TEMPLE UNIVERSITY HOSPITAL

Community Health Needs Assessment Implementation Plan

FY22 Progress Report

TEMPLE HEALTH
TEMPLE UNIVERSITY HOSPITAL

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FISCAL YEAR 2022 PROGRESS REPORT HIGHLIGHTS

During Fiscal Year 2022 (FY22), Temple University Hospital achieved significant progress on our 2019-2022 Community Health Needs Assessment (CHNA) Strategy goals. We highlight a few notable accomplishments below.

From FY20-FY22, we achieved the following:

- **257%** increase in patients served by our *Community Health Workers Care Transitions Program* from 441 to 1,575.
- **35.8%** decrease in hospital admissions, **55.9%** decrease in readmissions and **65%** increase in patient service days for patients enrolled in our *Longitudinal Care Management Program.*
- **90%** increase in our Certified Recovery Specialist encounters from 852 to 1758.
- **10%** improvement in our successful warm handoff average from 45% to 55%.
- **9%** increase in outpatient behavioral health appointment attendance associated with our expanded telehealth options.

From FY21-FY22 we achieved the following:

- **14%** more warm handoffs for patients to other community behavioral healthcare providers. Progress can be attributed our *Certified Behavioral Health Peer Specialist* team's growth and full adoption of our internal *SUD Engagement Team*.
- **62%** increase in Spanish language encounters for our *Diabetes Education Program*.
- **48.1%** increase in buprenorphine "medicated assisted treatment" prescriptions from 8,491 to 12,579.
- **16.1%** increase in our number of distinct clinicians prescribing buprenorphine from 620 to 720.

In FY22 we also achieved the following:

- **$1.9** million in local, state and federal grant funding awarded to our hospital to increase behavioral health supports for trauma patients and families. In FY23, we use funds to hire a clinical social worker to provide bedside counseling and a full-time trauma psychologist to deliver cognitive-based and trauma informed therapy.
- **1,800** violently-injured patients and their families served by our *Trauma Advocate Program*.
- **1556** community members provided spoke and other health education through *Frazier Family Coalition* partnership.
- **2117** fresh fruit and vegetable boxes distributed to our community through our *Farms to Families* program.

In FY23, we will develop a new 2022-2025 CHNA Implementation Strategy based on our latest 2022 CHNA. This strategy will build upon on our 2019-2022 CHNA Implementation Strategy, including progress highlighted in this FY22 and past progress reports as we continue to strengthen our initiatives to meet the needs of surrounding communities.

Program 1: *Diabetes Prevention Program (DPP)*

Goals:

1. Enhance access to Temple's Center for Population Health's (TCPH) DPP at various locations including community based locations and health system campuses.
2. Increase awareness of the DPP within Temple University Health System (TUHS) and in the community.
3. Increase number of community members receiving information from DPP curriculum and other resources to help them make healthy lifestyle changes reducing their risk of developing type 2 diabetes and improve overall health.

Implementation Team:

- *Director of Population Health,* TCPH – Meaghan Kim, MHA, BSN, RN, CDCES
- *DPP Coordinator & Trainer,* TCPH - Edoris Lomax

Objectives:

1. Increase number of DPP participants enrolled from TUHS catchment area communities and number of DPP Life Style coaches.
2. Increase DPP participant retention rate by 5%.
3. Expand upon current virtual DPP capabilities (offer additional in person and virtual class options).
4. Increase volume of participants from health plans, Temple Physicians Incorporated, Temple Faculty Practice Plan, Temple University Hospital employees and community members by 5%.
5. Expand DPP contracts with Medicare, Health Partners Plan, Keystone First, and United Health Communities.
6. Participate in Citywide *Philadelphia Diabetes Prevention Collaborative*.

Summary of Tactics Implemented:

- Currently streamlining DPP program enrollment and data reporting process with Temple Access Center and other internal partners to improve program participation, operation and evaluation.
- Continue partnership with TUHS Benefit Services to continue to provide DPP classes to employees at no cost.
- Continue to offer Zoom classes. The hybrid model has proven to be the most effective (For each cohort, one session per month is in-person all others are virtual via Zoom.)
- Training Community Health Workers and other TCPH staff to serve as DPP lifestyle coaches. New trainees have the option to participate in DPP new cohorts.
- Hiring one Community Health Worker with 50% time allocated to DPP. Interviews underway.
- Continuing partnership with the *Philadelphia Diabetes Prevention Collaborative* and the *Frazier Family Coalition.*
- TCPH Program Coordinator provided representation in the community by:
    - Presenting to the Temple Diabetes Support Group

- Diabetes Day - participated in planning and manning table for information to community
- Provided DPP overview to the *North Philadelphia Community Collective*
- Held information session provided to PA Key -In Support of PA Office of Child Development & Early Learning staff
- Provided presentation and resources at Bright Hope Baptist Church CAC Resource Information Fair
- Provided education to community at Community Day at Liberty Square

Outcomes:

- DPP class offerings were successfully maintained at Temple University Hospital Main and Jeanes campuses and Law Enforcement Health Benefits locations through the pandemic. COVID is still a factor impacting expansion to other community locations. We are hopeful that downward pandemic trends will allow DPP expansion again within community settings.
- Partnerships with the *Philadelphia Diabetes Prevention Collaborative* and the *Frazier Family Coalition* has resulted in increased enrollment and awareness of TCPH program in our region.
- Successfully reinstated Spanish DPP for both virtual and in-person. Working on developing materials designed for effective delivery of the DPP to this population.
- ***DPP retention rate continues to show improvement of 10.5% from year 1 to year 2; and 26% improvement from year 2 to year 3.***
- ***DPP participants lost an average of 5.3% of their body weight measured at program completion as shown in Figure 1 below. This is an improvement from year 3 (goal is 5% weight loss).***
- COVID-19 pandemic continues to be a factor increasing overall participant volume by 5%; however, we still enrolled 162 community members from September 2021 to February 2022. ***This is the highest enrollment rate since year 1.***
- We continue to maintain our full CDC program recognition by timely submitting participant data (attendance, weight loss, and physical activity) every 6 months.

