



CARDI•OH

Ohio Cardiovascular Health Collaborative



In partnership with:



Cardi-OH ECHO - Hypertension

Thursday, March 21, 2019

Disclosure Statements



The following planners, speakers, moderators, and/or panelists of the CME activity have financial relationships with commercial interests to disclose:

- Adam T. Perzynski, PhD reports being co-founder of Global Health Metrics LLC, a Cleveland-based software company and royalty agreements for forthcoming books with Springer publishing and Taylor Francis publishing.
- Siran M. Koroukian, PhD reports ownership interests in American Renal Associates, and Research Investigator subcontract support from Celgene Corporation.
- George L. Bakris, MD reports partial salary from Bayer as FIDELIO PI, partial salary from Janssen as CREDENCE Steering Committee, partial salary from Vascular Dynamics as Calm-2 Steering Committee, and receiving honorarium as a consultant to Merck, NovoNordisk.
- These financial relationships are outside the presented work.

All other planners, speakers, moderators, and/or panelists of the CME activity have no financial relationships with commercial interests to disclose.

Update on Lifestyle Changes for Blood Pressure Control



Christopher A. Taylor, PhD,
RDN, LD, FAND

Professor of Medical Dietetics
Professor of Family Medicine
The Ohio State University

Emily Hill Guseman, PhD

Assistant Professor

Diabetes Institute and Department of
Family Medicine

Ohio University Heritage College of
Osteopathic Medicine

ACSM Registered Clinical Exercise
Physiologist



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Dietary Patterns

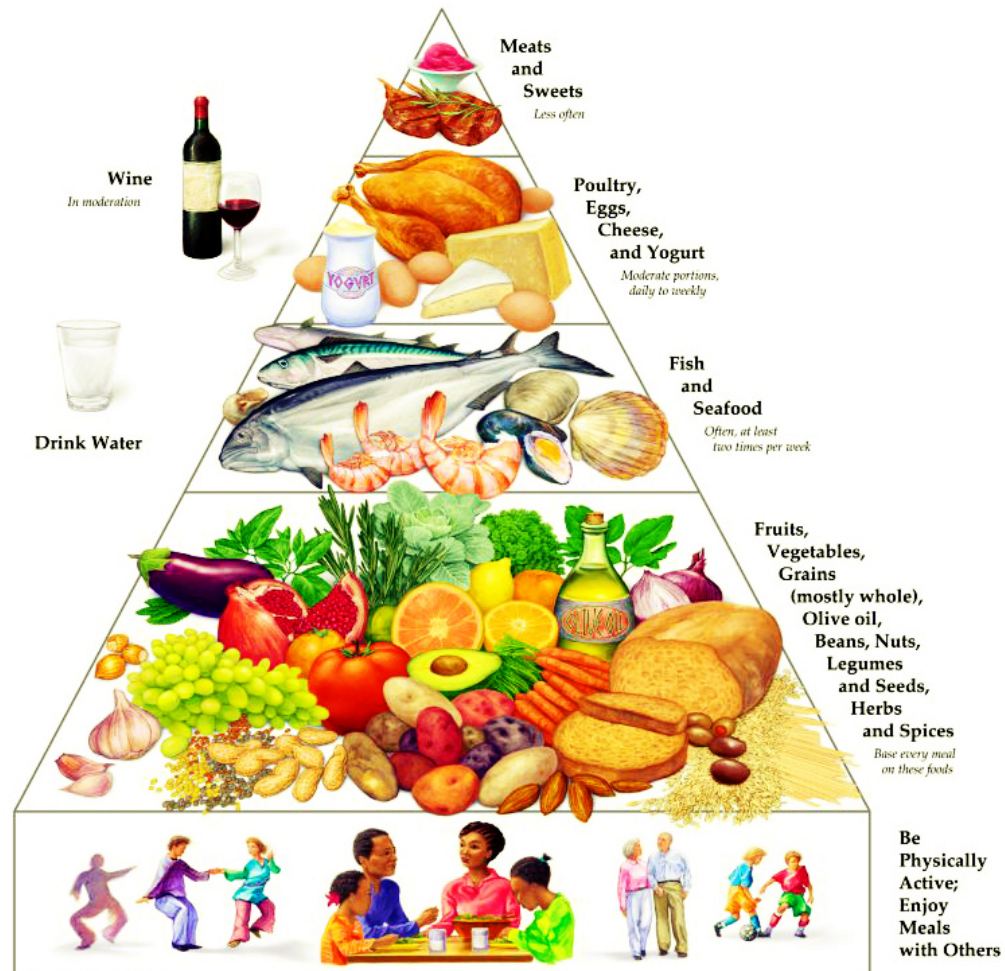
Christopher A. Taylor,
PhD, RDN, LD, FAND

