Translating Research Into High Impact Policy

Accelerating Policies and Research on Food Access, Diet, and Obesity Prevention

UPenn Prevention Research Center (PRC) Symposium : Friday, April 28th, Inn at Penn

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UNC CENTER FOR HEALTH PROMOTION AND DISEASE PREVENTION

UNC GILLINGS SCHOOL OF GLOBAL PUBLIC HEALTH

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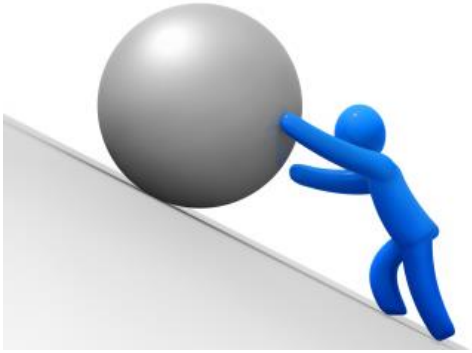
Two stories

- Evidence-based CVD intervention translated for multiple settings – practical/feasible yet intensive enough for CMS coverage
- Policy and social venture to increase healthy/local food access in rural corner stores

The Challenge



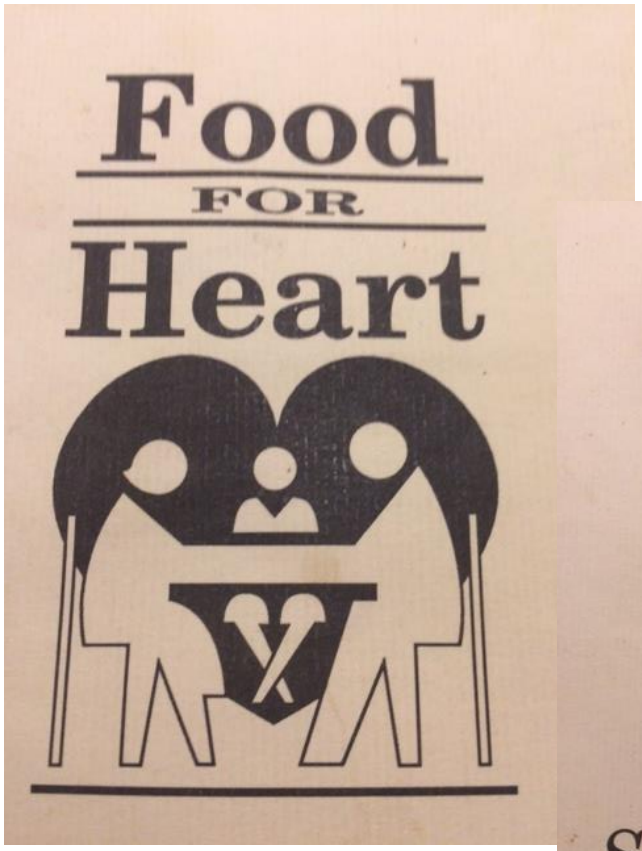
- Very high rates of heart disease
- Few affordable options for health promotion
- Most adults see physicians about 4 X year
  - ***Opportunity to reach this population***

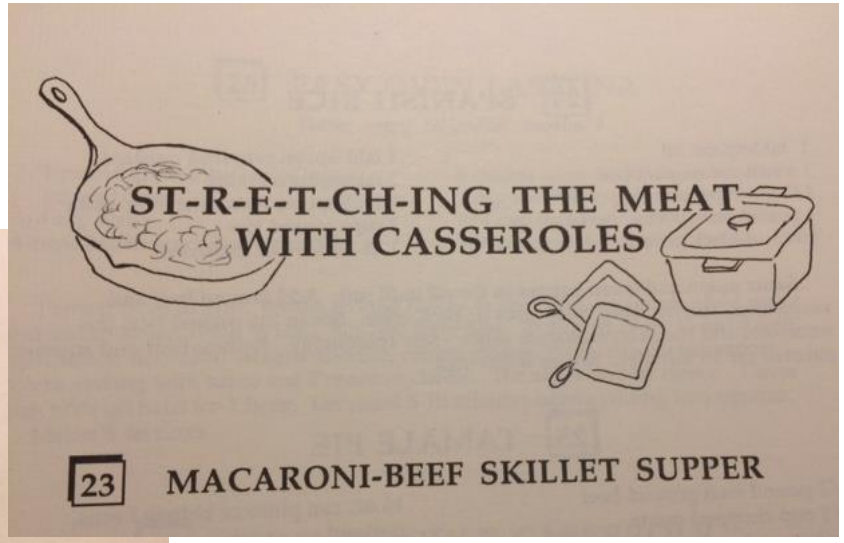
    BUT:
    - ✓MDs don't know a lot about nutrition or lifestyle counseling
    - ✓Visits are brief and must address many other issues

The Opportunity

- Create a Tool for Provider Counseling that:
  - ✓Makes it quick and easy to assess diet
  - ✓Provides “fool proof” counseling tips
  - ✓Is culturally relevant for the patient
  - ✓Builds in key behavior change strategies

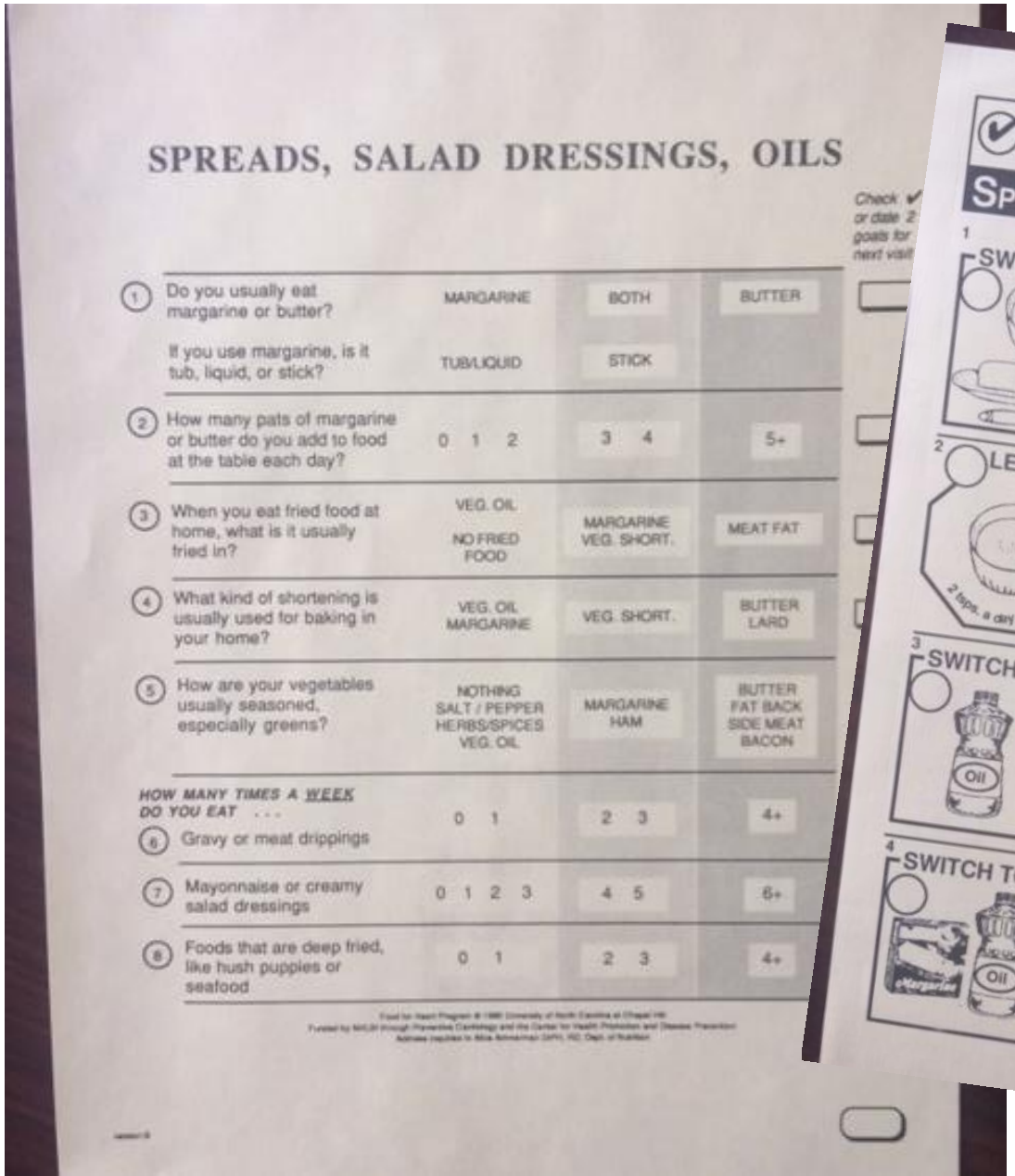
Humble Beginnings:
Initial Food Focus Only





