, challenge their barriers to care and improve their self-efficacy towards treatment.



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Patient Guide to Community Resources

Health First, Regardless of Barriers.



Housing Status

Stable housing will make your treatment more comfortable

Whether you are on the move, stable or need a new place to stay, a roof over your head will help your treatment go by so much easier. Find free options for housing near you at:

<https://www.hudexchange.info>



Substance Use

TB treatment is tough, addiction makes it harder

Alcoholic Anonymous and Narcotic Anonymous are available online to give a more flexible option for those who can't meet in person.

<https://virtual-na.org>

<https://aa-intergroup.org>



Legal Assistance

Ease your mind of any legal concerns

Don't let legal issues deter you from bettering your health. Regardless of your documentation status, catholic charities will help applying for asylum, provide legal guidance and act as your legal representation for free.

<https://www.catholiccharitiesusa.org>



Job Training

Find the right job for your treatment

A steady source of income can provide housing, fund medical treatment, and assist with transportation barriers. Workforce centers offer free job training, assistance with finding available job listings and career counseling.

<https://www.careeronestop.org>



Phone Service

Stay connected to your support

If you participate in a qualifying government program you may be eligible for a free phone with internet service. This will allow you to locate resources in your area easier.

<https://governmentphone.org>



Mental Health

Keep your mind worry free during treatment

It can be a tough adjustment for your brain to understand your new diagnosis. It is okay to be anxious but there is help for you if you need further counseling.

<https://www.samhsa.gov>



General Education

Enhance your education during your treatment

Local library programs tend to offer free computer services, GED classes, ESL classes, and job training courses that can improve your education. While you undergo treatment, you can also improve your well-being.

<https://www.careeronestop.org>



Stigma

You are not alone, TB survivors are everywhere

Having TB does not make you any less than or change how you should see yourself. If you are struggling with how others or you view TB, We are TB offers support from TB survivors. Meeting weekly, they talk to you about your treatment and share their own stories.

<https://www.wearetb.com>

210-531-4921

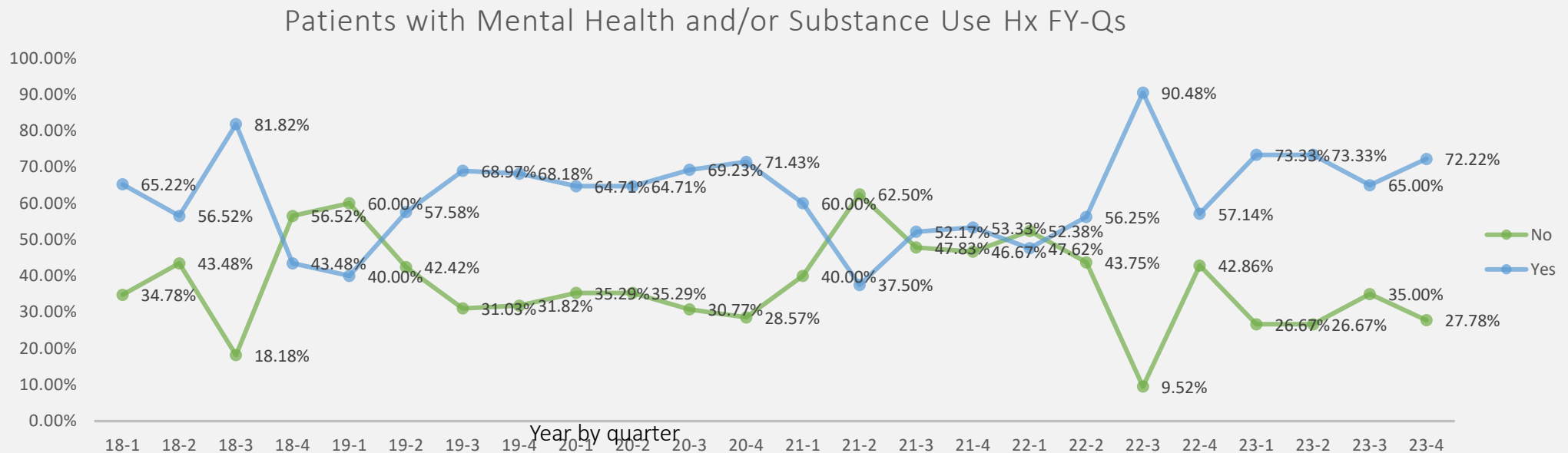
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TCID
Texas Center for Infectious Disease

Mental Health and Substance Abuse



In the last five years, an average of 62.09% of TCID admissions self-reported history of mental illness or substance abuse.



