WORKSHEET 1: DRAFTING THE PIP TOPIC AUGUST

MHP/DMC-ODS Name	San Francisco
Project Leader/Manager/Coordinator	Michelle Truong, Judith Martin, Liliana De La Rosa
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Performance Improvement Title	Increasing referrals to substance use residential treatment for Zuckerberg San Francisco General Hospital (ZSFG) patients with severe substance use concerns.
Type of PIP	☒ Clinical ☐ Non-clinical
PIP period (# months):	Start MM/YYYY to End MM/YYYY May 2020 – February 2022 (21 months)
Additional Information or comments	

Briefly describe the aim of the PIP and the improvement strategy(ies). (What is the problem that the PIP seeks to address?) Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG) is a general acute care hospital providing a complete array of health services, including inpatient,

outpatient, trauma, emergency, skilled nursing, diagnostic, mental health, and rehabilitation services for adults and children. ZSFG is a Level 1 trauma center and the City's safety net, serving anyone in need. Individuals present to ZSFG with a wide variety of acute medical concerns, as well as mental health and/or substance use issues. A significant proportion of patients who visit ZSFG have substance use issues, yet there is no systematic and/or standardized protocol for screening and referring patients with severe substance use concerns to substance use residential treatment. The aim of the PIP is to implement a standardized screening process for substance use residential treatment at ZSFG, thereby increasing the percentage of ZSFG patients successfully referred into the pre-admission process for) SUD residential treatment.

What MHP/DMC-ODS data have been reviewed that suggest the issue is a problem?

The qualitative data reviewed that suggested a problem included patients presenting to Treatment Access Program (TAP) seeking SU treatment after being discharged from ZSFG. TAP staff notice that patients were directed to TAP for SU treatment without coordination or a referral from the hospital. The problem was also noticed by Addiction Care Team (ACT) and Citywide Community Response Team (CCRT) and both approached TAP about implementing a standardized process. The number of patients discharged from ZSFG who presented at TAP was not monitored by TAP, ACT, or CCRT.

What are the barrier(s) that the data analysis has determined to be the cause of the problem?

1. The San Francisco Health Network system has not been proactive in responding to SUD needs at ZSFG.
2. There is no skillful process in place to respond to SUD needs at ZSFG.
3. There is no mechanism to track referrals post discharge from ZSFG.
4. There is no standardized screening and referral process for substance use residential treatment at ZSFG.
5. ZSFG staff are not trained on using the SUD Level of Care (LOC) screening tool to assess patient needs for substance treatment.
6. The TAP has not been present at ZSFG to help facilitate the substance use residential treatment referral process.

Who was involved in identifying the problem? (Roles, such as providers or enrollees, are sufficient; proper names are not needed.) Were beneficiaries or stakeholders who are affected by the issue or concerned with the issue/topic included?

Addiction Care Team (ACT)
Dr. Marlene Martins, Rachel Perera, Mitch Aman, and D'arius Hambrick, and Laurel Puffert.

Houdini Link

Alexandra Haas (Director of Project Houdini Link), Shayla Alexander, Sandra Flores

Citywide Community Response Team (CCRT)
- Alison Livingston (Citywide Stabilization Program Director), Mia Franco, and Elisenda Asencio-Macmartin.

UCSF Department of Psychiatry at Zuckerberg San Francisco General Hospital and Trauma Center- Psychiatric Emergency Services (PES)
- Dr. Emily Lee (Inpatient Psychiatry and Psychiatric Emergency Services Medical Director),
- Dr. Mark Leary (Deputy Chief, ZSFG Psychiatry),
- Andrea Chon (Psychiatric Emergency Services Nurse Manager) and
- Kathy Ballou (Nursing Director, Psychiatry and Skilled Nursing Facility).

ZSFG Inpatient Psychiatric Services
Julie Feuer LCSW (Social Work Director, Inpatient Psychiatry), Helen Lau LCSW (Inpatient psych discharge social worker) , Christine Randolph, LCSW, (Inpatient Psychiatry Discharge Social Worker), and Brandon Castronova LCSW, (Inpatient psych discharge social worker).

Treatment Access Program
Dr. David Pating, Deandre Jurand and Michelle Truong, PMHNP-BC.

See Pages 32-33 for a description of our residential treatment programs, patient navigator programs and roles, the Treatment Access Program (TAP) and Psychiatric Emergency Services (PES).

Are there relevant benchmarks related to the problem? If so, what are they?

Unable to identify any relevant benchmarks related to the problem.

WORKSHEET 2: DRAFTING THE AIM STATEMENT

What is the Aim Statement of this PIP? (The Aim statement should be concise, answerable, measurable and time bound.)

Will the use of a standardized substance use disorder screening and referral process for patients presenting to ZSFG with a substance use diagnosis on their problem list identify patients who meet the criteria for SU residential treatment and increase the proportion of these patients who are successfully referred to SU residential treatment?

- Screening and Referral: By December 31st, 2021, at least 25% of patients presenting to ZSFG during Business hours (Monday to Friday, 8 am to 5 pm) with a substance use issue on their problem list who are screened by a patient navigator and determined to need substance use residential treatment will be referred to TAP.
- Referral to SU residential treatment program: By December 31st, 2021, at least 50% of patients referred from ZSFG to TAP for evaluation of need for residential treatment will be placed to an appropriate SU residential treatment program.
- Patients presenting to an SU residential treatment program for pre-admission: By December 31, 2021, at least 50% of patients placed by TAP to a residential treatment program will present at the SU residential treatment program for pre-admit into program.

Briefly state the improvement strategy that this PIP will use. (Additional information regarding the improvement strategy/intervention should be supplied in Step 6.)

The improvement strategy for this PIP includes:

1) Brief Screening and referral from ZSFG to TAP:
    a) Brief screening:
        I. ASAM Criteria training for all of the ACT Patient Navigators and CCRT staff
        II. Creation of a standardized brief level of care (LOC) screening form
    b) Training for the ACT Patient Navigators and CCRT staff on how to use the brief SUD LOC form) Referral from ZSFG to TAP:
        I. Implementing a standardized referral process from ZSFG to TAP
        II. Setting up a mechanism to track referrals from ZSFG to TAP
        III. On-going training for new CCRT social workers, ACT patient navigators and Fellows, Houdini Link patient navigators, and inpatient psych social workers on the ZSFG to TAP referral process as needed it.

