“PRODUCE”ING POWERFUL PARTNERSHIPS TO OPTIMIZE PATIENT OUTCOMES

RCHN COMMUNITY HEALTH FOUNDATION

- Founded in 2005, the RCHN Community Health Foundation (RCHN CHF) is a not-for-profit foundation with a mission to support the work of community health centers across America through advocacy, research and funding
- Addressing Social Determinates of Health (SDOH) to Improve Population Health Initiative funded projects 2015-2020
- Goals of Initiative to increase capacity of CHCs to address population health and SDOH

Paul Melinkovich MD FAAP
Clinical Consultant, RCHN CHF

RCHN CHF, *continued*

- FVRx Pilot Project for Diabetes Patients: Addressing Food Insecurity to Improve Outcomes
- RCHN worked with IPCA from November 2017-May 2020
- Goals:
  - Pilot a FVRx Program for poorly controlled patients with diabetes
  - Improve diabetic control for enrolled patients
  - Spread project from initial site to other CHCs in Idaho

RCHN CHF, *continued*

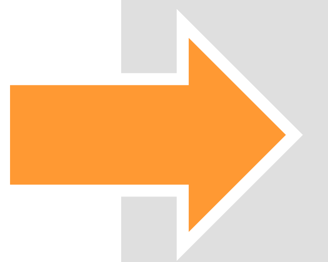
Why is this work important?

- Food Insecurity is a major SDOH issue for low-income populations
- Food as Medicine/Fruit and Vegetable Prescription (FVRx) programs promote access to fresh fruits and vegetables and healthy eating for underserved communities
- FVRx programs allow healthcare providers to prescribe produce as a complementary "treatment" for managing chronic diseases such as diabetes and obesity

DISCUSSION QUESTIONS

#1 What barriers impact your patient's ability to consume diets rich in fruits and vegetables?

#2 What are some challenges with managing programs and services to support chronic conditions like diabetes?



We will be using the interactive platform www.menti.com as part of the discussion

FVRx PILOT FOR PATIENTS WITH DIABETES

Addressing Food Insecurity to Improve Outcomes

- Collaborate with ID health center on Food as Medicine FVRx program
- Target patients with diabetes, hypertension, elevated BMI
- Obtain pre and post information regarding food insecurity
- Monitor reporting and ensure project objectives are being met
- Address SDOH needs of Idahoans (health center requirement/focus)

Sarah Ridinger, MHA
IPCA Quality Improvement Program Manager

FVRx FOR PATIENTS WITH DIABETES, *continued*

Community profile	• Rural community, outskirts of Boise, ID • Lower socioeconomic population • 63% food insecure	• Rural community, OR border • Lower socioeconomic population • 57% food insecure
Time period	• Two years, one group per year • Aug 2018 – May 31, 2020	• One year, two groups • Nov 2019 and Jan 2020
Eligibility criteria	• Year 1: DM + HTN & A1C > 9.0, BMI ≥ 30 • Year 2: A1C > 8.0	• Both groups: A1C > 8.0
Recruitment strategy	• Diabetes Registry List • Provider referrals	• Patient list • Anticipated high motivation level
Staffing approach	• RDN was project lead • Others: CHW, pharmacist	• Social work + RDN management team • Others: CHW, provider, administrative

HEALTH CENTER PARTNER: FVRx PROGRAM

Rae Krick, MS, RDN, LD
Project Lead

TERRY REILLY PROGRAM OVERVIEW

YEAR ONE

- 174 patients + families
- Cooking Matters
- Nutrition Counseling
- Healthy Diabetes Group Classes
- Produce given (w/o vouchers)

YEAR TWO

Participant #:

This voucher can only be redeemed for fresh fruits and vegetables at participating vendors.