Facilitating Outcomes in Hypertension

- Lifestyle behavior modification
 - Physical activity
 - Dietary patterns
- Pharmacologic treatment



Dietary Patterns



THE DASH EATING PLAN

The DASH eating plan shown below is based on **2,000 calories a day**. The number of daily servings in a food group may vary from those listed, depending upon your caloric needs.

FOOD GROUP	DAILY SERVINGS (EXCEPT AS NOTED)	SERVING SIZES
Grains and grain products	7–8	1 slice bread 1 cup ready-to-eat cereal* 1/2 cup cooked rice, pasta, or cereal
Vegetables	4–5	1 cup raw leafy vegetable 1/2 cup cooked vegetable 6 ounces vegetable juice
Fruits	4–5	1 medium fruit 1/4 cup dried fruit 1/2 cup fresh, frozen, or canned fruit 6 ounces fruit juice
Lowfat or fat free dairy foods	2–3	8 ounces milk 1 cup yogurt 1 1/2 ounces cheese
Lean meats, poultry, and fish	2 or fewer	3 ounces cooked lean meat, skinless poultry, or fish
Nuts, seeds, and dry beans	4–5 per week	1/3 cup or 1 1/2 ounces nuts 1 tablespoon or 1/2 ounce seeds 1/2 cup cooked dry beans
Fats and oils†	2–3	1 teaspoon soft margarine 1 tablespoon lowfat mayonnaise 2 tablespoons light salad dressing 1 teaspoon vegetable oil
Sweets	5 per week	1 tablespoon sugar 1 tablespoon jelly or jam 1/2 ounce jelly beans 8 ounces lemonade

* Serving sizes vary between 1/2 cup and 1 1/4 cups. Check the product's nutrition label.

† Fat content changes serving counts for fats and oils: For example, 1 tablespoon of regular salad dressing equals 1 serving, 1 tablespoon of lowfat salad dressing equals 1/2 serving, and 1 tablespoon of fat free salad dressing equals 0 servings.

The Underlying Story



- General consistency across each of the different recommendations:
 - Fruits
 - Vegetables
 - Whole grains
 - Healthy fats (unsaturated)
 - Lean and plant sources of protein
 - Limit added fats and sugars
- Common Guidelines used:
 - US Dietary Guidelines
 - MyPlate Eating Plan
 - DASH Dietary Pattern
 - Mediterranean Diet Plan

Translating these Guidelines into Food



- US Preventive Service Task Force recommends moderate to high intensity lifestyle to facilitate behavior change
 - medium- (31-360 minutes) to high-intensity (>360 minutes) lifestyle interventions
- Lifestyle behavior modification requires application of guidelines to patients' personal situations
 - Personal adaptations require time
- Recommendations are focused on nutrient intakes and overall food intakes (daily or weekly)
 - Individuals eat food and meals and must translate big picture to fork
- Rx for fruits and vegetables –need strategies to address access

