food is medicine

evaluation updates

- healthy and tasty

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These preliminary analyses are for internal grantee review and use only
Figure 2. Overview of pre-implementation planning approach for Food is Medicine (FIM) interventions across multiple clinic sites in Kansas.
Variation in Clinic Implementation

- Intervention Duration: 2-12 months
- Enrollment: 16-56 patients
- Food Box Frequency: Weekly-Monthly
- Complementary Activities: Few-Many
Quantitative Evaluation

**Pre/Post Survey**
- Food Security
- Block Fruit/Vegetable/Fiber Screener
- Depression (PHQ-9)
- Flourishing & Vitality
- Blood Pressure

**Pre/Post Health Markers**
- Hgb A1c (A1c Now POC device)
- BMI
- Blood Pressure
First, who are we reaching?

The EATeam reviewed enrollment surveys to better understand patient profiles of current FIM participants.
<table>
<thead>
<tr>
<th></th>
<th>Patients Enrolled</th>
<th>Food Boxes Distributed</th>
<th>Cooking Classes (Combined Attendance)</th>
<th>Group Education Classes (Combined Attendance)</th>
<th>Visits with Diabetes Educators or Dietitians</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>171</td>
<td>902</td>
<td>281</td>
<td>116</td>
<td>48</td>
</tr>
</tbody>
</table>

Survey Completion

Event Name: Baseline Patient Survey • Final Patient Survey

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Baseline Patient Survey</th>
<th>Final Patient Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic A</td>
<td>28</td>
<td>21</td>
</tr>
<tr>
<td>Clinic B</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>Clinic C</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Clinic D</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>Clinic E</td>
<td>24</td>
<td>10</td>
</tr>
<tr>
<td>Clinic F</td>
<td>27</td>
<td>3</td>
</tr>
</tbody>
</table>
How is FIM impacting food security?
Food Insecurity Score (All Clinics)

Baseline Patient Survey: 2.66
Final Patient Survey: 2.36
What are they eating?
Statistically Significant
P value = <0.05

Average Daily Fruit and Vegetables Servings

Baseline Patient Survey • Final Patient Survey

RDH: Approx. 5 Servings Per Day
How is FIM impacting health outcomes?
Mental Health

Average PHQ9 Scores (all clinics)

- Severe: 15-24
- Moderate: 10-14
- Mild: 5-9
- Minimal: 4.0 or less

<table>
<thead>
<tr>
<th>Score</th>
<th>Baseline Patient Survey</th>
<th>Final Patient Survey</th>
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<tbody>
<tr>
<td>4.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average Vitality Score

- Baseline Patient Survey: 51
- Final Patient Survey: 47

Average Flourishing Score

- Baseline Patient Survey: 12
- Final Patient Survey: 13

(n=Number of participants who have completed surveys 1 and 2)
Hypertension

Blood Pressure

<table>
<thead>
<tr>
<th>Condition</th>
<th>Baseline Chart Review</th>
<th>Final Chart Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal blood pressure</td>
<td>21%</td>
<td>28%</td>
</tr>
<tr>
<td>Elevated blood pressure</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Stage 1 high blood pressure (hypertension)</td>
<td>47%</td>
<td>44%</td>
</tr>
<tr>
<td>Stage 2 high blood pressure (hypertension)</td>
<td>17%</td>
<td>14%</td>
</tr>
</tbody>
</table>

(n=Participants who have with at least 2 chart reviews)

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Clinic B</th>
<th>Clinic C</th>
<th>Clinic D</th>
<th>Clinic E</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>126</td>
</tr>
</tbody>
</table>
Weight

Average Body Max Index (BMI)

Baseline Chart Review • Final Chart Review

Female: 37
Male: 36

Obesity
Overweight
Optimum
67% of patients experienced a reduction in A1c (n=126)

* The paired t-tests revealed a statistically significant decrease in mean HbA1c values from the baseline to final chart review. \( p=0.029135939 \)
Qualitative Evaluation: Site Visits

Fall 2022 – Fall 2023: Site visits conducted at each clinic and data collected from:

- Six clinic sites (2x)
- Two food banks
- Community partners
- Participants
Site Visit Results – Clinic Interviews

"This [program] has really been the one that seems to have made a difference in A1c levels in some of my patients. And...they tell me they feel so much better. These are individuals who really felt lousy just a few months ago, and this [program] has made a difference."

• Questions were asked to understand FIM program buy-in from the perspective of healthcare staff

Provider Buy-In

Provider hesitation reported at most clinic sites
• “Provider buy-in has been a challenge for us. It’s not that they don’t believe in the program...it’s getting their patients to buy in to the program...especially long-term.”

Site Visit 1

• Changes in patient health outcomes improved provider buy-in
• “I was initially skeptical of this program...But, the improvements in A1C and some other clinical markers...has made me a believer that this type of program can be life-changing for patients.”

Site Visit 2
Participant Interviews: Community Engagement

Patient education varied across clinics – much of this was due to space constraints, geographic location, and staffing capacity.

“I love the cooking classes. I get to be with other people who all have something in common with me... and I have learned so much about what I eat and how it makes me feel.”

“These [cooking] classes have been a life-saver for me. I live alone and I’ve gotten to meet other people who also have diabetes. I’ve learned how to eat better...what foods to eat [and] what foods to avoid.”

“At the start of the program, we all got together as a group. I wish we would have done that more often [throughout the program]. We all have something in common and could learn from each other.”
Participant Education and Other Resources

- Patients received education on a variety of topics in addition to diabetes management, including sodium reduction, heart healthy meal planning, food label reading, physical activity, and other topics.
- Food and fitness journals and BP and glucose monitoring devices were provided to some patients to track health.
- “Goody bags” with recipe books and cooking equipment provided to many participants as well.
Food Bank boxes varied in both frequency of delivery and item availability.

### Produce Boxes
- All sites received fresh produce boxes from the food banks.
- Participants across all sites enjoyed fresh produce boxes overall.
- Potatoes often included in boxes – impacted patient glucose levels.
- Patients with dental issues experienced problems with chewing some produce items.

### Dried and Canned Goods
- Five sites received dried/canned good boxes.
- Food items included WW pasta, brown rice, canned tuna/chicken, pasta sauce, F/V, rolled oats, etc.
- Clinic and participant perceptions of food items varied, with lack of variety cited as main challenge.
- Lack of culturally-appropriate items also a barrier.
- Clinics often supplemented spices, other food items, and recipes.

### Prepackaged Meal Kits
- One clinic provided prepackaged meal kits and single-serving frozen food meals to clinic participants.
- Feedback was mixed, with many participants indicating that they enjoyed the meals but would most likely not prepare some of the meal kit recipes again on their own.
- Reasons cited for this included lack of availability of many of the food items at local grocery store.
Lessons Learned

Community Impact

- Establishment of new partnerships and relationships within the community
- Identification of additional resources to continue to support participants beyond the program
- Program facilitated community building and engagement

Patient Impact

- Clinic staff did regular check-ins and ongoing support with patients, providing holistic benefits for participants
- Resources and education helped patients better understand their overall health
- Development of new relationships with others provided social connectedness and peer support