Expanding to… Physical Activity, Healthy Weight, Smoking and Quitting, Diabetes Bone Health, Stress and Depression….

Built around a simple “column-based” assessment and counseling strategy…



SPREADS, SALAD DRESSINGS, OILS

Check ✔ or date 2 goals for next visit

1	Do you usually eat margarine or butter?	MARGARINE	BOTH	BUTTER
	If you use margarine, is it tub, liquid, or stick?	TUB/LIQUID	STICK	
2	How many pats of margarine or butter do you add to food at the table each day?	0 1 2	3 4	5+
3	When you eat fried food at home, what is it usually fried in?	VEG. OIL NO FRIED FOOD	MARGARINE VEG. SHORT.	MEAT FAT
4	What kind of shortening is usually used for baking in your home?	VEG. OIL MARGARINE	VEG. SHORT.	BUTTER LARD
5	How are your vegetables usually seasoned, especially greens?	NOTHING SALT / PEPPER HERBS/SPICES VEG. OIL	MARGARINE HAM	BUTTER FAT BACK SIDE MEAT BACON
	HOW MANY TIMES A WEEK DO YOU EAT ...			
6	Gravy or meat drippings	0 1	2 3	4+
7	Mayonnaise or creamy salad dressings	0 1 2 3	4 5	6+
8	Foods that are deep fried, like hush puppies or seafood	0 1	2 3	4+

GOALS FOR NEXT VISIT

SPREADS, SALAD DRESSING, OILS

1 SWITCH TO

Tub or Liquid Margarine

- Margarine is much less expensive than butter and much better for your heart!
- Cook with margarine or oil instead of butter, shortening, or lard.
- Switch to tub or liquid margarine – it has less “bad” fat.

2 LESS

2 tsps. a day or less

Margarine

- Easy does it! Margarine has no cholesterol and a better mix of fats, but just as many calories as butter.
- Spread it thin. The more you use, the more calories you add.
- Enjoy the taste of food like fresh corn, waffles, or pancakes without it!

3 SWITCH TO

Oil

Oil for Frying

- Try baking or broiling instead of frying.
- When you do fry, use oil instead of bacon grease, butter, margarine, or shortening.
- **See recipes 14 and 15 for crispy chicken or fish using vegetable oil.**

4 SWITCH TO

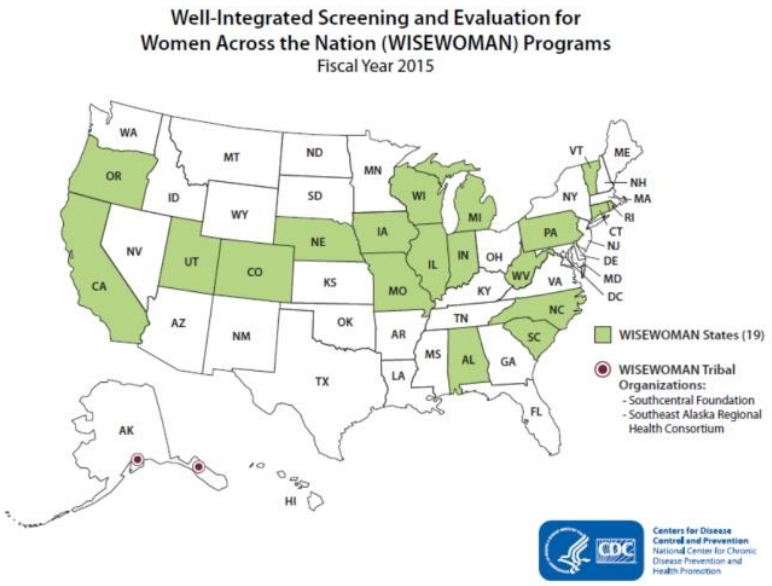
Oil

Oil or Margarine for Baking

- Use oil or margarine instead of lard, butter, or shortening.
- Use margarine only when you have to.
- Use a little less than is called for in the recipe – it will taste just as good.

WISEWOMAN™

Well-integrated Screening and Evaluation for Women Across the Nation



- Spanish Version
- Multiple State Specific Versions

New Leaf Reaches Out!

- Evidence-based **weight loss interventions** in community and public health settings (translational research)
- **Family-centered chronic disease management** (type 2 diabetes)
- **Behavioral lifestyle interventions** to reduce CVD risk among minority and low-income populations
- **Diabetes self-management** training for African Americans

Weight-Wise

A New DAWN
Diabetes Awareness & Wellness Network

pals
PArtners in Lifestyle Support

Carmen Samuel-Hodge, PhD, MS, RD

“Extreme Translation”

Collaboration on
Deaf Weight-Wise
University of
Rochester
Prevention Research
Center

Heart to Health

a tool to help you to your best heart health

Heart Disease: Your Chances and Options

Your Chances of Heart Disease

Your chances of having heart disease in the next 10 years is **39%**. By heart disease we mean heart attack and sudden death.

For comparison, a 65 year old male with no risk factors has a **12%** average chance of having heart disease sometime in the next 10 years.

The following graph is provided to help you understand your chances of having heart disease in the next 10 years. The arrow indicates your chances. According to most doctors, green means you have a low chance of heart disease (<6%). Yellow means you have a moderate chance (6-10%). And, red means you have a high chance (>10%).

Overall chances (%)

On future pages, you will see this graph again. Then you can discover how much you can lower your chances of heart disease.

next

JAMA Intern Med. 2014;174(7):1144-1157. doi:10.1001/jamainternmed.2014.1984

Research

Original Investigation

A Comparison of Live Counseling With a Web-Based Lifestyle and Medication Intervention to Reduce Coronary Heart Disease Risk
A Randomized Clinical Trial

Thomas C. Keyserling, MD, MPH; Stacey L. Sheridan, MD, MPH; Lindy B. Draeger, MPH; Eric A. Finkelstein, PhD, MA, MHA; Ziya Gizlice, PhD; Eliza Kruger, MHE; Larry F. Johnston, MA; Philip D. Sloane, MD; Carmen Samuel-Hodge, PhD, RD; Kelly R. Evenson, PhD, MS; Myron D. Gross, PhD; Katrina E. Donahue, MD, MPH; Michael P. Pignone, MD, MPH; Maihan B. Vu, DrPH, MPH; Erika A. Steinbacher, MD; Bryan J. Weiner, PhD; Shrikant I. Bangdiwala, PhD; Alice S. Ammerman, DrPH, RD

IMPORTANCE Most primary care clinicians lack the skills and resources to offer effective lifestyle and medication (L&M) counseling to reduce coronary heart disease (CHD) risk. Thus, effective and feasible CHD prevention programs are needed for typical practice settings.

