



**UW PACC**

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

# PRIMARY CARE MANAGEMENT OF OBESITY

LYDIA CHWASTIAK MD, MPH

ASSOCIATE PROFESSOR

UNIVERSITY OF WASHINGTON

DEPARTMENT OF PSYCHIATRY AND BEHAVIORAL SCIENCES

MARCH 22, 2018



# GENERAL DISCLOSURES

The University of Washington School of Medicine also gratefully acknowledges receipt of educational grant support for this activity from the Washington State Legislature through the Safety-Net Hospital Assessment, working to expand access to psychiatric services throughout Washington State.

# SPEAKER DISCLOSURES

- ✓ Nothing to disclose

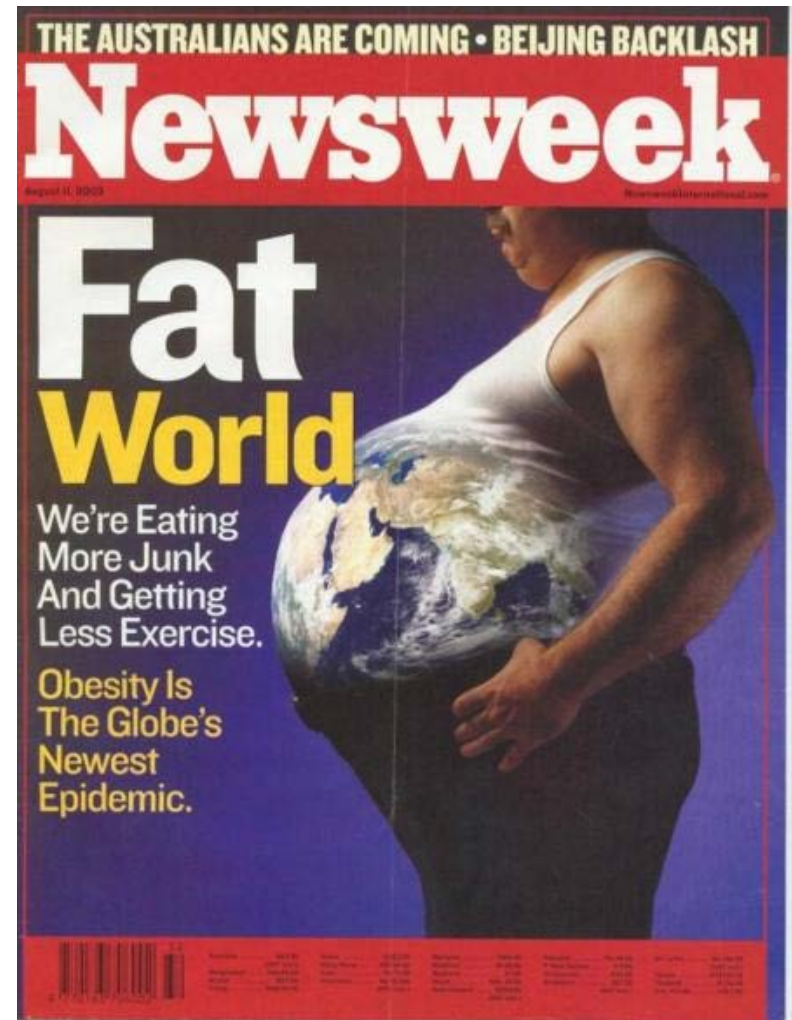
# OBJECTIVES

1. Consider assuming a larger role in prevention and management of obesity, especially among patients with serious mental illness
2. Learn specific strategies for brief counseling within clinic visits
3. Understand the effectiveness of behavioral lifestyle modification and pharmacologic treatments for obesity

# EPIDEMIOLOGY OF OBESITY

- 2011-2014: 68% of US adults are overweight; 36.5% are obese
- 2<sup>nd</sup> leading cause of preventable death
- \$147 billion in medical costs

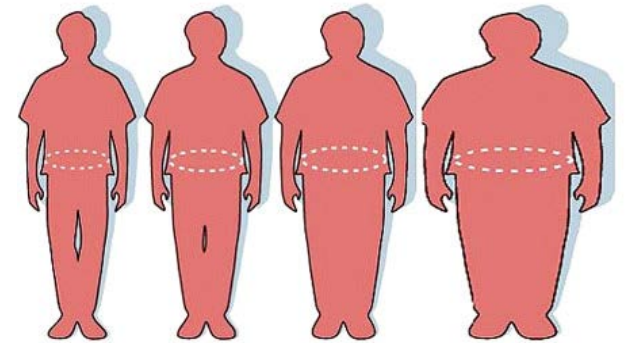
<http://www.cdc.gov/obesity/data/adult.html>



