

Cardiovascular Health Community of Practice: Improving Hypertension Rates Among African Americans in San Francisco



Introduction

The San Francisco Department of Public Health's (SFDPH) mission is to protect and promote the health of all San Franciscans. We strive to achieve this mission through the work of two divisions: the San Francisco Health Network (SFHN), a healthcare delivery system that includes 14 primary care clinics and two hospitals, and the Population Health Division (PHD), whose vision is to be a community-centered leader in public health practice and innovation.

In 2014, SFDPH launched the Black/African American Health Initiative (BAAHI), highlighting the pressing need to address growing health disparities for Black/African Americans (B/AA) in San Francisco. Heart health was one of the four areas prioritized, catalyzing a robust partnership between our healthcare delivery system (SFHN) and public health system (PHD) to improve blood pressure control among B/AA San Franciscans. This partnership yielded the Hypertension Equity Workgroup, which has designed and implemented both clinical and

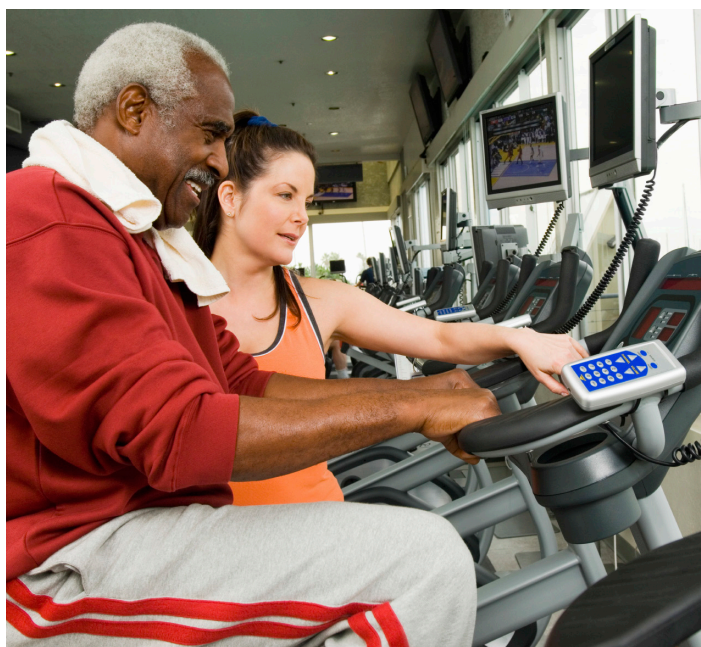
public health interventions to support cardiovascular health, including an algorithm to support blood pressure medication titration in clinical settings; equity-focused training for clinical staff; educational materials tailored for B/AA patients; exercise prescriptions for free physical activity opportunities; and food pharmacies that address food insecurity and support nutritional behavior change.

Challenge

In San Francisco, there is a 10-year gap in life expectancy at birth between Black/African Americans and their white counterparts (72 years vs 82 years). Black/African-American San Franciscans have a hypertension hospitalization rate that is more than eight times that of white San Franciscans (52 vs 6 per 10,000). Black/African-American San Franciscans' hospitalization rate for heart failure is more than five times higher than white San Franciscans (104 vs 19 per 10,000 residents).²



Hypertension is the most common risk factor for cardiovascular disease and stroke, which are the leading causes of death in the United States. Hypertension is also one of the leading preventable risk factors for all-cause mortality.^{3,4} SFHN cares for 42% of Medicaid beneficiaries in San Francisco; its primary care clinics provide healthcare services to approximately 62,000 patients. In 2015, 53% of SFHN Black/African Americans in primary care settings had controlled blood pressure, compared to 61% of SFHN primary care patients overall. A 17% decrease in Black/African Americans with hypertension above goal would eliminate this gap.



Solution

Our Hypertension Equity Workgroup represents diverse stakeholders including clinical staff, patient advisors, public health professionals, and community partners. This work was broadly supported by SFDPH's commitment to elevate the health of B/AA through the newly launched Black/African American Health Initiative. The Hypertension Equity Workgroup focused efforts to ensure clinical innovations, including a newly devised blood pressure medication titration algorithm and nursing/pharmacist visits for blood pressure management that were specifically designed to better serve our B/AA patients.

Other clinical interventions included: creation and dissemination of an equity statement to help message

equity as a priority, focused effort to engage B/AA patients through outreach calls, and the creation of home blood pressure monitoring toolkits and patient education materials with tailored messaging for B/AA populations. Public health-oriented interventions addressed the critical role of physical activity, food security, and nutrition in cardiovascular health. Through exercise prescriptions, patients were connected to a network of free physical activity opportunities funded by the CDC's REACH grant and SFDPH. In partnership with community-based organizations and the Hellman Foundation, food pharmacies enabled patients to fill food prescriptions, learn from nutritionists via cooking demonstrations, and connect to additional food resources.

