# TEMPLE UNIVERSITY HOSPITAL

## Community Health Needs Assessment Implementation Plan

FY21 Progress Report

TEMPLE HEALTH
TEMPLE UNIVERSITY HOSPITAL

# CONTENTS

# FISCAL YEAR 2021 PROGRESS REPORT HIGHLIGHTS

During Fiscal Year 2021 (FY21), Temple University Hospital achieved significant progress on our 2019-2022 Community Health Needs Assessment Implementation Plan goals. To reduce behavioral healthcare (BH) barriers, we added a psychiatrist and psychiatry medical resident support to our Jeanes Campus and further integrated mental health services into our other clinical areas. In response to the Opioid Crises, we created a new substance misuse service line to centrally manage our substance use disorder (SUD) services and expand care access to patients dually diagnosed with other mental health conditions. Four new Certified Recovery Specialists were added to our care team among other positions.

To strengthen our violence intervention program, we hired additional ***Trauma Advocate Program*** staff and connected nearly 470 violently injured patients to crime victim services - a 23% increase in FY21 over FY20. In FY22, we are launching a ***Healing through Work*** program in partnership with the ***Pennsylvania Commission on Crime and Delinquency*** and ***Philadelphia Works*** to connect gun violence victims with gainful employment to disrupt the cycle of interpersonal violence, open pathways and bring stability to lives.

Throughout the pandemic, we a took significant measures to provide our vulnerable and medically complex patients the best medical care with outcomes exceeding those in less challenged communities. Our success is demonstrated through the *Medicare Catchment Area 2021 Report for Temple University Hospital of the Association of American Medical Colleges*. This report shows that Temple cares for populations at highest risk for COVID morbidity and mortality: 64.7% identified as Black, Hispanic or other compared with the U.S. average of 39.1%. ***Despite the high vulnerability of our patient population, our COVID mortality rates were 33% better than hospitals nationally.***

**Over the first 18 months of the pandemic we also fulfilled the following outreach:**

- **97,000+** vaccine doses administered to our community, about **2/3** identify as Black or Hispanic.
- **90,000+** people tested for COVID-19
- **78,000+** calls handled through our ***24/7 COVID-19 Hotline***
- **30,000+** residents and employees of long-term care facilities served as part of ***PA Regional Health Collaborative*** participation.
- Launched public health ***Vaccine Education Campaign*** in coordination with ***Temple University*** & ***Philadelphia Department of Public Health***
- Partnered with the ***Philadelphia Housing Authority*** to connect **4200+** residents with vaccination, nutrition, financial, prescription and other resources.

In FY22, we will increase outreach and further refine our implementation plan strategies to meet the needs of our vulnerable communities as the COVID-19 pandemic continues.

# PLAN TO ADDRESS DIABETES & OBESITY

**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 Health System 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:**

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

**Objectives:**

1. Increase number of participants enrolled in *DPP* from communities across TUHS catchment area with additional DPP Life Style.
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:**

- In FY20, the TCPH DPP Coordinator obtained a Medicare provider number, enabling future growth and sustainability of program services.
- With partnership with Temple University Health System, the Health System's benefit services department continues to provide DPP classes to employees at no cost.
- As of March 2020 DPP classes are offered remotely using Zoom or Webex technology.
  A hybrid model for DPP sessions are in place for current class participants (classes are scheduled in-person as well as virtual).
- Six (6) Community Health Workers trained as DPP lifestyle coaches. New trainees have been included in participation/facilitation of new cohorts that began in February 2021.
- Entered partnership with the *Philadelphia Diabetes Prevention Collaborative* and the *Frazier Family Coalition*.
- Our TCPH DPP Coordinator:

- Represented Temple in Town Hall meeting hosted by State Senator Anthony H. Williams to discuss TCPH Diabetes Prevention;
- Facilitated a Diabetes Prevention session in February 2021 for Black History Month for *Johnson & Johnson*;
- Facilitated a Diabetes Prevention information session for *Senior Community Service Employment Program* (SCSEP).