2) Placement from TAP to an SU treatment program

- Standardizing a placement process to SU residential tx program

3) Patient Presenting to SU program • Coordinating pre-admission and admission to SU residential tx program
What is the timeframe for this PIP, from concept development to completion? Start: November 2019 (Concept development). May 2020 (Implementation) End: February 2022
Additional Information or comments

WORKSHEET 3: IDENTIFYING THE PIP POPULATION

Who is the population on which this PIP focuses? Provide information on the study population such as age, length of enrollment, diagnosis, and other relevant characteristics of the affected population. Please include data, sources of information and dates of sources.

The population on which this PIP focuses are adult patients who present to ZSFG with substance use issues on their problem list (existing or newly listed).

ZSFG serves a diverse patient population. Staff at ZSFG provide services in more than 20 languages. Patients at ZSFG are ethnically and racially diverse: 18% are African American, 21% are Asian/Pacific Islander, 24% are Caucasian, and 31% are Hispanic. ZSFG serves about the same number of men as women (51% men, 49% women). About 57% of patients are under the age of 45, and about 34% are between 45 and 64 years old.

ZSFG's inpatients' payer mix includes those insured by Medi-Cal (39%), Medicare (19%), commercial insurance and other sources (9%). ZSFG's outpatients' payer mix includes those insured by Medi-Cal (24%), Medicare (16%), commercial insurance and other sources (20%).

ZSFG is the major health care provider for the estimated 150,000 people in San Francisco without health insurance coverage. Although about 8% of patients served at ZSFG are homeless, a large number of these uninsured patients are working full time.

http://sfghwellness.org/about/about-sfgh/#:~:text=Patients%20at%20ZSFG%20are%20ethnically,45%20and%2064%20years%20old.

Will all enrollees be included in the PIP?

☐ Yes

☒ No

If no, who will be included? How will the sample be selected?

Adult patients who present to ZSFG Monday to Friday, 8am to 5pm with substance use issues on their problem list, excluding weekends, holidays, medical units without patient PIP partners (Skills Nursing Facility, 4a (SNF), ICU, Labor & Delivery, Forensic population, and patient tested positive for COVID19), some of whom will be DMC-ODC beneficiaries and some of whom will not.

Additional Information or comments

WORKSHEET 4: DESCRIBING THE SAMPLING PLAN

If the entire population is being included in the PIP, skip Step 4.

If the entire population is NOT being included in the PIP, complete the following:

Describe the sampling frame for the PIP. A sampling frame is the list from which the sample is drawn. It includes the universe of members of the target PIP population, such as individuals, caregivers, households, encounters, providers, or other population units that are eligible to be included in the PIP. The completeness, recency, and accuracy of the sampling frame are key to the representativeness of the sample No sampling.
Specify the true or estimated frequency of the event.
Determine the required sample size to ensure that there are a sufficient number of enrollees considering non-response, dropout, etc.
State the confidence level to be used.
State the margin of error.
Additional Information or comments: Adult patients who present to ZSFG Monday to Friday 8am to 5pm with substance use concerns on their problem list, some of whom will be DMC-ODC beneficiaries and some of whom will not.

WORKSHEET 5: SELECTING PIP VARIABLES AND PERFORMANCE MEASURES

The questions below can be answered generally. Please complete the tables below for specific details.

What are the PIP variables? How will they answer the PIP question?

1) The number of patients presenting to ZSFG with a substance use issue on their problem list who are screened for SU residential treatment needs and referred to TAP for placement.

Tracking the number of patients who are screened for SU residential treatment at ZSFG will allow us to determine whether the training on the brief SUD LOC and the screening protocols implemented are leading to more patients being screened for SU residential treatment needs and referred to TAP for placement to residential treatment.

2) The number of brief LoCs screened and approved by TAP for placement to SU residential treatment.

Tracking this data will allow us to identify how many patients were successfully screened as needing SU residential treatment at ZSFG, and how many were ultimately referred to residential treatment.

3) Number of patients placed by TAP to a residential treatment program who present at the program to begin the pre-admission process

Variables #1 through #3 are essential process steps along the way necessary to achieve our end goal (represented by Variable #4), which is getting patients who need residential treatment to initiate treatment.

What are the performance measures? Describe how the Performance Measures assess an important aspect of care that will make a difference to beneficiary health or functional status?

1) The percentage of patients presenting to ZSFG with a substance use issue on their problem list who are screened by a patient navigator and determined to need substance use residential treatment and referred to TAP.

Currently there is no standardized process in place for screening patients for SU residential treatment needs and implementing such a process is a necessary step towards getting patients who need SU residential treatment into care.

The brief SUD LOC screening tool needs to be reviewed by the TAP to identify patients appropriate for SU residential treatment and approve their referral to treatment. Therefore, the brief screening by ZSFG Navigator and referral to TAP

for approval is a necessary step towards getting patients into SU residential treatment.

2) The percentage of patients referred by ZSFG Patient Navigators who are approved for residential treatment by the TAP.

Patients with TAP's approval for residential treatment are not necessarily ready for or interested in SU residential treatment. TAP will work with these patients to help them feel ready and comfortable to initiate SU residential treatment then make the referral to an appropriate program.

3) The proportion of patients placed by TAP to a residential treatment program who present at the program to begin the pre-admission process

Performance measures #1 through #2 are intermediate and essential steps along the way. Performance measure #3 is the end goal if this process goes well, getting patients who need residential treatment to initiate treatment.

The brief SUD LoC screening conducted by the Patient Navigators removes the need for the TAP to administer an additional screening; they need only review the screening and, if appropriate, approve it and facilitate the referral. A full assessment will be conducted by the residential treatment program at the patient's pre-admission appointment.

Removing the need for an additional screening by the TAP will improve access to care for patients because the process into residential treatment will be simplified and more efficient.

What is the availability of the required data?

Daily tracking of number of referrals made to TAP from ZSFG patient navigators; number of TAP approval and number of placements to residential treatment will be entered in Excel and quarterly reports will be generated.

Quarterly reports of numbers of patients who present to SU programs for pre-admission will be tracked by looking to see whether patients opened a pre-admit episode in Avatar.