Temple Diabetes Prevention Program (DPP)					
	Classes	**Enrollees**	**Currently Enrolled**	**Graduates**	**Avg. Weight Loss**
Year 1 (10/2018- 10/2019)	5	150	N/A	29	**5.60%**
Year 2 (8/2019 - 8/2020)	7	101	N/A	21	**5.20%**
Year 3 (10/2020 - 8/2021)	6	83	N/A	*22	**5.10%**
Year 4 (9/2021 - 2/2022)	7	162	76	*21	**5.30%**
*Graduating 9/2022					

Conclusions & Next Steps: Virtual sessions have been positively received and are gradually becoming the norm for program participants. We will continue to incorporate a hybrid model for future cohorts. Additional Community Health Workers have been trained as Life Style Coaches to allow assignment to additional cohorts. Regularly promoting the program within TUHS and the community will continue in 2022-2023 to further the success of DPP. Future plans include:

- Increase Temple Health employee enrollment
- Canvas for new DPP community locations (in person and virtual)
- Develop tools in improve Spanish speaking population retention rates
- Train additional Community Health Workers as life style coaches
- Work further with Temple Access Center on DPP enrollment
- Work to implement DPP Express options

Program 2: *Diabetes Education Program*

Goal: Expand access to diabetes education classes and related initiatives at TUH's Main, Episcopal, Northeastern and Jeanes campuses.

Implementation Team:

Executive Sponsors

- *Senior, Vice President, Population Health,* TCPH - Steven R. Carson MHA, BSN, RN
- *Section Chief, Endocrinology, Diabetes and Metabolism,* TFP - Jonathan Anolik, MD

Team Members

- *Director of Population Health,* TCPH – Meaghan Kim, MHA, BSN, RN, CDCES
- *Manager, Diabetes Program,* TUH - Casey Dascher
- *Educator, Diabetes Program,* TUH - Lindsey Verano
- *Educator, Diabetes Program,* TUH - – Maria del Pilar Aparicio
- *Educator, Diabetes Program,* TUH - Adrienne Liccketto

Objectives:

1. Increase Diabetes Self-Management Education and Support Class (DSMES or diabetes education) encounters by 5-10%
2. Demonstrate reduction of HgA1c by 1.5 among participants who complete the comprehensive DSMES curriculum

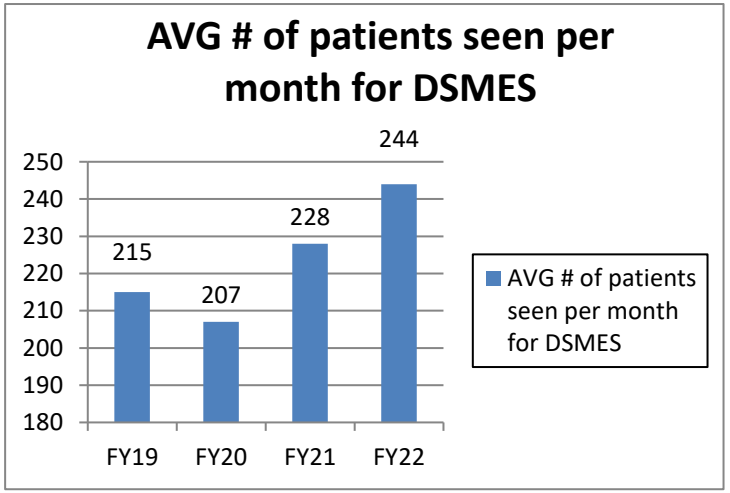
Summary of Tactics:

- Implemented text reminders for appointments and classes
- Patients scheduled by Temple Access Center within 1-2 days of a referral.

- Scheduling completed and upcoming appointments are visible in EPIC and MyTempleHealth Portal for providers to remind their patients of upcoming DSMES appointments.
- Partnering with Nurse Navigators who pend referrals for providers.
- Law Enforcement Health Benefits Nurse Navigator is now able to provide direct referrals
- Diabetes educators offering services in the same office as the Temple Diabetes Physicians, Jeanes Endocrinology, Fort Washington Endocrinology, and four TPI primary care settings to help increase referrals through cooperative efforts between medical and educational/support services.
- Adrienne Liccketto RN, implemented a new Spanish language DSMES curriculum which provided more culturally appropriate services for the Latinx North Philadelphia population to help improve class participant retention.
- Referring physicians contacted for medication recs if a patient's BG levels remain elevated during class despite lifestyle changes.
- DSMES is now offered as a telehealth service to reduce barriers to receiving DSMES.
- Partnering with Salus Health to offer onsite DSMES classes at the Salus Eye Institute

Outcomes:

- ***The Diabetes Program saw an increase of 14% in average monthly encounters in from FY19 - FY22***.
- Participants who completed the comprehensive curriculum in FY21 had an average HgA1c reduction of 1.8, ***surpassing the objective of HgA1c reduction of 1.5 and showing a 0.4 improvement over FY20.***
- Patients overall have been satisfied by *Temple Diabetes Program* services provided as evidenced by survey outcomes. When asked if a patient feels "more confident with managing their diabetes after receiving diabetes education", 87% agreed or strongly agreed. When asked if a patient would recommend the *Temple Diabetes Program,* 97% agreed or strongly agreed.



Conclusions & Next Steps: We are pleased to see the ***14% increase in DSMES encounters over the last four years***. There was a ***62% increase in Spanish language DSMES encounters from FY21 to FY22***. Adrienne Liccketto RN, provides DSMES services at TPI Hunting Park and Maria del Pilar Aparicio RN, the team's tri-lingual educator, was hired in May 2021. These two educators contributed greatly to the Spanish language DSMES encounters increase. The DSMES team's FY23 CQI project will continue to focus on creating a patient-centered, culturally appropriate, Spanish DSMES curriculum with feedback from Spanish patient focus groups and surveys.

The 19% no show rate was steady from FY21-FY22 as the department continues to offer telehealth services and education services within primary care settings. Patients continue to receive reminder texts and can view upcoming appointments in the MyTempleHealth Portal.

Average monthly referrals for diabetes education in FY22 increased 2% compared to FY21 and previously increased 27% between FY20-FY21, demonstrating significant increases over the last two years. The program hopes to continue to attract more referrals as services are provided within more medical practices. The program also acquired new marketing materials in both English and Spanish and plans to attend multiple health fairs in Fall 2022. Additionally, the DSMES department is looking to expand services into TFP internal medicine offices, the Episcopal campus, TFP endocrine at Fort Washington and Broad Street, and to return to in-person group classes. The DSMES team will also be adding another educator in September 2022 to help with the increase in referrals and service locations.

