Justice Community
Overdose Innovation
Network

THE CASCADE OF CARE TOOLKIT:

A GUIDE FOR IMPLEMENTING A DATA-DRIVEN APPROACH TO IMPROVE SUBSTANCE USE DISORDER CARE

The Cascade of Care Toolkit was developed with funding from the National Institute on Drug Abuse (U2C DA050097, MPI Taxman and Rudes). The toolkit was developed by Dr. Faye Taxman and Amy Murphy (George Mason University), Dr. Avinash Bhati (Maxarth, LLC), Dr. Ed McGarrell (Michigan State University), and Reggie Craig (Slonky, LLC).

https://cascadeofcare.org/

INTRODUCTION TO THE CASCADE OF CARE TOOLKIT

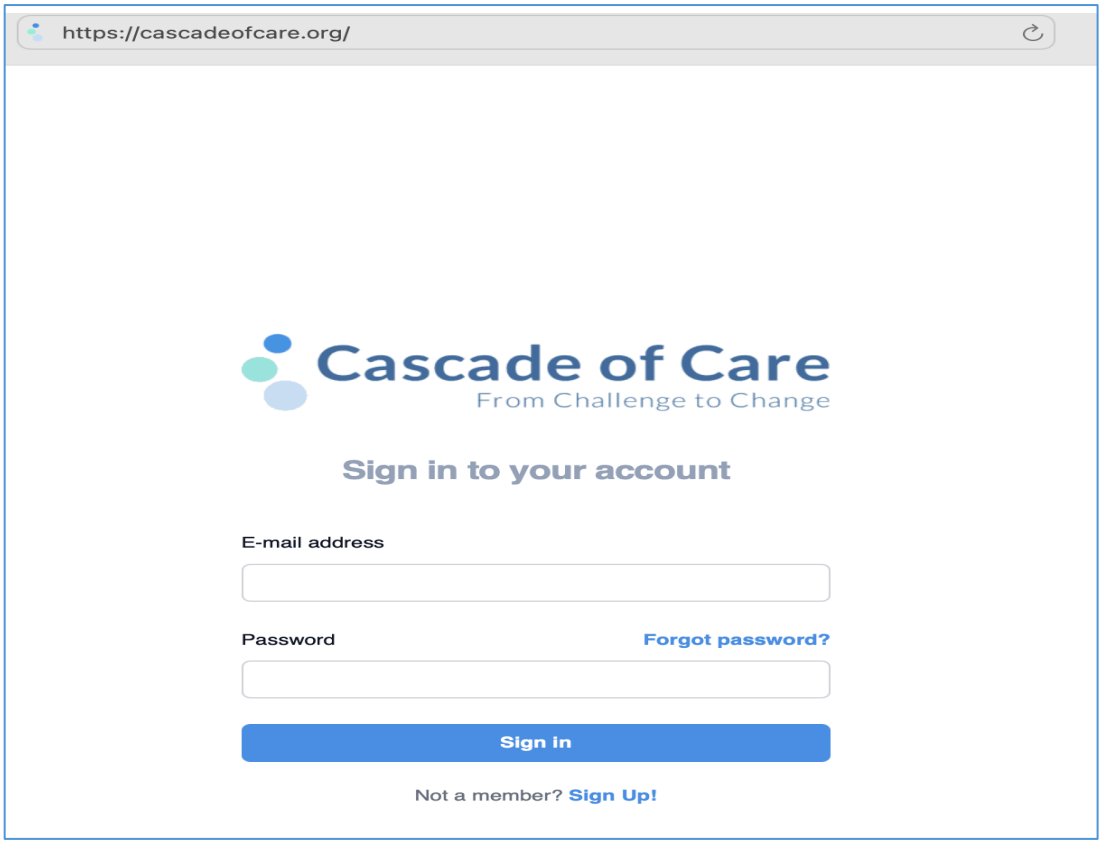
ACCESS THE CASCADE OF CARE TOOLKIT

Here's all you need to register and get started with the Cascade of Care Toolkit:

- Visit the Cascade of Care home page **https://cascadeofcare.org**
- Enter your first and last name
- Enter your email address
- Select a password

Keep reading to learn more about the Cascade of Care and how this toolkit can support your work!

Cascade of Care Homepage



WHAT IS THE CASCADE OF CARE?

The Cascade of Care (COC) is a method of tracking individuals through stages of care from identification to treatment completion. It provides an objective view of which stages may be inhibiting people from accessing quality care and identifies where individuals are "falling through the cracks." Originally applied to HIV, it now assists in targeting where policy and implementation require attention for many health conditions, including substance use disorder (SUD). The COC is a means to plan treatment capacity for long-term health issues,

improving quality of care and data tracking (Belenko et al., 2017). The COC provides policymakers, healthcare administrators, researchers, and even activists and members of the media with a framework for preventing and treating illnesses.

BENEFITS OF CREATING A CASCADE OF CARE POPULATION

The Cascade of Care (COC) framework offers stakeholders a clear, visual representation of their jurisdiction's substance use disorder (SUD) treatment needs and tracks progress over time. Across the country, healthcare and justice systems are using the COC model to monitor how many individuals are screened, diagnosed, referred, and treated for SUDs, including access to medications for addiction treatment (MAT) such as buprenorphine, methadone, and naltrexone.

This Cascade of Care Toolkit introduces the COC framework, explains how it works, and offers practical strategies for applying it within local systems. It also provides step-by-step guidance on building a COC population, which allows users to develop a jurisdiction-specific snapshot of their SUD care system by highlighting both strengths and areas for improvement to drive more targeted, data-informed action.

WHAT IS THE CASCADE OF CARE TOOLKIT?