Additional Information or comments

TABLE 5.1 VARIABLE(S) AND INTERVENTION(S)

Goal	(Independent) Variable	Intervention	Performance Measure (Dependent Variable)
Increase the percentage of patients presenting to ZSFG during business hours (Monday to Friday 8 am to 5 pm) with a substance use issue on their problem list who are screened by a patient navigator and determined to need substance use residential treatment and referred to TAP.	Patient navigators' completion certificate of training in ASAM criteria for assessing patient's level of care Patient Navigators' completion of training session in use of the brief LOC ZSFG referral process to TAP	SUD LOC training Brief LOC training Create a 2-page substance use residential treatment form with LOC imbedded in the form Create a workflow for ZSFG referral to TAP On-going training with new and existing staff on the ZSFG-TAP referral process	Number of patients presenting to ZSFG with a substance use issue on their problem list who are screened for SU residential treatment needs and referred to TAP.
Increase the percentage of patients referred by ZSFG Patient Navigators who are approved for residential treatment by the TAP.	Record of standardized referral to substance use treatment program Record of TAP review of LOC screening tool and approval decision Record of TAP referral to SU treatment program	TAP staff will review and assess referred patients for medical necessity using ASAM Criteria. TAP present case to SU Residential tx program and obtain pre-admit bed. Patient will have access to SU residential bed once patient completes pre-admit paperwork.	Number of patients who present at TAP from ZSFG who are referred to residential treatment
Increase the percentage of patients approved and placed by the TAP for Residential	Patients showing up to SU treatment program for pre-admit	Create a referral form for the pre-admission appointment Create and implement a	Number of patients referred by TAP to a residential treatment program who present at the program to begin

Treatment who present at the program to begin their pre-admission process.		workflow for coordinating pre-admission appointment	the pre-admission process

TABLE 5.2 VARIABLE DESCRIPTIONS

	Variable	Source of Data	Availability of Data
1	Patient navigators' certificate of completion of ASAM Criteria training on criteria for assessing patient's level of care	Once they've completed and passed the ASAM criteria training, patient navigators will be asked to submit their certifications to the TAP Screening and Referral Coordinator, Michelle Troung. Michelle will maintain an Excel spreadsheet to track which patient navigators have taken the ASAM Criteria training and successfully become certified in its use.	The ASAM Criteria training certificates are easily available and monitored as new navigators are onboarded and trained.
2	Record of Patient Navigators' session with patient using the brief LOC	Initially the brief LOC form will be developed and used on paper. The paper forms will be given to the TAP Screening and Referral Coordinator, Michelle Troung, so that she can track the usage of the brief LOC and monitor the screening rates. Michelle will enter this information into an Excel spreadsheet for tracking purposes.	The availability of the data is ongoing and monitored monthly at the PIP meeting.
3	Record of ZSFG referral to TAP	The ZSFG referral form will contain patient demographic, current clinical presentation and psychosocial history, as well as the brief LOC. Initially this form will be completed on paper and submitted to the TAP Screening and Referral Coordinator, Michelle Troung, for tracking purposes. Michelle will use an Excel spreadsheet to document which patients are referred to TAP.	The availability of the data is ongoing and monitored monthly at the PIP meeting.

		In the future this form will be in EPIC.	
4	Patients showing up to SU treatment program for pre-admit	Pre-admit episodes are opened in Avatar and can be extracted for the ZSFG patients referred to residential treatment.	The pre-admit episodes can be extracted from Avatar monthly or on demand when needed. The data is measured every six (6) months.

TABLE 5.3 PERFORMANCE MEASURE (PM) DESCRIPTIONS

	Performance Measure	Source of Data	Aspect of care that PM addresses
1	Increase the percentage of patients presenting to ZSFG during business hours (Monday to Friday 8 am to 5 pm) with a substance use issue on their problem list who are screened by a patient navigator and determined to need substance use residential treatment and referred to TAP Authorization Unit for further screening.	A brief LoC form was developed for the Patient Navigators to complete and submit to Michelle via email or EPIC. The ZSFG referral form will contain patient demographic, current clinical presentation and psychosocial history, as well as the brief LOC. Michelle tracks the usage of the brief LoC and documents which patients are referred to TAP by entering this information into an Excel spreadsheet.	Access to Care
2	The percentage of patients referred to treatment by ZSFG Patient Navigators who are approved for residential	TAP will complete review and approval screening based on ASAM level of care criteria and will triage referral based on screening findings.	Access to Care

	treatment by the TAP.	The disposition/referral information is tracked on an Excel spreadsheet.	
3	The percentage of patients approved and placed by the TAP for Residential Treatment who present at the program to begin their pre-admission process.	Pre-admit episodes are opened in Avatar and can be extracted for the ZSFG patients referred to residential treatment.	Access to Care

WORKSHEET 6: DESCRIBE IMPROVEMENT STRATEGY (INTERVENTION) AND IMPLEMENTATION PLAN

Answer the general questions below. Then provide details in the table below.

Describe the improvement strategy/intervention.

1. Standardized screening of substance use disorder by using brief LOC by ACT Patient Navigators, CCRT Social Workers, Houdini Link Social Workers, and Inpatient Psychiatry Social Workers.
   (a) Provide SUD LOC online training to ACT and CCRT patient navigator,
   (b) Provide Brief LOC training to ACT and CCRT patient navigator

2. Standardized referral processes from ZSFG patient navigator to TAP and TAP placement to SUD residential programs
   (a) Create a 2-page substance use residential treatment referral form with LOC imbedded in the form
   (b) Create a standard workflow for ZSFG referral to TAP
   (c) Create a standard workflow for referral from TAP to SUD residential pre-admit appointment
   (d) Create a standard way of tracking referrals on an Excel spreadsheet.

What was the evidence (published or unpublished) suggesting that the strategy would likely lead to improvement in processes or outcomes?

There is no currently published evidence suggesting that this proposed strategy would likely to lead to improvement in processes or outcomes. However, the American Managed Behavioral Healthcare Association (AMBHA) and the National Association of State Alcohol and Drug Abuse Directors (NASADAD) have called for uniform clinical necessity criteria to be applied in ways that facilitate, rather than inhibit, consistent access to care. A study conducted by Sherp and Associated in 1999 showed hospitalizations and rehospitalizations can be significantly reduced when patients are linked to substance residential treatment.

Public substance abuse and managed behavioral healthcare. American Managed Behavioral Healthcare Association and National Association of State Alcohol and Drug Abuse Directors, Inc

https://pubmed.ncbi.nlm.nih.gov/10346117/

Managed care and the quality of substance abuse treatment

https://pubmed.ncbi.nlm.nih.gov/14578550/

How was the improvement strategy designed? How it is expected to address root causes or barriers identified?

A large number of patients presented at ZSFG with substance use on their problem list and were not connected to substance use treatment.

There was no process in place for routine screening and referrals to substance use treatment.

ACT, Houdini Link, inpatient psych, and CCRT Patient Navigators did not have knowledge of the SU residential treatment programs and requirements (i.e., medical necessity based upon Level of Care screening, insurance, referral process, services provided by individual SU residential treatment program).

How does the improvement strategy address cultural and linguistic needs?