The program surpassed the goal of lowering HgA1c by at least 1.5 for patients who have completed the comprehensive DSMES curriculum. A remote patient monitoring (RPM) program was also initiated at three TPI primary care offices. The program did not meet participation expectations and hence was discontinued.

PLAN TO IMPROVE MENTAL HEALTH RESOURCES & EDUCATION

Goal: Expand mental health treatment beyond hospital walls while increasing access to treatment across all levels of care. Increase care transition linkages and patients with warm handoffs from TUH to other care levels.

Strategy Team Lead: *Director of Behavioral Health,* TUH –Episcopal Campus, - LJ Rasi

Summary of Tactics Implemented & Outcomes:

- **Tactic:**
  1. New discharge lounge created in hospital area where discharged patients can meet with their intensive case manager prior to leaving the hospital campus. Protocol was developed to allow a specific Social Worker to make these appointments and help facilitate them with community providers. This initiative launched in February 2022.
  2. Wedge Recovery Center in May 2022 began providing outpatient intake appointments in the discharge lounge. Wedge provided patients currently unaffiliated with an aftercare agency with intakes on the same day of discharge, prior to the patient leaving Episcopal Campus.
  3. Substance use service line established in July 2021 continued to refine processes throughout their first year of operation to link patients to lower levels of care from our Emergency Rooms, CRC and Inpatient Units.
  4. Integrated behavioral health in several Temple Physician Inc. practices continued to refine their efforts to assist Primary Care Physicians in treating mental health concerns.
  5. Initiated and continued use of telehealth activities in Temple's outpatient mental health clinic during the COVID-19 pandemic.
  6. Continued collaboration with *Collaborative Opportunities to Advance Community Health* (COACH) to focus on embedding trauma-informed care into staff training and care delivery.

- **Outcomes:**
  1. ***Linkage rates following inpatient behavioral health services to next levels of care rose by almost 30% from the last month before the discharge lounge (January 2022) to the first full month of operation (March 2022).*** This data will continue to be reviewed to measure the impact of Wedge's arrival on campus.
  2. All hospital campuses now have behavioral health system employees who can assist with linkage of dual diagnosis patients to the next level of care.
  3. ***Participants in the integrated behavioral health program with TPI saw their PHQ9 depression rating scales improve from 8.1 to 3.8*** in addition to demonstrated decreases in emergency room visits.
  4. Virtual appointments have improved departmental efficiency and patient compliance, resulting in more community members accessing services. ***In the last 5 years, Temple's outpatient department doubled the number of patient visits. While 78% of patients attended their scheduled appointments prior to telehealth, with the implementation of telehealth this has increased to 87% and appointments attended rose from 10,537 in FY20 to 12,429 in FY22.***

5. Stemming from the work with COACH, trauma-informed care principles have been added to Appropriate Response Training that Episcopal staff receive annually.

Conclusions & Next Steps: As a result of the tactics and outcomes listed above, Temple was able to complete ***14% more warm handoffs than the previous fiscal year***, with expectations for yet another increase in FY23. Warm handoffs were one technique used to improve the linkage rate to community levels of care. Additionally, the incorporation of behavioral health services in new locations should allow the community to have greater access to these resources without being captured as a warm handoff or linkage from a hospital location.

PLAN TO IMPROVE DISEASE & CARE MANAGEMENT

Goals:

1. Heighten community awareness of Temple University Health System (TUHS) clinical services including primary care networks, disease specific programs and care management resources.
2. Increase patients utilizing *Community Health Worker Care Transitions Program* (CHW Program) Team members of Community Health Workers, Nurse Navigators, and Social Workers at Temple University Hospital (TUH).
3. Increase patients enrolled in *Longitudinal Care Management Program*.
4. Screen patients for social determinants of health disparities and link to community based organizations to address needs.
5. Improve appointment adherence post discharge.
6. Improve care transitions for patient discharged from inpatient hospitalization to next care site.

Strategy Team Leads:

- *President & CEO,* Temple Center for Population Health (TCPH) - Steven R. Carson MHA, BSN, RN
- *Director, Population Health,* TCPH – Meaghan Kim MHA, BSN, RN, CDCES
- *Director, Community Care Management,* TCPH – Lakisha R. Sturgis MPH, BSN, RN, CPHQ
- *Director, Quality & Compliance,* Temple Physicians Inc. – Mitali Desai, MHA

Objectives:

1. Increase post-hospital, discharge follow-up appointment adherence to primary care 10%.
2. Improve medication adherence 5% for patients discharged from hospital.
3. Reduce hospital readmission rate 5% for low acuity admissions.

Summary of Tactics Implemented & Outcomes:

1. To meet our community's complex needs, the TCPH *CHW Program* at TUH continues to address the needs of our community. From the CHW to the Director of Community Care Management, the staff are trusted members of the community who understand the complexity of social barriers faced by our community. The team is comprised of a CHW Supervisor, eight CHW's, two social workers, and a registered nurse. Traditionally, the team conducts intake assessments during hospitalization, at home and/or in the community to identify patients with complex social and medical disparities. During FY22, COVID-19 and violence reduced the number of home visits conducted by the team; however, community visits and touchless delivery continued as a strategy to address food insecurity and other social determinant of health (SDOH) needs.
2. In FY21, the *CHW Program* established two partnerships. TCPH partnered with *Temple University Center for Urban Bioethics* and the *Philadelphia Housing Authority* (PHA) to create *PHA Cares*. The program trains and employs PHA residents as CHW's to educate and promote prevention strategies around COVID-19 in PHA developments throughout Philadelphia. During FY22 there were 9 health education sessions on various topics i.e. COVID-19, breast health, diabetes, summer safety, nutrition and self-care.