OBJECTIVE To assess the effectiveness, acceptability, and cost-effectiveness of a combined L&M intervention to reduce CHD risk offered in counselor-delivered and web-based formats.

DESIGN, SETTING, AND PARTICIPANTS A comparative effectiveness trial in 5 diverse family medicine practices in North Carolina. Participants were established patients, aged 35 to 79 years, with no known cardiovascular disease, and at moderate to high risk for CHD (10-year Framingham Risk Score [FRS], ≥10%).

INTERVENTIONS Participants were randomized to counselor-delivered or web-based format, each including 4 intensive and 3 maintenance sessions. After randomization, both formats used a web-based decision aid showing potential CHD risk reduction associated with L&M risk-reducing strategies. Participants chose the risk-reducing strategies they wished to follow.

MAIN OUTCOMES AND MEASURES The primary outcome was within-group change in FRS at 4-month follow-up. Other measures included standardized assessments of blood pressure, blood lipid levels, lifestyle behaviors, and medication adherence. Acceptability and cost-effectiveness were also assessed. Outcomes were assessed at 4 and 12 months.

Invited Commentary page 1157

Supplemental content at jamainternalmedicine.com

Center for Population Health and Health Disparities:
The Heart Healthy Lenoir Project

Research Team

University of North Carolina at Chapel Hill

East Carolina University

Lenoir County Partners

Lenoir County Alliance for a Healthy Community

Heart Healthy Lenoir Community Advisory Committee

Many other community-based organizations and agencies

Funded by

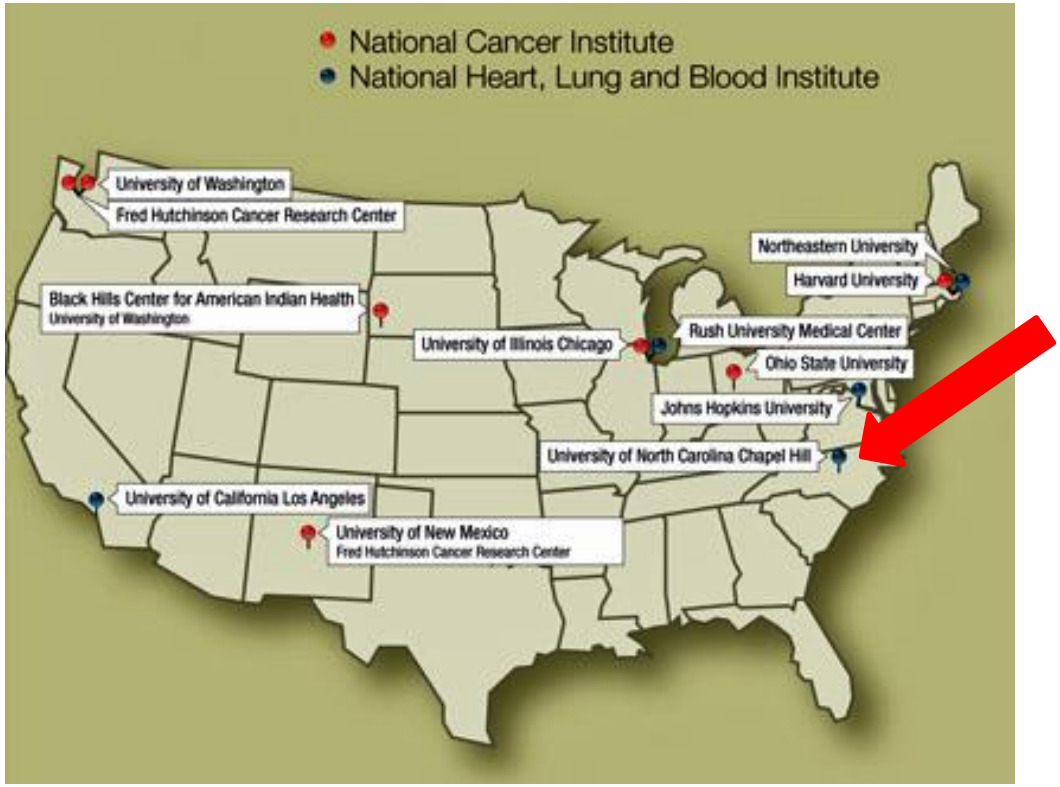
National Heart, Lung and Blood Institute

National Institutes of Health

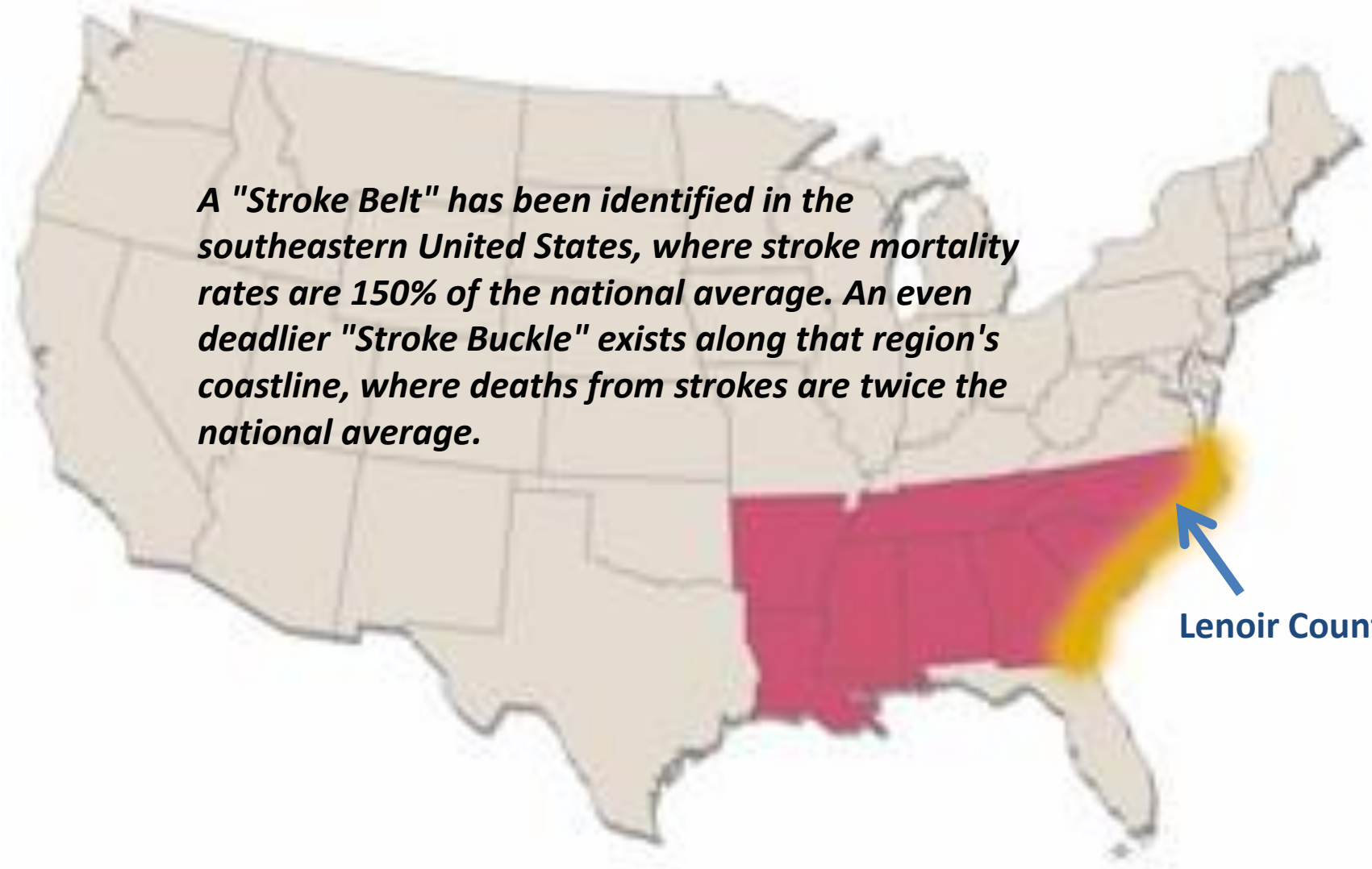
Heart Healthy Lenoir

NIH Centers for Population Health and Health Disparities

CENTERS FOR POPULATION HEALTH AND HEALTH DISPARITIES
CPHHD
http://cancercontrol.cancer.gov/cphhd/



Stroke Belt



A "Stroke Belt" has been identified in the southeastern United States, where stroke mortality rates are 150% of the national average. An even deadlier "Stroke Buckle" exists along that region's coastline, where deaths from strokes are twice the national average.

