EXECUTIVE SUMMARY

Trinitas Regional Medical Center

Project Scope: Chemical Addiction

Project Title: Hospital-wide Screening for Substance Use Disorders.

Objective (Hospital Specific):
Trinitas Regional Medical Center (TRMC) proposes to reduce the impact of substance use and dependence in our service area within Union County. With our community partners, we will accomplish our objective by conducting medical center-wide screening for substance use disorders, managing patient withdrawal, and making treatment referrals. Our successful work will place patients on a pathway to treatment and recovery.

TRMC is aligned with the Center for Medicaid and Medicare Services (CMS) and the State of New Jersey goals/objectives to identify and screen all individuals who enter our hospital system for substance use disorders (SUD). This will include individuals who enter through an inpatient admission. Trinitas projects that 23 percent (3,000) of our acute medical patients will screen positive, providing an opportunity to reduce the cost of care per admission. This percentage reflects hospitalized patients who screen positive during the hospital stay on a validated screening questionnaire for unhealthy alcohol use. This estimate is based on a multi-state study that screened 459,599 patients in general hospital and medical settings. [1] In addition, connecting these patients to further assessment, a brief onsite intervention along with a referral for more intensive treatment in an outpatient setting will put patients on a path to recovery and help them avoid future dependencies. Currently, less than one percent of our acute medical inpatient admissions visit the Trinitas Outpatient Addiction Service after discharge from acute medical care. We further recognize that these substance use disorders correlate with at least 50 additional medical conditions and a more comprehensive approach to patient screening, assessment, and referral is needed.

Methodology (Hospital Specific):
A TRMC workgroup has been established to select screening tools, define what a brief treatment intervention will be in our system, and develop an algorithm for alcohol withdrawal management, along with a revised protocol for the patient discharge process from an inpatient stay. TRMC will also develop and implement a strategy for our overall approach, which includes staff education about the Delivery System Reform Incentive Payment (DSRIP) plan, the etiology of SUDs, screening tools, and the algorithm-related protocols for withdrawal from alcohol. As part of the acute medical inpatient admission process, for all patients, a unit-based nurse will administer the Alcohol Use Disorders Identification Test (AUDIT-PC), a validated risk assessment tool, for substance use disorders. By incorporating this type of screening into the basic admissions paperwork completed by staff in our inpatient hospital setting. TRMC ensures

[1] "Substance use: percent of hospitalized patients who are screened during the hospital stay using a validated screening questionnaire for unhealthy alcohol use." Specifications manual for national hospital inpatient quality measures, version 4.1. Centers for Medicare & Medicaid Services (CMS), The Joint Commission, July 2012.

that there is hospital wide screening and that it is an expected requirement for a completed assessment. Based upon the score received from administering AUDIT-PC, the nurse has four options:

1. Take no further action, as an alcohol or substance use problem was not identified. (Audit Score **Range – less than 8)**

2. Provide simple advice, focused on the reduction of hazardous drinking and drug use. Written material about alcohol and drug use from one of our community partners, Prevention Links will be provided to patients at discharge. Prevention Links is a county-wide entity that offers prevention and early intervention services. (Audit Score Range **between 8 - 15)**

3. Refer the patient to a Mental Health/Addiction Specialist for brief counseling. A substance abuse specialist (lead specialist) is responsible for checking the Electronic Medical Record system on a daily basis and determining who has screened positive for a substance use disorder. Daily planning will occur to insure all patients who screen positive and require brief counseling and referral for treatment receive these services.

   For all patients who receive a score of 8 or higher on the AUDIT-PC, the Substance Abuse Specialists will administer the Patient Health Questionnaire (PHQ-9). According to the Substance Abuse Mental Health Services Agency (SAMSHA), the PHQ-9 is the most commonly used tool for depression screening.

   Administration of the nine questions PHQ-9 yields a depression severity score between 1 and 27.

   Score interpretation is as follows:

Total	**Depression Severity**
1 – 4	Minimum depression
5 – 9	Mild depression
10-14	Moderate depression
15 – 19	Moderately severe depression
20 – 27	Severe depression

   Depending on the score, the Substance Abuse Specialist may suggest a Psychiatric Consult to the patient's attending physician and care planning and discharge planning recommendations will reflect the new test, as part of meeting the co-occurring needs of these patients. Post discharge follow-up is the responsibility of designated staff in the Substance Abuse Disorder Outpatient Service.

