Monthly Campaign Webinar
February 15, 2018
• **Together 2 Goal® Updates**
  – Webinar Reminders
  – Together 2 Goal® Innovator Track
  – AMGA Annual Conference

• **Geisinger’s Fresh Food Farmacy**
  – Andrea Feinberg, M.D.

• **Q&A**
  – Use Q&A or chat feature
WEBINAR REMINDERS

• Webinar will be recorded today and available the week of February 19th
  — www.Together2Goal.org
• Participants are encouraged to ask questions using the “Chat” and “Q&A” functions on the right side of your screen
INTRODUCING THE INNOVATOR TRACK:
NOW ACCEPTING APPLICATIONS!

<table>
<thead>
<tr>
<th>Cardiovascular Disease Cohort</th>
<th>Eye Care Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="stethoscope.png" alt="Stethoscope" /></td>
<td><img src="eye_chart.png" alt="Eye Chart" /></td>
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</table>

- Accepting 10 T2G groups
- Applications due **February 28**

- Accepting 10 T2G groups
- Applications due **March 16**

Questions? Need the application? Visit our website or email us at [InnovatorTrack@amga.org](mailto:InnovatorTrack@amga.org)
JOIN AMGA MARCH 7-10 IN PHOENIX!

Shared Learning
Real-world case studies and insights, led by AMGA member groups

Inspiring Keynotes
Featuring burnout expert Abraham Verghese, disruption guru Jonah Berger, former Congresswoman Gabby Giffords, and astronaut Mark Kelly

Networking
15+ hours of free-flowing conversations and structured networking events

Learn more and register at: amga.org/ac18
TODAY’S FEATURED PRESENTER

Andrea Feinberg, M.D.

Medical Director of Health and Wellness
Geisinger
Fresh Food Farmacy:
New way of taking care of patients with Type II DM who are food insecure.

Andrea Feinberg, MD
Medical Director of Health and Wellness
Geisinger
The Fresh Food Farmacy Foundation and Vision

- Population Health Community Needs Assessment
- Health Outcomes/Premature Mortality
- Food Insecurity and Health Implications
- Diabetes: Disease, Costs, Tx., and FFF Program
- Clinical Outcomes
- Financial Outcomes
- Where are we now and future plans
Meet Brendalee
Lifestyle changes for the better

• Middle aged female lives with her husband and sister and leads a very sedentary lifestyle due to her fibromyalgia.

• Patient began with her case manager in November and learned that her sugars could be controlled through diet and exercise (walking in a pool) She enrolled in FFF December 2016.

• Biometrics:

  12/13/16   A1C 8.3   BP 134/74   WT 304
  6/22/17    A1C 7.0   BP 140/60   WT 286
  9/25/17    A1C 6.4   BP 110/60   WT 281
Where did we start?

- Community Health Needs Assessment: data used to determine pilot location
- Heavy burden of food insecurity and diabetes in Northumberland County, Pa

<table>
<thead>
<tr>
<th>Measure</th>
<th>Northumberland</th>
<th>Lackawanna</th>
<th>Juniata/Mifflin</th>
<th>PA</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Insecurity Rate</td>
<td>12.7%</td>
<td>12.7%</td>
<td>12.2%</td>
<td>13.1%</td>
<td>13.4%</td>
</tr>
<tr>
<td>Child Food Insecurity Rate</td>
<td>19.8%</td>
<td>18.9%</td>
<td>20.1%</td>
<td>17.9%</td>
<td>17.9%</td>
</tr>
<tr>
<td>Diabetes Rate</td>
<td>10.0%</td>
<td>9.7%</td>
<td>10.1%</td>
<td>8.7%</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

Data Sources: Food Insecurity – Feeding America, 2015
Diabetes: CDC Diabetes Atlas & BRFSS, 2009-2013
Multiple factors impact patient health

Four areas impact health:
- Socioeconomic Factors
  - Education
  - Job Status
  - Family/Social Support
  - Income
  - Community Safety
- Physical environment
- Health behaviors
  - Tobacco use
  - Diet and exercise
  - Alcohol use
  - Sexual activity
- Health Care
Impact of factors on premature death

Figure 1
Impact of Different Factors on Risk of Premature Death

- Health Care: 10%
- Genetics: 30%
- Social and Environmental Factors: 20%
- Individual Behavior: 40%

• 39 million or 15% of adults will have diabetes by 2020.
• 1 in 3 adults will have diabetes by 2050¹

¹Diabetes Statistics Report, 2014; ²United Healthcare, United States of Diabetes, 2010
Diabetes is driving unprecedented costs

- #1 Diabetes has highest healthcare spend\(^2\)
- 17.5 missed workdays per year\(^3\)

### Average Annual Medical Costs Per Person\(^1\)

<table>
<thead>
<tr>
<th>Cost</th>
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<tbody>
<tr>
<td>$4,000</td>
<td></td>
</tr>
<tr>
<td>$9,200</td>
<td></td>
</tr>
<tr>
<td>$13,200</td>
<td></td>
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<tr>
<td>$12,100</td>
<td></td>
</tr>
<tr>
<td>25,300</td>
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</table>

What if we could reduce diabetes complications and close the meal gap?