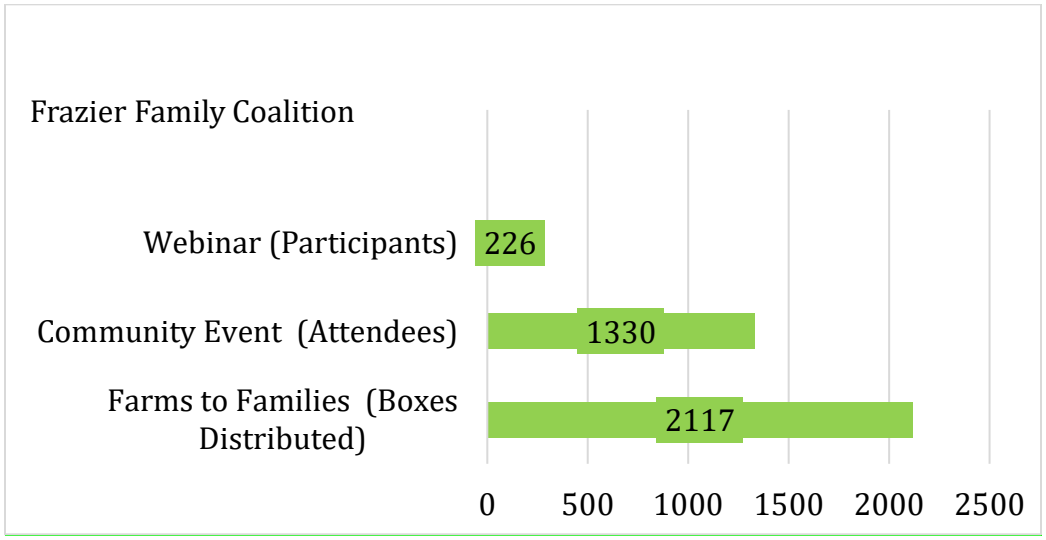
3. Temple University and Thomas Jefferson University began working together on a program to bring stroke prevention care to Philadelphia's most underserved communities. *The Frazier Family Coalition for Stroke Education and Prevention*—backed by a $5 million gift by Andréa and Ken Frazier—creates a partnership between Temple and Jefferson universities and their health systems to investigate social determinants of health and the race-ethnic disparities that lead to poor health and an increased risk of stroke. In FY22, the Frazier Family Coalition continued its' primary focus of community engagement and education, implementing culturally-appropriate programming such as the *Hypertension Education and Support Program*, distribution of fresh produce through *Farms to Families*, hosting a Community Day Health Fair, conducting webinars and participating in 25 community events.
4. The TCPH *Longitudinal Care Management Program* team provides post discharge follow up calls and interventions to patients affiliated with Temple Faculty Practice (TFP) and Temple Physicians Incorporated (TPI) primary care physicians using a nurse navigator and community health worker dyad. The team uses a risk stratification model that accounts for multiple factors related to patient outcomes and health. Selected patients are followed and managed from transitions of care after hospital stay through a longitudinal multi-month care management phase to assist with long term healthcare needs such as medication adherence, biometric improvement (A1C, LDL, etc.), and disease management.
5. The team continues their work on improving medication adherence and reconciliation in partnership with TPI and TFP. The team also focused on patients who unable to attend post discharge office visits within 7 days. For these patients the team performed outreach and performed medication reconciliation telephonically.
6. In FY22, the Temple *Integrated Behavioral Health* (IBH) program expanded to TFP. The licensed clinical social worker focuses on behavioral health and chronic health condition management to improve overall patient health outcomes while the consulting psychiatrist provides clinical oversight of the program.
7. Using a contract vendor, chronic care management was provided to 15 TPI primary care practices which was a slight decrease from the previous year as two practice sites merged in FY21. The vendor now completes telephonic chronic care management assessment, disease management and education, and care planning with patients. The vendor also enrolls patients in a behavioral health care management program, if appropriate, and coordinates access to resources and follow-up with primary care providers. In compliance with CMS requirements, the vendor performs post-discharge outreach calls with three goals in mind: 1) Complete medication reconciliation post-discharge; 2) Coordinate transitions of care visit; and 3) Address any post-discharge needs or questions patients may have.
8. TCPH implemented *Temple Community Health Connect, powered by FindHelp*, a social care network platform that connects people and organizations to address social determinants of health. Temple staff and community members can access this site directly to locate community based resources.
9. In FY22, TCPH implemented a new program the *Healthy Together, Mobile Health Van* to address the needs of underserved and vulnerable populations which provides health screenings, education and professionals into the community to improve health outcomes, improve access to health care, and connect community residents with resources.

Care Management Metrics

Community Health Worker Transitions of Care Program Team Dashboard *Utilization is 30 days after enrollment date											
CHW	**Patients**	**Avg Charlson Score**	**Patient w/ CHW Home Visit**	**Patient Home Visit %**	**Patient w/ Post ED Visit**	**Patient w/ Post ED Visit %**	**Patient w/ Post Admit**	**Patient w/ Post Admit %**	**Patients w/ Post Readmit**	**Patient w/ Post Readmit %**	**Services Performed**
FY22	**1,575**	**6.1**	**169**	**10.7%**	**320**	**20.3%**	**235**	**14.9%**	**182**	**11.6%**	**28,956**
FY21	**1,006**	**6.1**	**39**	**3.9%**	**205**	**20.40%**	**173**	**17.2%**	**130**	**12.9%**	**17,271**
FY20	**441**	**3.4**	**114**	**25.9%**	**96**	**21.8%**	**80**	**18.1%**	**59**	**13.4%**	**4,373**

From FY20-FY22, the number of patients enrolled in our CHW program increased by 3.5X and services provided increased by 6.6X. The significant improvement can be attributed to progressing through the pandemic of COVID-19, greater referrals through the electronic medical record, improved data collection, and a 100% increase in staff. CHW program services include, but are not limited to: touchless food delivery, coordination of financial support, scheduling transportation, securing medication, and assistance with completion of utility and medical forms. This transformative approach to addressing social barriers improves patients' health outcomes and reduces hospital utilization. ***With an average 12.6% hospital readmission rate, patients in our CHW program surpassed our goal of 18%.***

Frazier Family Coalition Metrics



As a member and driving force behind the *Frazier Family Coalition,* we conducted significant stroke prevention and education efforts in FY22. ***We engaged 1556 community members through community events and webinars. We distributed 2117 boxes of fresh fruit and vegetables throughout our community through the Farms to Families "Food as Medicine" program.***

Temple Longitudinal Team Dashboard

All Patients starting July 2021 - June 2022
Utilization is 30 days after enrollment date

Care Pathway Owner	Patients	Avg Patients per Month	Avg Charlson Score	Avg Days	Patient Admitted %	Patient Readmit %	% Patient Appt Scheduled	Patient Show Rate	Care Plans Created	Plan Created %	SDOH %
Overall	**790**	**66**	**4.6**	**61.2**	**4.3%**	**1.1%**	**34.3%**	**70.1%**	**785**	**99.4%**	**99.5%**

Patients enrolled and engaged with *Longitudinal Care Management Program* showed reductions in both admissions and readmissions. Patients were on the service for an average of 61 days and had a provider appointment show rate of 70%.