Staff can provide screenings in Spanish, Vietnamese, Cantonese, Farsi, and Mandarin. For all other language needs, staff utilize the Language Line.

To address the cultural needs of patients, staff use motivational interviewing.

By using the brief SUD Level of Care screening tool, clinicians are able to conduct a multi-dimensional screening that explore individual risks and needs, as well as strengths, skills and resources. Thus, it takes the patient's cultural and linguistic background into consideration when screening and recommending treatment options to the patient.

When and how often is the intervention applied?

The intervention (brief LoC) will be applied by the Patient Navigators each time they are requested to conduct a substance use screening for patients presenting at ZSFG

with substance use on their problem list during the study period and within the times of inclusion. Requests for screenings result from daily patient rounding and are made by the medical care team. Currently, all patients presenting to ZSFG go through the ED for COVID-19 screening. The need for substance use screening is identified through the problem list when the patient presents to the ED. Participation in the brief screening depends on medical and/or psychiatric stability and patient consent. Referral to TAP for approval of the screening findings and recommendations is based upon ASAM criteria and patient preference. Referral by TAP to SU residential treatment is based on confirmation that the patient meets LOC patient medical necessity criteria for residential substance use treatment, and that the patient is motivated to enter residential treatment. Substance use treatment referrals will be made upon the patient's agreement. The next step in admission to SU residential is based upon patient presenting at the pre-admit appointment.
Who is involved in applying the intervention? Treatment Access Program, Addiction Care Team patient navigator, and City Community Response Team patient navigator.
How is competency/ability in applying the intervention verified? All staff will receive the ASAM A criteria training through the Change Company, followed by an internal brief LOC training based on ASAM criteria. An inter-rater reliability check will be conducted to ensure that all individuals conducting brief LOC screenings have accurate ratings.
How is the MHP/DMC-ODS ensuring consistency and/or fidelity during implementation of the intervention (i.e., what are the process indicators)? To ensure consistency and fidelity, all brief LOCs will be reviewed by a licensed practitioner. An inter-rater reliability check will be conducted to ensure that all individuals conducting brief LOC screenings have accurate ratings.
Additional Information or comments

Complete this table and add (or attach) other tables/figures/charts as appropriate.

TABLE 6.1 IMPROVEMENT STRATEGY SUMMARY

	Intervention	Intervention Target Population	Date Intervention Began	Frequency of Intervention Application	Corresponding Process Indicator(s)
1	LOC training	ACT and CCRT	A) July 2020	A) One time online training	A) Certificate of completion

	A) Provide SUD LOC training B) Provide Brief LOC training	Patient Navigators	B) July 2020	B) on-going	of SUD LOC training B) Completion of Brief LOC training
2	LOC A) Create a 2-page substance use residential treatment referral form with LOC imbedded in the form B) Create and implement a workflow for ZSFG referral to TAP	ACT and CCRT Patient Navigators SU residential providers ZSFG patients with SUD conditions on their initial problem list	July 2020	Daily and on each referral	Referral of patients by ACT and CCRT Patient Navigators to TAP for evaluation of need for residential treatment
3	TAP staff review and assess referred patients for medical necessity using ASAM Level of Care criteria TAP presents case to SU Residential treatment	ACT and CCRT Patient Navigator SU residential providers TAP Staff ZSFG patients referred to TAP for evaluation	July 2020	Daily and on each referral	Number of patients referred by ZSFG for possible residential treatment who are then referred by TAP for residential treatment

	program and obtain pre-admit bed. Patient will have access to SU residential bed once patient completes pre-admit paperwork.	and referral to residential treatment			
4	TAP secures pre-admit appointment with SU residential treatment program and enters in excel and stores in secure file with password protection. SU residential treatment program will open pre-admit episode in Avatar when patient gets to his/her pre-admit appointment.	ACT and CCRT Patient Navigator SU residential providers TAP staff ZSFG patients referred by TAP to residential treatment	July 2020	Daily and on each referral	Number of patients referred by TAP for residential treatment who make a subsequent pre-admit visit at the residential treatment program

WORKSHEET 7: DESCRIBING THE DATA COLLECTION PROCEDURES

Describe the methods for collecting valid and reliable data. The data sources will be the patient problem list at ZSFG (to identify patients with SU issues on the problem list), the brief LOC administered at the hospital, the referral from ZSFG to TAP, the placement from TAP to SU residential treatment, and the opening of the pre-admit episode at the SU residential treatment program. Of these sources, only the problem list and the pre-admit episode are done in an EHR. Therefore, tracking and monitoring this information will require a great deal of diligence, particularly during the period of time that the tracking mechanisms are being established. Regular meetings with the patient navigators and social workers will ensure that they conducting the brief LOC's on the appropriate patients, and submitting those forms to Michelle for tracking. A regular schedule will be implemented so that all of these processes are tracked for each ZSFG patient with SU issues on their problem list on a weekly basis in order to stay on top on the data.
What are the data sources being used? EPIC, Avatar, brief LOC form (paper and Avatar form), an Excel spreadsheet that tracks the dispositions/referrals for LOC's done at TAP, an Excel spreadsheet to track all of these processes for each ZSFG patient with SU issues on their problem list.
What are the data elements being collected? Patient name, DOB, brief LOC disposition, referral date from ZSFG to TAP, referral program and date from TAP to SU residential treatment, and pre-admit program and pre-admit episode opening date.
What is the frequency of data collection (daily, weekly, monthly, annually, etc.)? Data are collected on every referral and will be compiled into a spreadsheet weekly
Who will be collecting the data? TAP Screening and Placement Coordinator (Michelle Truong)
What data collection instruments are being used? Please note if the MHP/DMC-ODS has created any instruments for this PIP. TAP referral form, brief LoC, referral tracking excel spreadsheet, ZSFG electronic health record (EPIC), BHS electronic health record (AVATAR).
Additional Information or comments

WORKSHEET 8: DATA ANALYSIS AND INTERPRETATION OF PIP RESULTS

After carrying out the PIP, collecting, analyzing and interpreting the data, answer the following questions *with respect to the original aim of the PIP*:

What are the results of the study?