EXACT PURCHASE PRICE MUST NOT EXCEED $10.00

First day to use:

Last day to use:

Rx for Fresh Fruits and Vegetables in Idaho

TERRY REILLY

Vendor:

Customer Signature

Date

- 105 patients + families
- Cooking Matters
- Billing for RDN Services
- Pharmacist Education
- Vouchers

PROGRAM FLOWCHART

Fruit and Vegetable Prescription (FVRx) Program at Terry Reilly Health Services (TRHS)

Target Population (participants):

- 150 TRHS patients
- HbA1c ≥ 8.0%

ELIGIBLE PATIENTS

Internal referral to RDN

Clinician "flags" patient to RDN

Shared visits between provider or clinical pharmacist and RDN

RE-QUALIFIED PATIENTS

Patients who have previously completed program, but whose HbA1c remains ≥ 9.0% (with improvement from baseline) and/or who report a low knowledge score on post-survey

PATIENT ENROLLMENT

Patient and RDN cover orientation packet:

- Consent form
- Program pre-survey
- How to redeem vouchers
- Eligible/NOT eligible items
- Map of participating vendors
- Contact info of TRHS RDN

Voucher distribution per reported family size:

- 1 member: $10 per week
- 2-3 members: $20 per week
- 4-5 members: $30 per week
- 6-7 members: $40 per week
- 8+ members: $50 per week

FVRx DOCUMENTATION

Patients' pre-program data collected from EMR and pre-survey. The following measurements included and tracked in program documentation:

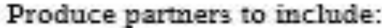
- Height, weight, BMI
- Most-recent HbA1c
- Food security status (pre-survey)

VOUCHER REDEMPTION

Patients are invited to use their vouchers to redeem free produce from one or more of the following suppliers during regular business hours.

Produce partners to include:

- Boise Mobile Farmer's Market
- Pantera Market (Caldwell & Nampa)
- Cliff's Country Market (Caldwell)
- Reggie's Veggies (Boise)
- Primo Market (Garden City)



APPOINTMENT ATTENDANCE

Patients required to attend one or more appointments in order to acquire monthly produce vouchers and receive nutrition education in regard to blood sugar control and potential weight loss. Patients have the choice to attend six-week Cooking Matters class or one-on-one appointments with the RDN. Pilot of provider group visits TBD.

One-on-one appointment with RDN	Attendance at Cooking Matters	TRHS provider group visit

Patients (regardless of appointment type) are required to meet with RDN once per month to collect vouchers. Four visits total; during final visit, RDN is to collect post-survey and post-program measurements including:

- Weight, BMI
- HbA1c
- Food security (post-survey)

SO MUCH MORE THAN FREE PRODUCE…

Outpatient Care

- Medical Nutrition Therapy
- One-on-one and shared visits
- DM and weight loss group visits

Community Outreach

- Nampa Food Access Committee
- Be Well Nampa
- Cooking Matters

Administrative Duties

- Coding and reimbursement
- TRHS Quality Improvement Committees

HEALTH CENTER PARTNER: FVRx PROGRAM

Lindsay Grosvenor, RDN, LD
Dietitian

Renee Charron, LMSW, CSWA
Project Manager

VALLEY FAMILY PROGRAM OVERVIEW

Rx for Fresh Fruits and Vegetables in Idaho

REDE

Participant #:

This voucher can only be redeemed for fresh fruits and vegetables at participating vendors.

EXACT PURCHASE PRICE MUST NOT EXCEED $10.00

Rx for Fresh Fruits and Vegetables in Idaho

First day to use:

Last day to use:

Vendor:

Customer Signature

Date

VALLEY Family Health Care

COHORT ONE

- 31 patients + families
- Healthy Diabetes Group Classes
- Cooking Matters
- Group Medical Visits
- Individual appt with RDN or BHC
- Weekly vouchers

COHORT TWO

- 26 patients + families
- Monthly group visits with RDN/BHC
- Cooking Matters
- Individual RDN or BHC appts
- Monthly Vouchers

PROGRAM FLOWCHART

DIABETESFVRx Project

Target Population (participants):

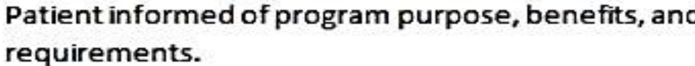
- 60 # VFHC established patients
- HbA1C > 8.0%

VFHC identifies patients who meet the criteria.