**Outcomes:**

- DPP class offerings were successfully maintained at Temple University Hospital, Jeans Hospital and LEHB locations through the pandemic. COVID resurgence did not allow for expansion to new community locations.
- 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.
- ***DPP retention rate showed 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% of their body weight measured at program completion as shown in Figure 1 below.***
- COVID-19 pandemic continued to be a factor for increasing overall participant volume by 5%; however, we still enrolled the following from October 2020- February 2021:
  - 13 Temple Employees
  - 70 Community Members
- Maintained 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 | Retention Rate | Avg. Weight Loss |
| | | | | | | |
| Year 1 (10/2018 - 10/2019) | 5 | 150 | | 29 | 19% | 5.60% |
| | | | | | | |
| Year 2 (8/2019 - 8/2020) | 7 | 101 | | 21 | 21% | 5.20% |
| | | | | | | |
| Year 3 ( 10/2020 - 8/2021 ) | 6 | 83 | 45 | *22 | 26.50% | 5.10% |
| *Graduates October 2020 | | | | | | |

**due to COVID 19 pandemic, all classes were converted to virtual*

**Conclusions & Next Steps:** The COVID-19 pandemic still remains a barrier for live classes secondary to regional restrictions. Virtual sessions have been positively received by program participants, but will 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 Temple Health System and the community will continue in 2022 to further the success of DPP. Future plans include:

- Increase Temple Health employee enrollment
- Canvas for new DPP locations in the community (in person and virtual)
- Implement cohorts for Spanish speaking population
- Train additional Community Health Workers as life style coaches
- Life Style Coaches begin a minimum 2 cohorts every 6 months
- Work with Access Center for enrollment in DPP

**Program 2:** *Diabetes Education*

**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 (DSMES) class (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 an 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.
- Diabetes educators offering services in the same office as the Temple Diabetes Physicians and three TPI primary care settings to help increase referrals through cooperative efforts between medical and educational/support services.

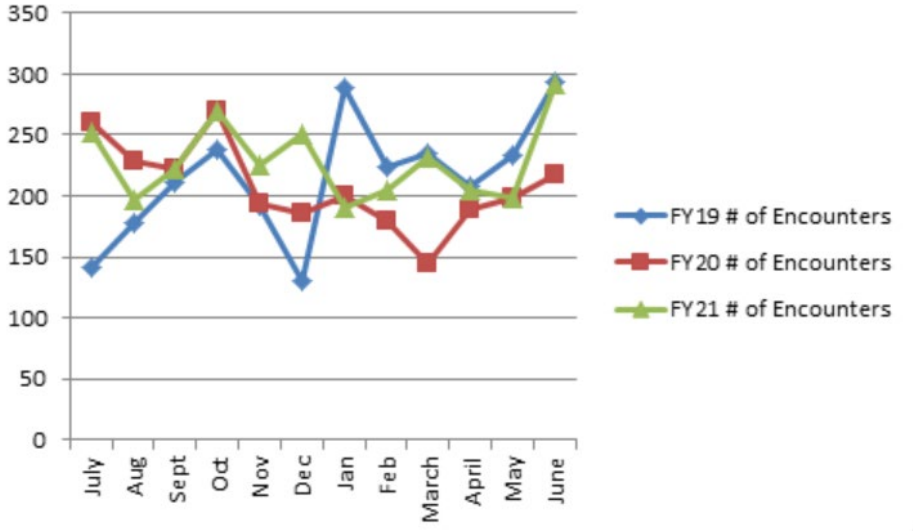
- Adrienne Liccketto RN, BSN, CDCES implemented a new Spanish language DSMES curriculum which provided more culturally appropriate services for the Latinx North Philadelphia population to help improve class participant retention.
- Referring physicians are contacted for medication recommendations if a patient's BG levels remain elevated during class despite lifestyle changes.
- DSMES is now offered as a telehealth service reducing barriers to receiving DSMES

**Outcomes:**

- ***The Diabetes Program saw an increase of 10% in average monthly encounters in FY21 as compared to FY20***.
- Participants who completed the comprehensive curriculum in FY21 had an average HgA1c reduction of 1.4, falling short of the objective of HgA1c reduction of 1.5.

| | July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | March | April | May | June | AVG | % change from previous FY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FY19 # of Encounters | 142 | 178 | 211 | 238 | 192 | 131 | 288 | 224 | 235 | 208 | 233 | 294 | 214.5 | |
| FY20 # of Encounters | 260 | 229 | 222 | 269 | 193 | 185 | 200 | 179 | 144 | 189 | 198 | 218 | 207.1667 | -3% |
| FY21 # of Encounters | 252 | 197 | 222 | 269 | 225 | 250 | 191 | 204 | 232 | 205 | 198 | 292 | 228.0833 | 10% |

**Diabetes Program Encounters Per Month**




**Conclusions & Next Steps:** We are very pleased to see the 10% increase in DSMES encounters arrived in FY21. Telehealth services have been a huge driver for ***increasing younger patient encounters (< 55 years of age) by 23% and increasing the number of encounters***

***of preferred languages other than English and Spanish by 43%.*** The no show rate in FY20 was 36% ***as compared to FY21 no show rate of 19%***. Telehealth services and partnerships with TPI practices have helped ***increase the program's average monthly referrals by 27% over the last fiscal year***. Based on recent patient survey results, 93% of patients would refer a friend of family member to the Temple Diabetes Program. Patients overall ranked their satisfaction with the program as 4.77 out of 5 (scale 1-5, 5 = highly satisfied).

