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Ohio Cardiovascular Health Collaborative

SCHOOL OF MEDICINE
CASE WESTERN RESERVE UNIVERSITY

In partnership with:

THE OHIO STATE UNIVERSITY WEXNER MEDICAL CENTER

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OHIO COLLEGES OF MEDICINE GOVERNMENT RESOURCE CENTER

Ohio Department of Medicaid

Project ECHO®

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Cardi-OH ECHO Reducing the Burden of Hypertension

Thursday, March 5, 2020

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.
- Brian Bachelder, MD received funds for his role as Physician Advisor at VaxCare.
- SiranM. Koroukian, PhD received grant funds for her role as a subcontractor on a study funded by Celgene.
- Christopher A. Taylor, PhD, RDN, LD, FAND reports grant funding and travel support for his role as a consultant, researcher, and presenter for Abbott Nutrition, and is also a member of the Scientific Advisory Council of Viocare, Inc.
- Jackson T. Wright, Jr., MD, PhD reports research support from the NIH and Ohio Department of Medicaid and consulting with NIH, AHA, and ACC.
- 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 and Director of Medical Dietetics

Director of the Coordinated Program and Dietetics

Co-Director of the Future Education Model Graduate Program in Dietetics

Professor of Family Medicine

The Ohio State University

Facilitating Outcomes in Hypertension

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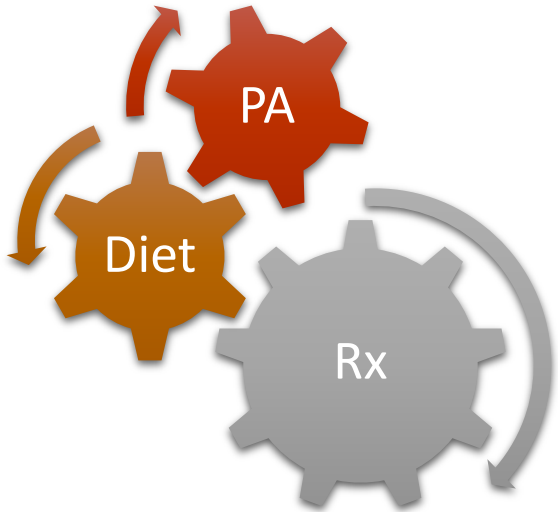
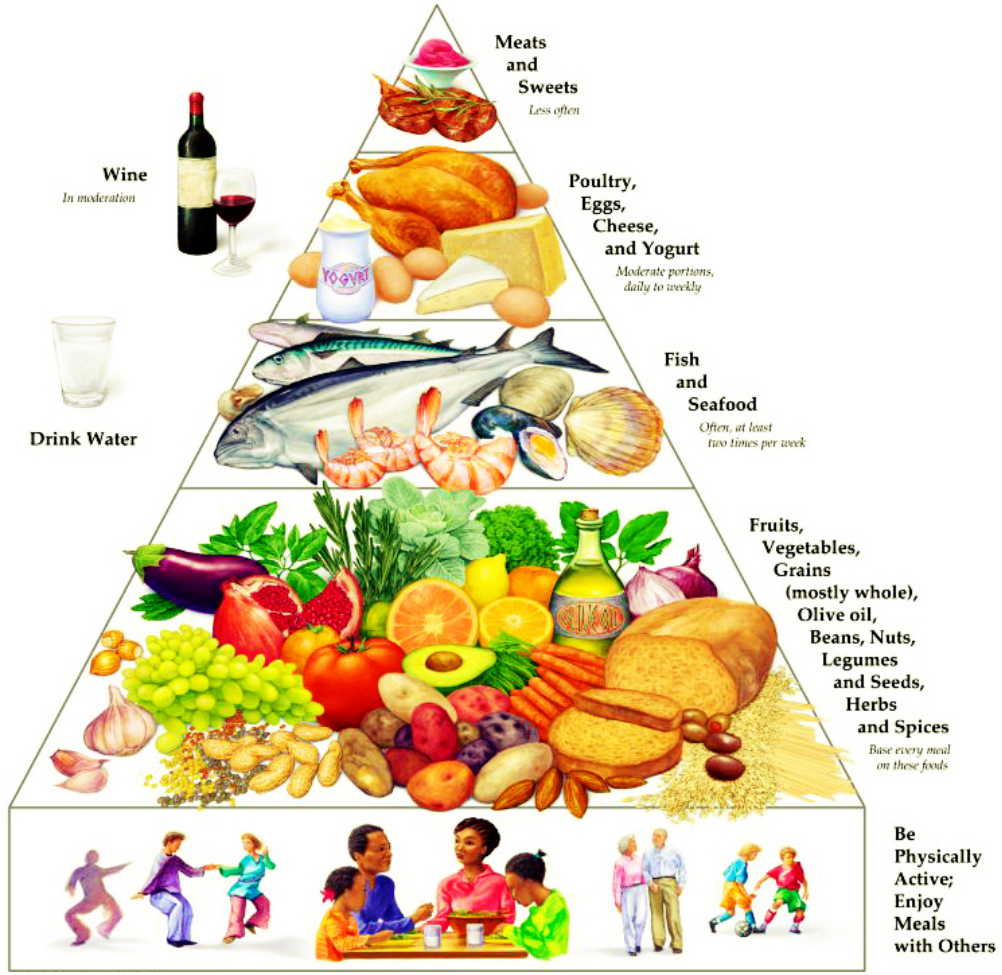
- Lifestyle behavior modification
  - Physical activity
  - Dietary patterns
- Pharmacologic treatment