Many local and state agencies face limitations in available data to assess the number of people at risk for SUD, screened for SUD, referred to treatment, initiating and completing SUD treatment, and sustaining health. This is also true for people involved in the justice system, many of whom have SUD and face increased risk of overdose following release from jails and prisons. The Cascade of Care (COC) Toolkit was developed to assist local and state communities, agencies, and other stakeholders who seek to increase access to treatment for people with SUD. The COC Toolkit provides local communities and states with data to estimate treatment needs and support planning processes to address SUD and enhance individual and community health outcomes.

The COC Toolkit is free to access, and anyone can create an account. The COC Toolkit is flexible, and you can create or review as many populations as you like. The estimates in the toolkit come from the following sources:

- National Household Survey of Drug Use and Health (https://www.samhsa.gov/data/data-we-collect/nsduh-national-survey-drug-use-and-health)
- Treatment Episodes Dataset (Discharges) (https://www.samhsa.gov/data/data-we-collect/teds-treatment-episode-data-set)
- U.S. Census sources for county data (https://www.census.gov/programs-surveys/popest.html)

From these data sources, profiles are created for every possible combination of the demographic variables that are available in the datasets (age, race, gender, marital status, education, employment, criminal justice system involvement, and presence of co-occurring mental health disorders).

WHAT IS THE VALUE OF THE COC TOOLKIT?

The COC Toolkit will assist jurisdictions to develop **profile-specific SUD Cascade of Care stage estimates** using publicly available data and a feedback loop to refine estimates with updated data. You will be able to use demographic data to identify who will benefit from help with substance use at each of the intercept

points, which can assist with outreach and promotion of services. Data from the toolkit can also help improve communication and coordination between various agencies by providing estimates of the cascade as a starting place for jurisdictions to focus data efforts.

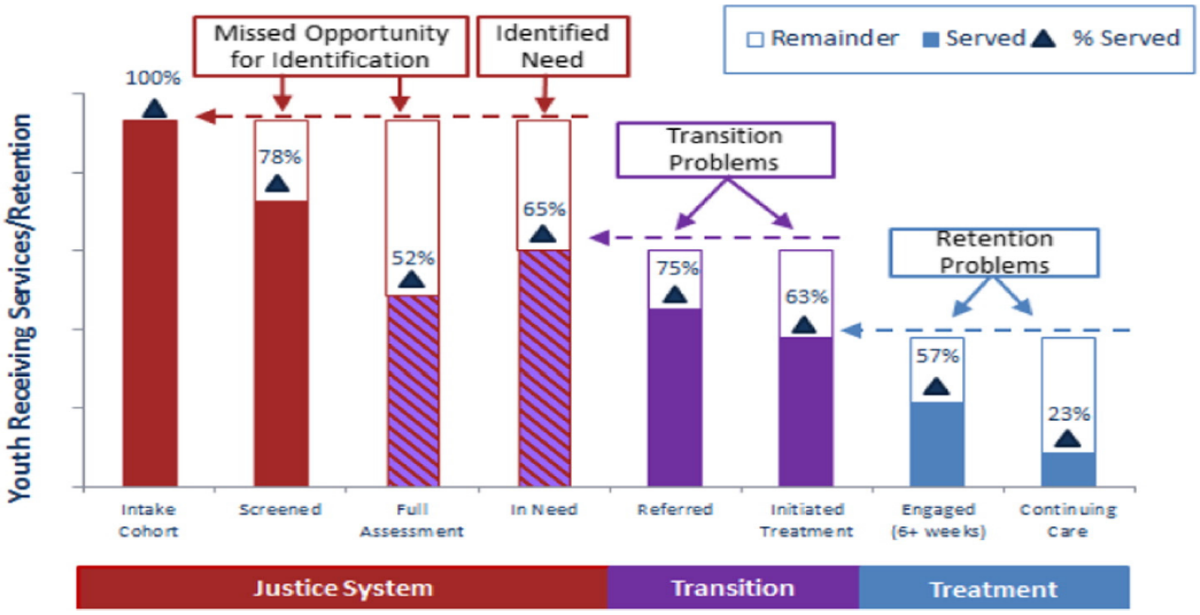
WHY USE THE COC TOOLKIT?

Often, agencies do not collect or do not have access to the data they need to document the various stages of the cascade of care and sharing data within and across counties/jurisdictions with multiple systems (health systems, law enforcement, jails and corrections) is difficult. Agencies face challenges in establishing collaborations to improve care, including transitions of patients; for example, a person may receive care from an emergency department or jail in one jurisdiction but return home to another. Without a clear picture of how people progress through the cascade, it is difficult to identify gaps in services or make policy changes, such as increasing funding for SUD treatment beds.

HOW TO USE THE COC TOOLKIT

The Cascade of Care (COC) Toolkit provides stakeholders with a **visual representation of their jurisdiction's need for SUD treatment**. Users can access their local population data to view estimates of the population in their community who are at risk for SUD, in need of SUD treatment, have initiated treatment, have engaged in treatment, have completed treatment, and/or are in remission from SUD. The toolkit allows users to specify the needs of their population by demographics (age, sex, race), socioeconomic indicators (marital status, education level, employment status), and special needs (criminal justice involvement, co-occurring mental health need, co-occurring alcohol use disorder need).

Visit https://cascadeofcare.org/ to create an account. You can access the COC Toolkit from any internet browser. The COC identifies seven stages, illustrated in the following graphic. In this graphic, Belenko and colleagues present a hypothetical cohort of youths as they might move or not move through the cascade stages: **screening, assessment, identification of need, referral to treatment, initiation, engagement, and continuing care**.



DEFINITIONS

Screening: procedures intended to identify unknown conditions. Screening should be universal, for example, in healthcare all women are asked questions meant to identify their risk for certain cancers or other health conditions. Screening should use a standardized instrument that consists of a relatively short list of questions and non-clinicians should be able to administer it. In this example, although screening for SUD should be universal in a juvenile justice agency, only 78% of the cohort were screened.