In regards to the PIP aims, the results of the study as are (data collection May 21, 2020 – May 31, 2021):

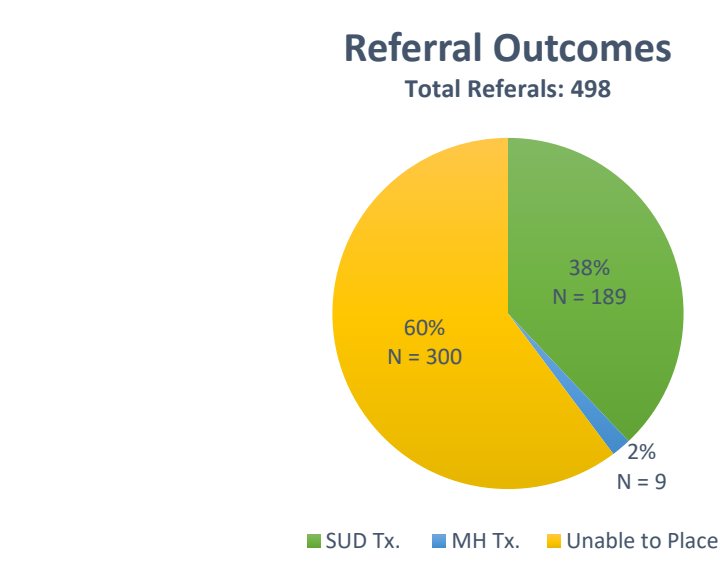
Aim	Results as of June 2021
Screening and Referral: By December 31st, 2021, at least 25% of patients presenting to ZSFG during Business hours (Monday to Friday, 8 am to 5 pm) with a substance use issue on their problem list who are screened by a patient navigator and determined to need substance use residential treatment will be referred to TAP Authorization Unit.	Total ZSFG admissions with substance use on their problem list = **1747** Total SUD referrals: **498** **28.5%** Aim Met Note: The total ZSFG admissions only includes patients admitted Monday – Friday between 8 AM – 5 PM and excludes holidays, weekends, patient admitted to a skilled nursing unit, Labor and Delivery (L&D), Forensics, Intensive Care Unit (ICU), and patients who tested positive for COVID19. Without exclusions, total ZSFG admissions were 3,006.

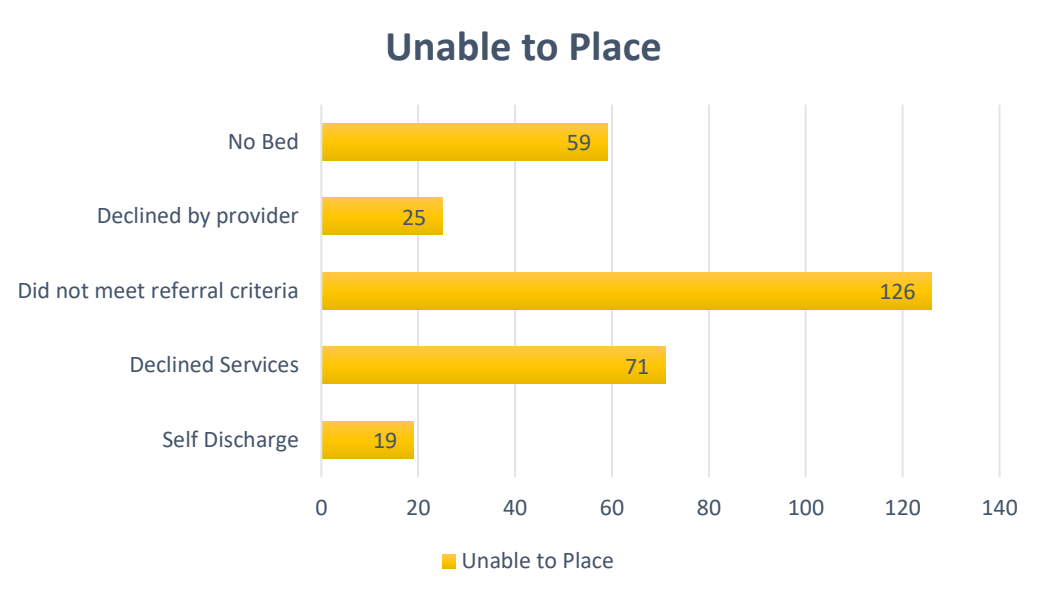
Referral to SU residential treatment program: By December 31st, 2021, at least 50% of patients referred from ZSFG to TAP for evaluation of need for residential treatment will be placed to an appropriate SU residential treatment program.	259/498 = **52%** Aim Met Note: # of patients referred to TAP = 498 # of patients referred to TAP who meet admissions criteria = 259
Patients presenting to an SU residential treatment program for pre-admission: By December 31, 2021, at least 50% of patients placed by TAP to a residential treatment program will present at the SU residential treatment program for pre-admit into program.	143/259 = 55.21% 143/188 = **75.67%** Aim Met Note: Of the 259 patients who were offered a pre-admit appointment for SU Residential Treatment, 188 accepted the offer. Of the 188 that accepted the offer, 143 presented to the pre-admit appointment and were admitted into treatment.

All the PIP aims were met. The most notable outcomes were screening over 25% of ZSFG clients with SU on their problem list for SU residential treatments and admitting 76% of patient referred to TAP into SU residential treatments. ZSFG is a large hospital and screening 25% of patients who met the ASAM criteria for residential treatment seemed aspirational and not fully attainable. To do so required screening many more patients, not all of whom met criteria. Regarding the percent of those referred patients who showed for their initial preadmit session, the outcome is impressive because accepting treatment is a delicate process. We did not expect a result this high as most patients admitted to hospital services for varied physical health reasons are not seeking SU treatment. We would expect those presenting for other reasons may not be open to accepting SUD treatment in that moment.

Another outcome of the study was that a large portion of referrals for substance use treatment are not appropriate for residential treatment. The charts below describe the

reasons why clients were not admitted into SU residential treatment from May 2020-May 2021.





Did Not Meet Referral Criteria

Reason	Number of Patients
Impaired Activities of Daily Living	4
Sex Offender Registry	1
Non-SF Resident	4
Significant Medical Needs	41 (8% of total referrals)

Significant Mental Health Needs	62 (12% of total referrals)
Dialysis	1
COVID19+	5
Benzo	3
Arson Charges	1
Sedation	3
Private Insurance	1

A significant portion of clients are not linked to residential treatment due to severe mental health (12%) and or severe medical needs (8%). Only one of our residential programs offers high-intensity residential services (3.5 level of care), and our current programming cannot meet the needs of clients with severe medical and or severe mental health needs. However, the data is helping inform decisions about expanding services in our Drug Medi-Cal Organized Delivery System and through initiatives by Mental Health San Francisco. Planning is currently underway to: 1) implement a Patient Navigator program in SUD and MAT clinics designed to assist with linkage, 2) develop triple diagnosis program to address significant psychiatric, substance use, and medical issues, and 3) establish a dual diagnosis program for clients with severe mental health and substance use needs.

How often were the data analyzed?