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WELLBEING ACTIVITIES

“

“You get in life what you have the
courage to ask for.”

—Oprah Winfrey

”



Letter to my emotion

Write a letter to the
emotion you're feeling,
whether it's anger,
sadness, joy or
confusion.



Draw a dream butterfly

Draw a silhouette of a
butterfly. Fill it in with one
wing depicting a dream
and the other wing
depicting a nightmare.

Humming Bee Breath



1. Choose a comfortable seated position.
2. Close your eyes and relax your face.
3. Place your first fingers on the tragus cartilage that partially covers your ear canal.
4. Inhale and gently press your fingers into the cartilage as you exhale.
5. Keeping your mouth closed, make a loud humming sound.
6. Continue for as long as is comfortable.



Get up lunge squat

1. Drop down into a squat position. You won't stand at all during this move.
2. Drop your knees down to the ground one at a time so you're kneeling.
3. Step your feet back to the ground one at a time, maintaining that squat position.
4. Repeat as quickly as you can while maintaining good form.

Mirror Talk



Stand in front of a mirror,
look into your eyes, and list
five things out loud you love
about your personality. It's
a direct and powerful
reaffirmation of self-worth.



Interview Techniques

COLLABORATION NOT COHERSION

Utilize: Active Listening, Empathy, and Concern when navigating difficult conversations.

Meaningful questions inquired positively will reduce defensiveness from the patient.

Motivational Interviewing:

- Express and show empathy through reflective listening.
- Support self-efficacy and optimism.
- Roll with resistance.

Assessment Tools to use include:

- PHQ-9, Beck Anxiety Inventory, C-SSRS.



Barriers to Tuberculosis Care

Mental Illness and Substance Use

- A change in environment can also trigger past trauma in individuals suffering from mental illness. Alternatively, individuals recovering from TBM often present confused, aggravated and disoriented upon admission.
 - TCID behavioral health team offers 24/7 counseling services to any individual presenting with an emotional crisis or needing support.
- An individual suddenly abstaining from altering substances when first admitted may face many uncomfortable side effects from withdrawals.



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Common Medication Interactions

Serotonin Syndrome – Linezolid and Isoniazid

Trazodone (serotonin modulator) for insomnia.
Escitalopram & Fluoxetine for depression (SSRIs)

Treatment:

- Fluids, benzodiazepines
- Cyproheptadine, an antihistamine that blocks serotonin production.

INH Interactions

- Anticonvulsants
 - Decreases seizure threshold.

Rifamycins

Complex interactions with:

HIV protease inhibitors & nonnucleoside reverse transcriptase inhibitors.



Adverse Interactions

TB Treatment	Medications with Adverse Interactions	Adverse Event Witnessed
Rifamycins	Citalopram/Escitalopram	Decreases Efficacy
Rifamycins	Methadone	Decreases Efficacy
Rifamycins	Sertraline	Decreases Efficacy
Rifamycins	Trazodone	Decreases Efficacy
Rifamycins	Vilazodone	Decreases Efficacy
Rifamycins	Vortioxetine	Decreases Efficacy



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Managing Side Effects

- Flushing, itching, involving face / scalp; watering & reddening eyes
Rifampin or PZA, self-limited
- Nausea, vomiting, anorexia that don't persist; diarrhea, metallic taste
Multiple drugs
- Skin rash (maculopapular), itching
Multiple drugs
- Photosensitivity, skin discoloration that reverses when drug is stopped
PZA, Clofazimine, or fluoroquinolones
- Clofazimine causes skin color changes pink->red/blue->brown
- Reversible CNS symptoms
- Bone & joint symptoms
PZA and less often EMB, INH
- Endocrine effects (less common)



Mental Health and Substance Abuse Case Study

- 61-Year-Old Adult Male from Houston, TX
- TB Diagnosis: Bilateral Pulmonary Cavitary TB.
- Multiple medical comorbidities (untreated HEP C, Aortic root aneurysm, pulmonary TB, pulmonary embolism, severe hypoglycemia, COPD, severe malnourishment, Oxygen-dependent, smoker).
- **Homeless upon admission**
- **Lack of Financial Income and uninsured**
- **Food Insecurities**
- **History of Opioid Use Disorder (IV Heroin) on Methadone Maintenance**
- **Missing all forms of Identification**
- **History of multiple incarcerations**
- **Started on 4 drug therapy on 3/17/22**