Where follow-up treatment is indicated, specific referral information will be provided to the TRMC Social Worker responsible for the patient's discharge. Consultation and support to operationalize referral recommendations is available to the Social Worker through TRMC Substance Abuse Outpatient Service. Minimally, the Inpatient Social Worker will provide designated outpatient substance abuse staff with patient referral information to allow for follow-up. All patients accepting referral to treatment will be connected to the appropriate treatment agency prior to discharge. Follow-up will occur at least once a week for the first thirty days after discharge to support initiation and engagement in treatment. All patients who refuse treatment will be asked if we can follow-up with them after discharge. Outpatient substance abuse services will contact these patients at least every 30 days for 12 months. (Audit Score Range**: 20 points or above – 40 points maximum**)

4. A score of 5 or more points on 5 specific questions from the A.U.D.I.T. tool identifies patients at an elevated risk of alcohol withdrawal. Those questions which suggest risk of alcohol withdrawal include:

   - How often do you have a drink containing alcohol? (If the patient replies "never", the assessment is complete.
   - How many drinks containing alcohol do you have on a typical day when you drink?
   - How often during the last year have you found that you were not able to stop drinking once you started?
   - How often during the last year have you failed to do what was normally expected from you because of drinking?
   - Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?

   Additional questions for patients at risk of alcohol withdrawal include date and time of their last drink, history of withdrawal-related seizures or delirium tremors, and use of Ativan, Valium, Xanax, or sleep aids.

   With the exception of individuals who do not screen positive for an SUD, Medical Center Outpatient Addiction staff will be responsible for following up with the referred treatment program to determine which patients initiated treatment within 14 days of receiving a diagnosis of SUD. They will also determine which patients received two or more additional services within 30 days of the initiation of the visit.

For patients identified as at risk for alcohol withdrawal, nurses will implement the following algorithm-guided process:

a. **Algorithm driven treatment and monitoring**
The nurse notifies the attending physician for the patients who screen positive on the Alcohol Use Disorders Identification Test (AUDIT-PC) as well as the patient's score on the Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised (CIWA-AR). Depending on the patient's scores and the physician's clinical judgment, the physician may initiate an order set outlining precaution and treatment algorithms based on internally developed care management guidelines.

b. **Precaution algorithm**
Nurses follow the precaution algorithm if the patient's baseline score on the CIWA-AR is in the mild range (8 or below). This algorithm directs nurses to re-administer the CIWA-AR every 8 hours for 72 hours. If reassessment yields a score of 9 or above (moderate to severe range), the nurse then initiates the treatment algorithm (see bullet below). With each CIWA-AR administration, the nurse also documents the patient's vital signs and the Riker Sedation Scale (SAS) score.

c. **Treatment algorithm**
The treatment algorithm specifies administration of Ativan (an antianxiety medication approved for the treatment of alcohol withdrawal symptoms) every 4 hours for patients within the moderate and severe CIWA-AR ranges. One hour after administering the Ativan, the nurse reassesses the patient using the CIWA-AR to determine whether a subsequent dose or dose adjustment is needed. The nurse again documents the patient's vital signs and SAS score. This assessment (CIWA-Ar, vital signs, SAS) continues at least 4 hours and more frequently if Ativan is being administered. Ativan dosing may also be available every hour as needed for both the precaution and treatment algorithms.

d. **Physician notification if problems arise**
The nurse notifies the attending physician if any of the following problems arise with a patient: vital signs out of the normal range; CIWA-AR score greater than 8 for two consecutive hours despite receiving maximally ordered around the clock and as needed medication dosages or greater than 10 despite receiving more than 4mg of Ativan in any 1 hour; unsafe patient behavior; or symptoms suggestive of delirium tremors (hallucinations or auditory, visual, or tactile disturbances). In these instances, patients either continue to receive care on the medical/surgical unit or are moved to the intensive care unit (ICU) at the physicians' discretion.

In addition to the four options discussed above, psychiatric consults can be ordered by the attending physician or suggested by a nurse or Mental Health Addiction Specialist. When a psychiatric consultation occurs, the Psychiatrist will coordinate with the Addiction Specialist and

document that coordination in specific referral recommendations provided to the social worker. All consultation recommendations will be entered into the patient's electronic medical record.