FY	Avg Days in Care Management (CM)	Patient Admitted %	Patient Readmit %
FY20	37	6.70%	2.50%
FY21	50.3	5.30%	1.60%
FY22	61.2	4.30%	1.10%
Change over FY	21.6% more days in CM	18.8% decrease in hospital admissions	31.25% decreasein readmissions
Change over cycle	65.4% more days in CM	35.8% decrease in hospital admissions	55.9% decrease in readmissions
Positive trend direction			

The three-year trend shows that patients are engaged with care management services longer (65% more days overall), resulting in fewer hospitalizations and reductions in hospital readmissions. Our Nurse Navigation team through longitudinal care management continues to help make the Philadelphia community healthier, one person at a time.

STARS Improvement Measures

Reconciling medications is an important component of Nurse Navigation. Medication errors can and do occur, especially when transitioning between home, doctor office visits, and hospital discharge. Temple nurses outreach telephonically to assigned patients after a hospital stay to assess the medications the patient is taking (name, dosage, and frequency) compared to the medical record. This is done to avoid medication errors such as omissions, wrong dosages, duplications, or drug/drug interactions.

Overall 22% improvement in medication reconciliation in FY22 compared to CY19.

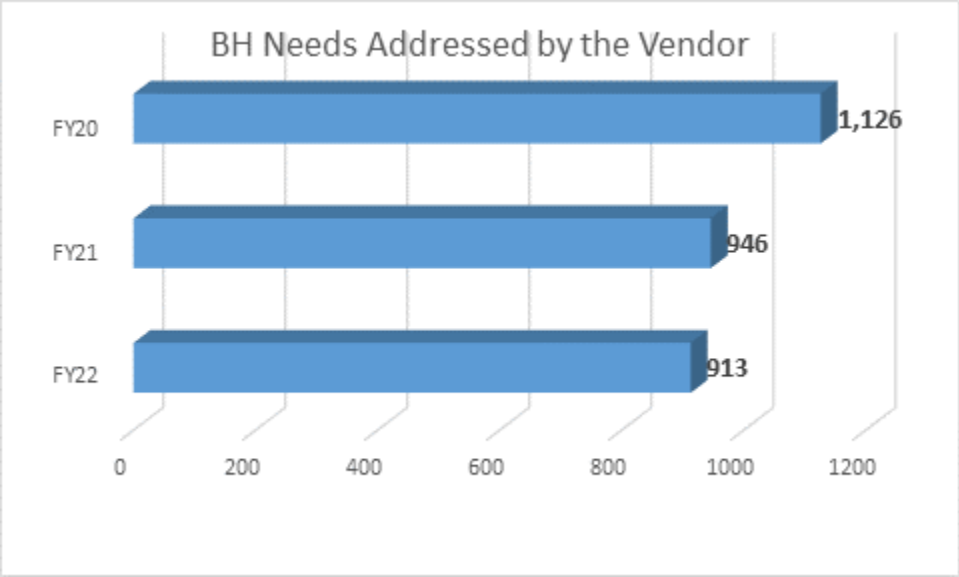
- CY19 50%
- FY20 63%
- FY21 69.2%
- FY22 – New reporting for Medication Reconciliation to include those patients only outreached by the Nurse Navigation team. The data also reflects the distinction between TPI patients and TFP patients.
- Medication reconciliation average for FY22: TPI- 51.3% TFP – 70.25%

The new measure for the Nurse Navigation team highlights opportunities to tighten this process to result in improved outcomes.

Behavioral Health Integration

Time Period *90 day lag for BH Measures	Patients	Avg Charlson Score	Patient w/ Pre ED Visit % (90 Days)	Patient w/ Post ED Visit % (90 Days)	Patient Admitted % (90 Days Pre)	Patient Admitted % (90 Days Post)	Avg PHQ9 (360 DaysPre)	Avg PHQ9 (90 Days Post)	Avg A1C (360 Days Pre)	Avg A1C (90 Days Post)	% Ptnts w/ Diabetes	% Ptnts w/ Depression DX (F3*)	% Ptnts w/ Diabetes and Depression DX	% Ptnts w/ Eye Exam
July 20- April 21	129	4.3	20.2%	17.1%	13.2%	7.8%	5.8	4.5	8.6	7.9	69.0%	85.3%	61.2%	26.4%
April 21-March 22	66	3.4	28.8%	18.2%	10.6%	9.1%	8.1	3.8	7.3	7.9	45.5%	92.4%	45.5%	26.7%

Since the implementation of Temple's *Integrated Behavioral Health Program* (IBH) in 2020 a total of 195 patients has been managed with brief interventions to address depression, diabetes, and other chronic health conditions. Depression and the effects of various chronic health conditions have been shown to share a bilateral relationship. Outcomes show significant improvement in the reduction of emergency department visits, hospital admissions, and PHQ-9 scores.