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

"Plant-based diet"

Translating these Guidelines into Food

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- 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
  - Consider your limitations
  - Stay in your lane (scope of practice and licensure)
- 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

Implementation in Primary Care

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- Rx for fruits and vegetables –need strategies to address access

- Coverage of lifestyle behaviors
  - PCP delivered
  - Referrals
    - Find an RD registry at eatright.org
    - Foster communication

Making an Impact in Primary Care

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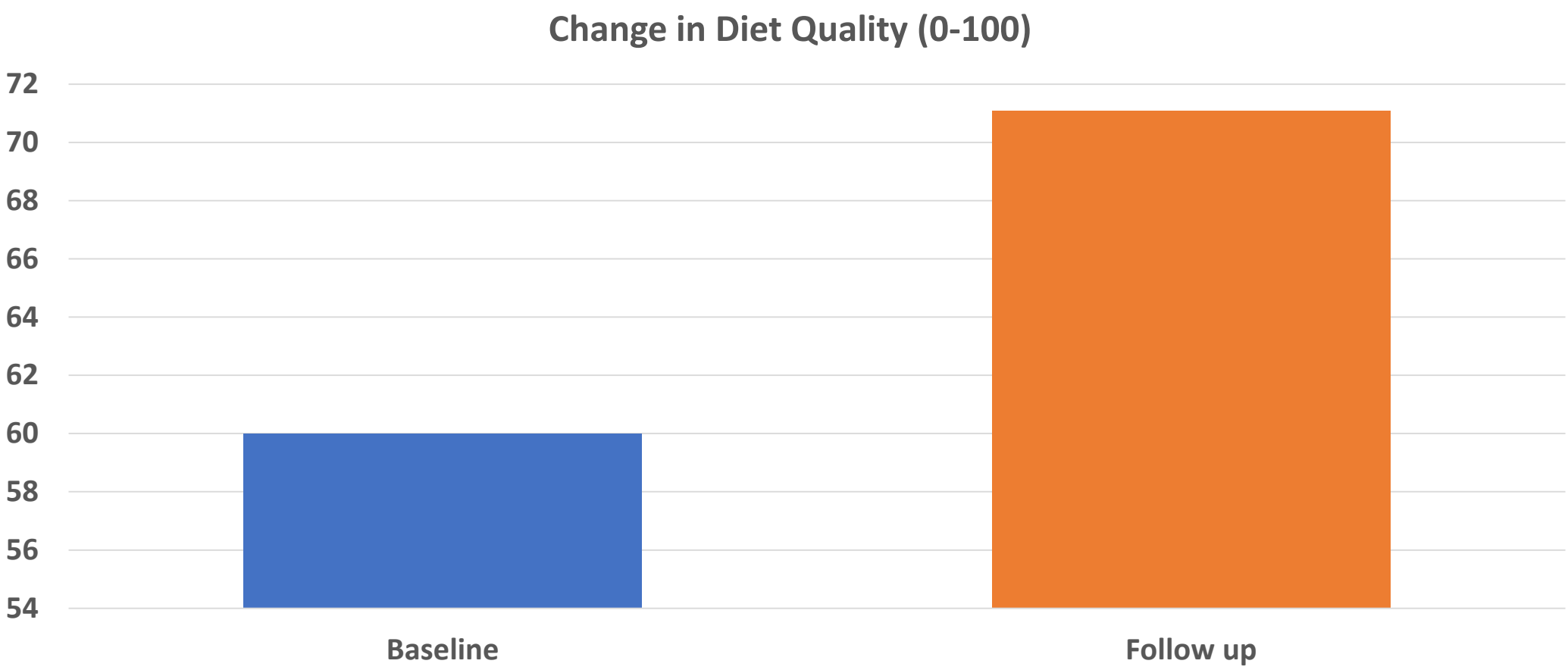
- Identify patients with HTN in Primary Care
- PCP referral to Registered Dietitian (RD) for counseling
  - Grocery Store RD
- Received 3 visits of personalized counseling
- RD clinical notes shared back to PCP
- Significant improvement in diet quality
- PCP encouragement reported as pivotal for patient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

