Food as Medicine: How Tackling Food Insecurity in Primary Care Can Advance the Quadruple Aim and Health Equity

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BACKGROUND

In the San Francisco Health Network (SFHN), Black/African-American (B/AA) patients with hypertension have lower rates of controlled blood pressure compared to the total population (53% versus 61% under control in 2015), with a persistent gap between 7%-10%.[1] Furthermore, 45-70% of patients in SFHN experience food insecurity.[2]

In 2017, Food Pharmacy pilot programs were launched in select primary care clinics as part of an initiative within SFHN to address these racial disparities. These pilots prioritized B/AA patients for participation and there was a trend toward improved blood pressure among participants.

In order to sustain and spread this initiative, the Food as Medicine (FAM) Collaborative was established. This multi-sector coalition bridges healthcare and food systems to develop the policies, programs, and partnerships needed to address food insecurity, inspire long term healthy behaviors, and reduce the burden of chronic disease in communities of color and low-income populations.

PROBLEM STATEMENT

Food insecurity is associated with worse health outcomes and increased healthcare costs, but **healthcare cannot effectively tackle this social determinant of health alone**. On their own, programs do not institutionalize equity work; advancing health equity requires changes in policy, systems, and culture.

OBJECTIVES

Align food insecurity interventions with quality improvement (QI) goals to:

- **Operationalize** equity to improve B/AA health outcomes
- **Improve** patient clinic experiences
- **Enhance** provider and care team wellbeing
- **Reduce** costs at multiple levels
  - Increase operational efficiency at a clinical level
  - Lower costs on a healthcare system level by investing in preventive services

Quadruple Aim of Healthcare

PROJECT DESIGN/STRATEGY

Food Pharmacy

Clinic staff refer patients to "fill" prescriptions for healthy groceries weekly, paired with interactive nutrition education, cooking demonstrations, cooking toolkits, on-site hypertension management by clinicians, health coaching, and effective referrals to local food resources.

Equity - With Equity as a key pillar in SFHN's strategic framework for quality improvement, Food Pharmacy was tailored to best serve B/AA patients by:

- Developing culturally appropriate outreach and education materials with a diverse HTN Equity Workgroup of clinical teams, patient advisors, and community allies
- Messaging disparity data consistently to reinforce need for B/AA prioritization
- Addressing and unlearning racism within the network and department through trainings and discussions

FAM Collaborative - Steps for Action

Shared Interests	Program Scaled	Policy and Advocacy
Healthcare and food sector recognized shared interest in tackling food insecurity to support health outcomes, leading to the hiring of backbone support for Collaborative.	**11 clinics** established food pharmacies, creating a growing evidence base and increased stakeholder engagement.	Strong relationships between healthcare and food were formed through this programmatic partnership, leading to collective policy and advocacy efforts at the state level.

RESULTS/IMPACT

***Total patients across all 9 clinics served in 2019:** 1271 unique/5720 total visits

*For our 6 SFHN clinics who explicitly prioritized B/AA patients with hypertension, **64% of all Food Pharmacy participants in 2019 identified as B/AA** (B/AA comprise 5% of the population in San Francisco)

Patient

87% of patients felt that getting food is part of their medical care. *(n*=152)*

"I think there's a care factor here that other food pantries don't have. You are interested in our health, and you're interested in how to make us feel better."

"I've had a problem all my life: I've always been terrified of doctors — they don't care. But then I found that different [at Food Pharmacy] — they do care."

93% of patients felt that participating in Food Pharmacy made them feel like part of a community. *(n*=152)*

92% of patients have reported adopting healthier eating practices. *(n*=151)*

"I now eat more vegetables and fruits. When you take my blood pressure I'm more conscious of what I eat. It's like there's someone checking up on me."

Cost Reduction

Over 6 weeks in early 2020, the provider and MEA teams saw an average of:

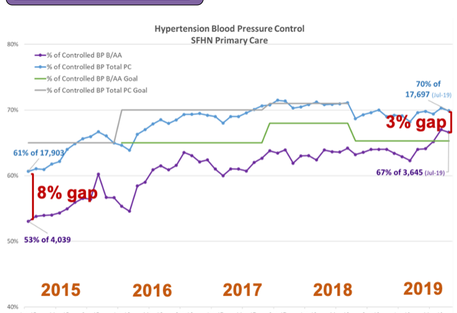
Food Pharmacy	Regular Office Visit
7.5 patients per 1.5 hours	5 patients per 1.5 hours

Care Team Experience

Clinicians can provide patient-centered care outside of the traditional office visit, which reduces burnout through:

- **Diversifying** clinical responsibilities
- **Presenting** fresh produce as an alternative to or in conjunction with prescription medication
- **Offering** a tangible, immediate way to address patient food insecurity

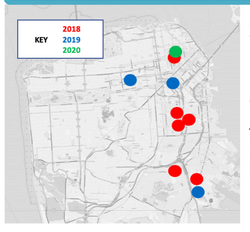
Population Health



BP control rates for B/AA patients **increased from 59% to 67%** for patients who attended Food Pharmacy three or more times (n=144), mirroring the SFHN's overall trend for BP control rates among B/AA patients.

RESULTS/IMPACT (cont.)

Cost Reduction Cont. - FAM Spread and Policy Action



Since its inception, the FAM Collaborative has implemented Food Pharmacies in **eleven** primarily safety-net clinics across four health systems in San Francisco and Marin counties with plans to scale to more clinics.

Establishing Food Pharmacies sparked a culture change that enabled healthcare partners to identify and drive a policy agenda to change Medicaid funding for food insecurity:

Position paper appealing to CA Department of Healthcare Services (DHCS) to include food as a covered medical benefit

Introduction of bill AB 3118 (Bonta) in the California State Assembly: proposes a medically supportive food pilot in Alameda County

LESSONS LEARNED

- Partnerships between food and health systems are not only possible, but also synergistic in advancing health equity, QI goals, and food security.
- Tangible, on-site food programming can advance culture change in healthcare to embrace food insecurity as a health issue to tackle. This culture change can then enable greater collective policy change.
- Effective equity work requires naming and addressing racism within healthcare.

CONCLUSION

Establishing multisectorial collaborations to address food insecurity and implement clinically-based programs (e.g. Food Pharmacies) can contribute to improved health outcomes and equity among prioritized communities, while increasing advocacy for policy change to address food security.

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- SFHN PC HTN Equity Planning Committee, HTN Equity Workgroup and Cardiovascular Workgroup members
- SFDPH Black/African-American Health Initiative
- Food as Medicine Collaborative partners

References

[1] Data collected from January, 2015 - December, 2017 on SFHN patients with hypertension (n=17,700).

[2] Survey data of 708 patients across the SFHN in 2013, led by Hilary Seligman.

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