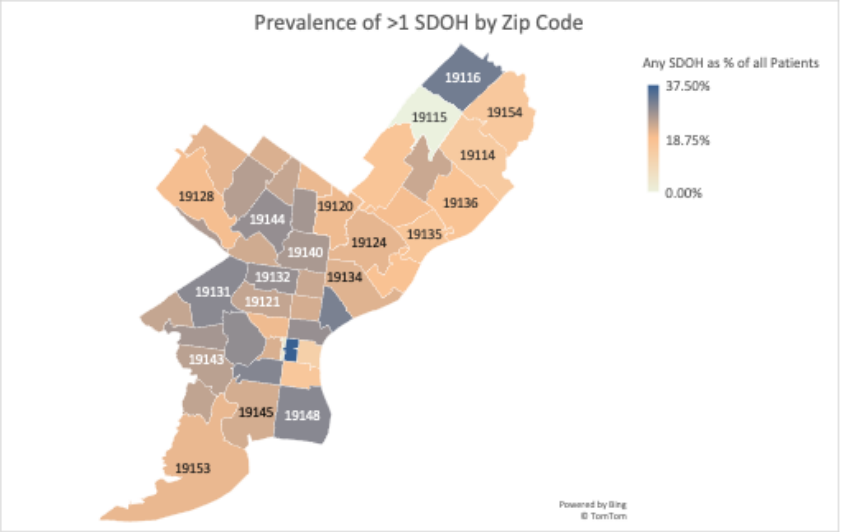
Recognizing the magnitude and intersection of behavioral and physical health, Temple Health continues to work closely with and provide oversight to our contracted vendor. During FY22 the vendor addressed the behavioral health needs of 913 patients. Overall 2,935 patients received coordination of care for behavior health.

Social Determinants of Health Assessment Program

Social Determinants of Health Screening Tool **Unique patients screened 2019-2022*				
Calendar Year	**2019**	**2020**	**2021**	**2022 YTD (Sep 2022)**
Unique Patients Screened	9,798	19,580	41,923	81,891

There has been an over 800% increase in unique patients screened each calendar year for social determinants of health (SDOH) since 2019 when Temple University Health System (TUHS) implemented an SDOH screening tool in its electronic medical record. In 2019, we screened 9,795 patients compared to 81,891 in 2022 YTD. Over the last three and half years we have expanded the number of Temple University Hospital and TUHS affiliated offices and departments that screen patients for SDOH. Initially in 2019, screenings were conducted in Temple Physicians Inc. primary care practices. By the end of 2019, screenings were being conducted in all primary care settings and all 3 TUH Emergency Department locations. As the number of clinical locations conducting screenings expanded, the number of patients screened increased exponentially.

Our screenings have revealed the self-identification of SDOH(s) by patients across Philadelphia, with higher percentages of patients reporting 1 or more SDOH or social risks in our North Philadelphia and other economically challenged zip codes as depicted on the map.



To assist patients experiencing SDOH social needs, we have increased our number of Community Health Workers from 5 in 2019 to 10 in 2022. We have also established other programs such as *Housing Smart* and *Farms to Families*, and provide transportation to healthcare appointments for our patients and community members in need.

Health Together Mobile Health Van

Since the debut of our *Healthy Together, Mobile Health Van* in September 2021, ***we educated 1330 community members*** on stroke prevention, hypertension and diabetes at retail establishments, faith based institutions, health fairs and other neighborhood locations. We screened 183 community members for blood pressure. Additionally, we distributed 233 gun locks in collaboration with our *Safe Bet Program* to encourage safe storage practices for gun owners to prevent unintentional shootings by children. We also collaborated with our partner Fox Chase Cancer Center on breast and lung cancer education.

Housing Smart

Data for FY22 is consistent in prior years with participants demonstrating an 83% reduction in emergency department utilization, 92% reduction in-patient utilization, while increasing outpatient utilization by 37% within the first 5 months of the program. In collaboration with two managed care organizations and a community benefit organization, the *Housing Smart Program* is aimed at addressing the foundational needs of an individual, shelter. The program supports the whole-person by wrapping care management services around high-utilizing, chronically homeless individuals. The goal is to decrease unnecessary utilization of the health care system and help patients establish a relationship with a medical home. This program launched in March 2020 and has continued to demonstrate success in reducing avoidable utilization.

Conclusions & Next Steps: In FY22, the COVID-19 pandemic presented many challenges for both patients and the population health professional team(s). Despite these challenges, we proved positive patient outcomes and community engagement. In addition to the steps below, for FY23, TCPH will utilize the 2022 Southeastern Pennsylvania Community Health Need Assessment to establish goals and interventions to address the needs of our target population.

1. Hire and retain Community Health Workers.
2. PHA Cares will re-engage housing developments.
3. Continue to expand behavioral health integration within primary care practices.
4. Evaluate behavioral health assessment software system.
5. Monitor and improve medication reconciliation and adherence and focus on readmissions reduction. Explore opportunities to better utilize technology, such as text message reminders to engage patients.
6. Continue to monitor patient outcomes for those engaged *in Longitudinal Care Management Program*. Metrics include depression screening score, ED utilization, IP utilization and readmissions, and medication adherence.
7. Establish a partnership with health insurers to address unmet SDOH for at-risk populations.

PLAN FOR VIOLENCE REDUCTION & INTERVENTION

Goals: Reduce prevalence of firearm injury and violence among residents of North Philadelphia by addressing their social, emotional, and financial needs. Strengthen awareness of the consequences of violence to reduce hospitalizations, barriers to preventative health care, and to improve quality of living in our underserved communities.

Strategy Team:

- *Director Trauma & Burn Operations, Trauma Program,* TUH – Jill Volgraf
- *Trauma Outreach Manager, Trauma Program,* TUH – Scott Charles
- *Trauma Support Advocate, Trauma Advocate Program,* TUH – Leslie Ramirez
- *Trauma Support Advocate, Trauma Advocate Program,* TUH – Rose King
- *Trauma Support Advocate, Trauma Advocate Program,* TUH – Sadiqa Lucas

Summary of Tactics Implemented & Outcomes:

- **Tactics:**
  - In FY22, Temple University Hospital (TUH) continued its violence prevention and intervention initiatives aimed at teaching young people in Philadelphia about the realities of gun violence (*Cradle to Grave*), training community members to provide pre-hospital first aid to victims of firearm injury (*Fighting Chance*), promoting gun safety (*Safe Bet*), and connecting violently injured patients to services that address their social, emotional, and financial needs (*Trauma Support Advocates Program*).
  - To expand the *Trauma Support Advocates Program*, we applied for and received a U.S. Department of Justice Advancing Hospital-Based Victim Services grant. The grant will be used to strengthen our services for violently-injured patients by hiring two positions: a case manager to increase our coordination with local crime victim service agencies; and a clinical social worker to deliver cognitive-based and trauma-informed mental health services.
  - To further build upon our *Trauma Support Advocates Program*, we applied for and received a grant from the Pennsylvania Commission on Crime and Delinquency. Funds from the grant will support the salaries of existing victim advocates, as well as allow us to hire a dedicated trauma psychologist to provide mental health services to survivors of interpersonal violence.
  - To expand the *Trauma Support Advocates Program*, we applied for and received a grant from the City of Philadelphia. Funds from the Anti-Violence Community Expansion Grant Program will be used to hire additional victim advocates at TUH Main, as well as place bilingual victim advocates at Episcopal Hospital.
  - To build the capacity of the *Trauma Support Advocates Program* we applied for a grant from the Pew Charitable Trusts to provide training around topics like trauma informed care and grief support to new and existing staff members.