Assessment: comprehensive and multidimensional evaluations intended to produce a diagnosis. Anyone whose screening indicates the possibility of SUD should undergo an assessment. The resulting diagnosis should identify treatment needs.

Identification of need: involves confirming what we learned through the assessment—for example, examining other health records or prior assessments to determine that a need exists.

Referral to treatment: connecting a person to treatment through phone calls, appointments, reminders, and follow-up, performed by a staff member or a referring agency. Without an active referral process or "warm handoff," it falls to the individual or their loved ones to connect to treatment. In our example, only 75% of those with an identified need were referred.

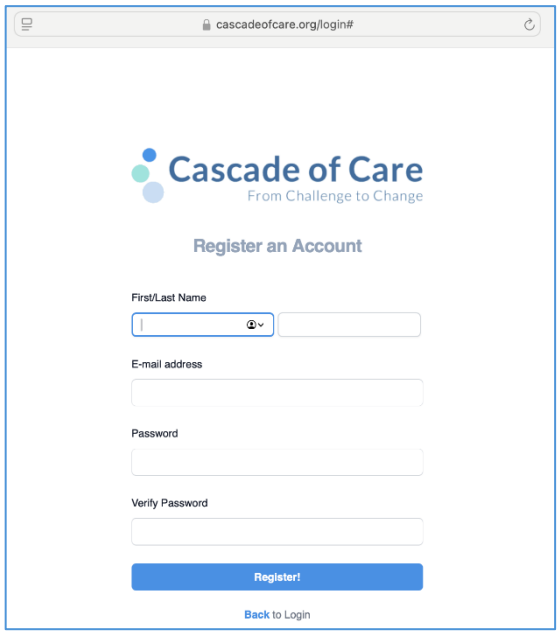
Initiation: attending the first appointment with the treatment provider.

Engagement: here defined as spending at least six weeks in treatment, attending at least two sessions. Note the significant drop in our example, with only 57% of those initiating treatment reaching the engagement stage.

Continuing care: longer-term treatment participation, here defined as remaining in treatment for three months or longer. In our example, fewer than one-quarter (23%) of those who initiated treatment met the criteria for continuing care.

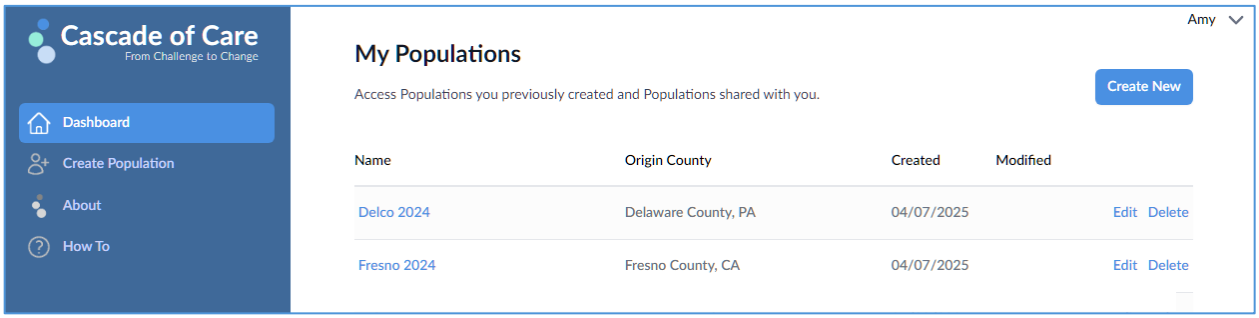
This cascade identified several gaps, or missed opportunities to reach, assess, and treat people. In our hypothetical cohort, there is a gap: only 75% are screened for SUD, then continue to drop off; most notably, only 57% of those who initiate treatment reach the engagement stage and only 23% reach continuing care. Consider the power and value of applying this framework to your jurisdiction, identifying the likelihood that people in need of treatment are falling through, and using that information to direct resources.

CREATING A CASCADE OF CARE TOOLKIT ACCOUNT HTTPS://CASCADEOFCARE.ORG



Navigate to **https://cascadeofcare.org**, select sign up and enter your first and last name, email address, and a password you have selected. You will receive an email to confirm your account. If you don't see the email, check your Spam, Junk, and Clutter folders. Open the email and select Get Started! This will take you back to the COC Toolkit.