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Primary Prevention of Cardiovascular Disease with a Mediterranean Diet

Ramón Estruch, M.D., Ph.D., Emilio Ros, M.D., Ph.D., Jordi Salas-Salvadó, M.D., Ph.D., Maria-Isabel Covas, D.Pharm., Ph.D., Dolores Corella, D.Pharm., Ph.D., Fernando Arós, M.D., Ph.D., Enrique Gómez-Gracia, M.D., Ph.D., Valentina Ruiz-Gutiérrez, Ph.D., Miquel Fiol, M.D., Ph.D., José [illegible] M.D., Ph.D., Rosa Maria Lamuela-Raventos, D.Pharm., Ph.D., Lluís [illegible] M.D., Ph.D., Xavier Pintó, M.D., Ph.D., Josep Basora, M.D., Ph.D., [illegible]oz, M.D., Ph.D., José V. Sorlí, M.D., Ph.D., José Alfredo Ma[illegible], M.D., Ph.D., and Miguel Angel Martínez-González, M.D., Ph.D., for the PREDIMED Study Investigators*

Mediterranean Diet

ABSTRACT

BACKGROUND

Observational cohort studies and a secondary prevention trial have shown an inverse association between adherence to the Mediterranean diet and cardiovascular risk. We conducted a randomized trial of this diet pattern for the primary prevention of cardiovascular events.

METHODS

In a multicenter trial in Spain, we randomly assigned participants who were at high cardiovascular risk, but with no cardiovascular disease at enrollment, to one of three diets: a Mediterranean diet supplemented with extra-virgin olive oil, a Medi-

The authors' affiliations are listed in the Appendix. Address reprint requests to Dr. Estruch at the Department of Internal Medicine, Hospital Clinic, Villarroel 170, 08036 Barcelona, Spain, or at restruch@clinic.ub.es, or to Dr. Martínez-González at the Department of Preventive Medicine and Public Health, Facultad de Medicina–Clínica Universidad de Navarra, Irunlarrea 1, 31008 Pamplona, Spain, or at mamartinez@unav.es.

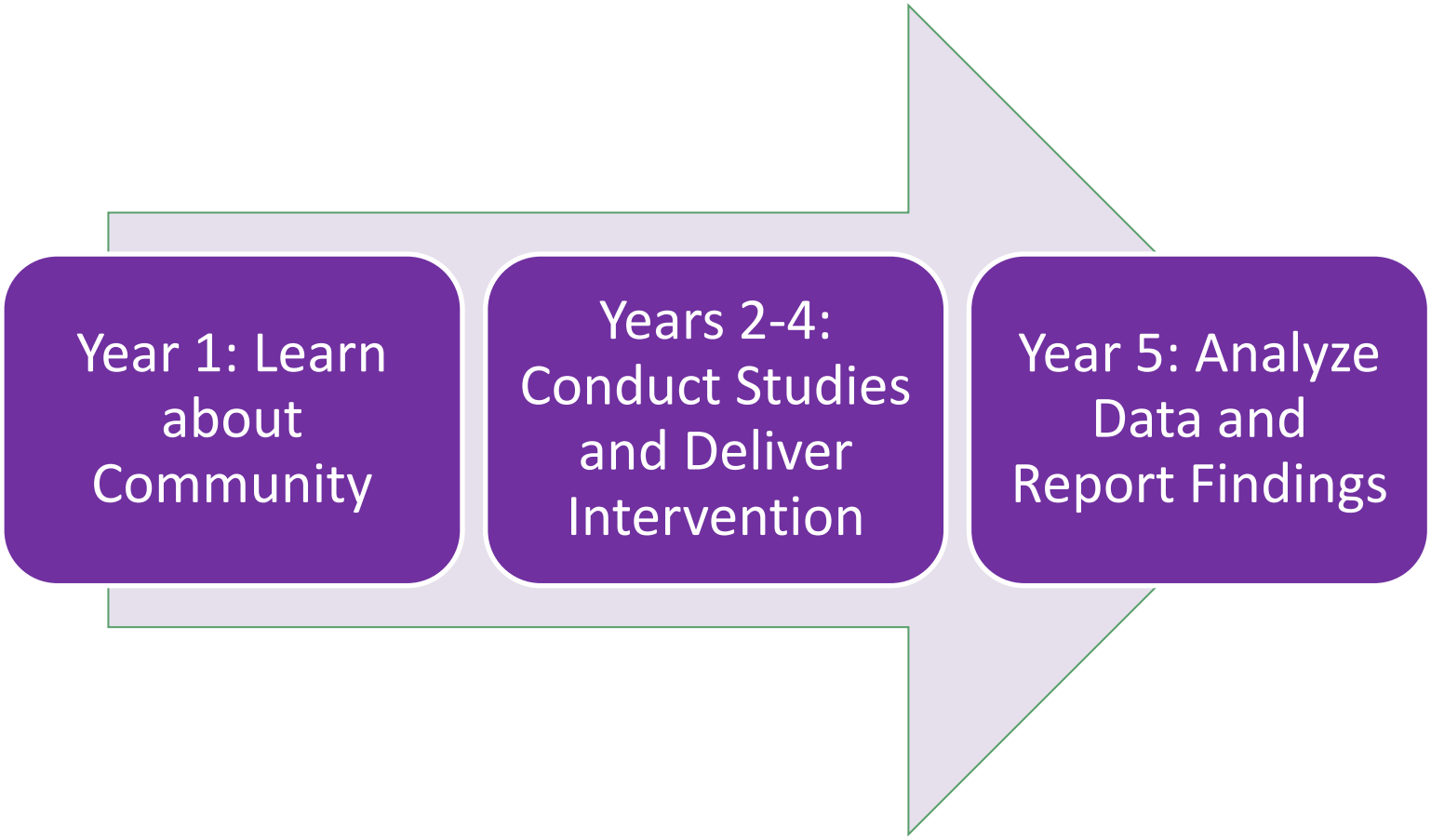
Community-Based Participatory Research

- Driven by the community
- Nature of intervention not predetermined. Developed in collaboration with community partners
- Limited use of control groups – rather focus on reducing health disparities
- Implement the intervention with feasibility and sustainability in mind

Community Advisory Committee

- Met quarterly with research team
- Represented public health, medical, business, policy, faith-based, and other community organizations
- Provided project guidance to assure the research efforts were meeting the needs of and were sensitive to the community culture

Project Timeline



Heart Healthy Lenoir

High Blood Pressure Study

Improve blood pressure control by working with medical practices and patients.

Lifestyle Study

Create lifestyle program with individual support and community changes that promote healthy eating, PA, and weight control.

Genomics Study

Study genetic factors related to heart disease and needed treatments.