The program fell short of meeting the objective of an HgA1c reduction of 1.5 following completion of the comprehensive curriculum. There were numerous barriers to medical care and social services in the calendar year 2020 and early 2021. We're looking forward to assisting patients in meeting their health care goals in FY22 as there are more opportunities for exercise, healthy food choices, access to medication and blood glucose self-monitoring supplies, medical and mental health appointments, and lab work. The education team recently met to review and modify the current comprehensive curriculum to further meet the needs of our patients through telehealth encounters. The education team will also be implementing a remote blood glucose monitoring program in cooperation with TPI.

# 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 Social Work position was added to the Crisis Response Center (CRC) in May 2021. This position will help link patients in the CRC with other levels of care and also perform audits to assess compliance with those appointments.
  2. A Consultation Liaison Psychiatrist was added to Jeanes Campus in July 2020 and the service now includes Medical Students and Residents. Psychiatric services were also added to the Bone Marrow Transplant Team.
  3. A Temple Psychiatry Resident began providing mental health services at *Prevention Point*, a nonprofit public health organization providing harm reduction services to Philadelphia and the surrounding area in August 2021 under the supervision of a Temple faculty member board certified in Addictions Psychiatry.
  4. Substance misuse service line was created this summer to assist patients dually diagnosed with mental health and substance use disorder conditions. New positions include Certified Recovery Specialists, Certified Peer Specialists and Substance Use Assessors who are able to link patients to lower levels of care from our Emergency Rooms, CRC and Inpatient Units.
  5. Integrated behavioral health came to several Temple Physician practices in an effort to assist Primary Care Physicians in treating mental health concerns. Initial launch focused on patients diagnosed with both diabetes and depression.
  6. Linkage Reports on door-to-door care transitions continue to be refined.
  7. Initiated and continued use of telehealth activities in Temple's outpatient mental health clinic during the COVID-19 pandemic.
  8. 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. Addition of a Social Worker in CRC will allow for additional warm handoffs from the CRC, improve discharge planning and enhance data on the rate of linkage to lower levels of care.
  2. Addition of in-house psychiatry services at Jeanes provides additional opportunities for patients to receive mental health assessments and linkage while also enhancing training opportunities for the next generation of Physicians.
  3. Our Prevention Point partnership allows Temple Psychiatry to assist individuals already in the community.
  4. All hospital campuses now have behavioral health system employees who can assist with linkage of dual diagnosis patients to the next level of care.
  5. ***TPI integrated behavioral health program participants have demonstrated improvement on depression rating scales and dropped their glycosylated hemoglobin values on average by 1.0.***

6. Improved linkage reports are allowing hospital staff to see areas of strength and opportunity to further refine future linkages.
7. Virtual appointment use has improved departmental efficiency and patient compliance, resulting in more community members accessing services. ***In the last 5 years, Temple's outpatient department has doubled the number of patient visits. While 78% of patients attended their scheduled appointments prior to telehealth, this has increased to 89% with the implementation of telehealth.***
8. Participating in additional COACH trainings on trauma informed care resulted in TUHS developing an internal trauma-informed care training that was added to the Health System's online learning module for all employees to access in July 2021.

**Conclusions & Next Steps:** As a result of the tactics and outcomes listed above, Temple completed 2,423 warm handoffs in FY21. This is lower than the previous fiscal year, primarily due to COVID-19 restrictions, yet still more than double compared to FY19. As need for social distancing hopefully lessens, and as community providers begin to reinstate in-person treatments and our additional services listed above take hold, we expect warm handoffs to increase and surpass 3,000 in FY22. 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 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.
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:**

- *Senior Vice President, 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, TPI* – 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 Temple Center for Population Health (TCPH) *CHW Program* at TUH continues to expand and diversify. This team is outward facing to the community and works directly with hospital staff to prevent readmissions. The team consists of eight CHW's, a registered nurse, and social worker. Traditionally, the team provides in hospital intake and at home/community based visits to patients identified as having complex social and medical disparities. Due to the COVID-19 pandemic, the team ceased at home visits; however, touchless visits were implemented to address food insecurity and other 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. ***PHA Cares participated in numerous outreach initiatives resulting in over 900 residents vaccinated***.
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