During monthly PIP meetings, stakeholders analyzed the number of referrals, admissions and reasons why clients were not admitted into treatment. Outcomes of the interventions and aims were also analyzed at monthly PIP meetings.

Who conducted the data analysis, and how are they qualified to do so?

The data analysis was conducted by TAP Nurse Practitioner Michelle Truong. For aims 1 Michelle requested data from ZSFG via an EPIC Analyst and data for aims 2 and 3 is directly monitored by Michelle since referrals are directed to her.

How was change/improvement assessed?

Change and improvement were assessed by regularly monitoring the progress made on the PIP aims. Monitoring occurred monthly at PIP meetings and also for status updates to the Substance Use-Quality Improvement Committee and System of Care-Quality Improvement Committee.

Monitoring the aims allowed us to see whether we had made improvement, if we were at a standstill, or had fallen behind. This information informed our strategy and helped us in getting back on track.

Change and improvement were also assessed by testing the interventions and discussing their progress as a team. Discussions about implementing interventions were essential for making necessary adjustments and sustaining improvement. The

interventions for the PIP included 1) developing and implementing a brief SUD screening tool, 2) implementing a standardized process for referrals from ZSFG to TAP and from 3) TAP to SU treatment program, and 4) coordinating pre-admissions and admissions to residential treatment programs.

During our monthly meetings, we discussed the status of the interventions and specifics for the Patient Navigators at the different programs (ACT, CCRT, ZSFG PES). We learned that the settings where programs interfaced with patients impacted workflows and thus we adjusted the interventions to streamline processes to accommodate each of the programs. For example, the brief screener was initially only available in paper form and submitting to TAP required scanning the document and sending via email. Later, the screener was made available through EPIC and could be submitted more efficiently to TAP via the electronic health record (EHR). However, we learned from our PIP meetings, that ZSFG PES Patient Navigators do not have assigned workstations so their access to computers and email is limited. Therefore, for PES Patient Navigators, the most efficient way to complete and submit the screener was in paper form.

Another example of assessing changed relates to our process for establishing SUD treatment beds designated to ZSFG at Health Right 360 (HR360). An outcome of this PIP was negotiating that HR360 reserve two beds daily for SU treatment referrals from ZSFG. The conditions required TAP to notify HR360 by 9 AM that bed was needed and the patient is discharged to HR360 by 1 PM. In our process of implementing this change, we assessed that the time requirements outlined by HR360, did not align with the discharge workflows of ZSFG PES. As a result, ZSFG PES focused on communicating to providers the requirements and outlining processes for communicating bed needs to TAP by the required time.

Assessing improvements gave us an opportunity to adjust the interventions so that they could better align with workflows. Regularly accessing and being flexible to changes made the interventions less burdensome and more easily adaptable.

To what extent was the data collection plan adhered to—were complete and sufficient data available for analysis?

Aim #1 and #2 – Calculating aims one (1) and two (2) required the total number of ZSFG patients with substance use issues on their problem list. This information is documented on the hospital's electronic health record (EPIC) and is not readily available to Behavioral Health Services Staff. Accessing the data required requesting a report from ZSFG EPIC Data Analysts.

Aim #3 and #4 – The plan for collecting data for aims 2-4 was adhered to completely. The data was available and sufficient.

Were any statistical analyses conducted? If so, which ones? Provide level of significance.

Statistical analyses were not conducted.

Were factors considered that could threaten the internal or external validity of the findings examined? COVID19 outbreaks and safety protocols in the residential treatment programs were external factors that threatened the validity of our outcomes. For the safety of clients and staff, the residential treatment programs implemented COVID19 protocols which impacted timely admissions. Protocols included reducing capacity to accommodate social distancing guidelines, reassigning client rooms to COVID19 observation rooms, and requiring repeat negative COVID19 tests before admissions. The protocols either reduced program capacity or extended the admissions process. Other COVID19 related factors that impacted the outcome of the PIP were reduced staffing and COVID19 outbreaks in the residential programs. From December 2020 – February 2021 five residential treatment programs experienced COVID19 outbreaks in their facilities resulting in full closure of the programs. The average closure time was 3-4 weeks and the longest was 6 weeks. As a result, from January – February 2021, 49 clients were not placed in SU residential treatment. Since the impact of the PIP is measured by the number of patients who present to a SU residential treatment process to complete the pre-admission process, we infer that the programs' reduced capacity and closures had a direct impact on our interventions and outcomes. Our speculation is supported by 12% (59/498) of patients not admitted into treatment due to a lack of bed availability.
Additional Information or comments

Present the objective results at each interval of data collection. Complete this table and add (or attach) other tables/figures/charts as appropriate.

TABLE 8.1 PIP RESULTS SUMMARY

Performance Measures	Baseline Measurement	Re-measurement 1	Re-measurement 2	Dates of Baseline and Re-measurements	FINAL Measurement
The percentage of patients presenting to ZSFG during business hours (Monday to Friday 8 am to 5 pm) with a substance use issue on their problem list who are	No Baseline	December 31, 2020 Total ZSFG admissions with SU on problem list (May 21, 2020 – December 31, 2020) = **1204**	May 31, 2021 Total ZSFG admissions with SU on problem list (May 21, 2020 – May 31, 2021) = **1747** Total residential treatment SUD referrals: **498**	Baseline: May 2020 Re-measurement 1: December 31, 2020 Re-measurement 2: May 31, 2021	December 31, 2021

screened by a patient navigator and determined to need substance use residential treatment and referred to TAP.		Total residential treatment SUD referrals = **271** **22.5%**	**28.5%**		
The percentage of patients referred by ZSFG Patient Navigators who are approved for residential treatment by the TAP.	No Baseline	145/271 = **53%** 271 = # of patients referred to TAP 145 = # of patients referred who meet admissions criteria	259/498 = **52%** # of patients referred to TAP = 498 # of patients referred to TAP who meet admissions criteria = 259	Baseline: May 2020 Re-measurement 1: December 31, 2020 Re-measurement 2: May 31, 2021	
The percentage of patients approved and placed by the TAP for Residential Treatment who present at the program to begin their pre-admission process.	No baseline	68/116= **58.6%** 116 = # of patients who accepted offer for SU residential treatment 68 = # of patients who presented at SU residential treatment program to begin pre-admission process	143/188 = **75.67%** 188 = # of patients who accepted offer for SU residential treatment 143 = # of patients who presented at SU residential treatment program to begin pre-admission process	Baseline: May 2020 Re-measurement 1: December 31, 2020 Re-measurement 2: May 31, 2021	

WORKSHEET 9: LIKELIHOOD OF SIGNIFICANT AND SUSTAINED IMPROVEMENT THROUGH THE PIP

What is the conclusion of the PIP?