Lifestyle Program Phases & Options

Phase I
Lifestyle Phase (LS)
(Months 1-6)

- Improve eating and physical activity habits
- 4 individual or group counseling sessions
- At 6 months, choose weight loss or LS maintenance through 24 months

Phase II
Weight Loss Phase
(Months 7-12)

- For BMI > 25 kg/m^2
- 16-week, behavioral weight loss program
- 2 formats: Weekly group sessions (16) OR 5 group sessions + 10 phone contacts

Phase III
Maintenance of Weight Loss
(Months 13-24)

- Entry criteria **≥8 lbs** wt loss; all others receive lifestyle maintenance
- Randomized controlled trial
- 2 groups – different number of phone contacts

Lifestyle Intervention (Phase I) Results
All Participants

Outcome[a]	n	Baseline	6 Months	Change (6M minus baseline, 95% CI)	*p*-value
Diet quality, total score[b]	235	27.6	31.9	4.3 (3.7 to 5.0)	<.001
Fat quality screener score[b]	229	15.3	16.7	1.4 (1.0 to 1.7)	<.001
Walking time, min/wk[c]	249	97	161	64 (19 to 109)	.005
Systolic BP, mm Hg	249	134	128	-6.4 (-8.7 to -4.1)	<.001
Diastolic BP, mm Hg	249	82	78	-3.7 (-5.0 to -2.5)	<.001
Taking BP lowering Medication, No. (%)	249	193 (77%)	198 (79%)	2.0% (-0.3 to 4.4)	.10
Weight, kg	248	98	97	-0.7 (-1.2 to -0.3)	.002

[a]Data are means (SE) except where noted

[b]Higher score indicates improved diet quality

[c]Includes walking for transportation and exercise

All Participants (Phases II and III) Weight Loss (kg) at 12 and 24 Months

	12 Mouth Weight Outcomes		24 Mount Outcomes	
Intervention Format	N	Change (95% CI)	N	Change (95% CI)
--group weight loss	50	-3.1 (-4.9 to -1.3)	52	-2.1 (-4.3 to 0.0)
--combo weight loss	75	-2.1 (-3.2 to -1.0))	72	-1.1 (-2.7 to 0.4)
--lifestyle only	125	-0.9 (-2.1 to 0.2)	124	-1.7 (-2.9 to -0.5)

Participants with Diabetes Weight Loss at 12 and 24 Months

	12 Mouth Weight Outcomes		24 Mount Outcomes	
Intervention Format	N	Change (95% CI)	N	Change (95% CI)
--with diabetes, group weight loss	17	-3.9 (-7.4 to -0.4)	18	-5.2 (-9.6 to -0.8)
--with diabetes, combo weight loss	27	-2.6 (-5.0 to -0.2)	25	-2.2 (-4.6 to 0.1)
--with diabetes, lifestyle only	52	-0.2 (-2.0 to 1.6)	50	-3.8 (-5.9 to -1.8)

Lifestyle Survey

On an average **DAY**, how many se

1a. **Dark-green or orange vegetables** broccoli, tossed salads made with lettuces, sweet potatoes, butternut

1b. **Other vegetables** like corn, green okra, zucchini, turnips, onions, ca tomatoes (including tomato sauce

2. Fresh, canned, or frozen **fruit** or equals a serving)

3. Bread, rolls, or tortillas made all o **white flour**

In an average **WEEK**, how many

4. **Beans or peas** like pinto beans, ki black-eyed peas

5. **White rice or regular pasta**, like or macaroni

6. **Regular cold or hot cereals**, like cocoa cereals, grits, or cream of w

Vegetab Who a

✔ Check the goals you want t

☐ **1. Try for four or more ser**

A word about serving sizes

* In general, a half cup of a c serving size.
* Though it is good to aim fo a variety of vegetables, as n

Eat a variety of dark-green vegetables.

* Try broccoli or greens.
* Include spinach, romaine, c green leafy lettuce in salads
* Add chunks of sweet potat squash, or carrots to steam vegetables.

Keep costs down.

* Buy fresh vegetables in seas farmer's market).
* Buy seasonal vegetables in or can some for later.
* Grow your own.

Go easy on starchy vegetab potatoes, corn, green peas,

* Try to eat no more than on
* Eat regular potatoes in mo
* Try a baked sweet potato as
* Add other vegetables to po and green beans drizzled w Cookbook, pages 43-55).

Vegetables, Fruit, Whole Grains, and Beans | Tips

☐ **3. Choose more whole grain breads. Try to eat two or more servings of whole grain bread products each day.**

* Pick whole grain bread instead of white bread. Remember that multi-grain is not the same as whole grain. Look for whole wheat flour or whole grains as the first ingredient on the food label.
* Check the label and choose breads with at least two grams of fiber per slice.

☐ **4. Eat more beans and peas. Try to eat beans or peas three or more times per week.**

* Beans and peas are a good source of fiber and protein and therefore can be a healthy, high fiber substitution for meat. They are also less expensive than meat.
* Soak beans overnight to shorten the cooking time.
* Use onions and garlic for seasoning, or season with vegetable oil or small pieces of ham, turkey, or beef.
* Make a quick healthy meal with canned beans. Get the low-salt (low sodium) kind, or drain and rinse canned beans. See pages C-79 and C-80 for more information on cooking for one or on the run.

☐ **5. Try other whole grain foods like brown rice, barley, and whole grain pasta. Aim to eat three or more servings each week.**

* Whole grains are foods like brown rice and whole wheat bread and pasta. These foods are high in fiber and B vitamins.
* Though brown rice tastes a bit different from white rice, it's easy to get used to the taste. Many people prefer the taste of brown rice.
* To get used to the taste of whole grain pasta, try mixing with regular pasta at first.

Lifestyle Survey

Walking

In a usual **WEEK**...

1. How many times do you **walk** for recreation, health, fitness, or transportation such as walking around the block, walking your dog, or walking to work? (**Do NOT** include walking that you do as part of your job.)	

On a typical **DAY** when you **WALK** for recreation, he

2. What is the **total time** you spend **walking?**	☐ 30 or more minutes	☐ 10-19 mi ☐ 20-29 mi
3. What is your usual **speed?**	☐ Fairly fast (3-4 miles in an hour) ☐ Very fast (more than 4 miles in an hour)	☐ Average normal (2-3 mi an hour

On a typical **DAY** at work...

4. What is the **total time** you spend **walking?**	☐ 30 or more minutes	☐ 10-19 mi ☐ 20-29 mi
5. What is your usual **speed?**	☐ Fairly fast (3-4 miles in an hour) ☐ Very fast (more than 4 miles in an hour)	☐ Average normal (2-3 mi an hour

Lifestyle Survey

Other Types Of Physical Activity

The next questions are about **leisure time** physical activity other than walking. When answering these questions, **DO NOT** include walking. These questions ask about two levels of physical activity: **moderate** and **vigorous**.

MODERATE physical activities cause a moderate increase in breathing and heart rate. **You should be able to carry on a conversation when doing these activities.**

VIGOROUS physical activities cause a large increase in breathing and heart rate. **It is difficult to talk when doing these activities.**

In a usual **WEEK**...

1. How many times do you do **moderate** leisure time physical activities like dancing, cycling, social tennis, golf, or gardening?	☐ 5+	☐ 3-4	☐ 1-2 ☐ 0 (If 0, skip to question 3)

On a typical **DAY** when you do **MODERATE ACTIVITY**...

2. What is the **total time** you spend doing this activity?	☐ 30 or more minutes	☐ 10-19 minutes ☐ 20-29 minutes	☐ Less than 10 minutes

In a usual **WEEK**...