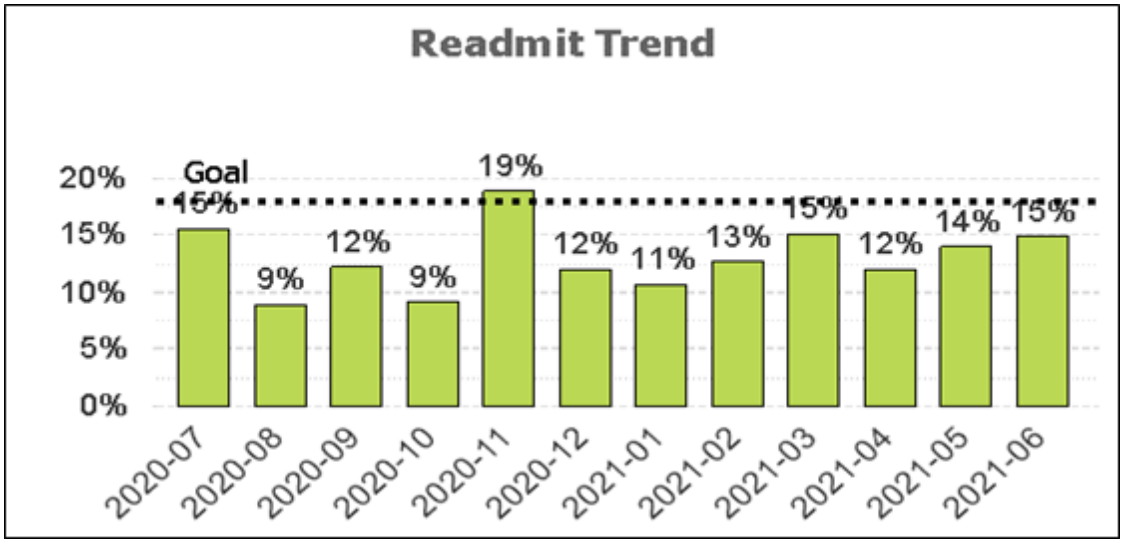
million gift by Andréa and Ken Frazier—creates a partnership between Temple and Jefferson universities and their health systems to investigate social determinants of health and the race-ethnic disparities that lead to poor health and an increased risk of stroke. The Frazier Coalition aims to build an integrated health education and community navigation program that links at-risk community members with the resources, information and clinical care they need to prevent strokes, as well as connect patients who have suffered a stroke with the services they need to prevent another. In May 2021, the *Frazier Family Coalition* hosted a two-part virtual webinar "Keep a House a Home", honoring the legendary R&B artist Luther Vandross while educating the community about the importance of stroke prevention and the correlation of stroke and diabetes. The webinar featured renowned panelist, experts, close friends and family of Luther Vandross. Approximately 146 community members attended the webinar. Temple will also be leading the *Farm to Families* initiative, which provides fresh, local produce to participants of the Frazier programs as well as providing a team of Community Health Workers to connect community members with Frazier Coalition programs.

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. With a focus on improving medication adherence and reconciliation, the care management teams in concert with TPI quality improvement team worked with health plans to identify individuals in need of reminders to fill their chronic care medications. 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. TPI and TCPH have focused on building an integrated behavioral health program in TPI primary care practices to provide outpatient behavioral health care management. A licensed clinical social worker was hired in June 2020 and TPI contracted with a consulting psychiatrist from TFP to support TPI primary care offices. The social worker focuses on behavioral health and chronic health condition management to improve overall patient health outcomes.
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 contracted with *Aunt Bertha*, a social care network platform that connects people and organizations to address social determinants of health. Through this engagement, our CHWs will be able to send and receive updates on referrals to participating community based organizations via Temple's electronic health record.

## Care Management Metrics

**Community Health Worker Transitions of Care Program Team Dashboard**
Patients starting July 2020 - June 2021
Utilization is 30 days after enrollment date

| CHW | Patients | MVP Patients | Avg Charlson Score | Patient w/ CHW Home Visit | Patient Home Visit % | Patient w/ Post ED Visit | Patient w/ ED Visit % | Patient w/ Post Admit | Patient w/ Post Admit % | Patients w/ Post Readmit | Patient Readmit % | Services Performed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total** | **1,006** | **67** | **6.1** | **39** | **3.9%** | **205** | **20.4%** | **173** | **17.2%** | **130** | **12.9%** | **17,271** |