Implementation in Primary Care

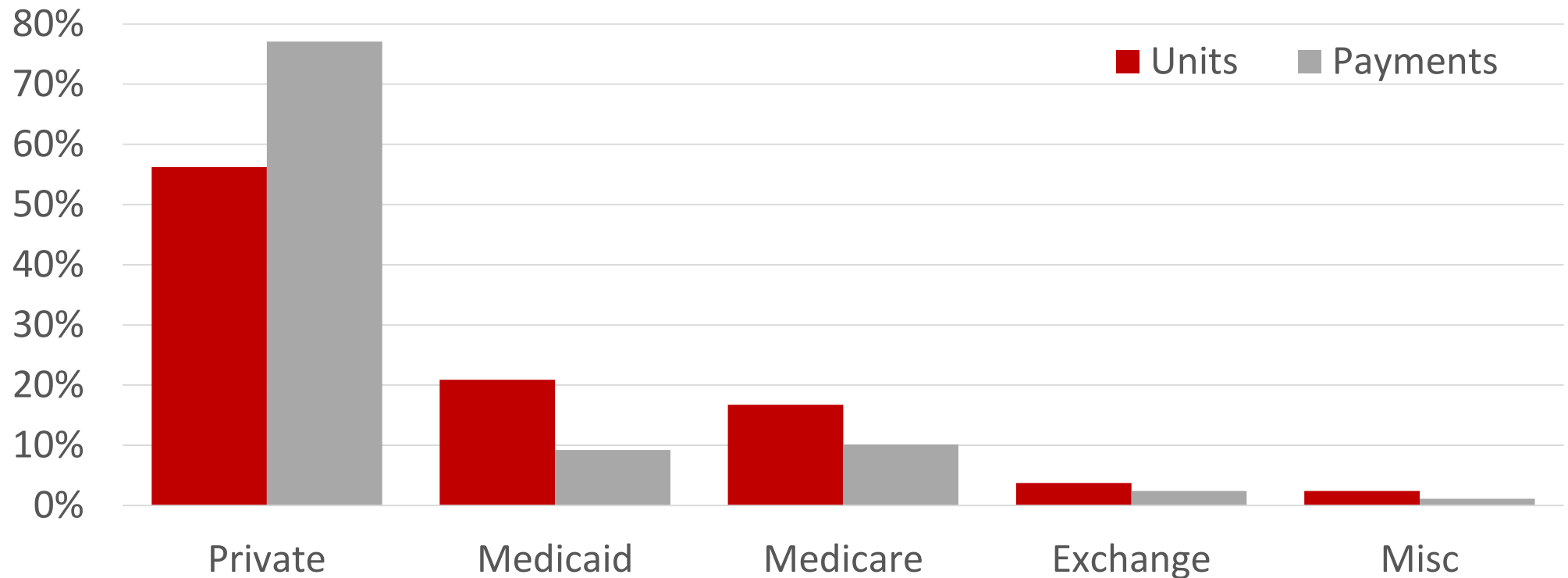


- QI result: <10% of one year of referrals to Registered Dietitians (RD) were directly for cardiovascular disease
- Not all offices have access to staff RD
 - Opportunity for use of Care Management dollars
- Assumption of lacking or poor reimbursement
 - Chong. J Acad Nutr Diet 2018:118(9);A36.