GETTING STARTED

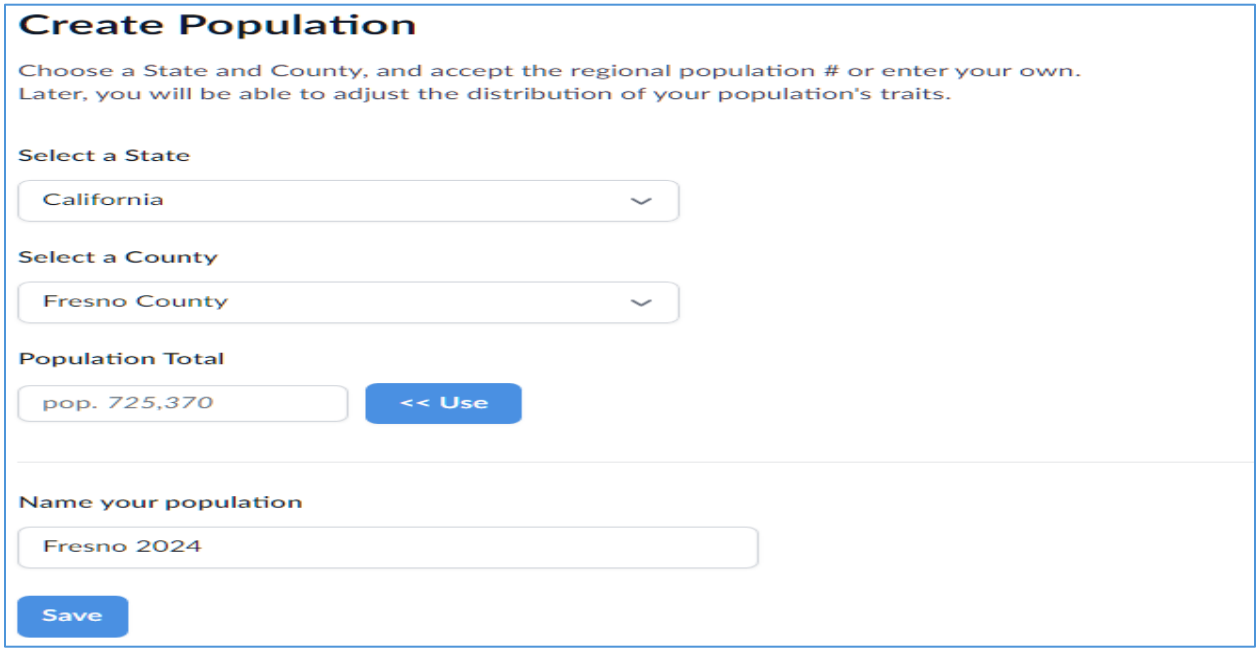


Your **Dashboard** is your home page. From the Dashboard you can **view, edit, or delete populations** you have created, or which have been shared with you. Use the sidebar to **create a new population**. Once you have created a population, or if a population has been shared with you, you will see them on your dashboard. Let's create your first population!

CREATE POPULATION

To get started, click on **Create Population**, which will take you here: https://cascadeofcare.org/population/create. Select from the dropdown the state where you are located, then select your county from the second dropdown. This will fill the Population Total field, using data from the sources listed earlier. If you wish to use the number provided, click the Use button. If you would like to use a different number, you can enter it manually. Type a name for your jurisdiction in the text box and click save.

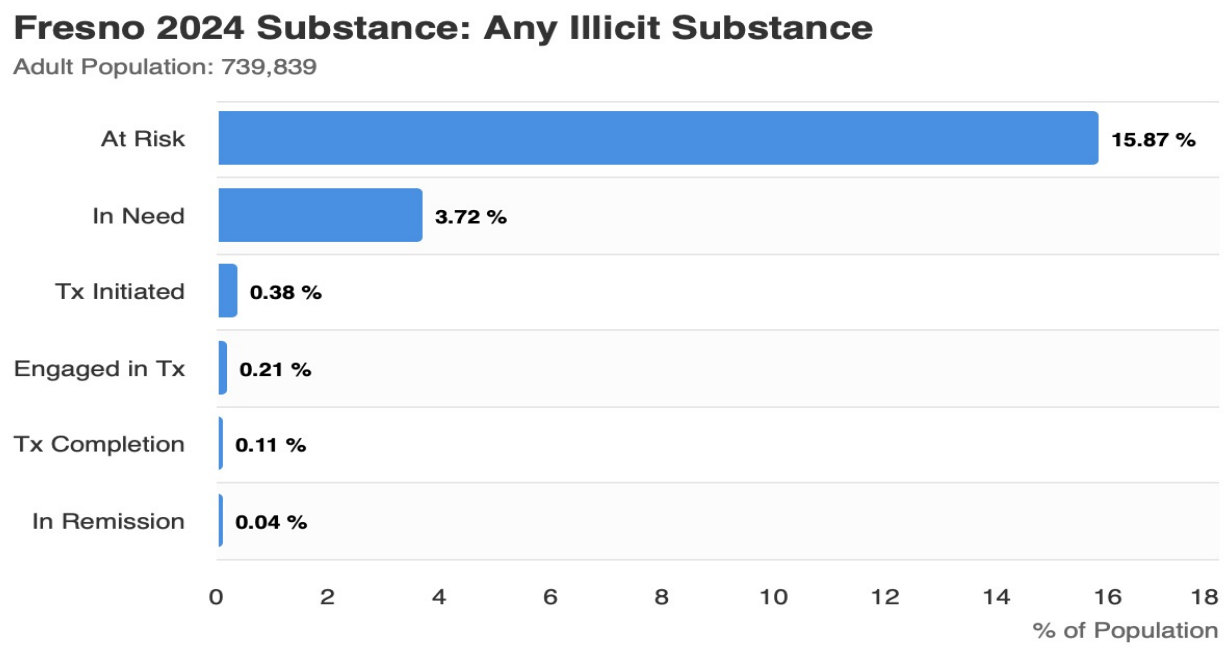
Create Population Homepage



After saving your population you will view the initial **Cascade Chart & Filter**. The default information shown will reflect that county's population of:

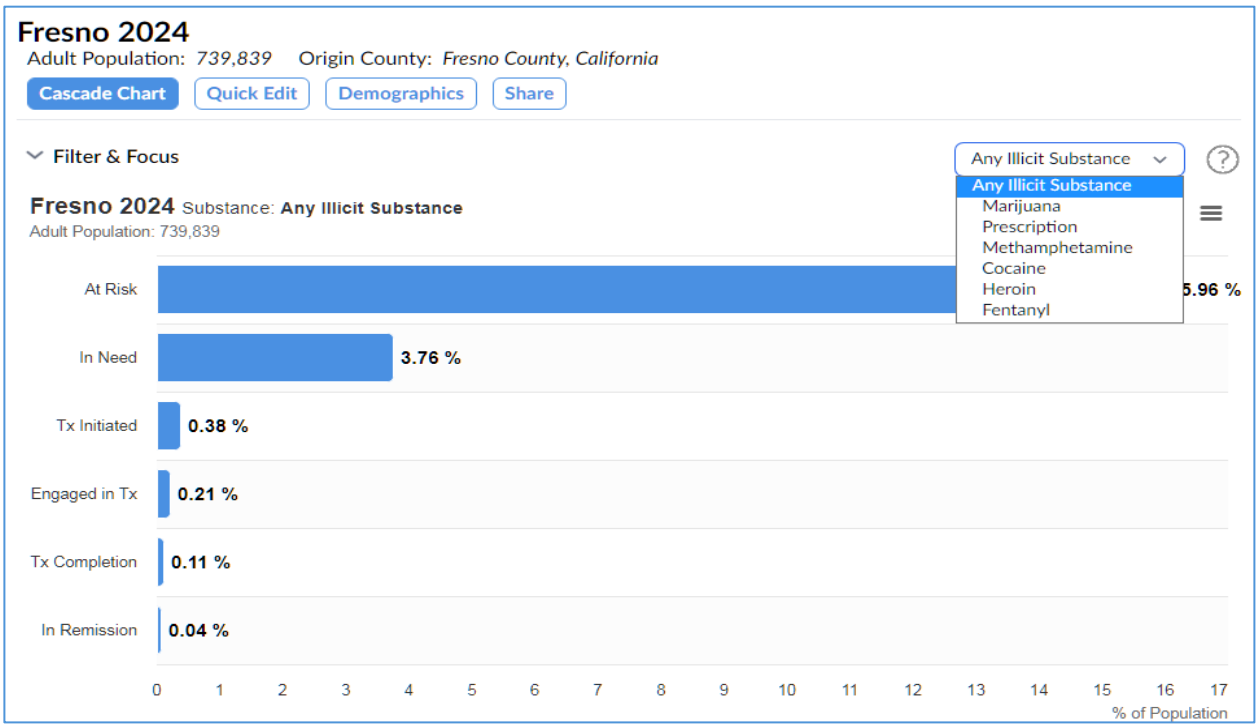
- Percentage at risk for SUD
- Percentage in need of SUD treatment
- Percentage who have initiated treatment
- Percentage engaged in treatment
- Percentage who completed treatment
- Percentage in remission/recovery from SUD

Cascade of Care Chart



Clicking on the three bars on the right side of the screen will allow you to **print or download the cascade**. You can download the data in different formats, including PNG, JPEG, CSV, XLS, PDF, and SVG vector image. Using this feature allows you to share data with colleagues who do not have an account.

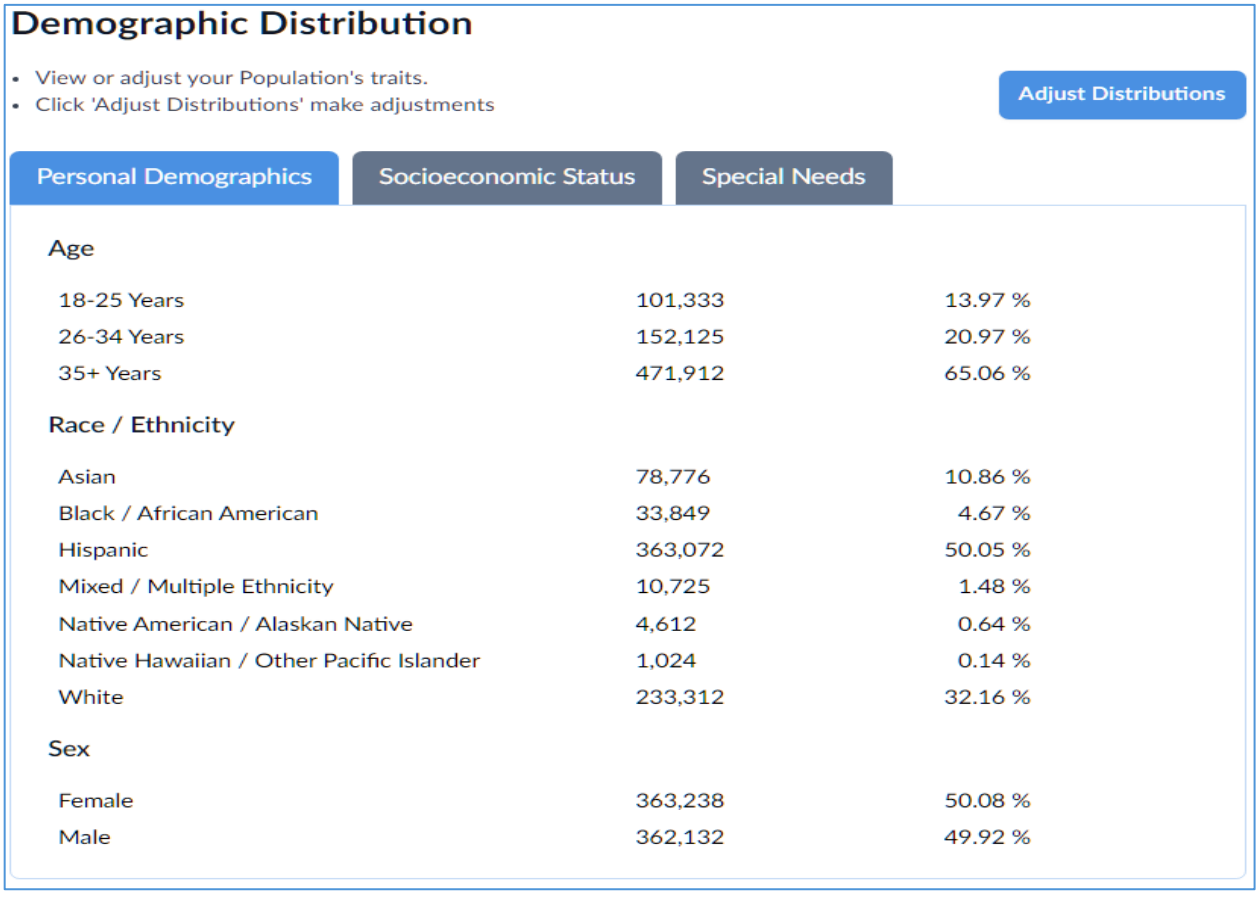
FILTER BY SUBSTANCE



On the right side of the screen, you will also see a drop-down menu that allows you to select a particular cascade from a list of substances, including marijuana, prescription drugs (misuse of opioid and non-opioid pain relievers), methamphetamine, heroin, cocaine, and fentanyl. Here you can zoom into a **substance-specific cascade** of care graphs for the county's population.

