

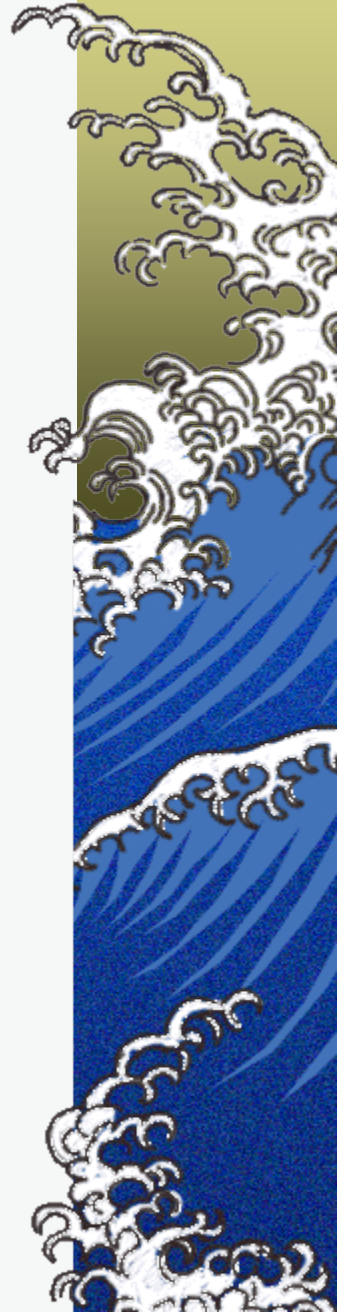
Behavior Change

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The George Washington University

School of Medicine and Health Sciences



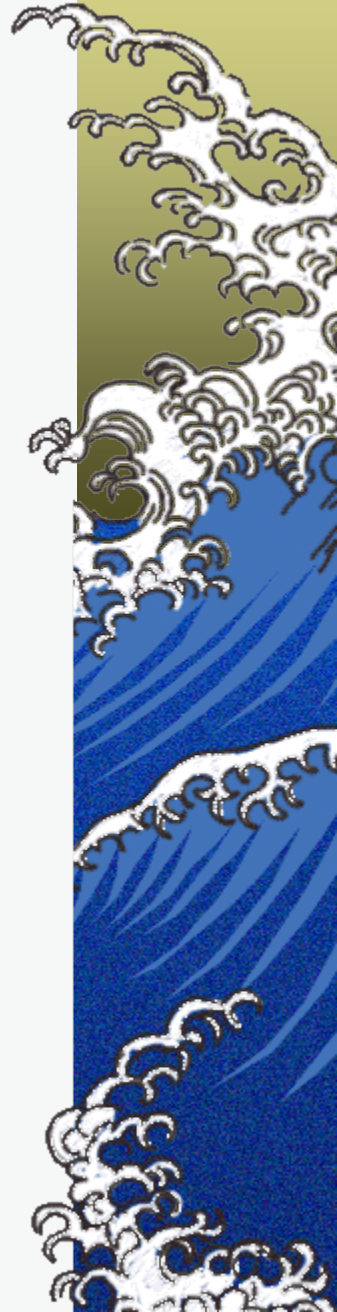
Disclosures

- ▶ No relevant commercial relationships to disclose



Objectives

- ▶ Describe the underlying concepts of motivational interviewing
- ▶ Assess patient priorities in relationship to behavior change
- ▶ Given a patient case, apply evidence-based behavior change strategies

