

Program Title: Treatment Protocol Dashboard**Organization: Mental Health Center of Denver****Program Abstract** (50 words max, please):

Mental Health Center of Denver's innovative **Treatment Protocol Dashboard** identifies keywords/phrases in EHR forms and offers easy-to-read, real-time assessments that provide clinical guidance and match assessed needs with recommended interventions. The Dashboard helps ensure we are consistently offering the best-possible care across the organization and through evolving treatment needs.

Program Description (Include program development, program information, staffing requirements, pertinent data and start-up costs.): **Please limit to 2 pages, and remember to address all criteria specified.*

It all started with a simple question posed by Mental Health Center of Denver (MHCD) President and CEO, Dr. Carl Clark: "How can we ensure that everyone who comes to the Mental Health Center of Denver *consistently* gets the best treatment possible and has access to the broad range of services we provide?"

Like many community behavioral health centers, MHCD has hundreds of staff and clinicians working in multiple departments, treating thousands of people for a wide variety of diagnoses and providing interventions and services for everything from clinical disorders to help with housing, education, food security and other social services.

Developing a uniform way to assess and optimize care across such a large and diverse organization seemed like a lofty goal. But for the past two-and-a-half years, MHCD's Chris Radigan has worked to do just that. He has successfully created an easy-to-read **Treatment Protocol Dashboard** that mines EHR data and provides clinical guidance to help all staff match assessed needs with interventions that clinicians can offer the people we serve.

PROGRAM DEVELOPMENT: As the Associate Director of Data Driven Clinical Services, Radigan uses his clinical background to bridge technical data with practical clinical solutions. He realized that most clinical reporting was quantitative in nature and that qualitative reporting was diffuse, with a separate dashboard often created for each new initiative. What if a person-centered dashboard could be developed that quickly and easily displayed all assessed needs and looked for interventions related to those needs?

To begin the development of the prototype, Radigan worked with clinicians to identify possible ways to segment relevant data. This took some trial and error. When he originally tried to create a data subset by grouping everyone receiving treatment for depression at MHCD, he realized that this group would be too large to segment effectively. Next, he looked at people in MHCD's Esketamine Clinic, which proved to be too small a sample. Finally, he decided to look at needs that were common among most, if not all, individuals seeking treatment: social determinants of health.

PROGRAM INFORMATION: MHCD's Treatment Protocol Dashboard evaluates people we serve based on the status of several assessed needs, including housing, education, primary care, employment, as well as treatment for major depression and suicide prevention pathways. These assessed needs are common to most people regardless of how or where they are served within MHCD. The Treatment Protocol Dashboard looks for those assessed needs throughout an individual's clinical record. If such a need is present, the dashboard identifies specific interventions that would address that need. This includes looking for discreet data points that would signal an intervention occurred (a certain service code, referral, treatment episode, etc.) as well as keywords or phrases in clinical documentation that would indicate a progress summary is addressing an identified need. It then displays an easy-to-understand graphic alerting staff if there are assessed needs that do not have associated interventions. This dashboard can be accessed by the individual's whole treatment team, prompting staff of all disciplines to ask about an individual's comprehensive well-being.

For example, if an individual is assessed as being homeless, the dashboard looks for discreet interventions, such as housing referrals or daily residential census notes at one of MHCD's many residential facilities. It also looks in clinician progress summaries for words and phrases such as "housing application" and "housing referral" to make sure this assessed need is being discussed. If there is no evidence of an intervention in the last 30 days, the dashboard displays a graphic that alerts the treatment team that this need is not being addressed. If there is evidence of intervention, a different graphic appears indicating it has recently been addressed.

STAFFING REQUIREMENTS: Radigan worked with Data Scientist Jim Linderman and Systems Architect Steve LeClair to develop the prototype. Many other staff members provided input on the clinical process and offered development suggestions. Now that the Treatment Protocol Dashboard prototype has been finalized, the data refreshes daily and staff are given up-to-date information about the status of each assessed need. Radigan estimates that he now spends 10-15 percent of his time developing additions to the dashboard to make it more broadly applicable. This program could easily be utilized by IT staff at other community behavioral health centers; since the model is built, staff would simply need to map assessed needs and interventions as they exist in their own EHR/data warehouse.

PERTINENT DATA: The easy-to-read dashboard and simple checks and balances around key data supports diverse clinical teams in identifying and treating assessed needs. What's more, the dashboard uses clear, simple symbols and daily reports to help clinical staff immediately assess the changing needs of people we serve.

Utilization is the key metric we plan to measure. People we serve can choose not to utilize - or may not need - everything our organization has to offer related to their assessed needs; the goal is to make sure that everyone is offered the care needed. With the tool constantly searching text fields for mention of interventions offered, we hope to continue to identify and close gaps in services.

START-UP COSTS: This could be duplicated at little cost to centers that have business intelligence software (Mental Health Center of Denver uses Tableau). The main cost would be adopting the model to map the assessments and interventions appropriately.