Each patient contacted three times.

After 3 attempts:

No answer/phone out of service / voicemail full or not set up = not enrolled



Patient informed of program purpose, benefits, and requirements.

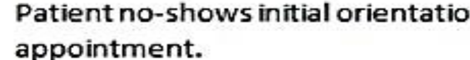
- Patients must attend four or more groups/classes while enrolled in the program. Patient has the choice to attend Group Medical, Cooking Matters, and/or Healthy Diabetes Plate group series.

Verbal affirmation of willingness to participate= enrolled.

- Patient added to Diabetes Pathways Registry in EHR.
- Patient scheduled appointment to collect A1C and orientation to program.
  - If A1C collected prior to orientation (within 30-days), no A1C collected at initial appointment.

Initial Appointment/Orientation:

1. Pre-Survey Completed and charted in EHR.
2. Education provided on program, vouchers, releases signed. Patient given appropriate amount of vouchers at time of orientation.
   a. If patient does not start group following orientation, scheduled for another appointment to get appropriate voucher amount.
3. Patient scheduled in group of choice (entire series).



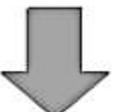
Patient no-shows initial orientation appointment.

1. Patient contacted and rescheduled

   OR
2. After 3 attempts, if no contact or patient declines further enrollment; Patient removed from DM registry

During enrollment in program, patient receives **WEEKLY** voucher amount based on household size (pregnant mom counts as 2 members).

- $10.00 – 1 member
- $20.00 – 2-3 members
- $30.00 – 4-5 members
- $40.00 – 6-7 members
- $50.00 – 8+ members



At the end of the cohort series:

1. Patient contact three times.
2. Post-survey completed and charted in EHR.
3. Patient scheduled appointment to collect A1C.

If patient has met program requirements, patient is offered (at no cost):

- 2 individual appointments with either RDN and/or BHC.

SO MUCH MORE THAN FREE PRODUCE…

Outpatient Care

- Cooking Matters
- Medical Nutrition Therapy
- One-on-one and group visits
- Inclusion of provider, BH and CHWs

Community Outreach

- Mass emergency food distributions
- ID and OR Food Bank Collaboration
- Oregon EOCCO FVRx Program

Administrative Duties

- Coding & reimbursement for Medical/RDN
- VFHC Quality Improvement Committees

VALLEY
Family Health Care

PROGRAM EVALUATION

Barbara Gordon, MS, RDN, LD, FAND
Assistant Professor

Andrea Jeffery, RDN, LD
Graduate Assistant

EFFECTIVENESS OF PROGRAMS

Did participation promote
favorable changes in A1C (better diabetes control) and
reduce body mass index (improved overall health)?

PROCESS

determines whether program activities
have been implemented
as intended and results
in certain outputs

OUTCOME

measures program effects in the target
population by assessing
the progress in the outcomes that the
program is to address

LOGIC MODEL

SITUATION	INPUTS	OUTPUTS		OUTCOMES		
				Short-	Medium-	Long-
	What we Invest!	What we Do!	Who we Reach!	Change in:	Change in:	Change in situation:
	▪time ▪money ▪partners ▪equipment ▪facilities	▪workshops ▪publications ▪field days ▪equipment demonstrations	▪customers ▪participants	▪knowledge ▪skills ▪attitude ▪motivation ▪awareness	▪behaviors ▪practices ▪policies ▪procedures	▪environment ▪social conditions ▪economic conditions ▪political conditions