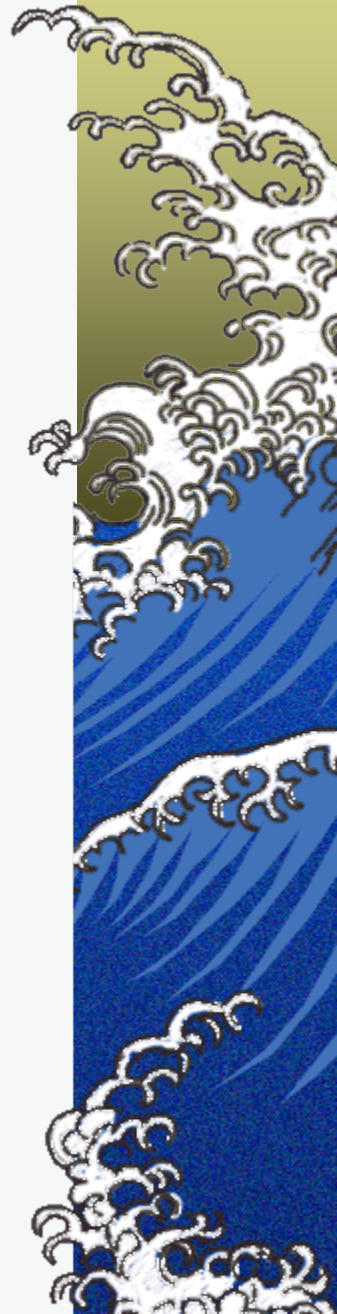


“Today’s major health care problems are increasingly the result of chronic and acute conditions related