Outpatient Addiction

Trinitas Addiction Services staff plans to utilize existing TRMC addiction outreach services and/or community partners to contact discharged patients to support initiation and engagement in alcohol and other drug treatment. The results of weekly follow up during the first 30 days post-discharge must be reported to the Assistant Director of Addiction Services. Follow-up will include home visits and/or other community outreach efforts where treatment initiation and engagement is not occurring as planned.

Trinitas Addiction Staff will be responsible for ensuring that patients who are discharged with a diagnosis of current substance abuse or dependence are screened for depression during the initial intake and as often as necessary thereafter. The completion of this screening must be reported monthly to the Assistant Director for Substance Abuse Services.

A nurse based in Trinitas Addiction Services will be responsible for coordinating care with any primary care physicians, medical or federal qualified health care clinics that provide primary care to the estimated 130 patients referred to substance abuse treatment. TRMC, with patient permission, will share substance use findings with the patient's Primary Care Provider, within the provisions of the Health Insurance Portability and Accountability Act (HIPAA).

Project Outcomes (Hospital Specific):

TRMC has identified the following hospital-specific goals for our target patient population:

1. Provide hospital wide screening for SUDs. TRMC will screen 100 percent of the individuals admitted to the hospital for SUDs. This will be reflected in the Medical Record.
2. Decrease length of stay by .3 days for patients admitted with a substance abuse diagnosis (For 2012 – TRMC admitted 1,416 or approximately 1,500 patients with substance abuse diagnosis and the average stay was 5.5 days. Our average medical-surgical stay for 2012 was 5.2 days).
3. Decrease transfers of patients with delirium tremors or other alcohol related complications to the Intensive Care Unit (ICU) by 25 percent or 25 patients. (In 2012, TRMC admitted 99 patients to the ICU with a diagnosis of substance abuse. Their average stay in the ICU was 2.16 days).
4. Decrease Use of Restraints. We currently collect patient restraint data, however, we don't separate data by patient type or condition. By July 1, 2014, we will have 6 months of baseline restraint data and we will forecast estimated reductions in restraint use by patients in alcohol withdrawal.

5. Increase referral/admissions to substance abuse treatment programs/facilities from 31 referrals in 2012 to 150 referrals. 150 referrals represents 5 percent of the projected TRMC patients admitted to inpatient unit with a substance use diagnosis after hospital wide screening is implemented (13,005 x .23 = 2,991 or 3,000 x .05).

This project will improve care processes by implementing hospital-wide screening and intervention. The algorithm-driven withdrawal assessment program will improve hospital-wide care as alcohol withdrawal risk management improves. Care processes are further improved as patients are assisted in seeing the connection between their substance use and their hospitalization. The discharge process is significantly strengthened for these patients, with ongoing follow-up and case management helping engage them in appropriate treatment.

Goal/Outcome (Hospital Specific)

During DY2 the following will be completed:
1. Procure staff and partners
2. Finalize protocols (withdrawal, internal referral and external referral follow up)
3. Train staff on how to administer and score all tools
4. Identify opportunities to improve outcomes (length of stay, reduced use of restraints, decrease in transfers to ICU and increased referrals to substance abuse treatment).

During DY3
1. Implement pilot
1. Continuously evaluate pilot results
2. Redesign pilot and staff training, based on results
3. Implement pilot redesign to full target population

During DY4 & DY 5

1. Monitor program outcomes
2. Identify Continuous Quality Improvement results
3. Conduct patient satisfaction surveys of DSRIP participants
4. Conduct continuous staff training and staff assessments

Significance:
TRMC's medical campus has struggled for a long time with how best to respond to patients with alcohol and drug use disorders and those with physical dependencies. The emergency department on a daily basis handles patients who are either intoxicated or affected by substance use. Because of the symptoms of these health issues, patients with SUDs often require a more staff intensive approach. This coupled with a lack of education about SUDs, their physical etiology, their complicating impact upon the entire health of the individuals, and the treatment challenges they present often leave staff frustrated. Our goal is to educate our staff so that they are able to better understand SUDs and to treat these patients as effectively as patients with any other health crisis or treatment need.

