A Community Health Worker Centered Transitional Multi-Visit Patient Clinic Addressing Social Determinants of Health Hospital Readmissions Reduction Effort

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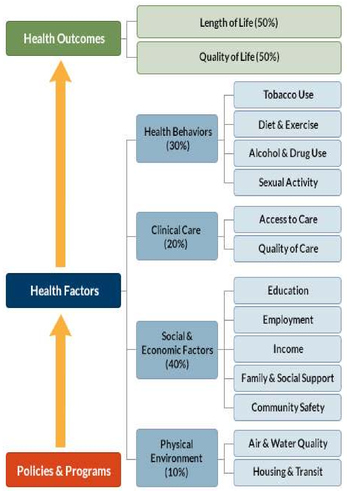
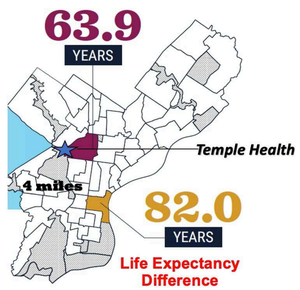
POPULATION

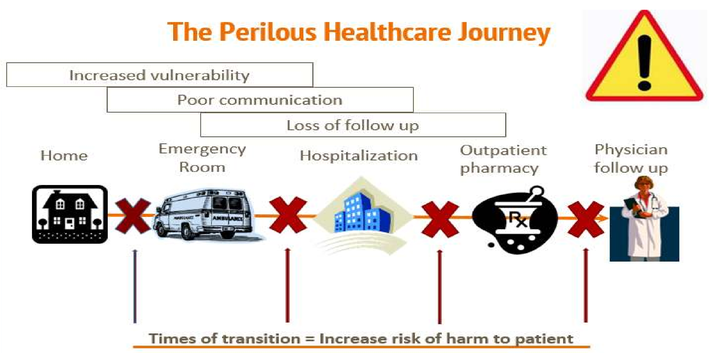
- Temple University Hospital serves the North Philadelphia community
- Average life expectancy of men is 67 and women is 75, compared to 76 and 81, the life expectancy of men and women who live in center city Philadelphia.
- Social determinants of health (SDOH) have been shown to be independent predictors for poorer health outcomes.[1-3]
- SDOH can be addressed through the involvement of community health workers (CHW) who are trained community members that provide patients with social support and assist in the navigation and coordination of care
  - CHW showed promising results in decreasing hospitalization rates and average lengths of stay for patients with chronic illnesses.[4-7]





OBJECTIVES

- Create a program for multi-visit patients (MVP) that supports the specific needs of this population
- Implement a pilot CHW-centered transitional clinic that identifies and addresses SDOH needs for our patient population through longitudinal CHW involvement in care coordination
- Demonstrate impact on emergency department visits and hospital readmissions after participation



TEAM STRATEGY

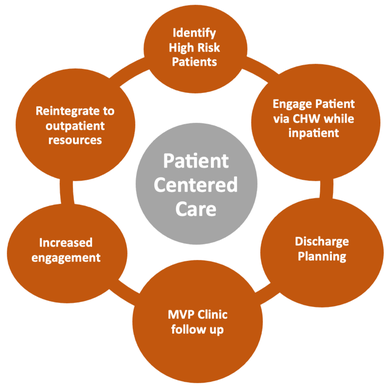
- MVP clinic was opened February 2020, initially as a CHF pilot then expanded to all cause readmissions
- Remained payor agnostic
- Patients identified by clinicians during admission
- All patients who enter the program are attempted to be screened for SDOH needs
- If no SDOH identified patients were still offered transportation to and from clinic appointments, parcels of fresh food, health education, and access to social work services at clinic visits

Leveraging of Data, Teamwork & Health Equity

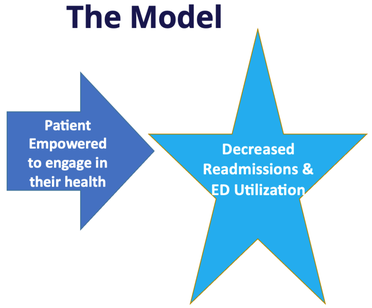
Hospital Administration initiated the conversation with the hospitalist division to reduce readmissions

Physicians voiced that the driver is not just medical in nature and that there needed to be a team approach across the continuum of care

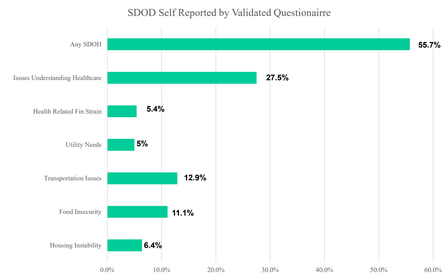
Involved Temple Center for Population Health, who recommended the Community Health Worker as a resource