External Influences, Environmental, Related Programs

EVIDENCE SUPPORTING INTERVENTIONS

Strategic Intervention	Terry Reilly SU18-SP20	Valley Family SU18-SP20	Supporting Research
Dietary education provided by an RDN	Years 1 & 2	Cohorts 1& 2	Bowen, 2016; Franz, 2017
Cooking Matters class	Years 1 & 2	Cohort 1*	Archuleta, 2012; Pooler, 2017
Distribution FV via community partners	Years 1 & 2	Cohorts 1 & 2	Howard, 2006; Bryce, 2017
Individual appointment with pharmacist	Year 2	---	Meade, 2018
Group visits with behavioral health	---	Cohorts 1 & 2	Ayalon et al., 2008

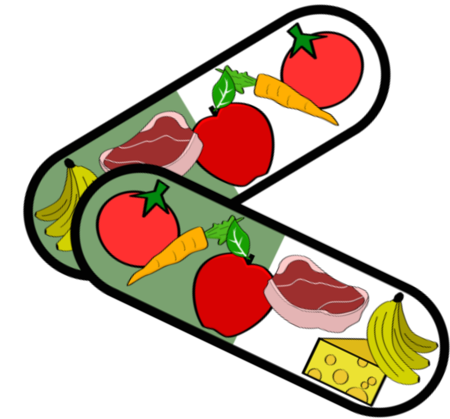
*COVID prevented offering for Cohort 2

SOCIODEMOGRAPHICS OF PARTICIPANTS

Breakdown of Race/Ethnicity for TRHS and VFHC FVRx Program Participants						
	TRHS		VFHC		Combined	
	Year One	Year Two	Cohort One	Cohort Two		
African American/Black	1	1	0	0	2	0.6%
Asian	0	0	1	0	1	0.3%
Caucasian/White, Not Latino/Hispanic	86	44	13	11	154	46.2%
Latino/Hispanic or Spanish Origin	76	54	6	14	150	45.0%
Native American/American Indian	2	0	0	0	2	0.6%
Other (Native Hawaiian/Pacific Islander)	1	0	0	0	1	0.3%
Two or more races/ethnicities	5	2	3	0	10	3.0%
Preferred not to answer	0	2	4	1	7	2.1%
Did not answer	0	2	4	0	6	1.8%
Total	171	105	31	26*	333	--

*COVID impacted recruitment for Cohort 2

SIGNIFICANT ASSOCIATIONS



- Participants from both CHCs
  - Statistically significant changes in A1C for participants who completed the program
  - Terry Reilly average reduction of A1C was 1.7%, Valley Family .03%
- Vouchers alone
  - Not significant predictor of change in A1C or BMI
  - Percent redeemed not significant predictor of change in metrics

SIGNIFICANT ASSOCIATIONS, *continued*

- Cooking classes vs. behavioral health appointments
  - Cooking Matters => statistically significant for predicting change in A1C
  - BH appointments + voucher redemption => significant reductions in BMI

- Food insecurity and program participation
  - Participation yielded significant change in A1C among food insecure
  - Terry Reilly Year 2 and Valley Family Cohort 1

LESSONS LEARNED AND OUTCOMES

Allocate sufficient resources

Keep cohorts small

Provide opportunities for socialization

Utilize validated educational and evaluation tools

Collect parallel metrics

RDN position established

Continuation funds from local CCO

Virtual Cooking Matters Pilot

Participation in statewide ID/OR FVRx guiding groups

Formation of IPCA Dietitian Peer Group

DISCUSSION QUESTION #1

What barriers impact your patients from having diets rich in fruits and vegetables?

Please go to
www.menti.com
enter code
1990 7729

DISCUSSION QUESTION #2

Please go to
www.menti.com
enter code
19907729

What are some challenges with managing programs and services to support chronic conditions like diabetes?

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THANK YOU!

FOR MORE INFORMATION

Sarah Ridinger, IPCA Quality Improvement Program Manager

sridinger@idahopca.org