Figure 1. Major microvascular and macrovascular complications associated with diabetes mellitus. Parts of the image were adapted from Servier Medical Art. Retrieved from https://pdb101.rcsb.org/global-health/diabetes-mellitus/monitoring/complications
Type II diabetes treatment

- Lifestyle changes: cornerstone of treatment
  - Weight management
  - Nutrition
  - Physical activity
  - Smoking cessation
  - Alcohol use

- Blood pressure control

- Lipid control

- Stratified glycemic management
Diabetes and food insecurity relationship

Food insecurity is significantly associated with poor metabolic control in adults with diabetes specifically HBA1c and LDL Cholesterol.

• Patients with HBA1c of 6.5-9: 1 in 5 are food insecure*
• Patients with HBA1c >9: 1 in 4 are food insecure*

Food insecurity and diabetes relationship

Food insecurity raises your risk for diabetes

Diabetes raises your risk for food insecurity
Food insecurity impact on chronic conditions and outcomes

**Individual Characteristics**
- Age
- Education
- Race/ethnicity
- Income
- Marital Status

**Moderators**
- Genetic Factors
- Life Course Stage
- Chronic Stress
- Food Environment

**Household Food Insecurity**

**Metabolic Disturbance**
- Visceral Adiposity
- Insulin Resistance

**Health Impact**
- Early onset puberty
- Diabetes
- Chronic Conditions
- Complications

©2013 by American Society for Nutrition

Barbara A. Laraia Adv Nutr 2013;4:203-212
Food insecurity questions

• Within the past 12 months, we worried whether our food would run out before we got money to buy more (Y/N).

• Within the past 12 months, the food bought just didn’t last and we didn’t have money to get more (Y/N).
U.S. food insecurity statistics

In 2015 it was estimated that:

• 13% (almost 1 in 8) American adults were food insecure*
• 18% (1 in 6) American children were food insecure^
2014 hunger study by CPFB

Health complications of food insecurity:
• 33% of households report at least one family member with DM
• 58% of households report at least one family with HTN
• 13% of households have no health insurance of any kind

Spending tradeoffs:
• 70% of households choose between paying for food or paying for medical care.

Health Status:
• 30% report poor health
Women and food insecurity

- Women make up 70% of the world's poor
- FFF: 56% of patients are women
Coming together

Key partnerships:

• Central Pennsylvania Food Bank
• Local grocers
• Philanthropy
• Grants
Food as medicine pilot

“Don’t tell me to improve my diet. I ate a carrot once and nothing happened!”
Program structure

Clinical criteria:
• 18 years of age or older
• Diagnosed with Type II DM
• HBA1c 8.0% or greater
• Geisinger primary or specialty care
• Food insecure
Fresh Food Farmacy medical home

Care team:
• RN Health Manager
• MTM Pharmacist
• Registered Dietitian
• Wellness Associate
• Community Health Associate

Provides education and food prescription for patient and entire household.
What the FFF team provides the patient

Education:
• Care team provides clinical education about chronic disease
• Stanford designed Diabetes Self Management Program (DSMP)

Food:
• Fresh, health food for patient and entire household for 5 days (10 meals)

Social needs:
• Connect patient to transportation, SNAP (Food stamps), etc
Patient experience

- Engage patient and review program structure to determine interest
- Register patient for welcome class to learn more and meet the care team

Enroll

Provide Food Rx
- Schedule food pick up
- Address transportation gaps
- Receive recipes and meal planning support

Care Team Support
- Meet with care team members to address individual needs
- Participate in group classes and Medical Home Support
Fresh Food Farmacy
Patient stories
Grandmother makes a change for the family

- 55 y/o female raising her 3 grandkids with a husband on peritoneal dialysis
- Has been underinsured and uninsured over the last few years
- January 2017 had given up on herself completely
- Case manager continued working with the patient, enrolled the patient who is now checking her sugars, watching what she is eating and even began walking for exercise. Family now enjoys the foods.
- Biometric Response:
  1/9/17 A1C 13.8 BP 124/80 WT 181
  5/9/17 A1C 6.9 BP 110/70 WT 165
  9/6/17 A1C 5.8 BP 102/72 WT 155
Meet Rita
“The Fresh Food Farmacy has been very beneficial because they keep you on track with the classes, food and recipes. It makes being a diabetic a little easier. And not only that, they’re also there for support.” – Gail Calloway

- Enrolled July 2017
- Baseline A1c – 9.0 (April 2017)
- F/U A1c -7.7 (August 2017)
“The Fresh Food Farmacy has been a godsend in terms of helping with food. I have two small children, one of whom is disabled, and our family is on a tight budget. The Fresh Food Farmacy gives me access to foods that help me make healthier, more-balanced meals for my family. Since starting Fresh Food Farmacy, my family changed our entire style of eating. My husband lost 15 pounds and I lost 10.” – Anonymous patient

- Enrolled June 2017
- Baseline A1c – 9.4 (May 2017)
- F/u A1c – 6.5 (August 2017)
Average baseline/current reading: A1c