Implementation in Primary Care



Percent of Total Units and Payments by Payer Category

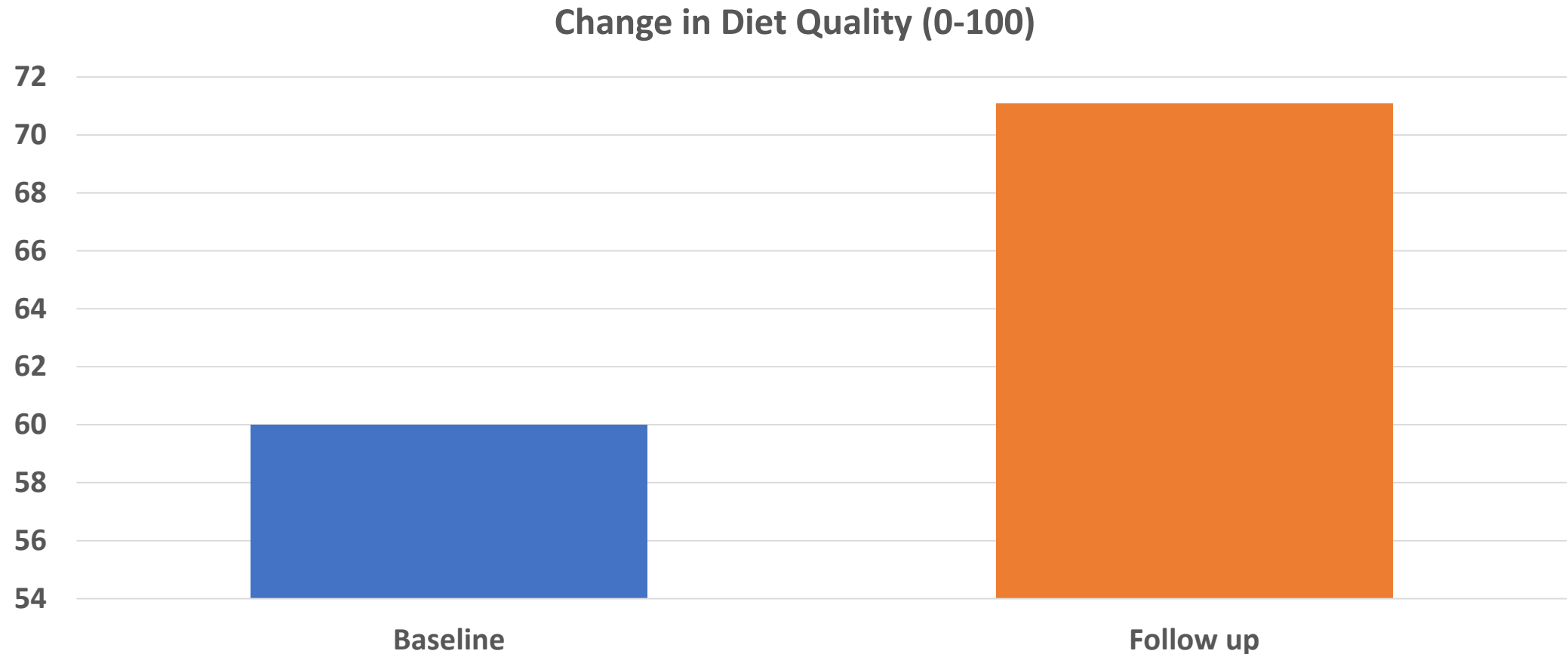


Our Model to Address the Problem



- Identify patients with HTN in Primary Care
- PCP referral to Registered Dietitian (RD) for counseling
 - Grocery Store RD
- Received 3 visits of personalized counseling
- RD clinical notes shared back to PCP
- Significant improvement in diet quality
- PCP encouragement reported as pivotal for patient activation

Our Model to Address the Problem



Watowicz. JNEB 2019;51(2);129-137.



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Exercise Recommendations

*Key Points Specific to
Hypertension*

Emily Hill Guseman, PhD

New Physical Activity Recommendations

- Full text available at <https://health.gov/PAGuidelines>



MOVE YOUR WAY
Adults need a mix of physical activity to stay healthy.

Moderate-intensity aerobic activity*
Anything that gets your heart beating faster counts.

at least **150** minutes a week

Muscle-strengthening activity
Do activities that make your muscles work harder than usual.

at least **2** days a week

AND

* If you prefer vigorous-intensity aerobic activity (like running), aim for at least 75 minutes a week.

If that's more than you can do right now, **do what you can.** Even 5 minutes of physical activity has real health benefits.

Walk. Run. Dance. Play. **What's your move?**

Moderate Intensity
Vigorous Intensity

Talk Test

As a rule of thumb, a person doing moderate-intensity aerobic activity can talk, but not sing, during the activity. A person doing vigorous-intensity activity cannot say more than a few words without pausing for a breath.

Limit time spent sedentary (break up long bouts)
Any physical activity is better than none

Key Points for Hypertension Management



- Focus on **most, if not all days** of the week.
 - SBP reduction of 5-7 mmHg lasting about 24h (post-exercise hypotension)
 - Promotes caloric expenditure sufficient to assist in weight loss
- Moderate and vigorous intensities are effective
 - May have greater benefit with increasing intensity
- HIIT training understudied
 - Risk for hypertension during exercise unknown

Type of Exercise Recommended

- Primary mode: continuous aerobic exercise
 - Walking, running, swimming, dancing, cardio machines, group fitness classes
- Dynamic resistance training (evidence weaker)
 - Machines, free weights, resistance bands, body weight resistance

Resources for Providers



- ACSM Exercise is Medicine[®] Campaign
 - <http://exerciseismedicine.org/>
 - Health Care Providers Action Guide includes prescription forms, patient handouts, billing tips, and more
 - Compiles resources, contacts, etc.
- Move Your Way Campaign
 - <https://health.gov/moveyourway/>
 - Provider and patient sections of website
 - Web badges and widgets to promote planning

Thank you!

Questions/Discussion