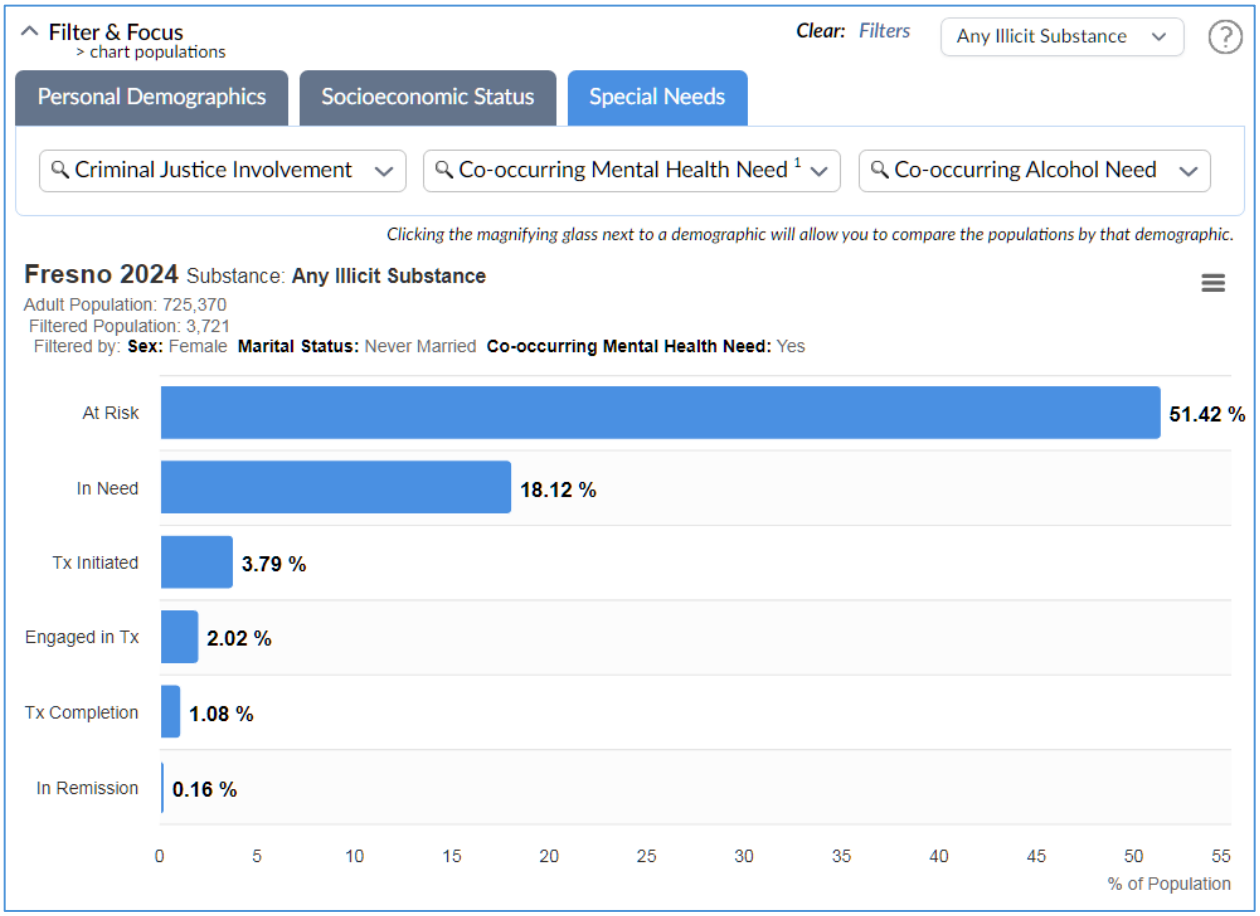
Another option on this page is **Quick Edit**, where you can change the title of your cascade and increase or decrease the baseline total population. Selecting **Demographics** will bring you to the demographic distribution of your selected county. These data come from the sources listed earlier. Available demographics include age, race/ethnicity, sex, marital status, education level, employment status, presence of criminal justice involvement, presence of co-occurring mental health need, and presence of co-occurring alcohol use disorder.