A recent study performed by Rutgers University for one of our partners, Preventive Links and the City of Elizabeth Health and Human Services Department, confirmed the extent of the substance use problem in our geographic area. TRMC is located in Elizabeth, NJ, and is the County seat for the County of Union, which ranks as the fourth highest county in the State in terms of emergency admissions for substance abuse per 100,000. Within Union County, Elizabeth, in particular is impacted by substance use:

- Highest alcohol related emergency room admissions rate of 23.17 per 1,000 population in the County
- Ranks second in the County for alcohol related arrests
- Ranks first in the County for marijuana and opium related arrests.
- Elizabeth rates 1st in the County for drug related emergency room visits and makes up 45.4 percent o all 2009 drug related emergency room admission in the County (Data Source: Prevention Links/Rutgers University study)
- Elizabeth residents represent 38.7 percent o County residents admitted to substance abuse treatment in 2012 (Source DHS/DMHAS – since 2013)

The impact of substance use is not only experienced in our Emergency Department. Nine percent of the patients admitted in 2012 to our medical acute inpatient units had either a primary or secondary substance use disorder diagnosis. With hospital wide screening for substance use disorders, we estimate that 23 percent of all acute medical inpatient admissions will screen positive for a substance use disorder. Hence, substance use disorders affect a significant percentage of our patient population. Literature review suggests this percentage may be typical for a community hospital.

TRMC's Comprehensive Department of Behavioral Health and Psychiatry has been invaluable in assisting and supporting our Medical Campus (ED & Inpatient) in addressing the needs of patients with mental illness and those with co-occurring disorders. However, we have not been as effective in supporting the Medical Campus with patients who present with substance use

disorders. In May 2013, we restructured TRMC's Outpatient Substance Abuse Services and new leadership is managing the service. In fact, the Assistant Director for the service is Co-Project director. Recently, our Liaison Psychiatry Services to the Medical Campus has also been restructured.

With these two major changes, we absolutely have the ability to improve health outcomes for patients with substance use disorders. Patients with substance use disorders have a greater risk for hypertension, gastro-intestinal bleeding, depression, stroke, dementia, cinthosis, tuberculosis, hepatitis and HIV. We recognize that identification, intervention and treatment for substance use can significantly improve health status and reduce cost.

We further recognize that some level of screening for substance use is occurring at TRMC at this time. Primarily, this screening occurs when Psychiatric consults are ordered. These consults are usually ordered in reaction to patient aggressive behavior toward TRMC staff or a patient's family. A one-month study of the nature of the requests for Psychiatric Consultation reveals that 75 percent of the 92 consults ordered in the period of July through August were related to patients with a substance use disorder. According to the consultation note, sixteen patients would be referred to our substance abuse service. However, only three per month who are discharged from acute care present to substance abuse services at TRMC, so a more effective discharge planning protocol needs to be developed.

Public Input Process:

As mentioned previously, TRMC has already made contact with the Elizabeth Public Health Office. We will share the proposed DSRIP planning with this office and the City Health and Human Services Director. These officials will also be part of our Annual Public meeting to insure further opportunity for input. TRMC will also post on our website the proposed DSRIP plan for public input. We will notify the public that this plan is available for their review.

Date	Stakeholder Engagement
August 6, 2013	Senior Vice President presented the overall purpose of DSRIP and specific project to the LACADA. Union County Alcohol and Drug Coordinator and the County Mental Health Administrator were in attendance.
August 29, 2013	Senior Vice President met with Executive Director of Prevention Link, County-Wide Substance Abuse Prevention Agency to discuss the project and the agency's role in the project.
August 29, 2013	Senior Vice President had a conference call with City Health and Human Services Director to discuss the project and to let her know about previous discussion with the Public Health Officer and Chair of the Municipal Alliance.
September 4, 2013	Jim Lape, Senior Vice President, talked to Linden Health Officer, Nancy Koblis.

Date	Stakeholder Engagement
	She will participate in our process beginning with DSRIP plan review. After we submit on September 20, 2013, she will be sent proposed plan for comment/feedback.
September 4, 2013	Jim Lape, Senior Vice President spoke to Warren Hehl, the Health Officer for Rahway about participating in DSRIP Plan review and on-going involvement.