# DEFINITION OF OBESITY

## BMI

	NIH Cut-off	Asian-American
Ideal	18.5-24.9	18.5-22.9
Overweight	25-29.9	23-26.9
Obesity Class I	30-34.9	$\geq 27$
Class II	35-39.9	
Class III	$\geq 40$	



## Waist Circumference

	Male	Female
NIH	102 cm	88 cm
Asian-Amer	90 cm	80 cm

# EVIDENCE-BASED TREATMENTS

Lifestyle modification	Pharmacologic Treatment	Surgical
<ul style="list-style-type: none"><li>• Patient and Family Education</li><li>• Behavioral Counseling</li><li>• Lifestyle Modification</li><li>• Exercise Interventions</li><li>• Diet Interventions</li></ul>	<ul style="list-style-type: none"><li>• Standard pharmacologic treatment</li><li>• Antipsychotic Switching</li></ul>	<ul style="list-style-type: none"><li>• Bariatric surgery</li></ul>

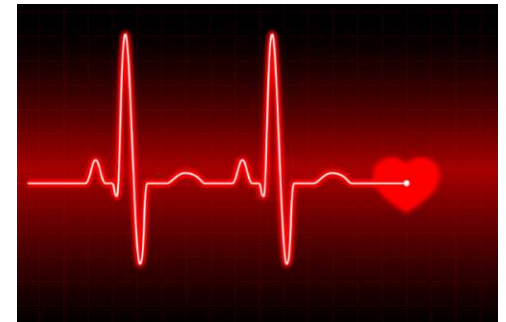
# “5 A” APPROACH

<b>Assess</b>	<ul style="list-style-type: none"><li>• Physical activity level</li><li>• Physical abilities</li><li>• Beliefs and Knowledge</li></ul>
<b>Advise</b>	<ul style="list-style-type: none"><li>• Health risks</li><li>• Beliefs of change</li><li>• Appropriate “dose” of physical activity</li></ul>
<b>Agree</b>	<ul style="list-style-type: none"><li>• Co-Develop personalized action plan</li><li>• Set specific physical activity goals based on interests and confidence level</li></ul>
<b>Assist</b>	<ul style="list-style-type: none"><li>• Identify barriers and create strategies to address them</li><li>• Identify resources for physical activity and social support</li></ul>
<b>Arrange</b>	<ul style="list-style-type: none"><li>• Specify plan for follow-up</li><li>• Check on progress/ maintenance of change</li></ul>



# EXERCISE IS MEDICINE (2007)

- 2010 National Health Interview Survey: < 1/3 of all adults who visited a physician in the last year were advised by their physician to start or continue exercising
- EIM Goal: Physical activity assessment and exercise prescription a standard part of the disease prevention for all patients
- Assess: Physical activity as a vital sign



Barnes, P. a. S., CA. (2012). <https://www.cdc.gov/nchs/data/databriefs/db86.htm>.  
Sallis, R. (2015). *Phys Sportsmed*, 43(1), 22-26.

# “PRESCRIPTION FOR EXERCISE”

Advise: 2-3 minutes

Prescription

- Frequency
- Intensity
- Type
- Time



a simple exercise prescription would be to advise the patient to walk 30 minutes at a brisk pace on 5 days each week.



# MAKE A **SPECIFIC** PLAN

- The more detailed the plan, the more likely it will be followed.
- In the plan, consider:
  - Date or days of the week
    - What time of day
    - How long
    - With whom
    - Other aspects that need to be planned
- Ask patient
  - How likely are you to do this?