POPULATION DEMOGRAPHICS

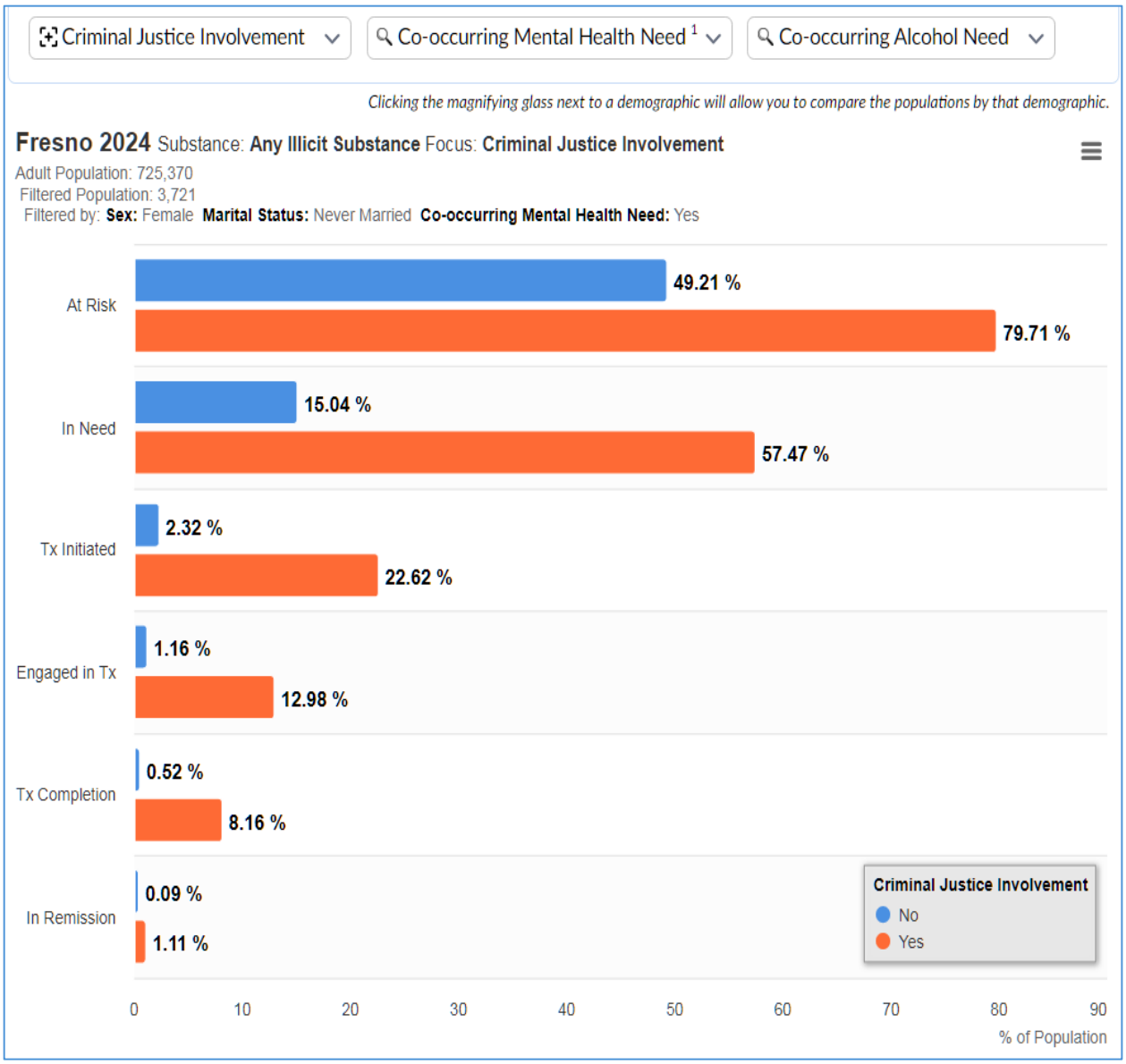


Under the Cascade Chart and Filter button, you will see the option, **Filter & Focus.** Click the Filter & Focus button to view the cascade for specific demographics, such as women or a certain age group. You can choose multiple options. The example provided represents the county's cascade for women with a co-occurring mental health need who have never been married. You have the option of viewing absolute numbers or percentage of the population, you can opt into your preference on your profile.