3. How many times do you do **vigorous** leisure time physical activities like jogging, aerobics, swimming laps, or competitive tennis?	☐ 5+	☐ 3-4	☐ 1-2 ☐ 0 (If 0, skip to question 5)

Our Core Research Project

HPDP Core Research

- **Clinical-Community connections** for chronic disease prevention (primary & secondary)
- Training and community partnership to expand role of **Community Health Workers**
- Supporting health care delivered by community health centers / local health departments

Problem.. Limited access to healthy food in rural low income communities

Ultimate Overall Reach/ Impact

- 30 Community Health Centers (mostly FQHCs)
- 50 Health Departments
- 80 African American Churches
- Over time it has been delivered by physicians, health educators, nurses, community health workers, and by phone counselors
- A part of at least $20 million in NIH/CDC funded grants
- Significant improvements in diet and physical activity reported in most of these studies
- Improved blood pressure, serum cholesterol, BMI, and carotenoids in many cases.
- Many different delivery models have and are being tested including newer technologies

Decision Memo for Intensive Behavioral Therapy for Obesity (CAG-00423N)

Need a PDF?

Expand All | Collapse All

Decision Summary

The Centers for Medicare and Medicaid Services (CMS) has determined the following:

The evidence is adequate to conclude that intensive behavioral therapy for obesity, defined as a body mass index (BMI) ≥ 30 kg/m^2, is reasonable and necessary for the prevention or early detection of illness or disability and is appropriate for individuals entitled to benefits under Part A or enrolled under Part B and is recommended with a grade of A or B by the U.S. Preventive Services Task Force (USPSTF).

RESEARCH AT HPDP

Med-South Lifestyle Program

Local Foods and Sustainable Agriculture

Research Fellows Program

Our Projects

Special Interest Projects

Our Applied Research Project

HPDP Highlights Research in Women's Health

CONNECT WITH US

Med-South Lifestyle Program

This program can help you improve what you eat and help you become more physically active. Eating well and being active are important to reducing your risk for heart disease, stroke, and other chronic illnesses. It is called the Med-South Lifestyle Program because the eating plan is similar to a Mediterranean diet, but includes foods that are often eaten in the southeastern United States. This type of eating pattern has been shown to lower the risk of heart attack and stroke by nearly 30%.

The program is given during 4 sessions. A health coach will lead you through one session each month. There is also an option to check in with your coach between sessions to review your progress. The content of each program session and a list of additional materials is shown in the Table of Contents. The content has been revised (as of January 31, 2017) to be current with the scientific literature on healthy eating, physical activity, and health outcomes.

Click here to reach the Request Materials form.

To learn more about us, click here.

Story #2: Policy and social venture to increase healthy/local food access in rural corner stores

The link between improving healthy food access and economic opportunity: challenges and opportunities

NC House Committee on Food Desert Zones, Raleigh, NC ▪ January 27, 2014

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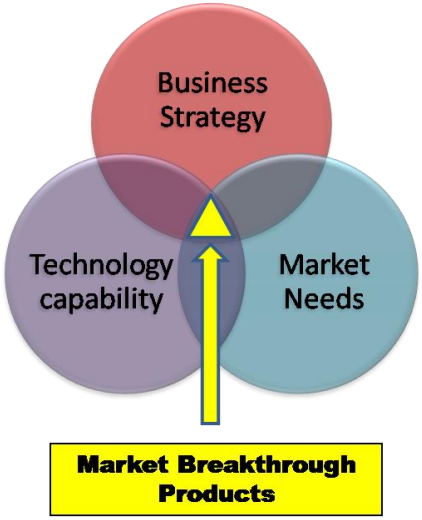
Sweet Spot



- Increase healthy food access with NC grown crops
  - Fresh, wholesome, good tasting food
  - $ stays in the state
  - Decreases transportation and storage costs
  - Reduces adverse environmental impact
  - Creates many opportunities for business expansion or start-ups to replace current inefficient systems or cross continental shipping

    (food hubs, value added processing, distribution, retail)

In summary we need to:

- Support the sweet spot between healthy food access and NC agriculture in tackling food deserts
- Give smaller food and agriculture businesses a fair chance in terms of loans, regulation, and zoning
- Support start-up entrepreneurial efforts to rebuild local food economies
- Leverage federal food benefit dollars to increase healthy food access AND support local business
- Recognize the value & potential of southern food!

Heart Healthy BBQ and Hush Puppies

The 32nd Annual BBQ FESTIVAL on the Neuse

Kinston-Lenoir County Chamber of Commerce

FILED SENATE
Mar 17, 2015
S.B. 296
PRINCIPAL CLERK

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2015

S **D**

SENATE DRS25105-MC-99B* (03/09)

Short Title:	Healthy Food Small Retailer/Corner Store Act.	(Public)
Sponsors:	Senators D. Davis and Pate (Primary Sponsors).	
Referred to:		

A BILL TO BE ENTITLED

AN ACT TO ENACT THE CORNER STORE INITIATIVE ACT TO ASSIST HEALTHY FOOD SMALL RETAILERS.

The General Assembly of North Carolina enacts:

SECTION 1. Part 2J of Article 10 of Chapter 143B of the General Statutes is reenacted and reads as rewritten:

"Part 2J. ~~Wine and Grape Growers Council.~~Healthy Food Small Retailer Act.

"**§ 143B-437.92. Healthy Food Small Retailer Fund.**

(a) Findings. – The General Assembly finds the following:

(1) Overweight children and adults are at greater risk for numerous adverse health consequences, including type 2 diabetes, heart disease, stroke, high blood pressure, high cholesterol, certain cancers, asthma, low self-esteem, depression, and other debilitating diseases. In North Carolina, over sixty-five percent (65%) of adult residents were considered overweight or obese and over thirty-one percent (31%) of children were considered overweight or obese. Obese children are at least twice as likely as non-obese children to become obese adults.

(2) The medical costs of obesity are rising rapidly in the United States and are estimated to be one hundred forty-seven billion dollars ($147,000,000,000) per year. Roughly half of these obesity-related costs are paid by Medicare and Medicaid, indicating taxpayers bear the majority of the cost for obesity-related medical care. Obesity-related health care spending accounts for eight and one-half percent (8.5%) of Medicare spending, eleven and eight-tenths percent (11.8%) of Medicaid spending, and twelve and nine-tenths percent (12.9%) of private payer spending.

(3) Many Americans, particularly those in low-income neighborhoods, rural areas, and communities of color, live in communities that lack adequate access to full-service grocery stores. Low-income areas have more than twice as many convenience stores and four times as many small grocery

Steve Troxler
Commissioner

North Carolina Department of Agriculture
and Consumer Services
Division of Marketing

Joe Sanderson
Director

November 27, 2016

Dear Store Owner:

The name **"c-stores"** reflects your role as ***community* stores**, not simply corner and convenience stores. Your stores are regularly places for members of your communities to gather, as well as to purchase fuel and food. **The NC General Assembly has provided funding to help small stores like yours supply your communities with *healthier* food options by reimbursing your store for refrigeration, freezers, and stocking equipment for these foods. We would like to invite you to join in this North Carolina initiative to support the health of your communities by improving access to healthier foods in your region**.

A portion of House Bill 1030, The NC Healthy Food Small Retailer Program (HFSRP), was funded specifically to provide reimbursements for refrigeration, freezers, shelving, and stocking equipment to each participating c-store that meets the following criteria and is selected for the 2017 pilot program:

A well timed social venture

Farm Fresh Meals on the Go

Good for you, your pocket, and the planet
Sharing good food and good health

The Need – Healthy Food Access

- North Carolina ranks 8th in food insecurity with some of the highest rates of obesity/chronic disease in the US
- Affordable foods are often not healthy foods
- This is particularly problematic in urban and rural "food deserts" where "community stores" (convenience/corner stores) may be the primary food retailers
- Lower income families may lack cooking equipment or time/skills for meal preparation

The Need – Economic Opportunity

- Agriculture remains the largest industry in North Carolina
- With the discontinuation of federal tobacco subsidies and the pressures of development, NC is losing more small to mid-sized farmers than almost any other state.
- Rural North Carolina suffers disproportionately from both health and economic challenges
- Vertically integrated contract farming contributes to many problems for growers as well as the environment.