- **Outcome:**
  - **Awarded $1.9 in local, state and federal grants to increase behavioral health supports for trauma patients and families.**
  - ***Assisted more than 1,800 violently-injured patients and their families in the hospital's Emergency Department through TUH's Trauma Support Advocates Program.***

- ***Referred more than 450 violently-injured patients to area victim service agencies through TUH's Trauma Support Advocates Program.***
- Partnered with the Greater Philadelphia Martin Luther King Day of Service to provide a virtual Fighting Chance first aid training to 80 violence prevention activists from nearly a dozen community organizations.
- Collaborated with Benjamin Franklin High School to facilitate a 5-week series of Cradle to Grave presentations for approximately 250 students from some of Philadelphia's most violence-plagued neighborhoods.
- Partnered with the *Philadelphia Housing Authority* and the *Philadelphia Police Department* to distribute more than 400 gun locks during their community block party events.
- Mailed more than 200 free gun locks to Philadelphia residents requesting them through TUH's Safe Bet website.
- Provided more than 1,000 free gun locks to residents during community-based events.

Conclusions & Next Step: North Philadelphia residents continue to be adversely affected by high rates of firearm injury. During FY23, we will increase the capacity of our existing violence prevention and intervention efforts by implementing a case management database that will enable us to better track participant information, including demographics, referrals to crime victim agencies, quality and duration of support received at those agencies and continued assessments of participant needs. To better support the behavioral health needs of individuals impacted by violence, we will hire a licensed clinical social worker to provide bedside counseling to hospitalized patients, as well as a dedicated full-time trauma psychologist to provide cognitive-based and trauma-informed therapy in an outpatient setting.

PLAN TO IMPROVE SUBSTANCE USE DISORDER TREATMENT INTEGRATION

Goals:

1. Establish 24/7 Certified Recovery Specialist (CRS) coverage in all Temple University Health System (TUHS) Emergency Departments (ED). Work with ED leadership to ensure effective patient flow.
2. Deploy level of care pre-assessment (LOC) in CRS workflow.
3. Engage EPIC team to review current substance use disorder (SUD) monitoring infrastructure and modify based on needs specified in goals.
4. Launch "SUD Warm Handoff Collaborative" to support transition of SUD patients treated in TUHS's acute care units to next appropriate level of behavioral health care.
5. Introduce Medication Assisted Treatment (MAT) into Temple University Hospital - Episcopal Campus's Crises Response Center (CRC) and utilize 23-hour observation status for purpose of improving patient recovery.

Strategy Team Leads:

- *Director, Program Services,* TUH – Episcopal Campus*,* Patrick Vulgamore

Objectives:

1. Increase number of SUD patients seen by CRS team compared to prior year.
2. Increase number of waivered providers compared to prior year.
3. Increase ratio of SUD patients linked to next appropriate-level provider successfully.

Summary of Tactics Implemented & Outcomes:

1. Since 2017, TUHS engaged a subcontractor to provide CRS services throughout our health system. Based on the internal subject matter expertise gained from that experience and a full understanding of the limitations that come with subcontractors providing CRS services, we focused on building infrastructure to fully employ a SUD engagement team, which includes a team of four (4) CRS's. We were able to work with the City's *Department of Behavioral Health and Intellectual Disability Services* (DBHIDS) to modify the contract in order to allocate funding directly to TUHS to be able to support the team, centrally manage the team and deploy the services to various campuses and levels of care. Beyond this shift in operations, we continue to focus on getting people into treatment as quickly as possible and continually improve as exhibited by the following outcomes:
    - ***409% increase in total number of CRS engagements since FY19*** (FY19: 345, FY20: 852, FY21: 922, FY22: 1758) and ***90.6% increase from FY20 to FY22.*** The improvement from FY'21 to FY'22 can be attributed to the full adoption of an internal engagement team as opposed to a subcontractor providing the services.
    - ***55.0% successful warm handoff average in FY22, as compared to 47.1% in FY21 45% in FY20 and 33% in FY19.*** *This analysis does not include patients who were discharged home and attended outpatient appointments outside of our health system.*
2. CRS documentation transitioned fully to our electronic medical record and aids in clinical team communication and data sharing.
3. Internal ASAM assessment staff were added to the engagement team to further decrease the latency of time it takes to achieve a successful warm handoff. The assessment itself was created within our electronic health record.

4. TUHS overall adoption of buprenorphine treatment for substance use disorder continued to grow:
    - ***48.1% increase in buprenorphine prescriptions in FY22 compared to FY21 (12,579 vs. 8,491).***
    - ***16.1% increase in number of distinct clinicians prescribing buprenorphine compared to FY21 (720 vs. 620).***
5. Concurrent efforts were launched in outpatient, inpatient rehab and skilled nursing facility settings to support a "Warm Handoff Collaborative." Patient pathways from our facilities to their maintenance treatment destination are continually refined.
6. Given the fact that buprenorphine waiver training is not mandatory for clinicians anymore, we have shifted efforts to educating our clinical team around the efficacy of MAT, best practices in treating addiction in their assigned level of care, resources available to them (such as CRS's and Assessors), and how to sign up to be able to prescribe buprenorphine.
7. Partnership with Merakey, an onsite addiction medicine office providing buprenorphine induction, intensive outpatient and inpatient rehab resulted in increased efficiencies in linking CRC SUD patients to next most appropriate level of care. Although buprenorphine induction volume in our CRC remains low, we continue to create opportunities and partnerships to increase CRC patients direct access to MAT. A 23-hour observation status has been utilized in the CRC should psychiatric treatment needs present in order to identify the most appropriate next level of care, further contributing to increase in successful warm handoffs. Alternative levels of care are being actively pursued that will help support buprenorphine induction pathways for CRC patients.