to individual behavior”

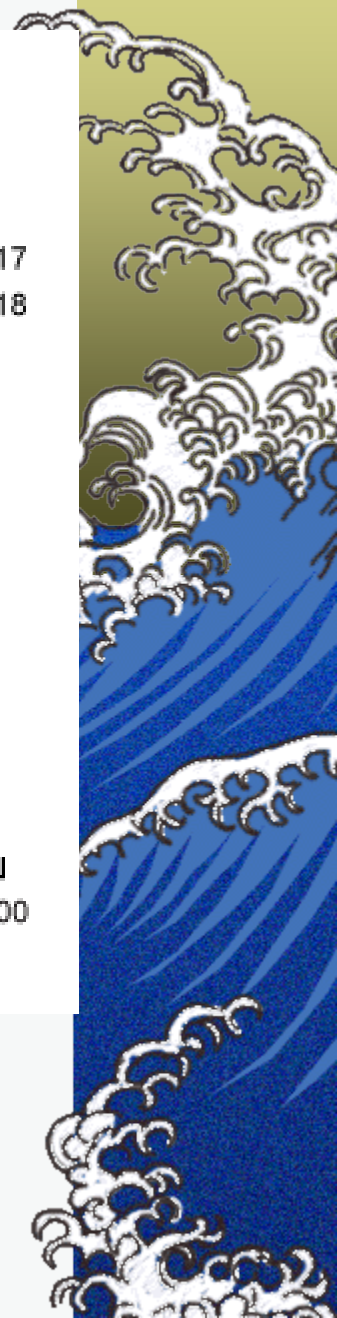
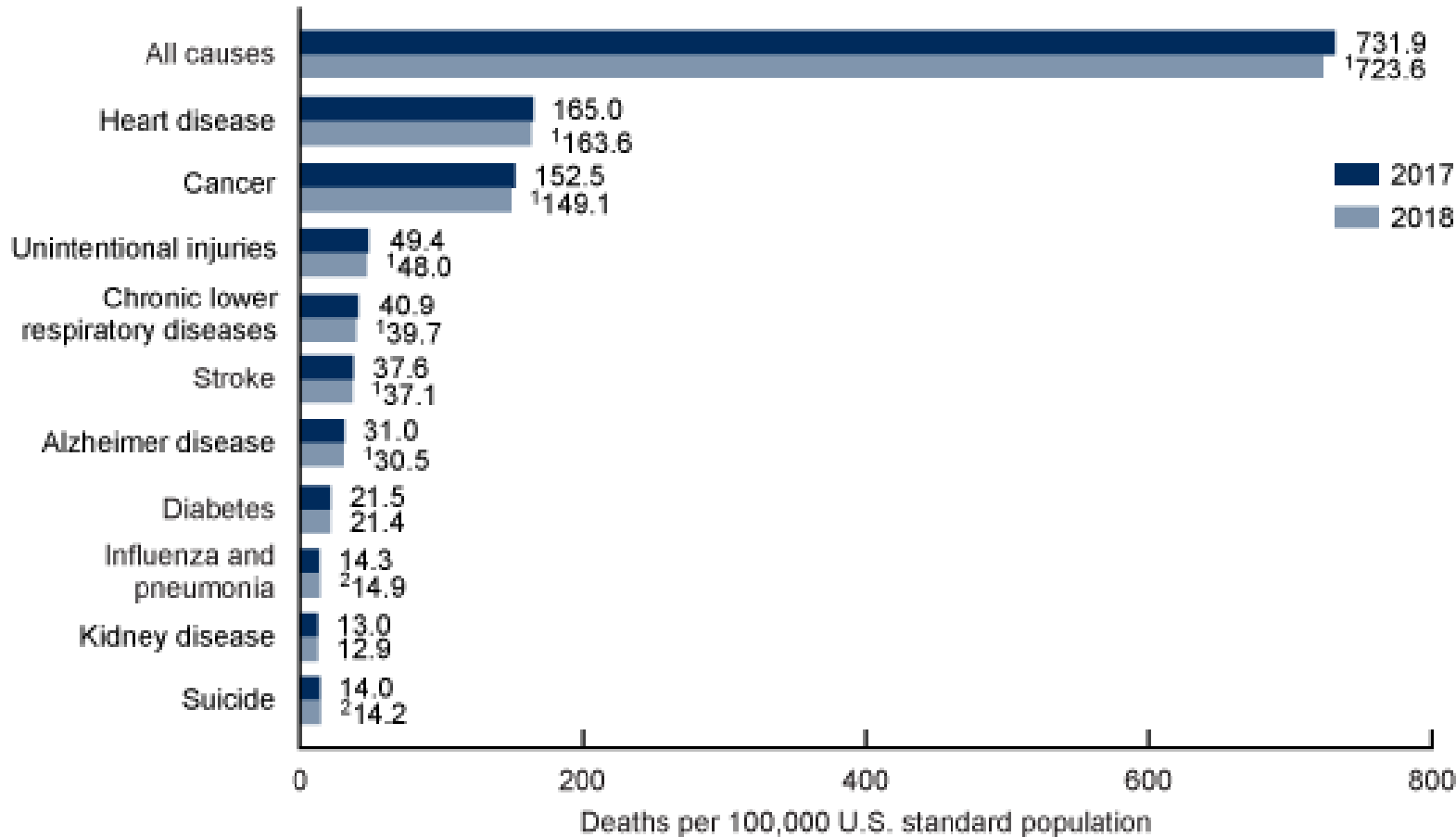
Guide to Clinical Preventive Service