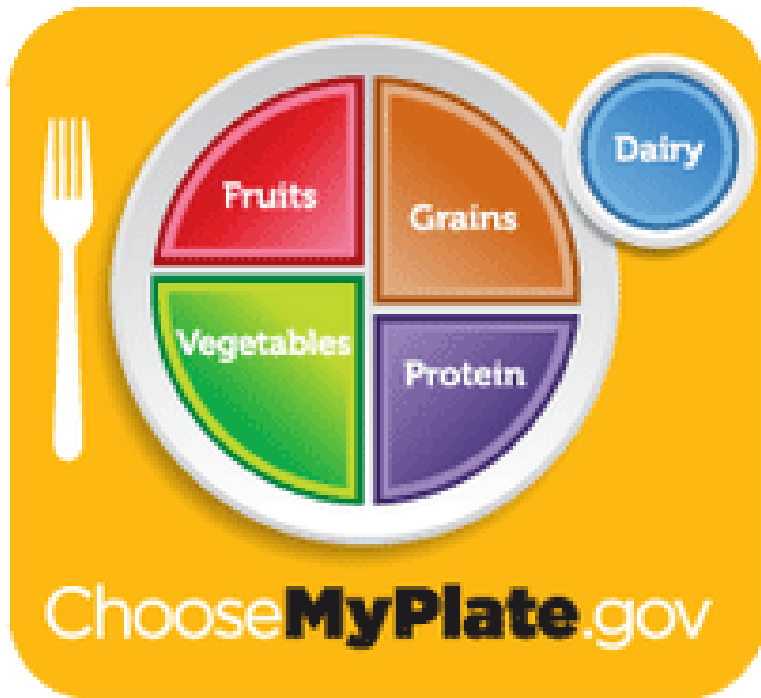


# BUILDING SUCCESS

- It's an experiment, a trial, it's not forever
- Suggest they act first and see what happens
- Praise any success they make
- Go slow and start small
- Reframing “failure” is essential



# COUNSELING ABOUT DIET



- 44 RCT, 18,000+ participants
  - Outcomes
    - Reduce salt
    - Reduce fat
    - Increase vegetables
    - Increase fiber

*Rees K, et.al. Cochrane 2013, Issue 12. CD002128.*

# CHOOSEMYPLATE.GOV



<b>Nutrition Facts</b>	
Serving Size 1 package (272g)	
Servings Per Container 1	
Amount Per Serving	
<b>Calories 300</b>	Calories from Fat 45
% Daily Value*	
<b>Total Fat 5g</b>	<b>8%</b>
Saturated Fat 1.5g	<b>9%</b>
Trans Fat 0g	
<b>Cholesterol 30mg</b>	<b>10%</b>
<b>Sodium 430mg</b>	<b>18%</b>
<b>Total Carbohydrate 55g</b>	<b>18%</b>
Dietary Fiber 6g	<b>25%</b>
Sugars 23g	
<b>Protein 14g</b>	
Vitamin A	<b>80%</b>
Vitamin C	<b>35%</b>
Calcium	<b>6%</b>
Iron	<b>15%</b>

\* Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

- Read the labels: compare sugar
- Make half your plate vegetables and fruits
- Vary your protein

# LIFESTYLE MODIFICATION

- Diabetes Prevention Program (n= 3,234 at 27 centers)<sup>1</sup>
- RCT, 3 arms: metformin, placebo, **lifestyle modification**
  - Training and support--Goals
    - loss of 7% of initial body weight
    - 150 minutes of physical activity per week
- Lifestyle group reduced 3-year risk of developing diabetes by 58% (metformin by 31%)
- Widely disseminated into community settings<sup>2</sup>



<sup>1</sup>Diabetes Prevention Program Group, *N Engl J Med* 2002; 346(6): 393-403.

<sup>2</sup>Ali MK et al. *Health Affairs* 2012; 31(1): 67-75.



# EFFECTIVENESS IN SERIOUS MENTAL ILLNESS

- IN SHAPE (n=133)
  - Physical Activity, nutrition and smoking
  - Improved fitness at 3,6,9,12m
- ACHIEVE (n=291)
  - 18 months: individual + group exercise, nutrition
  - 37.8% lost >5% IBW (compared to 22.7% of control,  $p = 0.0009$ )
- STRIDE (n=200)
  - 12 months (6 +6 months)
  - physical exercise, food records, personalized plans, cognitive strategies
  - 40% lost >5% BW c/w 17% controls ( $p=0.001$ ) at 6 months

Daumit GL et al. *N Engl J Med* 2013; 368: 1594-1602

Green CA et al. *Am J Psychiatry* 2015 Jan;172(1):71-81

Bartels SJ, et. al. *Psychiatr Serv* 2013; 64(8): 729-736

# BEHAVIORAL WEIGHT LOSS INTERVENTIONS



Most likely to be effective:

- Longer duration (24 weeks)
- Manualized
- Combined education and activity
- Both nutrition and physical exercise
- Evidence-based (proven effective by RCTs)



Less likely to be successful:

- Briefer duration interventions
- General wellness or health promotion education-only
- Non-intensive, unstructured, or non-manualized interventions

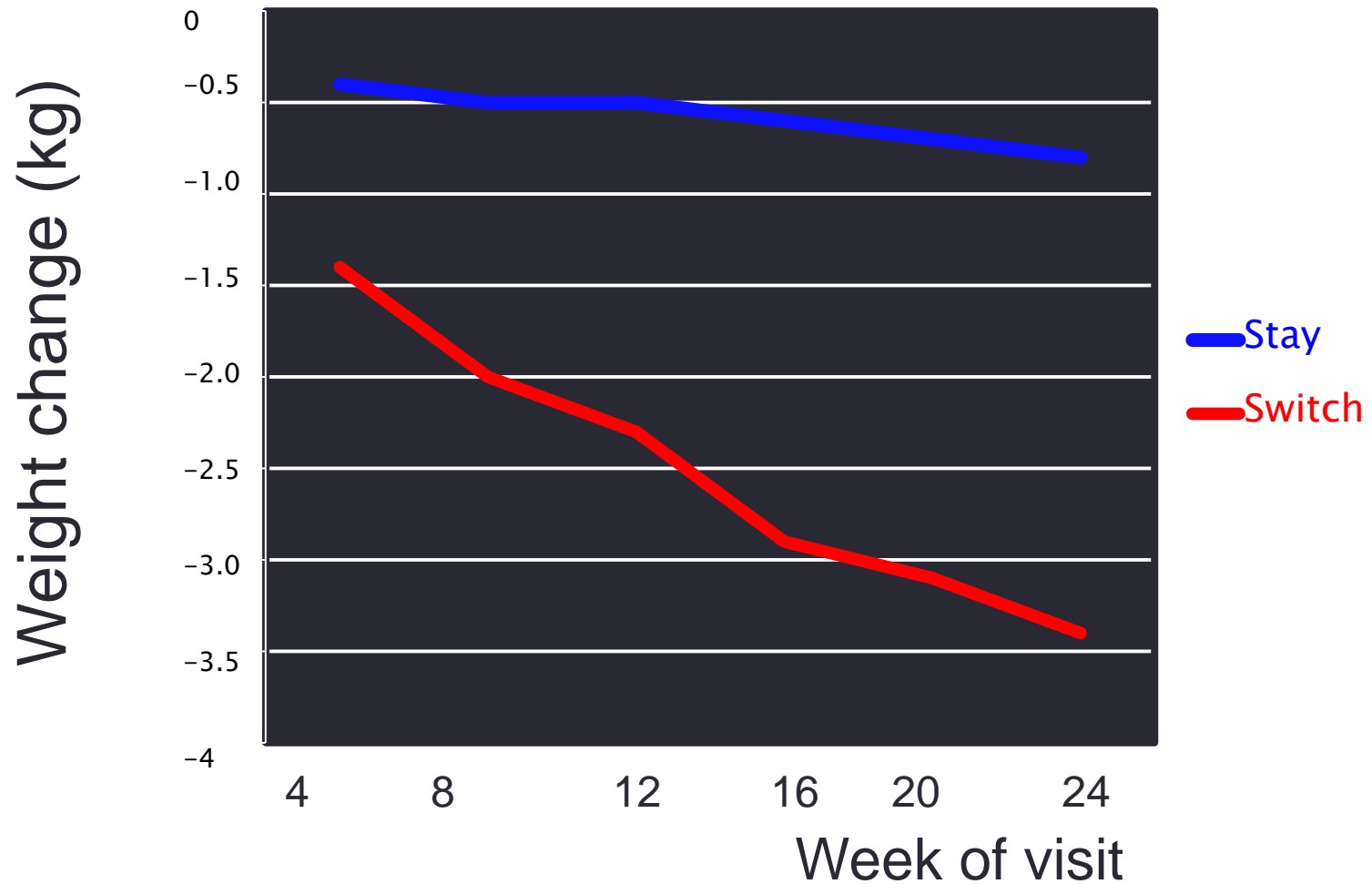
# Metabolic Liability of Medications

Low risk	Moderate risk	High risk
Carbamazepine	Mirtazapine	Lithium
Lamotrigine	Paroxetine	Valproate
Oxcarbazepine	Paliperidone	Olanzapine
Aripiprazole	Asenapine	Clozapine
Lurasidone	Iloperidone	
Ziprasidone	Paliperidone	
	Quetiapine	
	Risperidone	

