UI Health Mile Square Health Center at the University of Illinois – Chicago, IL

COMMUNITY HEALTH

Synopsis

UI Health Mile Square Health Center (Mile Square) is a community-based primary care clinic that has provided quality health care services to vulnerable Chicagoland residents for more than 50 years and is one of the oldest Federally Qualified Health Centers (FQHC) in the nation. UI Health Mile Square is part of the University of Illinois Hospital & Health Sciences System (UI Health), which is the health care system of the University of Illinois Chicago. As such, Mile Square is the only public sector academic FQHC in Chicago and one of only a few in the nation. Mile Square provides an array of medical and social services. In addition, as part of UI Health, Mile Square provides its patients with access to an academic health care system and a vast array of advanced and specialty services—resources that Mile Square leverages to reduce health disparities. As a provider of primary care to individuals regardless of their ability to pay, Mile Square is committed to helping patients prevent, detect, and treat cardiovascular disease.

Challenge

Heart disease is one of the country's leading causes of death and disability. High blood pressure is one of the greatest risk factors for heart disease, in addition to other modifiable risk factors like high cholesterol, cigarette smoking, diabetes, poor nutrition, lack of physical activity, and being overweight or obese. In the areas Mile Square serves—the Near South/South and West/Northwest sides of Chicago primarily—risk factors are disproportionately high.

The rate of hypertension is very elevated in Near South/South, with 36.27% of adults reporting they have been told they have hypertension, compared to only 32.3% in the state or country. Age-adjusted mortality from heart disease is worse than both the state and the country in two regions, West/Northwest and Near South/South, reflecting the disproportionate heart disease mortality rate in Black populations. This is particularly severe in Near South/South, where the rate is 244.28 deaths per 100,000 – more than 40 excess deaths per 100,000 compared to the state average of 202.3 or national average of 198.1 per 100,000. [1,2]

Solution

The goal of the Mi-Controlled Initiative is to engage patients, alongside providers and community health workers, to implement evidence-based practices. The initiative's strategy is to implement a patient self-measured blood pressure monitoring program to increase the number of adult patients with controlled hypertension. In 2019, Mile Square had achieved blood pressure control among 65.71% of its patient population with a hypertension diagnosis.

As a result of COVID-19, and the impact on in-clinic visits to monitoring patients with chronic conditions such as hypertension, most recent data demonstrated that only 55% of hypertensive patients at Mile Square achieved blood pressure control. Mile Square has responded by pivoting to telehealth visits, in addition to in-person visits. This specific project helped support providers in completing telehealth visits, as the remote blood pressure monitoring allows them to have data to act on when completing telehealth visits.

Mile Square includes 13 distinct practice sites within Chicago that are strategically located in community areas with the highest need. This initiative will continue to be rolled out across all Mile Square clinics in Chicago, as well as applicable school-based health centers. By utilizing evidence-based practices, Mile Square was able to increase access to home blood pressure cuffs, and improve blood pressure control in patients and communities. In addition, Mile Square has implemented social determinants of health (SDoH) screening for all patients that enroll in the self-monitoring blood pressure program. Patients are assessed for SDoH needs such as transportation, access to nutritious foods, and safe housing. Upon screening, patients are connected to local services using the NowPow database.

Results

To date, the self-monitored blood pressure program has given out 109 blood pressure cuffs and 45 participants have completed the program. Participants were also given educational materials on proper blood pressure measurement, nutrition, and physical activity. On average, participants who have completed the program and returned their loaner blood pressure monitors have lowered their blood pressure by 16.4 systolic and 10.6 diastolic points. Results of this program were only limited by the number of participants that were able to be recruited.

Lessons Learned

The biggest challenge thus far has been obtaining blood pressure monitors, as they are currently on backorder. A solution has been to order a small number of monitors rather than bulk orders, as well as ordering from different vendors. In addition, it has been difficult to connect the blood pressure monitors to the clinic's EMR system. The Bluetooth capability requires several applications to be downloaded to a smartphone which is time consuming, and the technology requirement means that even those eligible might not be able to participate. Lastly, patient navigators are essential to running self-measured blood pressure programs. As Mile Square is working towards expanding the program to all clinic sites, additional patient navigators will be critical for the success of the program.

1   Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence & Trends Data [online]. 2019. URL: https://www.cdc.gov/brfss/brfssprevalence/.
2   Centers for Disease Control and Prevention, CDC WONDER. Underlying Cause of Death, 1999-2020 Request. Deaths occurring through 2020. URL: https://wonder.cdc.gov/controller/datarequest/D76.

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