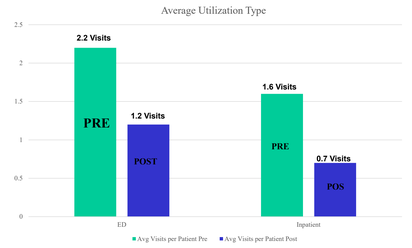


The Model

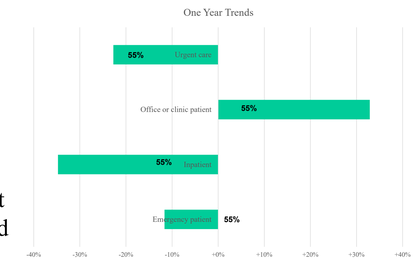


PROGRAM OUTCOMES:





- Total patients enrolled: 383 (2/27/2020-3/31/2022), 73% had a full SDOH assessment prior to clinic visit
- 90-day pre and post enrollment all-cause emergency department visits, readmissions, and clinic show rates were tracked and noted in the graphs by average patient visits
- 12.9% patient identified transportation as a barrier, but 37.9% utilized the car service when offered; concluded that SDOH needs are unreported by patients



LESSONS & CONCLUSIONS

- ***Data based conclusions:***
  - Innovative model led to decreased inpatient and ED visit utilization, sustained over a year
  - Increased outpatient engagement leads to better disease management outcomes for patients: patients have received life vests, bridged to bariatric surgery, placement of advanced cardiac device placements such as mitral clip, and multiple patients have a recovered ejection fraction and no longer require AICD/lifevest consideration
- ***Limitations in data:***
  - Difficult to discern patients with multiple visits vs patients with singular admissions
  - Impact of CHW's has many qualitative outcomes difficult to map
- ***Lessons learned & key take aways:***
  - In a high risk patient population traditional clinic models are unable to support the needs of MVP patients: meet the patient where they are
  - MVP program is not a substitute for longitudinal primary care, meant to supplement and support care plans for patients
  - Multi-faceted team is needed for equitable care delivery and sustainable decreases in readmissions and improved patient engagement
  - Build data based dashboards with meaningful and quantifiable data to leverage for program needs

FUTURE DIRECTIONS

- Expanded from 2 days a week to 5 days a week staffed by a hospitalist physician and expanded CHW services
- New programs and partnership with health system initiatives around quality incentive programs, chronic care management and transitions of care programs within TUHS
- Creating formal communication and formal hand off processes to primary care physicians
- Educational initiatives to shift culture to embed uniformity in transitions of care within our inpatient clinicians

REFERENCES

1.HavranekEP,MujahidMS,BarrDA,BlairIV,CohenMS,Cruz-FloresS,Davey-Smith G, Dennison-Himmelfarb CR, Lauer MS, Lockwood DW, et al. On behalf of the American Heart Association Council on Quality of Care and Outcomes Research, Council on Epidemiology and Prevention, Council on Cardiovascular and Stroke Nursing, Council on Lifestyle and Cardiometabolic Health, and Stroke Council. Social determinants of risk and outcomes for cardiovascular disease: a scientific statement from the American Heart Association. *Circulation*. 2015; 132:873–898. doi: 10.1161/CIR.00000000

2.SuA,Al'ArefSJ,BeecyAN,etal.Clinicalandsocioeconomicpredictorsofheartfailure readmissions: A review of contemporary literature. *Mayo Clinic Proceedings*. 2019; 94(7): 1304-1320. doi: https://doi.org/10.1016/j.mayocp.2019.01.017

3.PatilS,ShahM,PatelB,etal.Readmissionsamongpatientsadmittedwithacute decompensated heart failure based on income quartiles. *Mayo Clinic Proceedings*. 2019; 94(10): 1939-1950. doi: https://doi.org/10.1016/j.mayocp.2019.05.027

4.White-WilliamsC,RossiLP,BittnerVA,etal.Addressingsocialdeterminantsofhealth in the care of patients with heart failure: A scientific statement from the American Heart Association. 2020; 141:841-863. doi: https://doi.org/10.1161/CIR.0000000000000767

5.KangoviS,MitraN,NortonL,etal.Effectofcommunityhealthworkersupporton clinical outcomes of low-income patients across primary care facilities: A randomized 6.clinical trial. *JAMA Intern Med*. 2018; 178(12): 1635-1643. 7.10.1001/jamainternmed.2018.4630

8.BrownLD,VasquezD,SalinasJJ,TangX,BalcázarH.Evaluationofhealthyfit:a community health worker model to address Hispanic health disparities. *Prev Chronic Dis*. 2018; 15:E49. doi: 10.5888/pcd15.170347

9.UrsuaRA,AguilarDE,WyattLC,Trinh-ShevrinC,GamboaL,ValdellonP,PerrellaEG, Dimaporo MZ, Nur PQ, Tandon SD, et al.. A community health worker intervention to improve blood pressure among Filipino Americans with hypertension: a randomized controlled trial. *Prev Med Rep*. 2018; 11:42–48. doi: 10.1016/j.pmedr.2018.05.002