Fresh Prescription: A Program to Improve Nutritional Knowledge and Access to Fresh Produce

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Problem

- Approximately 70% of the general population of the United States is overweight or obese

- Approximately 31% of Detroit residents are obese

- Detroit residents face many barriers healthy eating

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2. “Detroit Residents More Obese Than the Average American.” Detroit Stats - Member of the 24/7 Wall St. Media Network, detroitstats.com/detroit-residents-more-obese-than-the-average-american.
Problem

- Lack of basic nutritional **knowledge** and limited **access** to fresh produce contribute to obesity-related chronic diseases.

- Improving nutrition by improving access to fresh foods has major public health implications, as 7 of every 10 deaths in the US are caused by chronic diseases that can be improved by diet⁵

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Images from: https://commons.wikimedia.org/wiki/File:Medical_complications_of_obesity.png
Treatment of these conditions are a major financial stress on the American healthcare system.³

- Heart disease: $190 billion/yr
- Diabetes: $245 billion/yr
- Obesity: $147 billion/yr

Intervention - The Fresh Prescription Program

- Launched 2013 - Ecology Center
- Piloted at Henry Ford 2015-2016
- Formal Intervention 2016-2019
Intervention

- **Goal:** To improve nutritional knowledge and access to fresh produce

- **Enrollment criteria:**
  - Patients seen in Internal Medicine clinic
  - BMI >25
  - Motivated to improve diet
Intervention

Nutrition education

Reloadable Debit card

Financial Resource counseling

- 4-8 sessions
- $10-15 per session; $20 bonus delivery for completing the program
- Double-up Food Bucks, SNAP benefits, etc
Intervention - Measures of Success

- Survey of nutritional knowledge and dietary habits
- Weight
- Blood pressure
- A1c
Intervention - The Program

- Steady improvement in referrals and enrollments
- Increase in physician engagement
- Increase in participant engagement
- Improvement in workflow
Results - Year 3 (2017-2018)

- 211 provider referrals
- 73 patients enrolled
- 43 participants completed

\[ N = 43 \]

- 35% enrollment rate
- 59% completion rate among participants enrolled

- 30 participants did not complete
## Program Demographics

<table>
<thead>
<tr>
<th>Sex</th>
<th>Completed Program (n = 43)</th>
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<tr>
<td>F</td>
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<tr>
<td>M</td>
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<table>
<thead>
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</table>
Results - Survey

- 70% of participants reported increase in amount of fruits and vegetables consumed
  - average increase of 1.36 cups/ day
- 60% of participants reported decrease in amount of unhealthy items consumed
  - average decrease of 1 unhealthy item/ day
- 58% of participants reported decrease in sugary beverages consumed
- 79% of participants reported they are better able to manage their health conditions
- 100% of participants reported improvement in nutrition knowledge
Results - Biometric Data

43 total participants

28 returned for 12 week follow up

13 had weight loss (avg ↓8.3lb)

9 had improvement in blood pressure
Discussion: Fresh Prescription Outcomes

- Improved nutritional knowledge
- Increase in fruit and vegetable consumption
- Decrease in unhealthy items
Patient Story...
Discussion

- Fruit and vegetable intake is related to healthy eating habits that can help prevent or improve many chronic diseases.
  - CHASS clinic in Detroit - improvement in A1c\textsuperscript{5}

Year 5 (2019)

- Largely funded by Eastern Market grant

- Our highest enrollment!
  - Expanding to include other department referrals
  - Increased referrals from other team members (case managers, pharmacy, behavioral health team)
  - Repeat participants
  - Increased walk in referrals (Channel 4 news coverage)
Program Barriers

- **Enrollment**
  - Coordinator and on-site market available only one day per week
  - Transportation

- **Completion**
  - Maintaining engagement for participants to return for 12 week follow up
Discussion - future goals

- Partner with other departments to increase enrollments
  - Year 5- partnered with cardiology program for postpartum women
  - Potential partnerships with bariatric surgery program and orthopedic surgery program

- Expand program in number and length of intervention
  - Coordinator/nutrition demonstration availability
  - Using electronic medical record to aid maintaining engagement
Discussion - future goals

- Improvement in 12-week follow up completion
  - Follow up appointments made on enrollment day through EMR, so patient receives reminder

- More robust biometric data

- Advocate for insurance support and increased funding for preventative health measures
For ideas, questions. . . 

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Thank you!!