- 12+ Months:
  - Avg. Baseline Reading: 9.9 (24 Patients)
  - Avg. Current Reading: 7.9 (24 Patients)

- 6-12 Months:
  - Avg. Baseline Reading: 9.8 (36 Patients)
  - Avg. Current Reading: 8.2 (36 Patients)

- 3-6 Months:
  - Avg. Baseline Reading: 10.0 (18 Patients)
  - Avg. Current Reading: 8.1 (18 Patients)
Average decrease from baseline to current

- A1c: 18.0%
- Glucose: 28.5%
- Cholesterol: 18.2%
- LDL: 21.5%
- HDL: 3.3%
- Triglycerides: 20.5%
- Weight: 0.6%
- BMI: 0.8%
- Systolic BP: 0.0%
- Diastolic BP: 2.1%
### Average baseline/current reading: Cholesterol

<table>
<thead>
<tr>
<th>Enrollment Length</th>
<th>Avg. Baseline Reading</th>
<th>Avg. Current Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>12+ Months</td>
<td>188.8 (14 Patients)</td>
<td>175.4 (14 Patients)</td>
</tr>
<tr>
<td>6-12 Months</td>
<td>207.5 (21 Patients)</td>
<td>160.2 (21 Patients)</td>
</tr>
<tr>
<td>3-6 Months</td>
<td>175.0 (9 Patients)</td>
<td>128.8 (6 Patients)</td>
</tr>
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**Fresh Food Farmacy™**

**Geisinger**
Average baseline/current reading: LDL

- 12+ Months: Avg. Baseline Reading 102.0 (17 Patients), Avg. Current Reading 85.6 (17 Patients)
- 6-12 Months: Avg. Baseline Reading 103.8 (26 Patients), Avg. Current Reading 82.7 (26 Patients)
- 3-6 Months: Avg. Baseline Reading 102.0 (6 Patients), Avg. Current Reading 62.0 (6 Patients)
Average baseline/current reading: Triglycerides

<table>
<thead>
<tr>
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<th>12+ Months</th>
<th>6-12 Months</th>
<th>3-6 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Baseline Reading</td>
<td>214.2 (14 Patients)</td>
<td>286.5 (19 Patients)</td>
<td>292.7 (6 Patients)</td>
</tr>
<tr>
<td>Avg. Current Reading</td>
<td>181.6 (14 Patients)</td>
<td>242.0 (19 Patients)</td>
<td>161.7 (5 Patients)</td>
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</table>

Fresh Food Farmacy
Geisinger
Lab trending by measure: A1c

<table>
<thead>
<tr>
<th>Lab Type</th>
<th>1 Follow-Up</th>
<th>2 Follow-Ups</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Avg. Baseline Value</td>
<td>Avg. Fu1 Value</td>
</tr>
<tr>
<td>HBA1C</td>
<td>9.9 (35 Patients)</td>
<td>9.1 (35 Patients)</td>
</tr>
<tr>
<td></td>
<td>Avg. Baseline Value</td>
<td>Avg. Fu1 Value</td>
</tr>
<tr>
<td></td>
<td>9.6 (42 Patients)</td>
<td>9.5 (42 Patients)</td>
</tr>
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</table>

Fresh Food Farmacy
Geisinger
Lab trending by measure: Cholesterol

TOTAL CHOLESTEROL

Avg. Baseline Value | Avg. Fu1 Value | Avg. Fu2 Value
---|---|---
205.7 (26 Patients) | 163.5 (25 Patients) | 182.2 (16 Patients)

Avg. Baseline Value | Avg. Fu1 Value | Avg. Fu2 Value
---|---|---
161.1 (16 Patients) | 155.7 (16 Patients)
Lab trending by measure: LDL

<table>
<thead>
<tr>
<th>Measure</th>
<th>Avg. Baseline Value</th>
<th>Avg. Fu1 Value</th>
<th>Avg. Fu2 Value</th>
</tr>
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<tbody>
<tr>
<td>Value</td>
<td>117.4</td>
<td>85.5</td>
<td>54.7</td>
</tr>
<tr>
<td>(Patients)</td>
<td>(28 Patients)</td>
<td>(21 Patients)</td>
<td>(21 Patients)</td>
</tr>
</tbody>
</table>

- Avg. Baseline Value: 117.4 (28 Patients)
- Avg. Fu1 Value: 85.5 (21 Patients)
- Avg. Fu2 Value: 54.7 (21 Patients)
Lab trending by measure: Triglycerides
Where are we now?

- Enrollment struggles

- Current programming in Northumberland County to include Family Medicine, GIM, Women’s Health, and Specialty Endocrine Care

- Future programming to include Lewistown Mifflin and Juniata Counties followed by Scranton- Lackawanna County

- Ongoing clinical and financial impact analysis
• **Date/Time:** Thursday, March 15, 2-3pm Eastern
• **Topic:** Addressing Health Disparities in Latino Populations with Diabetes
• **Presenter:** David Marrero, Ph.D. of University of Arizona