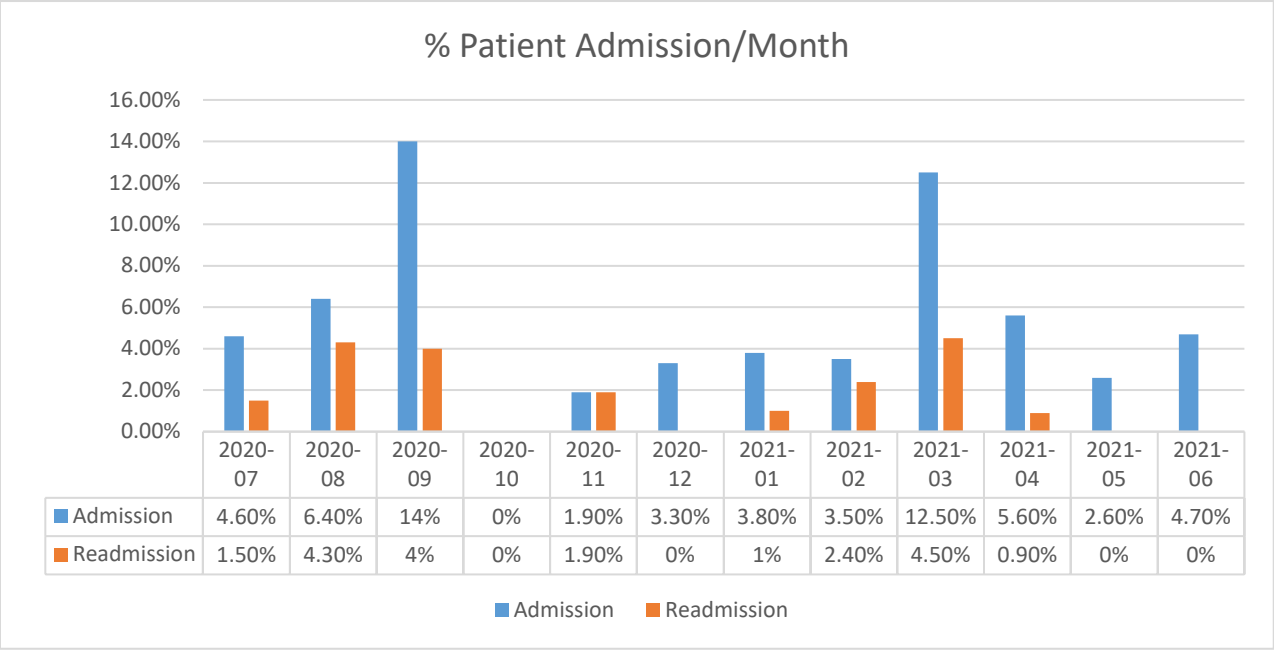



Patients enrolled in the *CHW Program* received an average of 17 services. These service include, but not limited to: no contact food delivery, coordination of financial support, scheduling transportation, securing medication, and assistance with completion of utility forms***. Averaging 13%, data show that for FY21, patients enrolled in the program have consistently performed better than the readmission goal.***

**Temple Longitudinal Team Dashboard**

All Patients starting July 2020 - June 2021
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 | 861 | 72 | 4.7 | 50.3 | 5.3% | 1.6% | 38.0% | 82.0% | 845 | 98.1% | 89.8% |




| | 2020-07 | 2020-08 | 2020-09 | 2020-10 | 2020-11 | 2020-12 | 2021-01 | 2021-02 | 2021-03 | 2021-04 | 2021-05 | 2021-06 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Admission | 4.60% | 6.40% | 14% | 0% | 1.90% | 3.30% | 3.80% | 3.50% | 12.50% | 5.60% | 2.60% | 4.70% |
| Readmission | 1.50% | 4.30% | 4% | 0% | 1.90% | 0% | 1% | 2.40% | 4.50% | 0.90% | 0% | 0% |

Patients enrolled and engaged with *Longitudinal Care Management* showed reductions in both admissions and readmissions. Patients were on the service for an average of 50 days and had a provider appointment show rate of 82%.