Results

In 2015, 53% of SFHN Black/African Americans in primary care settings had controlled blood pressure, compared to 61% of SFHN primary care patients overall, a gap of 8%. In 2019, this gap narrowed to 3% with 67% having controlled blood pressure compared to 70% of patients overall. This represents a 30% decrease in B/AA with hypertension above goal. Literature suggests that a 10% decrease in the U.S. population of B/AA with hypertension above goal would equate to approximately 1,121 coronary heart, 1,083 stroke, and 1,699 heart failure events avoided.⁵

In addition to addressing blood pressure control, our workgroup also created opportunities for increased physical activity, food security, and building partnerships with healthcare providers. Patients reported losing weight and taking fewer medications. "My wife and I started walking every week with the Healthy Heart San Francisco Walking Group and my wife has lost weight. Her blood pressure is lower." Six DPH clinics offer food pharmacy programming, reaching over 500 unique patients annually, with plans to launch three more by 2020. Data from our food pharmacy participants show that 97% increased access to healthy food, 93% adopted healthier eating practices, and 65% of engaged participants had a decline in their blood pressure ($p < 0.05$).

Lessons Learned

- **Organizational commitment to equity.** Health equity is an explicit priority for SFDPH and is communicated from the top levels of leadership, making it possible for work throughout the department to focus on populations facing the greatest health disparities.
- **Diverse stakeholder engagement.** There is deep clinical, public health, and patient engagement throughout the planning and implementation of our work. Patient advisors meet monthly with our clinical and public health stakeholders to review data, evaluate progress made, and design new elements of interventions.
- **Quality improvement.** Quality improvement frameworks are used to promote continuous improvement in the clinical and public health spaces, including the use of ongoing data to inform work and drive decisions.

What could be improved:

- Additional partnerships with community-based organizations.
- In response to patients' and staff feedback, we are exploring ways to more directly address the racism and structural trauma that our patients face that affect their cardiovascular health.

Replication:

Tackling health disparities and championing health equity requires that we intentionally address race and racial disparities head-on. With the lessons learned from robust clinical-public health partnerships, SFDPH will continue working to foster similar partnerships with additional health systems.

Resources

- Health Equity Statement – Statement that is read as part of clinical huddles and posted in clinical settings to message equity as a priority.



- Hypertension Medication Algorithm – to help clinicians uptitrate hypertension medications; adapted from Kaiser's PHASE algorithm
- Hypertension Toolkit – tools for both staff and patients, including staff coaching, patient education materials, and resources for home-blood pressure monitoring
- Nursing/Pharmacy Chronic Care Visit Templates – for nurses and pharmacist to conduct hypertension-specific visits with patients
- Staff Communication Training – with a focus on equity through skits with real patients
- Hypertension Educational Pamphlet – designed by and for Black/African American patients
- Online resources for free physical activity opportunities – <http://sfrecpark.org/recreation-community-services/rec-programs> and <http://heart.org/healthyliving>
- Food Pharmacy Onboarding Guide – for clinics interested in starting their own Food Pharmacy to address food insecurity and promote nutritional behavior change as part of hypertension management
- Racial Equity Training – for volunteers and interns joining the San Francisco Health Network Primary Care



Citations

- ¹ CDPH VRBIS. State of California, California Department of Public Health, VRBIS Death Statistical Master File Plus 2006-2017, created on January 31, 2018.
- ² OSHPD: Office of Statewide Health Planning and Development (OSHPD).
- ³ Danaei G, Ding EL, Mozaffarian D, Taylor B, et al. PLoS Med. 2009 Apr; 6(4): e1000058.
- ⁴ GBD 2017 Risk Factor Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017. Lancet. 2018;392(10159):1923.
- ⁵ Hardy ST, Loehr LR, Butler KR, et al. Reducing the Blood Pressure–Related Burden of Cardiovascular Disease: Impact of Achievable Improvements in Blood Pressure Prevention and Control J Am Heart Assoc. 2015 Oct; 4(10): e002276.

Contact: Rita Nguyen
Email: rita.nguyen@sfdph.org
Phone: 415.437.6244
LHD: San Francisco Department of Public Health
City, State: San Francisco, CA
Website: <https://www.sfdph.org/dph/default.asp>



San Francisco Department of Public Health's Hypertension Equity Group