Product idea: Broccoli/Sweet potato/Black beans wrap or bowl with chicken or beef (or vegetarian) and brown rice, salsa, spices, cheese

Taste Testing at Quick Mart Mebane, NC

Dishes

BBQ with Chicken, Veggies, and Rice

- Eastern BBQ sauce, chicken, brown rice, collards, cabbage, sweet potatoes, onions, garlic

Chicken Sweet Potato Bowl

- Chicken, brown rice, onions, garlic, spices, salsa, cheese, broccoli, sweet potatoes, mozzarella cheese

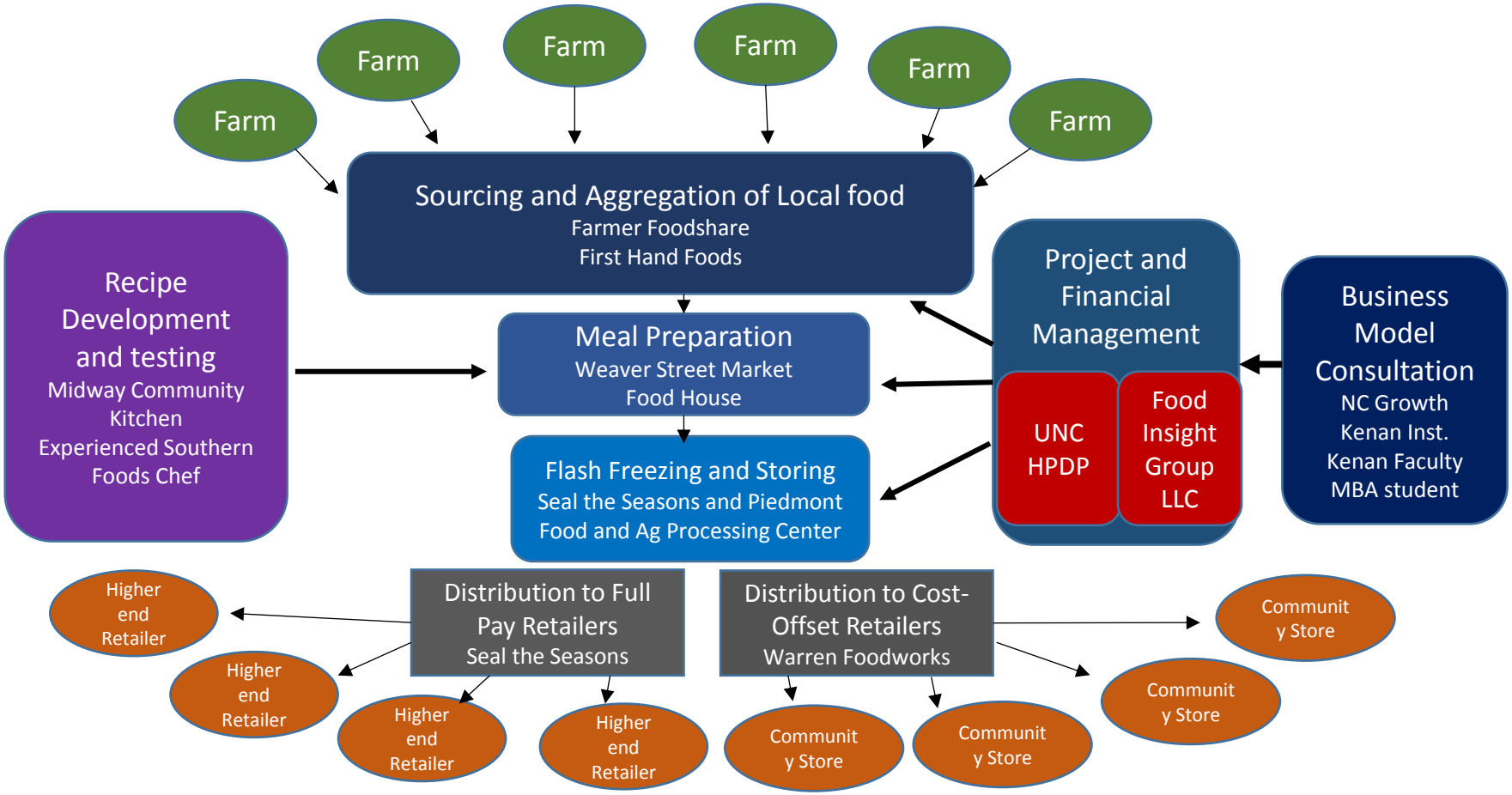
BBQ Scale of 1- 5 Strongly Disagree to Strongly Agree (3=neutral)

Taster	Tastes Great	Would Eat Again	Would buy as a frozen dinner	Would pay $1.99	Comments/suggestions
1	✓	✓	✓	✓	none
2	-/✓	✓	✓	✓	little spicy, BBQ just ok
3	-/✓	✓	✓	✓	"different"
4	✓	✓	✓	✓	Pretty good
5	✓	✓	✓	✓	good
6	✓	✓	✓	✓	none
7	✓	✓	✓	✓	none
8	+/-	✓	✓	Probably ✓	Spicy, too tangy + vinegary
9	Ok	maybe	maybe	definately	ok
10	✓	✓	definately ✓	✓	good
11	✓	✓	✓	✓	asked to by some more, didn't try
12	-	-	✓	✓	liked Chicken better
13	✓	✓	✓	✓	

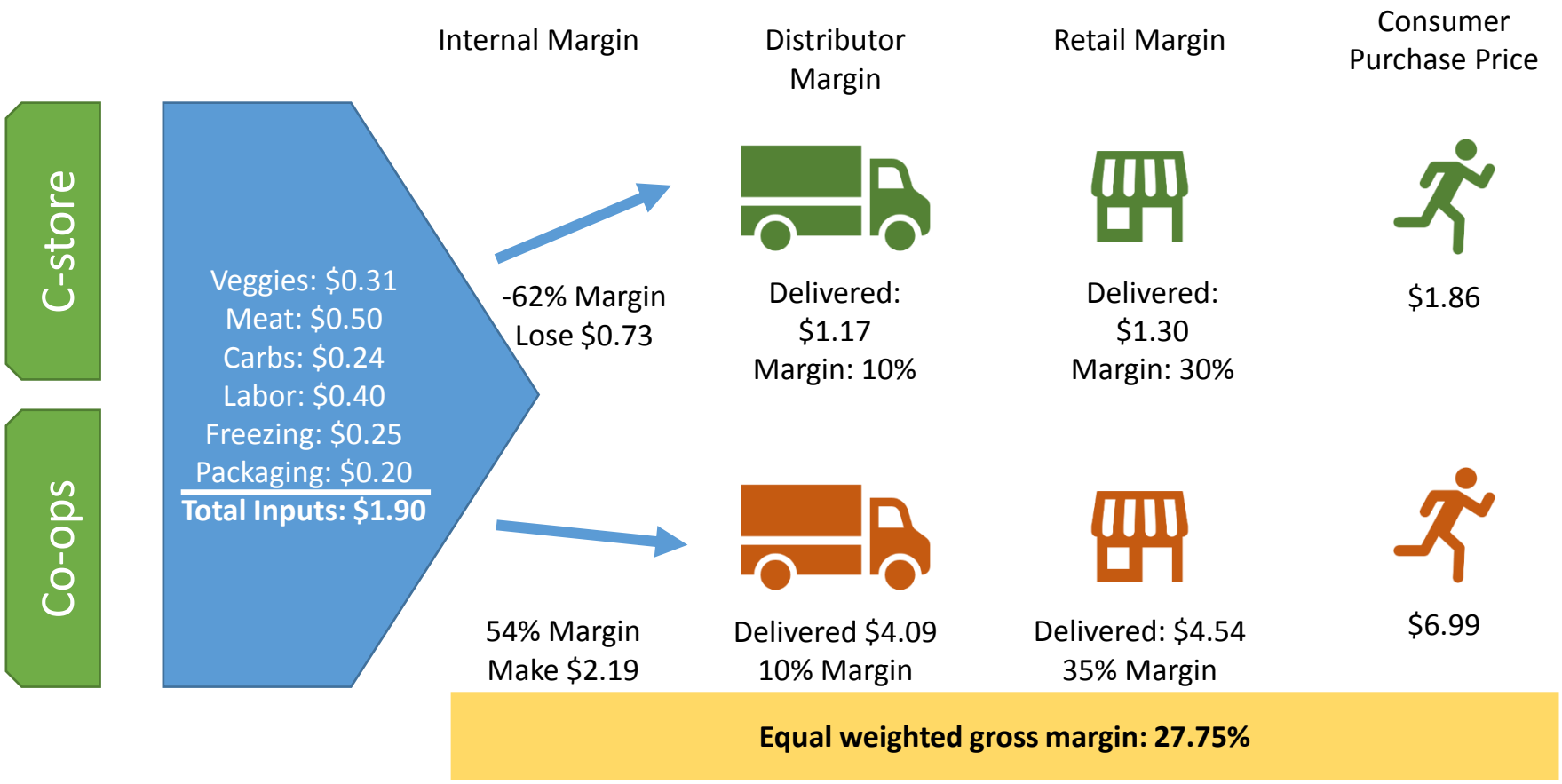
Chicken and Rice Bowl Scale of 1- 5 Strongly Disagree to Strongly Agree (3=neutral)