STARS Improvement Measures

***Overall 10% improvement noted in medication reconciliation post discharge in FY21 compared to FY20***.

- CY19 50%
- FY20 63%
- FY21 69.2%

Behavioral Health Integration

**BH Dashboard**
July 2020 thru April 2021
*90 day lag for BH outcome 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **129** | **4.3** | **20.20%** | **17.10%** | **13.20%** | **7.80%** | **5.8** | **4.5** | **8.6** | **7.9** | **69.00%** | **85.30%** | **61.20%** | **26.40%** |

Focusing on patients with depression, diabetes and other chronic health conditions, Temple's integrated behavioral health (IBH) program has managed 129 patients. Since the implementation of the program, outcomes show significant improvement in the reduction of emergency department visits, hospital admissions, PHQ-9 scores, and A1c levels. Importantly, Temple Health continues to work closely and provide oversight to our contracted vendor. ***During FY21 the vendor addressed the behavioral health needs of 946 Temple Health patients.***

Social Determinants of Health Assessment Program

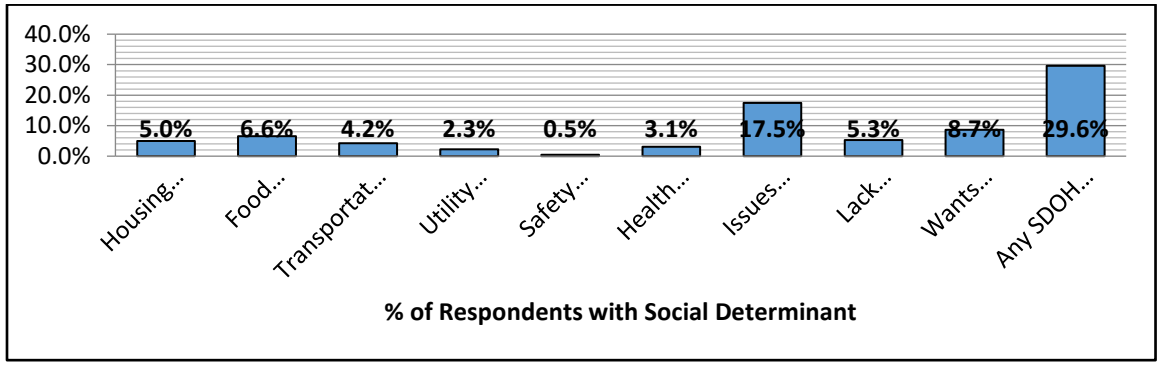
Temple University Health System implemented a *Social Determinants of Health Assessment Program* (SDOH Program) across its hospitals and facility practice plan primary care practices. Patients are screened during medical office visits, inpatient hospital stays and through community outreach for social determinants using an assessment tool embedded in our electronic medical record EPIC system. The tool was developed by a multidisciplinary workgroup based on the CMS accountable care model recommendation and contains 10 questions on food insecurity, housing, transportation, utilities, finances, healthcare literacy, and safety. The tool also includes referral resources to

address unmet needs identified. We connect patients in need with community resources through Southern Pennsylvania 211, a United Way organization that assist individuals living in Bucks, Chester, Delaware, Montgomery and Philadelphia counties, with the identification of social supports in their communities including food, utility assistance clothing, and shelters, among others.

Patients screened between March 2019-July 2021 responses are provided in charts below. Primary determinants include:

- Health Literacy
- Food insecurity
- Housing instability

| **Participated Patients Overview:** | | | | |
|---|---|---|---|---|
| Total Patients | 32,463 | | | |
| Patients w/ Housing Instability | 1,639 | | Housing Instability as % of all Patients | 5.0% |
| Patients w/ Food Insecurity | 2,134 | | Food Insecurity as % of all Patients | 6.6% |
| Patients w/Transportation Issues | 1,349 | | Transportation Issues as % of all Patients | 4.2% |
| Patients w/ Utility Needs | 753 | | Utility Needs as % of all Patients | 2.3% |
| Patients w/ Safety Concerns | 160 | | Safety Concerns as % of all Patients | 0.5% |
| Patients w/ Health Related Fin Strain | 1,003 | | Health Related Fin Strain as % of all Patients | 3.1% |
| Patients w/ Issues Understanding Healthcare | 5,690 | | Issues Understanding Healthcare as % of all Patients | 17.5% |
| Patients w/ Lack of Internet Access (Q added 2/1/21) | 1,184 | | Lack Internet Access as % of all Patients | 5.3% |
| Patients Want Assistance (Q added 2/1/21) | 575 | | Wants Assistance as % of Patients w/ Any SDOH | 8.7% |
| Patients w/ any SDOH | 9,616 | | Any SDOH as % of all Patients | 29.6% |




## Housing Smart

Beginning in March, 2020, TUHS launched a pilot program in collaboration with two managed care organizations and a community benefit organization aimed at both housing and wrapping care management services around high-utilizing, chronically homeless individuals. The

goals of this program are to decrease improper utilization of health care, overcome medical, behavioral and addiction-related gaps of care and foster independence within each of the participants. ***We successfully housed 25 patients, decreasing their ED utilization by 74%, hospital utilization by 48%, and increased their outpatient appointments by 71%.***