Report of the U.S. Preventive Services

Task Force

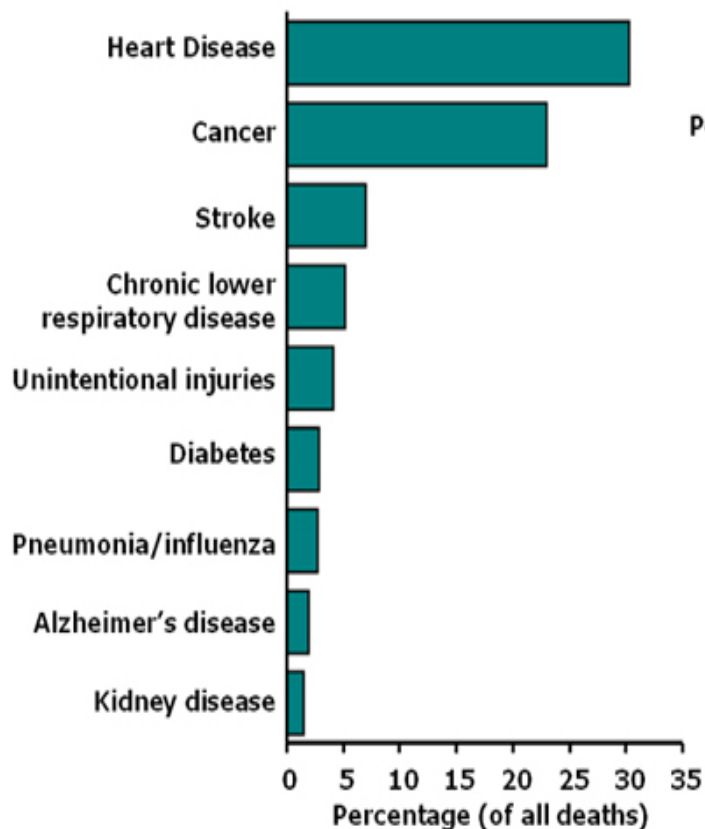


Leading Causes of Death, U.S. 2018

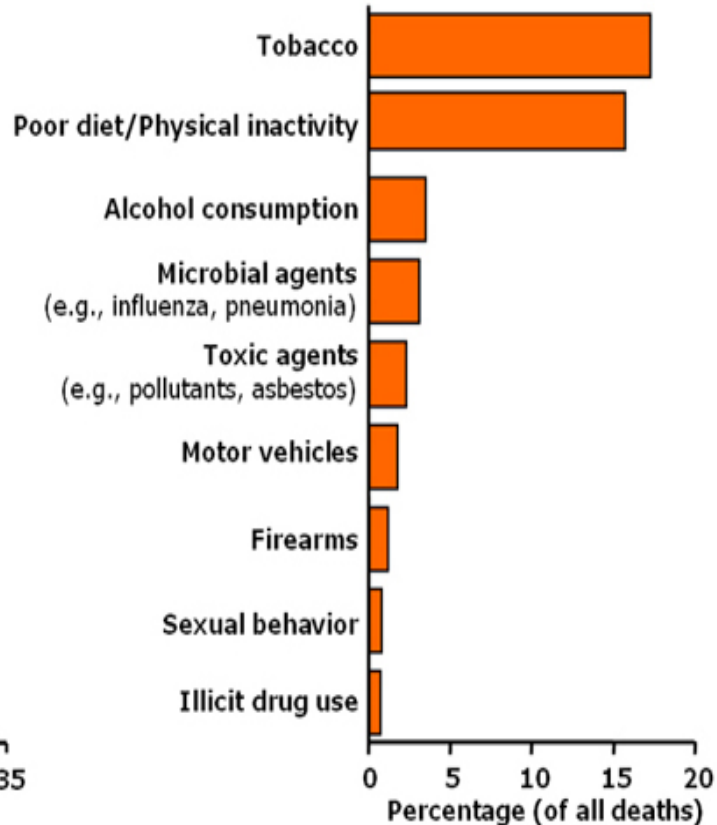


Actual Causes of Death 2000

Leading Causes of Death*
United States, 2000



Actual Causes of Death†
United States, 2000



* Miniño AM, Arias E, Kochanek KD, Murphy SL, Smith BL. Deaths: final data for 2000. National Vital Statistics Reports 2002; 50(15):1-120.

† Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. JAMA. 2004;291(10):1238-1246.



JAMA | US Preventive Services Task Force | RECOMMENDATION STATEMENT

Behavioral Counseling Interventions to Promote a Healthy Diet and Physical Activity for Cardiovascular Disease Prevention in Adults With Cardiovascular Risk Factors

US Preventive Services Task Force Recommendation Statement

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JAMA | US Preventive Services Task Force | RECOMMENDATION STATEMENT

Behavioral Counseling Interventions to Prevent Sexually Transmitted Infections

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Behavioral Counseling

For CV Disease:

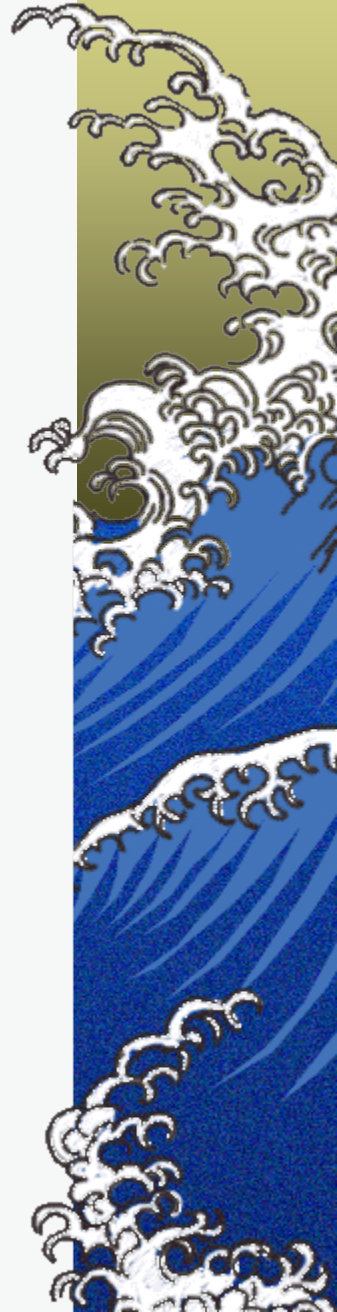
- ▲ Combine counseling on a healthy diet and physical activity
- ▲ Multiple contacts, group or individual, over extended periods
 - ▲ Median of 12 contacts
 - ▲ Estimated 6 hours of contact time over 6 to 18 months
 - ▲ Involve some 1-on-1 time with an interventionist
 - ▲ Include motivational interviewing and behavioral change techniques such as goal setting, problem solving, and self-monitoring

For STIs:

- ▲ Similar intervention formats but somewhat shorter duration
- ▲ Much wider variety of information and interaction resources used



Three Patients



JT is a 65-year-old male...