Taster	Tastes Great	Would Eat Again	Would buy as a frozen dinner	Would pay $1.99	Comments/suggestions
1	✓	✓	✓	✓	none
2	✓	✓	✓	✓	liked broccoli
3	✓	✓	✓	✓	delicious
4	✓	✓	✓	✓	very good, likes chicken better than BBQ
5	✓	✓	✓	✓	none
6	✓	✓	✓	✓	none
7	✓	✓	✓	probably ✓	spicy (little)
8	✓	✓	✓	definately ✓	good/ok
9	Ok	✓	definately ✓	definately ✓	good
10	✓	✓	✓	✓	asked if could buy more, spicy + more salt
11	✓	✓	✓	✓	liked chicken better
12	✓	✓	✓	✓	
13	✓	✓	✓	✓	

Business Model



Financials – Dual Value Chain Model



What we need to learn from this pilot?

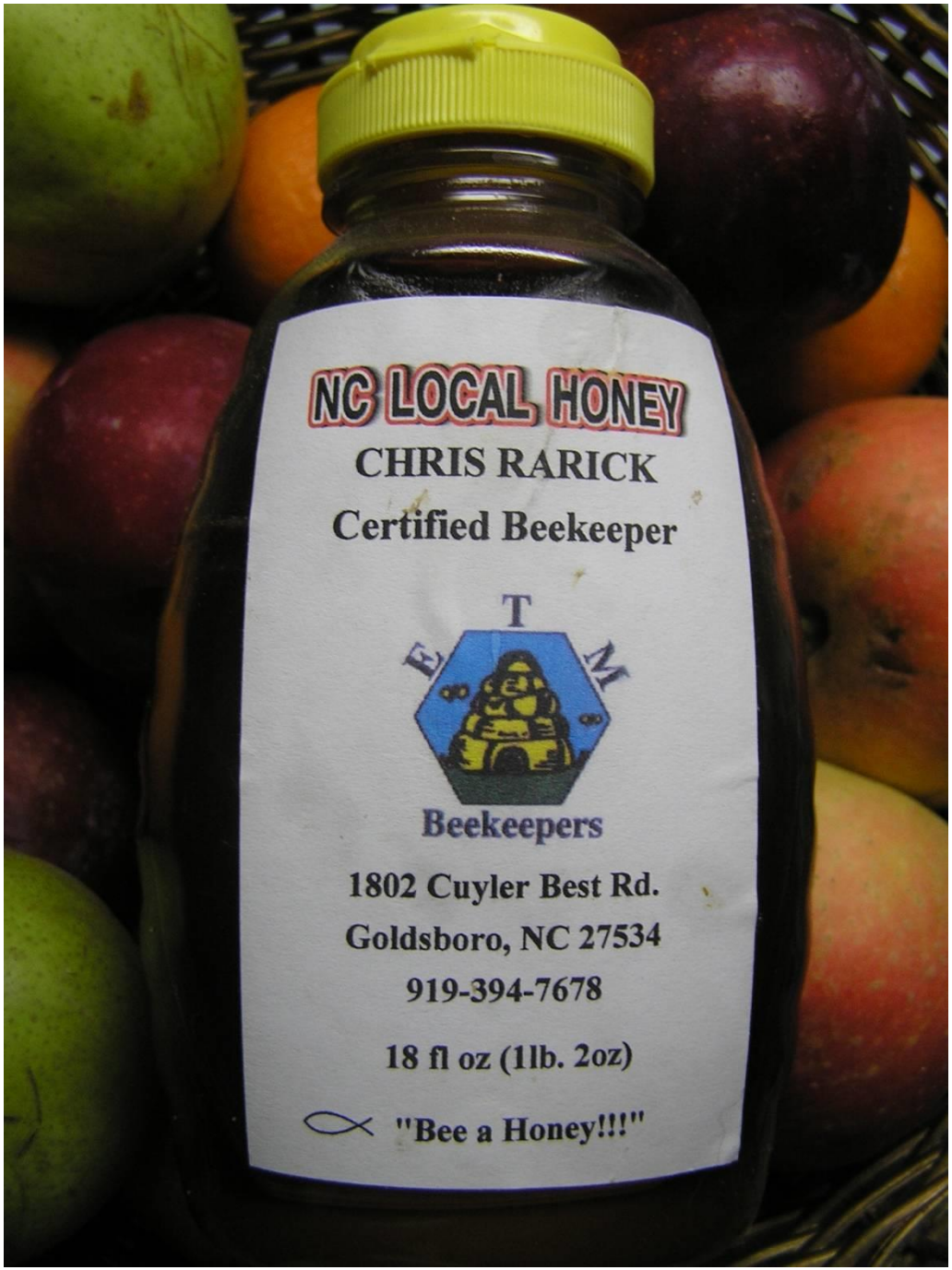
- If we cook (and freeze) it, will “they” buy it/eat it (both high end and community store customers)?
  - What are favored recipes?
- Will the business model work?
  - What price points at both ends are needed and acceptable to consumers
  - Can we cover basic costs – production/distribution
  - Small profit for Retailer?
  - Cover management and distribution costs?
  - Do farmers get a reasonable return on investment?

- How do we market the “Pay more so others can pay less” approach?

Community Benefit

- Low income consumers have access to frozen, SNAP eligible, “grab and go” meals that are healthy, delicious and affordable.
  - Nudge toward trying new vegetable dishes and recipes at home
- C-store retailers have a shelf stable healthy product consumers want
- Local farmers have new markets for their meat and produce (including harder to sell grade B and protein “trimmings.”)
- Higher end consumers, retailers: “feel good” benefit of supporting healthy food options for lower income.
- Contributes jobs and opportunity in rebuilding local food production and distribution systems.
- A model for other communities

Creative marketing strategies are key to link obesity prevention with local food systems!



Credit to: Angeline Stuckman
Aka Aunt Angie: 11/12/13-1/13/13

Questions??