FILTER & FOCUS POPULATION DEMOGRAPHICS

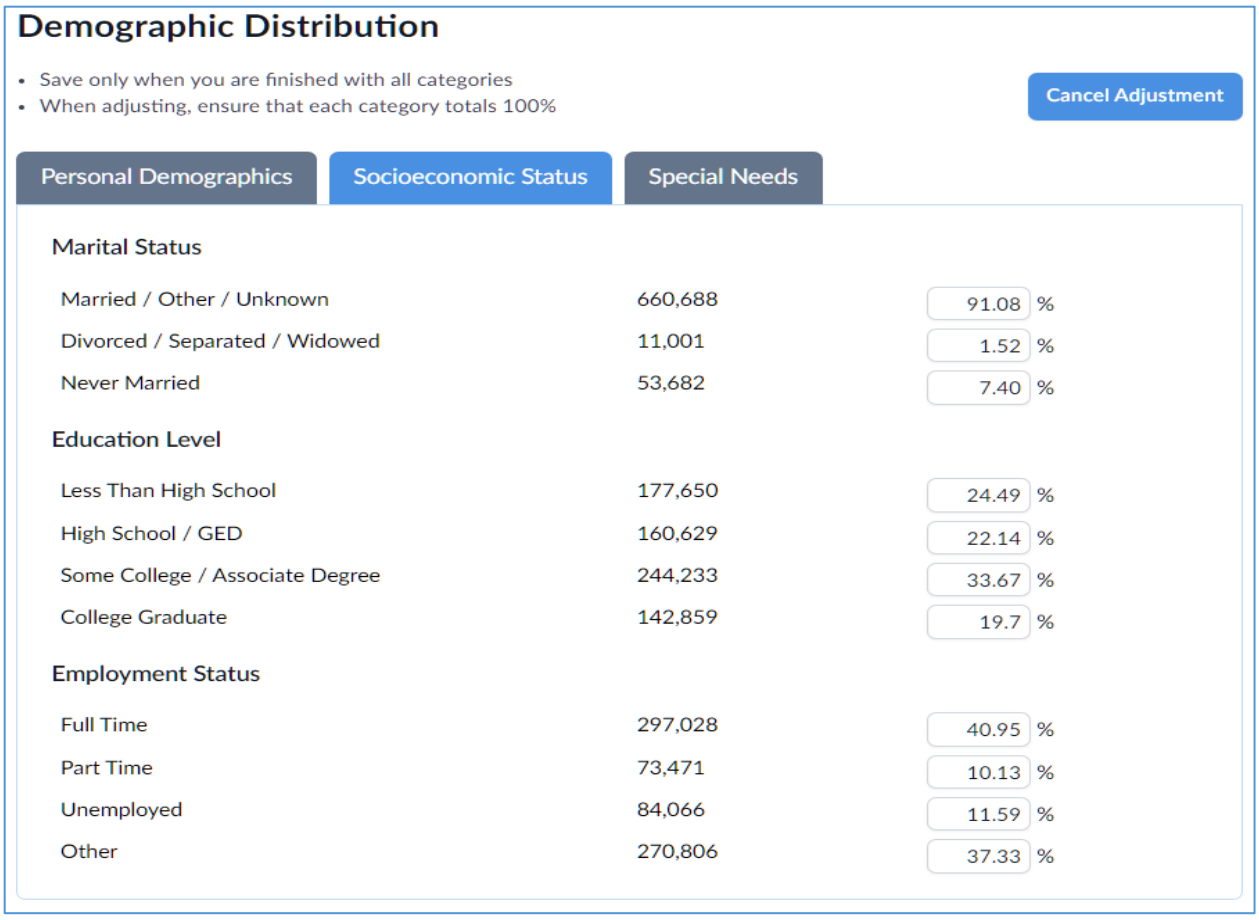


Within these filters you can again filter for a particular substance. Each of the filter drop-downs has a magnifying glass icon next to the demographic. If you click on this icon, you will be able to compare people in the population by their demographics. The following example shows the same population as above, filtered to allow comparison of the cascades for people with and without criminal justice involvement. Within this chart, the user can click on the demographics in the key box on the lower right side if they wish to remove a demographic group from the analysis.



WHY ADJUST DISTRIBUTIONS OR CHANGE TOTAL POPULATION?

If your local population demographics are different from the overall county population or you wish to see how the cascade would look if the demographics were different, you can select **Adjust Distributions**, which will allow you to change the percentages for any of the demographic categories. Once you adjust the percentages, click Save and the underlying population and cascade data will update automatically. The COC Toolkit data are estimates based on state and national data adjusted for local demographics. The toolkit allows customization because the actual numbers for your local population may be different for a variety of reasons. We also make the Adjust Distributions features available for those who want to focus on a certain subpopulation, for example, the residents of a certain town or only those with criminal justice involvement. You can also use this feature if you are seeing certain demographic trends locally, e.g., an aging population or increased unemployment rates, and you want a picture of how the cascade might change if these demographic trends continue.



SAVING YOUR DATA

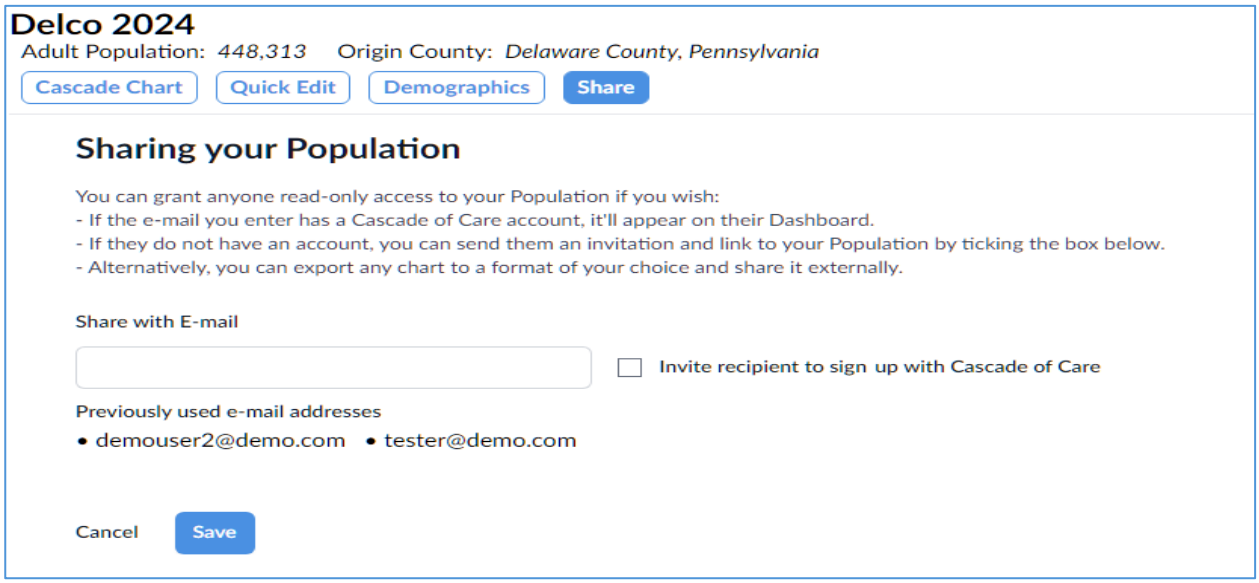
Your COC Toolkit data will automatically save, and there is no limit to the number of populations you can create. You will be able to access your populations on any internet browser. All data on populations you create belong to the user. All data/populations created will remain on the website under your login unless you delete them. It is recommended that you download your population data prior to deletion.

PRIVACY

When you share a population with another user, they will be able to use all of the features other than modifying your data. No one will have access to your populations unless you share the populations with them.

SHARING POPULATIONS

You can share populations that you create with colleagues regardless of whether they have an account, and other registered users can share populations with you.



FUNDING AND CONTACT INFORMATION

Thank you for using the Cascade of Care Toolkit. For questions or feedback, please contact amurph10@gmu.edu. For more information on how and why to use the toolkit, please refer to the Cascade of Care Toolkit Workbook.

The Cascade of Care Toolkit was developed with funding from the National Institute on Drug Abuse (U2C DA050097, MPI Taxman and Rudes). The toolkit was developed by Dr. Faye Taxman and Amy Murphy (George Mason University), Dr. Avinash Bhati (Maxarth, LLC), Dr. Ed McGarrell (Michigan State University), and Reggie Craig (Slonky, LLC).