- ▲ Poorly controlled Type II DM, recent HbA1c 10.5
- ▲ S/P right BKA after 8 months attempted medical treatment of a foot ulcer that turned into osteomyelitis
- ▲ On your FU visit you inform him of the HbA1c value and he admits to continuing his ice cream habit
- ▲ **How will you approach this?**



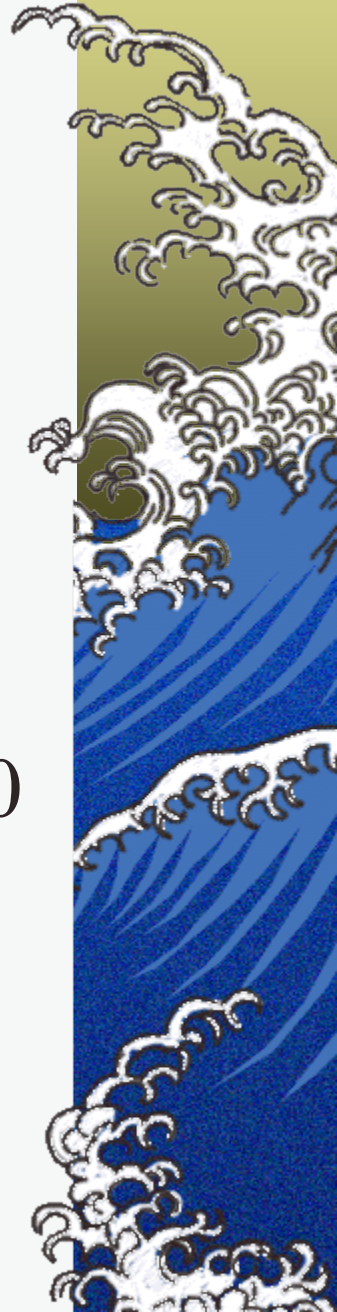
PV is a 59-year-old female

- ▶ PMH GERD, chronic dizziness significantly improved with recent surgery, osteoarthritis of both knees
- ▶ Non-smoker with no personal or family history heart disease, cholesterol 159, LDL 94, HDL 58, BMI 50.6
- ▶ She has engaged fully in several formal, intensive weight management programs
- ▶ **How will you approach this?**



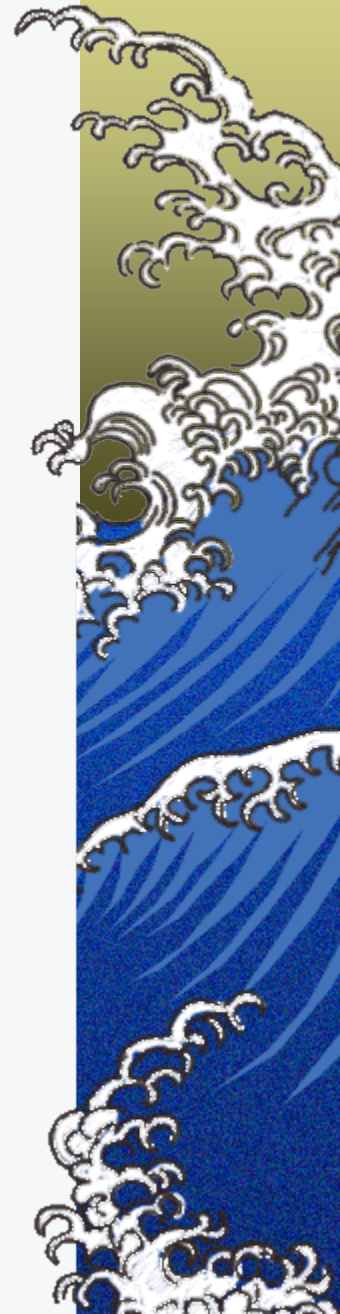
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- ▶ PMH cervical, vaginal and vulvar dysplasia, recent recurrence, surgery scheduled for this month
- ▶ 35-pk-year smoker recent diagnosis of COPD, trying to quit on varenicline with partial success – continues to smoke 5-10 cigarettes daily
- ▶ **How will you approach this?**



The Process of Change

- ▶ People don't make change suddenly or all at once.
- ▶ People at different stages within the change process require different types of interventions.
- ▶ All proven interventions involve ongoing attention.