On an on-going basis and prior to submitting our annual reapplication we will share results and solicit input from the LACADA, Local Municipal Alliance (Drug and Alcohol Prevention City Sponsored Entity) as well as Public Health Officers.

Challenges:

The leadership team at TRMC is a strong and inclusive one that is aware of the impact of SUDs and co-occurring issues upon treatment systems and communities. While there will be challenges, the leadership is committed to providing system-wide screening for SUDs. This will allow us to improve outcomes and integrate hospital wide screening for substance use disorders. A well thought-out implementation strategy and related plan is required to achieve integration in a timely manner.

A major challenge will be implementing this comprehensive initiative across multiple disciplines working within an already busy Medical Center. We will need to challenge and change staff attitudes and beliefs about substance use disorders. Supporting staff need to be comfortable conducting screenings on all individuals who enter our system of care. The combination of education and support for staff combined with the leadership to require this type of screening as a basic part of all hospital medical records, will provide the type of system wide change needed. Over time, staff will learn that a medical record that does not include a screening for SUDs is not a complete one.

While Medicaid eligibility and insurance coverage will expand and treatment access barriers will be reduced, we still expect challenges to accessing treatment. Groups like the L.A.C.A.D.A. who approve spending state/county dollars for indigent care will be very helpful in addressing coverage shortfalls. Advocacy with Managed Care entities will be required at various levels to ensure access to treatment.

Starting Point:
Hospital-Wide screening for substance use disorders is a new initiative for TRMC. The availability of brief intervention, algorithm-based treatment for alcohol withdrawal and a tight process for referral to treatment and follow-up are all new. We developed estimates of work-based or hours needed to provide brief counseling, depression screening and referral to treatment to our population. Those projections are attached. Substance Abuse Services staff will provide follow-up on all treatment referrals to support initiation and engaged activity. They will also ensure depression screening is conducted within the initial assessment (existing staff).

The recent restructuring of Outpatient Substance Abuse Services and TRMC focus over the last couple of months to strengthen, to rebuild, or develop new relationships made identifying project partners relatively easy. Prior work on integration of Medical Campus Information Systems with new Behavioral Health software system (Networks) provides an existing framework to modify systems to allow EMRs to reflect assessment, brief internal discharge planning activity, case management and follow-up efforts. In addition, the positive relationships that have been built between Psychiatry and the Medical Campus within TRMC will support a timely and effective implementation.

TRMC's Department of Behavioral Health and Psychiatry, which includes our Substance Abuse Services, has worked successfully with our Community Partners over a long period of time. Thus, a network is in place to address prevention, early intervention, treatment and long term recovery and support. We are very excited about a new partnership with Street Light Mission, which is a recovery and long term support oriented Ministry, located in Elizabeth. Long Term support (housing, employment, basic provisions such as food and clothing, mentoring and life skills training) are the missing components of a comprehensive substance abuse service system. These supports are critical to breaking the cycle of long term substance use.

Project Monitoring:
For project monitoring, the nursing unit manager or his/her designee will receive a daily computer generated report, by unit, containing the number of new admissions, the number of patients screened for substance use, the number of individuals screened within the ED, the number tested positive, the number provided education, the number provided brief treatment. This close monitoring will allow an immediate response by managers to ensure all patients are screened and receive assessments and related services.

Bi-monthly reports will go to the Vice President for Nursing and Asst. Director of Addiction services to ensure service expectations are being implemented. The Vice President for Nursing will schedule monthly project meetings to review the project. This type of close monitoring will

allow for rapid cycle changes and identify lessons learned. We will be active members of the learning collaborative. We will also monitor cost savings on a regular basis and determine project impact on operational budgets. Quarterly and other reports due to the department provide other metrics for monitoring.

Outpatient substance abuse staff will provide case management, care coordination and follow-up on all patients referred to treatment. In addition, they will provide the same services to those who received brief counseling to determine whether they were able to initiate and engage in a long-term recovery process.

The Senior Vice President for Behavioral Health and Psychiatry and/or the Assistant Director of Substance Abuse Services will obtain feedback from partners related to accomplishment of Plan Objectives and solicit input for continuous improvement on a quarterly basis. Similar processes will be utilized to update and obtain input from Public Health Officers. The Steering Committee for the Project will meet monthly to review internal operations and quality improvement results.