*Hasnain M et al. Postgraduate Med 2013; 125 (5):*

*Werneke U, Taylor D, Sanders TA. Curr Psychiatry Rep; 2013; 15: 347*

# SWITCH TO REDUCE METABOLIC RISK (CAMP)



Stroup TS, et al. *Am J Psychiatry* 2011; 168: 947-956

# PHARMACOTHERAPY

Agent	Evidence in schizophrenia
Metformin	3 kg weight loss at 16 weeks <sup>1</sup>
*Phentermine-Topiramate	Topiramate: 5 kg weight loss
*Orlistat	+/-
*Lorcaserin	None
*Naltrexone/Bupropion	+/-
*Liraglutide	None

\* FDA approval for weight loss

Jarskog LF, et al. *Am J Psychiatry* 2013; 170:1032-1040

Das C, et al. *Annals of Clinical Psychiatry* 2012; 24(3): 225-239

# BARIATRIC SURGERY

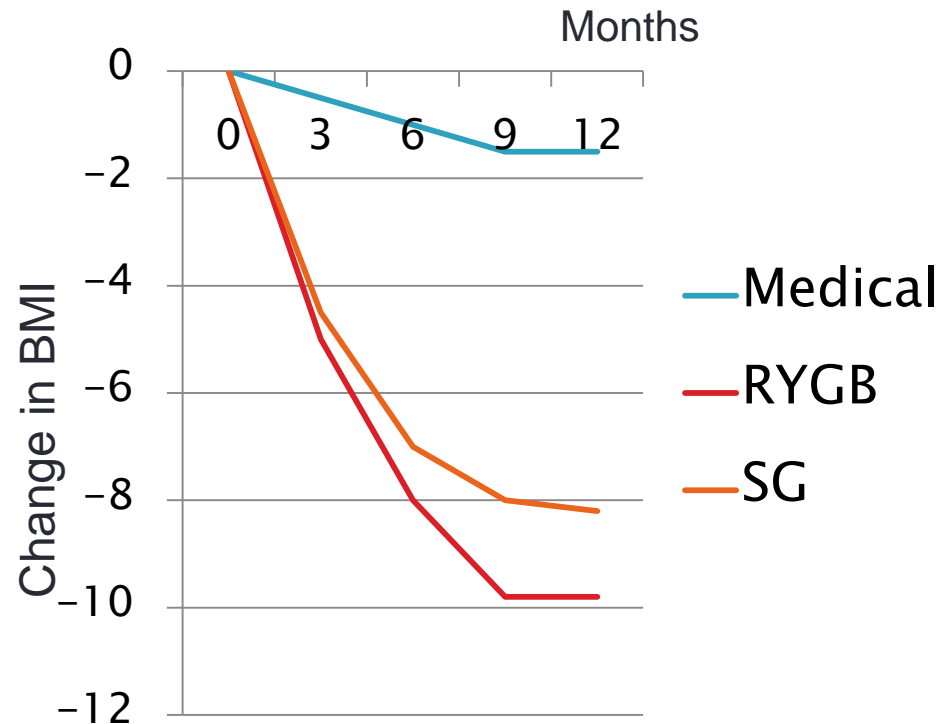
- Indications based on current guidelines
  - Class III obesity (BMI > 40 kg/m<sup>2</sup>)
  - Class II obesity (BMI = 35-39.9) with medical complication (DM, Sleep apnea)
  - Class I obesity with poorly-controlled T2 DM
- Mean BMI of those having procedures is > 45

*NHLBI, NIH Publication No. 98-4083, 1998*

*Buchwald H et al JAMA 2004; 292 (14): 1724-1737*

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*Buchwald H et al JAMA 2004; 292 (14): 1724-1737*

*Schauer PR, et al. N Engl J Med 2012; 366: 1567-1576*

# QUESTIONS?