Conclusions & Next Steps: Based on the progress we have made over the last year noted above, we have learned how we can modify our efforts to increase the instance of best practice treatment of SUD across our campuses by pursuing the following:

1. Create a new level of care on campus that provides walk-in capabilities, buprenorphine inductions, ASAM assessments and CRS counseling, targeting identification of and transfer to the next level of care as the ultimate outcome.
2. Continue to expand the team of Certified Recovery Specialists.
3. Continue collaborations with our federal, state and local government partners and community based organizations to support funding stream alignment and sustainability of our treatment systems.

PLAN TO IMPROVE HEALTH OF MOMS & NEWBORNS

Goals:

1. Maintain *Sleep Awareness Family Education at Temple (SAFE-T)* program, which provides education to mothers regarding safe infant sleep practices and free "Baby Boxes" - functioning bassinets that provide babies a safe place to sleep.
2. Promote breastfeeding through patient, family, peer support and nursing staff education programs.
3. Increase patients' compliance with pre-natal care.
4. Initiate taskforce to explore delivery of care models to enhance care delivery in prenatal practice with goal of increasing compliance with prenatal visits. (i.e. "Centering" prenatal care, which involves development of groups of women of similar gestation to provide women with a support group).
5. Align with *Pennsylvania Perinatal Quality Collaborative* goal to reduce maternal mortality and improve care for pregnant and postpartum women and newborns affected by opioids.

Implementation Team:

- *Chairman, OB/GYN,* TUH - Enrique Hernandez, MD
- *Chief Nursing Officer,* TUH – Angelo Venditti, DNP, MBA, RN
- *Vice President, Nursing Clinical Operations,* TUH - Kim Hanson, BSN, MHA, RNC-OB
- *Interim Director Womens and Infants,* TUH – Colleen Moran
- *Division Director, Maternal Fetal Medicine,* TUH – Wadia Mulla, MD
- *Unit Based Medical Director*, *Post-Partum,* TUH - Gail Herrine, MD

Objectives:

- Improve breastfeeding initiation to rate of 75% over next year.
- Increase breastfeeding exclusive to rate of 30% over next year.
- Continue to provide baby boxes to all mothers who deliver and have babies discharged at Temple University Hospital (TUH).

Summary of Tactics Implemented:

- Continue *SAFE-T* program and disseminate safe infant sleep practices research. Identify at risk families and provide safe sleep spaces (travel bassinet).
- Actively participate in *Pennsylvania Perinatal Quality Collaborative* to reduce maternal morbidity and mortality and improve care and outcomes for postpartum women and newborns.
- Initiate education for nursing and providers around "Eat Sleep Console Model" that prepares maternity and pediatric caregivers to deliver safe, effective care for babies affected by Neonatal Abstinence Syndrome or Neonatal Opioid Withdrawal Syndrome.
- Continue *Center of Excellence* designated by the Commonwealth for the treatment of pregnant and other individuals with Opioid Use Disorder.

- Obstetrics faculty applied for and was awarded $18,000 grant to examine the impact of a mobile application to reduce the use of opioid medication among women who underwent cesarean section.
- Provide focused breast feeding education for attending and resident obstetricians and pediatricians online through Open Pediatrics' *Bella Breastfeeding Program*.
- Improved access to breastfeeding education for clinical staff on the inpatient units. Increased the availability of BRC by 4 hours each week for educational purposes.
- Continue to educate parents on breastfeeding and postpartum and newborn care using standardized education materials. Currently looking into adding a prenatal education module to enhance the patient's knowledge of pregnancy and childbirth that will be disseminated through our outpatient clinics.
- Continued partnership with Holy Redeemer to provide maternal fetal medicine physician coverage for high risk patients.
- Continued partnership with Federally Qualified Health Clinics to improve access to *Maternal Fetal Medicine High Risk Clinic* and *Fetal Center*.
- Initiated *Women's Health Steering Committee* to explore opportunities related to relocation and enhancement of Women and Infants services on a new campus.

Outcomes:

- OBGYN offices visits scheduled increased 3.8% to 71,716 in FY22 compared to FY21.
- OBGYN office visits arrived increased 6.6% to 52,608 in FY22 compared to FY21.
- Fetal Center visits scheduled decreased 6.7% to 13,848 in FY22 compared to FY21.
- Fetal Center visits arrived decreased 7.4% to 11,470 in FY22 compared to FY21.
- Breastfeeding Initiation Rate decreased 10% to 61% in FY22 compared to FY21.
- Exclusive Breastfeeding Rate decreased 5% to 9% in FY22 compared to FY21.
- Awarded **$2.1 million** multisite NIH R01 grant with Christiana Hospital to study breastfeeding interventions among low-income mothers and babies with the goal to increase breastfeeding duration and improve infant health. Study to be completed in 2023.
- Nursing staff and providers received education on "Eat Sleep Console Model".
- The Women's Health Steering Committee invited ACOG to visit and do a review of our clinical services. ACOG gave us initial feedback back to help us improve our clinical practices and our interdisciplinary relationships. We have implemented initial suggestions and look forward to a full review with recommendations for changes and improvements to our program.

Conclusion & Next Steps: As a result of our partnership with *Pennsylvania Perinatal Quality Collaborative* and new recommendations by the Joint Commission we updated and created new quality initiatives. These align with evidence based practices proven to improve post-partum hemorrhage outcomes and improve care for pregnant and postpartum women and newborns affected by opioids. During FY23, we will continue to explore the feasibility of moving women and infants' health services to a new campus while maintaining the highest level of clinical quality. This will afford us the opportunity to create more accessible outpatient visits through:

1. Utilizing our Women's Health Steering Committee to identify opportunities to serve more members of our community.
2. Onboarding three (3) new OB/GYN's and one (1) Maternal fetal Medicine physician to offer more appointments and increase the availability of healthcare.

3. Recruiting and onboarding three (3) new Certified Midwives to care for mothers who would like a low intervention birth.
4. Resubmitting *Baby Friendly Certification* and utilizing information collected during the process to create process improvement plan to improve breastfeeding rates.