Best Practice: We concluded that making SU screenings available where the client is, is an effective approach to linking clients to SU treatment. Before the PIP, if ZSFG patients were screened for SU treatment and were open to treatment, providers were only sharing information to services and not coordinating linkage to treatment. Developing a SU screening and referral process at the hospitals removed barriers to access and improved the timeliness to treatment. It also provided the social support needed to make a life altering decision and commitment. This is especially important because individuals contemplating SU treatment can easily lose motivation.

Expanding PIP Interventions: The linkage outcomes from our PIP have prompted other agencies to reach out to TAP to develop similar screening and referral processes for their programs. Since March 2021, TAP has been working with Jail Health and Latino Commission to replicate the PIP interventions at Jail Health with the intention of streamlining admissions to SU residential treatment for LatinX clients being released from jail. As of June 2021, 11 clients in jail custody have been referred to TAP, 3 clients have been admitted into SU residential treatment, 6 clients are pending, and 2 declined services. The PIP interventions are also being replicated with Transitional Age Youth System of Care (TAY-SOC). Since February 2021, 12 clients have been referred to TAP and 8 clients have been admitted into SU residential treatment. TAP will continue to partner with Jail Health and the TAY-SOC to streamline the admissions process into SU residential treatment. Moreover, private hospitals in San Francisco have also reached out to TAP wanting to partner with TAP on implementing a SUD screening and referral process.

Severe Mental Health and Severe Medical Needs: Our data indicates that a significant portion of patients are not being linked to SU residential treatment due to severe mental health (12%) and severe medical needs (8%). Often patients have severe medical problems due to their substance use but our programs cannot manage the medical and SU needs. For example, our existing programming cannot meet the needs of clients who meet medical necessity for SU residential treatment and are receiving dialysis. However, the data is helping inform decisions about expanding Substance Use services. We are currently developing a Patient Navigator program to assist with linkage, a triple diagnosis program to address significant psychiatric, substance use, and medical issues, and a dual diagnosis program for clients with severe mental health and substance use needs.

Medical issues may overshadow substance use issues: Patients with SU are often presenting to the hospital for medical concerns and not SU issues. Due to limited staff trained on conducting the brief LoC screening, patients with SU issues may go unnoticed and of those who are screened, we are only capturing patients that need

residential treatment and not Medication Assisted Treatment of SU outpatient treatment.

No process for following patients: If patients decline treatment, there is no standardized process for following up with them and connect them to services at a later time.

Do improvements appear to be the results of the PIP interventions? Explain.

Before implementing the PIP interventions, there was no standardized process for screening patients for SU treatment and referring them to residential treatment. There was also no way of monitoring referrals from ZSFG to residential treatment so we can infer that the increase in referrals is the outcome of changes made by the PIP.

The table below support our conclusion. Since the implementation of the PIP interventions, the total number of referrals by the Addiction Care Team that are successfully discharged to SU Residential Treatment have increased by 236%. The increase is dramatic and significant and appear to be the result of the PIP interventions.

Moreover, meeting the PIP aims is additional evidence that improvement is a result of the PIP interventions.

Does statistical evidence support that the improvement is true improvement?

No statistical testing was conducted. However, evidence supports the improvement is true improvement. Since the implementation of the PIP interventions, we have seen a dramatic increase in the number of referrals to SU residential treatment. In particular, for the ACT, from 2019 to 2020, there was a 236% increase in referrals, exceeding the targets of the PIP aims. In addition, outcomes increased and were sustained over time.

Did any factors affect the methodology of the study or the validity of the results? If so, what were they?

COVID19 - COVID19 outbreaks and protocols in the residential treatment programs were factors that threatened the validity of our outcomes. For the safety of clients and staff, the residential treatment programs implemented COVID19 protocols which impacted timely admissions. Protocols included reducing capacity to accommodate social distancing guidelines, reassigning client rooms to COVID19 observation rooms, and requiring repeat negative COVID19 tests before admissions. The protocols either reduced program capacity or extended the admissions process. Other COVID19 related factors that impacted the outcome of the PIP were reduced staffing and COVID19 outbreaks in the residential programs. From December 2020 – February 2021, five residential treatment programs experienced COVID19 outbreaks in their facilities resulting in full closure of the programs. The average closure time was 3-4 weeks and the longest was 6 weeks. As a result, from January – February 2021, 49 clients were not placed in SU residential treatment.

Since the impact of the PIP is measured by the number of patients who present to a SU residential treatment process to complete the pre-admission process, we infer that the programs' reduced capacity and closures had a direct impact on our interventions and outcomes. Our speculation is supported by 9% (59/498) of patients not admitted into treatment due to a lack of bed availability.

Fellowship Rotations – ZSFG is a learning hospital and as a result, medical residents (MDs) rotate into the ACT every six (6) months requiring training. Training the medical residents is a fundamental intervention because they will be the primary requestors of an SU consult from the Patient Navigators. The time required to onboard and train new residents on the PIP interventions may impact the validity of results. Moreover, the PIP trains only ACT Fellows. Not all residents/fellows rotating through ZSFG's PES, ED, and inpatient units are trained.

Medical issues may overshadow substance use issues: Patients with SU in their problem list are often presenting to the hospital for medical concerns rather than SU issues. Due to limited staff trained on conducting the brief LoC screening, patients with SU issues may go unnoticed, and of those screened, we are only capturing patients needing residential treatment and not identifying the need for Medication Assisted Treatment or SU outpatient treatment.

What, if any, factors threatened the internal or external validity of the outcomes?

Internal – After implementing the brief LoC screening, it was revised several times. Updates included expanding on risk assessment questions, questions about existing MH and MAT services, medication use, and COVID19 exposure. Changes made to the form could have impacted the authorization of referrals made before the tool was refined and finalized.

Internal –Continuous cycles of onboarding and training new residents and patient navigators could have threatened the validity of the outcomes.

External – The policies regarding admissions for clients on a tapering treatment for benzodiazepines or clients on alcohol use medications may threaten the validity of the outcomes. Initially, some of the programs were willing to admit clients on these medications but later changed their policies and denied admissions.

External – COVID19 protocols at the residential treatment programs and their ongoing changes could have threaten the validity of the outcomes. For example, the observation period has fluctuated between 5 – 14 days and varies between programs.