Stages of Change (Prochaska)

- ▶ **Precontemplation:** no intention of changing within the next 6 months (uneducated on risks, tried and failed)
- ▶ **Contemplation:** intent to take action within 6 months (know the pros, but very aware of the cons, can last a long time)
- ▶ **Preparation:** ready to take action in the next month (soon, have a plan)



Stages of Change (Prochaska)

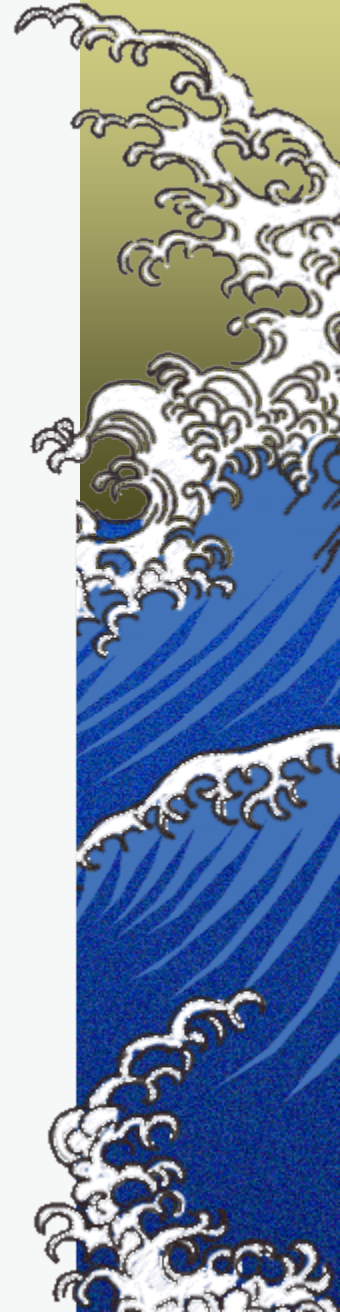
- ▶ **Action:** Has made the change (although there is always a high risk of failure)
- ▶ **Maintenance:** behavior is changed (although there is always a risk of relapse)
- ▶ **Termination:** for some behaviors (not all) one may reach a point where there is no chance of relapse



So, how does it work?

▲ Precontemplation:

- ▲ If uneducated, educate, being sure that the method is appropriate (culture, reading, etc.)
- ▲ If someone has failed, it is a much longer process, education focused on likelihood of future success, e.g.. smokers who have quit before actually have a better chance of succeeding on subsequent tries.



▲ Contemplation

- ▲ Concentrate on the benefits and barriers
- ▲ Explore fears and concerns
- ▲ Encourage the individual to set a date, make a plan (push toward preparation)