**Conclusions & Next Steps:** 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 FY22, we will continue to focus on reducing unnecessary hospitalization and increasing outpatient primary and specialty care services to further improve our patients' health outcomes though:

1. Expanding the community health worker scope of service to include TFP and the scheduling of care gap appointments.
2. *PHA Cares* will continue to educate about COVID-19 hesitancy, the importance of vaccination and other health topics.
3. *The Frazier Family Coalition* will hire two CHW's to educate the community about stroke risk-reduction strategies and participate in community events.
4. Continue to expand behavioral health integration within primary care practices.
5. Pilot a behavioral health assessment software system.
6. Collaborate with TFP Psychiatry department to potentially expand access to behavioral health care professionals and partner with additional consulting psychiatrists.
7. 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.
8. 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.
9. Establish a partnership with health insurers to address unmet SDOH for at-risk populations.
10. Open the new Farm to Families distribution location, supported by the Frazier Coalition, at 1300 Lehigh Avenue in August 2021 with an anticipated participation of 70 households quarterly.

# PLAN FOR VIOLENCE REDUCTION & INTERVENTION

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

**Strategy Team**:

- *Trauma Outreach Manager, Trauma Program, TUH* – Scott Charles
- *Trauma Program Manager, Trauma Program, TUH* – Jill Volgraf
- *Trauma Support Advocate, Trauma Advocate Program, TUH* – Ian Hirst-Hermans
- *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:**
  - Temple University Hospital's (TUH) continued its violence prevention and intervention programs in FY20 designed to educate Philadelphia's youth about dangers of gun violence (*Cradle to Grave*), how to provide first aid to gunshot victims (*Fighting Chance*), promote use of gun locks (*Safe Bet*), and link victims of violent crime to resources that will assist in meeting their social, emotional, and financial needs before they leave the hospital (*TUH Trauma Support Advocate Program*).
  - To expand our *Trauma Victim Support Advocate Program* (Trauma Advocate Program), we applied for and received a grant through the *Pennsylvania Commission on Crime and Delinquency*. Funds from this grant will support the launch of the *Healing Through Work* initiative which will see the addition of a workforce development specialist to the Trauma Advocate team who will help survivors of violent crime find employment.
  - To better address the mental health needs of violently-injured patients, we applied for a grant through the *Department of Justice's Office for Victims of Crime* to add a clinical therapist and a case manager to our *Trauma Advocate Program*.
  - To improve Philadelphia residents access to firearm safety devices, TUH began a partnership with Philadelphia's Office of Policy and Strategic Initiatives for Criminal Justice and Public Safety which will enable the Safe Bet program to host a greater number of gun lock giveaways.

- **Outcome:**
  - Collaborated with *Northeast Treatment Centers* to deliver hybrid in-person/virtual Cradle to Grave presentations to juveniles who were court-mandated to their In-Home Detention (IHD) and Evening Reporting Center (ERC) programs.
  - Mailed more than 200 free gun locks to Philadelphia residents requesting them through TUH's *Safe Bet* website.
  - Distributed more than 150 free gun locks to patients and visitors who requested them from doctors and nurses at TUH and Episcopal Hospital Emergency Departments.

- Collaborated with the *Philadelphia Police Department* to distribute more than 1,000 free gun locks to Philadelphia residents during community events hosted by local organizations.
- Linked 469 violently-injured patients to North Philadelphia-based crime victim service agencies through TUH's 24-hour *Trauma Advocate Program*, ***representing a 23% increase in the number of patients served in FY 2021.***
- Hired and trained a new Trauma Advocate to provide emotional support to crime victims and their families in the wake of a violent injury.
- Collaborated with TUH's Department of Emergency Medicine to apply for a grant through the *Federal Emergency Management Agency* that would enable the hospital to increase its ability to provide gunshot first aid training to North Philadelphia residents.

**Conclusions & Next Step**: Gun and other violence remains a persistent issue for the North Philadelphia communities served by Temple University Hospital. During FY22, we will expand our current violence prevention and interventions efforts through the addition of resources that address patients' employment and mental needs based on our grant applications outcome. We will also work with the city's Office of Policy and Strategic Initiatives for Criminal Justice and Public Safety to develop and deliver a series of gun safety presentations to children and teens at Police Athletic League centers located throughout North Philadelphia. TUH also plans to hire a workforce development specialist for its new *Healing Through Work* initiative to assist North Philadelphia survivors of violence with finding meaningful employment.