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

Our Model to Address the Problem



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

Making the Case in Primary Care

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- 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

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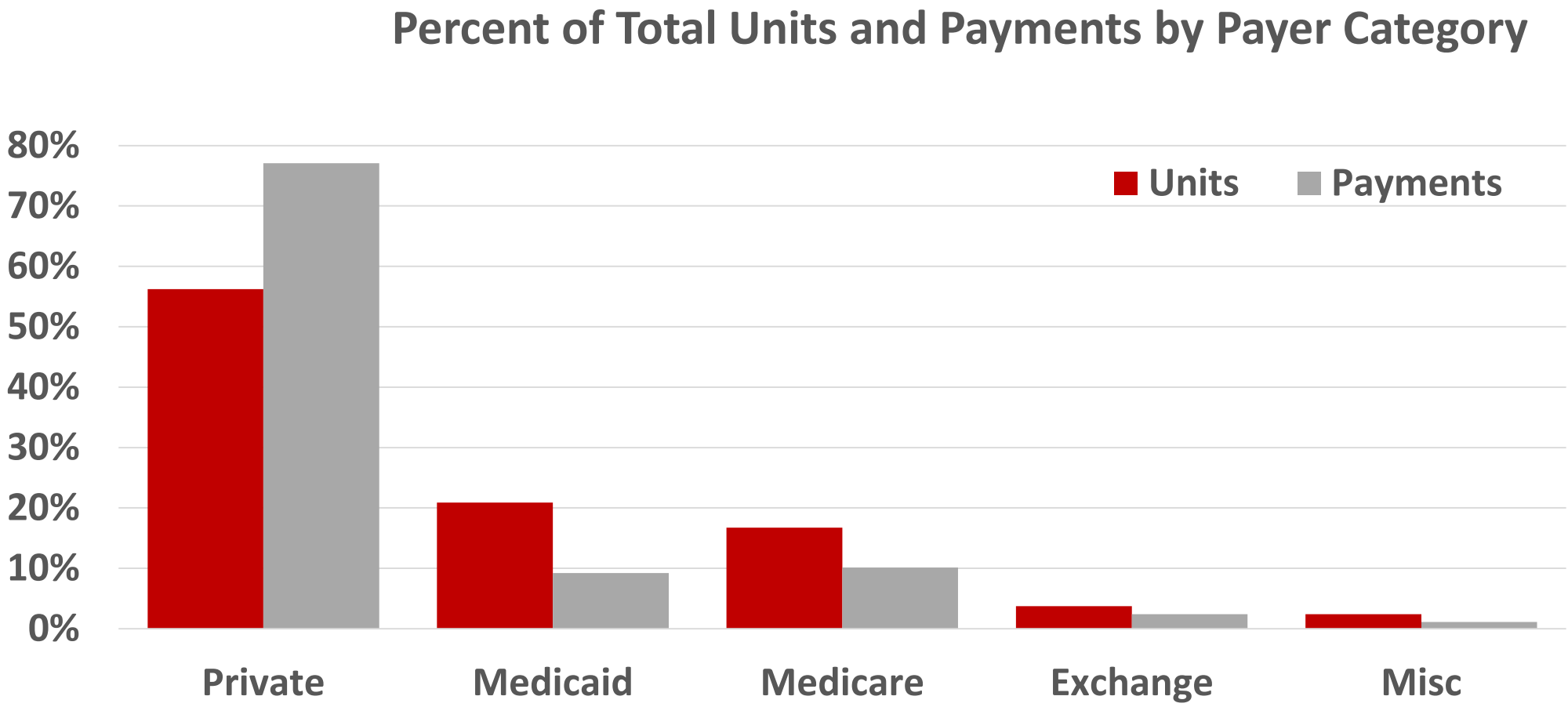