External – Initially, upon hospital discharge, clients were transported to the residential treatment facility via car share service. The client was accompanied by the Patient Navigator who would facilitate a warm handoff before returning to ZSFG via car share service. However, the contract with the car share service expired. Currently clients are provided a taxi voucher and sometimes travel alone because a return voucher is not always available for the Patient Navigators. As a result, some clients are not

arriving to the residential treatment program. This is a new development and the group will discuss interventions.

Was the improvement sustained through repeated measurements over comparable time periods? (If this is a new PIP, what is the plan for monitoring and sustaining improvement?)

Referral outcomes were measured monthly and monitored at the monthly PIP meetings. The aims were measured every six months (Dec. 31, 2020 and May 31, 2021) and also discussed at the monthly PIP meetings.

To sustain improvement, monthly monitoring of referral outcomes will continue, and the aims will be remeasured on December 31, 2021. Outcomes will be discussed with stakeholders at PIP meetings.

Were there limitations to the study? How were untoward results addressed?

Hours of Operations – Based on staffing capacity, SU screening and referrals are limited to business hours. The current staffing model does not capture patients with SU on their problem list outside of business hours.

Language Capacity –
Screening: Screenings are only conducted in English and Spanish. Moreover, the tool has not been translated to Spanish or any other language.
Treatment Language Capacity: Residential Treatment programs can only accommodate Spanish and English speakers.

Decreased Bed Capacity – Due to COVID protocols, programs have reduced their bed capacity.

Training Limitations – Training for ZSFG medical fellows regarding the SU screening tool and referral process is limited to fellows on the Addiction Care Team (ACT).

Screening Limitation – The tool is only screening for SU residential treatment and not addressing other needs like Medication Assisted Treatment (MAT) and outpatient SU services.

Medical issues may overshadow substance use issues: Patients with SU are often presenting to the hospital for medical concerns and not SU issues. Due to limited staff trained on conducting the brief LoC screening, patients with SU issues may go unnoticed. Moreover, because patients are presenting for medical issues, they may be hesitant about accepting SU treatment.

What is the MHP/DMC-ODS's plan for continuation or follow-up?

Since the PIP aims have been met, they will be revised. New goals will be set through December 31, 2021 and the PIP stakeholders will strategize changes to the intervention. The revised aims will be supported by regular monitoring and monthly meetings with PIP stakeholders.

The PIP's continuation plan will also include exploring a plan for sustaining changes and scaling up improvement. TAP Nurse Practitioner, Michelle Truong was assigned increasing referrals from ZSFG as a special project and continuing the PIP intervention will require establishing permanent staffing. When developing a staffing model, it will be important to consider the required qualifications and medical experience since they will need to assess medical stability and have knowledge on addiction treatment.

Continuation will also require ongoing engagement from ZSFG's partnering programs and ongoing training of Patient Navigators and ACT medical residents. Partnership with the programs depends on the programs' ability to sustain funding for their Patient Navigators (positions are currently temporary).

Expanding PIP Interventions: The linkage outcomes from our PIP have prompted other agencies to reach out to TAP to develop similar screening and referral processes for their programs. Since March 2021, TAP has been working with Jail Health and Latino Commission to replicate the PIP interventions at Jail Health with the intention of streamlining admissions to SU residential treatment for LatinX clients being released from jail. As of June 2021, 11 clients in jail custody have been referred to TAP, 3 clients have been admitted into SU residential treatment, 6 clients are pending, and 2 declined services. The PIP interventions are also being replicated with Transitional Age Youth System of Care (TAY-SOC). Since February 2021, 12 clients have been referred to TAP and 8 clients have been admitted into SU residential treatment. TAP will continue to partner with Jail Health and the TAY-SOC to streamline the admissions process into SU residential treatment. Moreover, private hospitals in San Francisco have also reached out to TAP wanting to partner with TAP on implementing a SUD screening and referral process.

Additional Information or comments

Description of SF SUD residential treatment programs, patient navigator programs, TAP, and Psychiatric Emergency Services.

San Francisco's substance use (SU) residential treatment service is a complex system with both DMC-ODS providers and non DMC-ODS providers, as well as different level of care residential treatment programs (i.e., 3.1, 3.3 and 3.5). There are six main SU residential providers, with eleven different types of residential treatment programs with diverse funding resources. Seven out of the eleven residential treatment programs are DMC-ODS, with one coming on-board next year. Four out of the eleven residential treatment programs are non DMC-ODS. All programs have unique requirements for admission (i.e., documentation), and serve different populations (i.e., individuals with legal histories, Spanish speakers, LGBTQQ population, individuals with HIV, individuals with both substance and mental health issues, etc.). The variety of treatment options and admission requirements makes it difficult for ZSFG staff to make appropriate SU

referrals. TAP makes referrals to both DMC-ODS and non-DMC-ODS residential treatment programs.

An ACT patient navigator is a health professional who focuses on the patient's needs and helps guide the patient through the healthcare system. Patient navigators do not have any special training in mental health and substance use disorders. They are limited in their ability to differentiate the different levels of care that a patient would need (i.e., 3.1, 3.3 versus 3.5 level of care). They are also limited in their capacity to handle all the patients presenting to the ED and referrals received from the Med Surg treatment team.

Treatment Access Program (TAP) is the screening, referral and placement unit of the Behavioral Health Services (BHS). TAP directly screens clients who self-refer or are referred by various providers throughout the City.

Addiction Care Team (ACT) is an innovative program at ZSFG that is sponsored by the San Francisco Health Plan, San Francisco General Hospital Foundation, and other philanthropy. ACT connects traditionally siloed medical care, addiction treatment, and community support to help address a patient's Substance Use Disorder (SUD). ACT is staffed by a patient navigator, addiction medicine fellow, and a supervising physician who together provide a novel approach to addiction care. It is the second program of its type in a public hospital, and the first in such a racially and ethnically diverse population where patients use multiple substances and face complex social situations. Currently, ACT delivers SUD care only to patients on select hospital teams. Additional funding would expand capacity so ACT could be available to any patient.

Citywide Community Response Team (CCRT) utilizes specially trained crisis response staff to provide crisis intervention, linkage, and referrals to appropriate behavioral health and non-behavioral health resources and services.

UCSF Department of Psychiatry at Zuckerberg San Francisco General Hospital and Trauma Center- Psychiatric Emergency Services (PES) is the primary provider of adult emergency mental health care in the City and County of San Francisco. The service sees approximately 8,000 patients per year, of whom approximately 20% are voluntary walk-in patients. PES provides crisis stabilization, complete medical and psychiatric assessment and evaluation services, and initial treatment, if appropriate. The staff, which includes physicians, nurses, and social workers, work closely with a number of community agencies to develop short and long-term treatment plans.