# 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, Temple Episcopal* - Patrick Vulgamore
- *Director, Behavioral Health, Temple Episcopal* – Luciano Rasi
- *Director, Substance Use Disorder Engagement, Temple Episcopal* – Danny Rivera

**Objectives:**

1. Increase number of SUD patients seen by CRS team compared to prior year.
2. Increase number of waived 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:
    - ***167.2% increase in total number of CRS engagements since FY'19 (FY'19: 345, FY'20: 852, FY'21: 922) with 8.2% increase from FY'20 to FY'21***. The improvement from FY'20 to FY'21 is exciting due to the fact that we were up against COVID access restrictions, a ramp down of subcontractor services, and a ramp up of newly employed internal staff.
    - ***47.1% successful warm handoff average in FY'21, as compared to 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. TUHS overall adoption of buprenorphine treatment for substance use disorder continued to grow:
   - ***15.7% increase in buprenorphine prescriptions compared to FY20, which is a 76.9% increase compared to FY19.***
   - ***11.9% increase in number of distinct clinicians prescribing buprenorphine compared to FY20, which is a 47.6% increase compared to FY19.***
3. Created substance misuse service line to centrally manage substance use disorder (SUD) services, expand care access for patients dually diagnosed with mental health and SUD conditions and provide infrastructure for expert oversight of quality and care efficiency outcomes for SUD services across TUHS.
4. CRS LOC pre-assessment was deployed and aided in increased patient throughput from ED placement. Iterations continue to refine this tool.
5. 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 EPIC team is actively engaged in ensuring the assessment is integrated into existing workflows within our electronic health record.
6. The TUHS EPIC team is actively engaged in refining overall SUD engagement reports to reflect the most accurate real-time data required by the various programs TUHS is participating in. The team is also focused on optimization of workflows to ensure the most efficient placement of a patient to their next level of care, wherever the patient shows up in the health system.
7. Concurrent efforts were launched in outpatient, inpatient rehab and skilled nursing facility settings to support a "Warm Handoff Collaborative." Temple clinicians are now in the process of getting credentialed to be able to provide patient services and serve in a leadership role at various inpatient rehabs and skilled nursing facilities to help them overcome knowledge gaps at each of the levels of care and to help refine patient pathways from our facilities to their maintenance treatment destination.
8. 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.
9. Partnership with Merakey, an onsite addiction medicine office providing 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 will continue to pursue 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 that provides walk-in only appointments, 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, aimed at 24/7 coverage.
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**:

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

**Objectives**:

- Improve breast feeding 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.
- Continue *Center of Excellence for Opioid Use Disorder* to care for pregnant and other women facing addiction.
- Obstetrics faculty applied for and was awarded P30 DA013429 Center on Intersystem Regulation by Drugs of Abuse. This is an $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 in to adding a prenatal education module to enhance the patient's knowledge of pregnancy an d childbirth that will be disseminated through our outpatient clinics.
- Continued our partnership with Holy Redeemer to provide maternal fetal medicine physician coverage for high risk patients.
- Continued our 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 to a new campus.

**Outcomes:**

- Due to the COVID-19 pandemic, we were unable to reach all goals for increasing breastfeeding initiation and exclusive rates and OB/GYH office visits scheduled.
    - Breastfeeding Initiation Rate decreased 3% to 71% in FY21 compared to FY20.
    - Exclusive Breastfeeding Rate decreased 2% to 14% in FY21 compared to FY20.
    - OB/GYN office visits scheduled decreased -1.9% to 69,086 in FY 21 compared to FY20.
- ***OB/GYN office visits arrived increased 2.4% to 49,364 in FY21 compared to FY20. Fetal Center office visits scheduled increased 4% to 13,609 in FY21 compared to FY20***
- ***Fetal Center office visits arrived increased 5.4% to 11,285 in FY21 compared to FY20. Number represents a decrease in the no show rate of 1.1%***
- Awarded Multisite (TUH and Christiana Hospital) NIH R01 Grant for $2,168,359. Study to be completed in 2023. Temple is continuing to recruit study participants in the Breastfeeding Onset & Onward with Support Tools (BOOST) program
- Nursing staff and providers received education on Eat Sleep Console Model

**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 to 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 FY22 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. Utilize the Women's Health Steering Committee to identify opportunities to serve more members of our community.
2. Onboard three (3) new OB/GYN's and one (1) Maternal fetal Medicine physician to offer more appointments and increase the availability of healthcare.
3. Recruit and onboard three (3) new Certified Midwives to care for mothers who would like a low intervention birth.