Implementation in Primary Care

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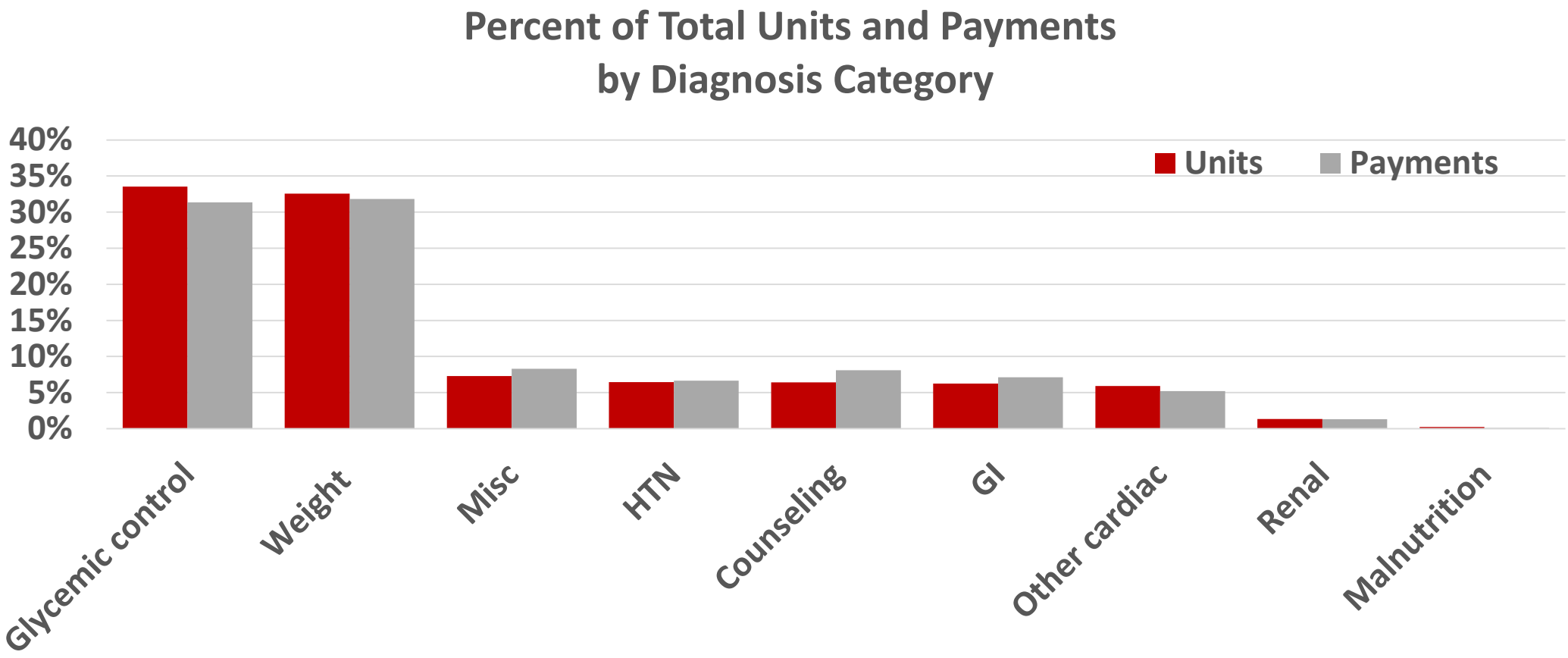

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Exercise Recommendations

Key Points Specific to Hypertension

Credit to: Emily Hill Guseman, PhD

New Physical Activity Recommendations

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

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

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- 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

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- 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

Pescatello et al., Curr Hypertens Rep. 2015; 17(11): 87.

Resources for Providers

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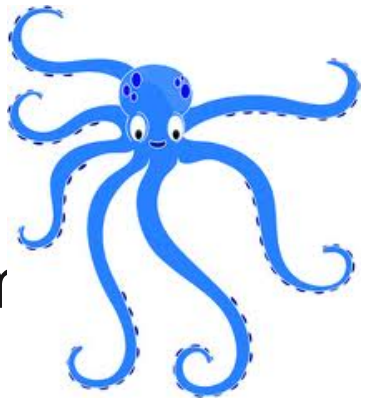
- ACSM Exercise is Medicine® Campaign
  - http://exerciseismedicine.org/
  - Health Care Providers Action Guide includes prescription forms, patient handouts, billing tips, and more
  - Compiles resources, contacts, etc.
- Move Your Way Campaign
  - https://health.gov/moveyourway/
  - Provider and patient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

Obesity and Hypertension

- Common question about obesity:
  - Which is more important, diet or exercise?
- Comorbidity makes it a challenge to isolate the obesity effect.
- Comprehensive approach to address obesity managem has farther reaching impacts
  - Energy imbalance equation
  - Is a calorie a calorie?
    - How many do you need to reduce to lose weight



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Thank you!

Questions/Discussion