Admission and Course of Treatment

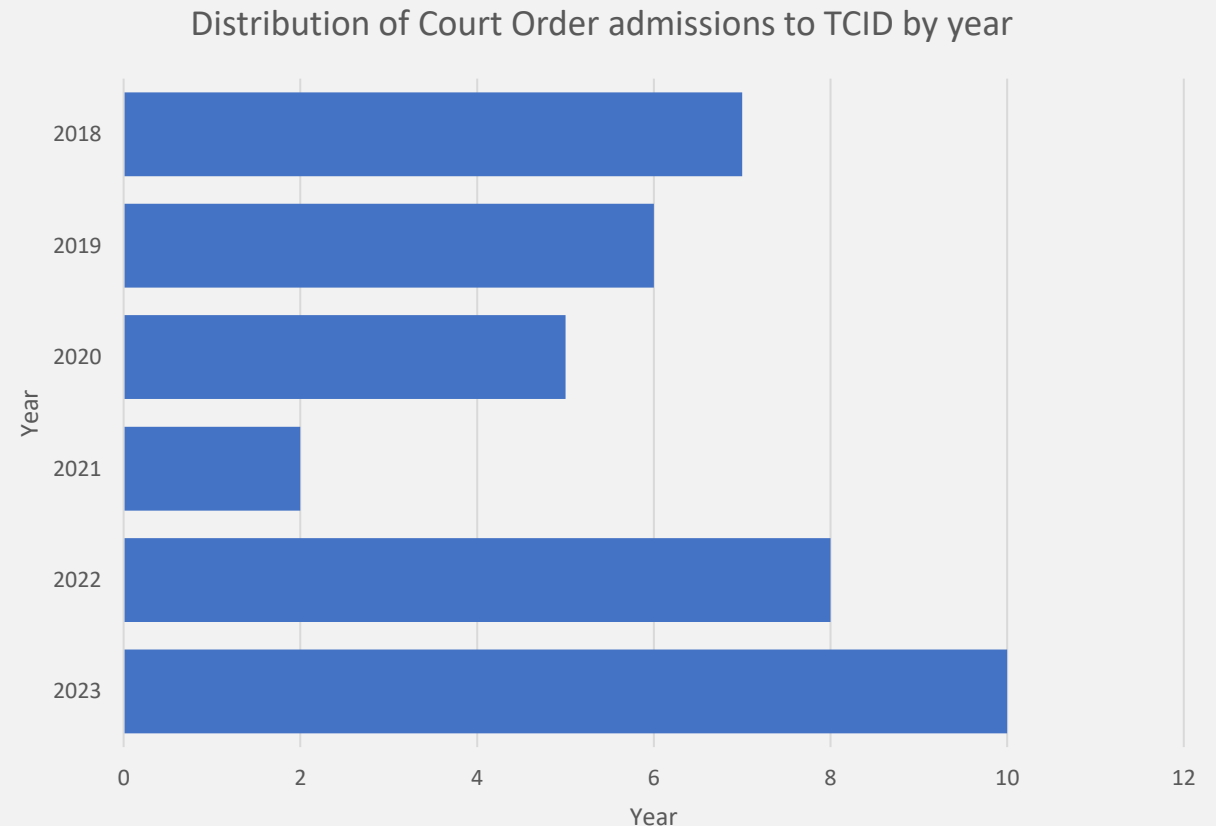
- Admitted on 4/12/2022
- Anxious and uncooperative, debilitated
- Bedbound, hypoxia (O2 dependent), Severe Malnutrition (6'1" 105#)
- In pain crisis and disoriented
- Continued RIPE
- Continued Methadone maintenance
- Treatment of malnutrition led to PEG placement with complications
- Decubitus Ulcers of heels and Sacrum
- Completed treatment 7/13/2023 (144#)



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Court Order Patients

- In 2023, TCID saw the highest number of court-ordered patients admitted in the past five years.
- 2024 has seen the highest number of court ordered patients since moving to the new facility in ten years.



Barriers to TB Care for Court Ordered Patients

- Court-ordered patients often present frustration with a system that failed to treatment them as an outpatient for a variety of reason. This resistance towards TB disease and its treatment can result in the patient declining consistent TB care and motivation to leave the facility.
 - TCID trains staff members using a trauma-informed approach to care; this method trains the treatment team to think of a patient's full life before their admission to understand their hesitancy. Adopting this practice helps improve treatment adherence and patient engagement.



Thank you!

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