▲ Preparation

- ▲ Ready for programs, groups
- ▲ Talk about specific cues, tips & techniques

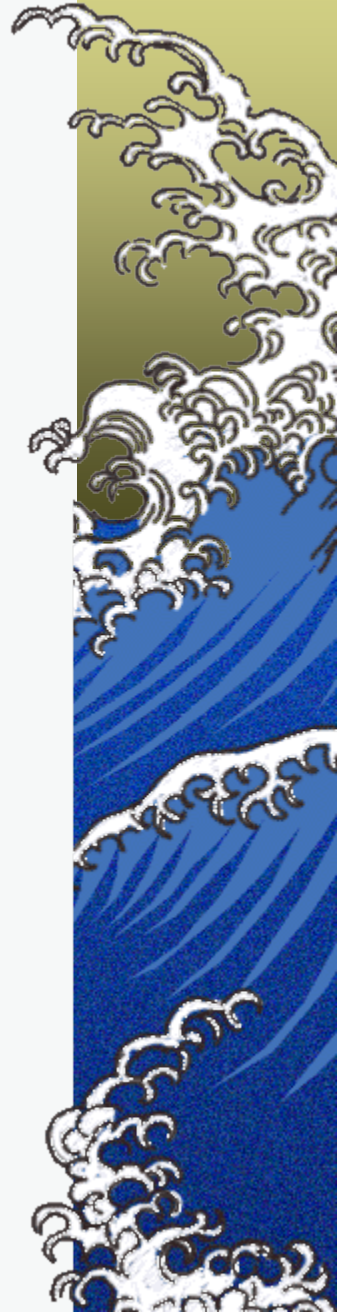


▲ Action

- ▲ Work on self-efficacy, role plays etc.,
how to deal with difficult situations
- ▲ Plan on what to do if there is a slip

▲ Maintenance

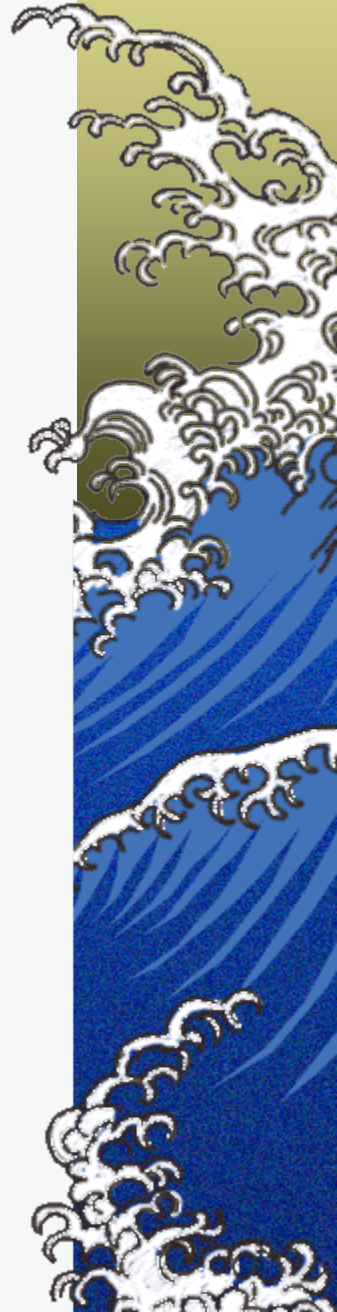
- ▲ Check in periodically
- ▲ Return to prior stages if there is a
relapse



Self Efficacy

▲ People's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives

-Bandura



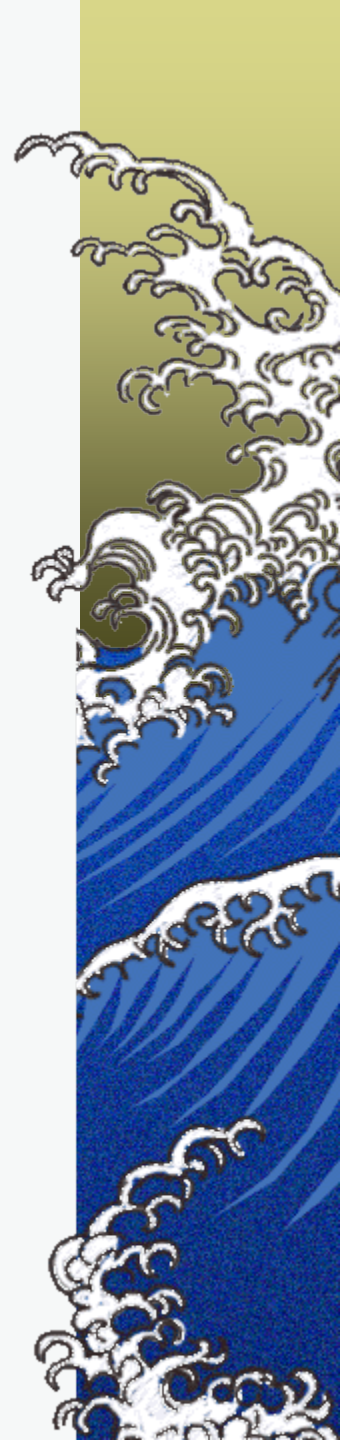
Self Efficacy Factors

- ▶ Experience of success
 - ▶ Role play
- ▶ Modeling success – social models
 - ▶ Self help groups
- ▶ Social persuasion – coaching
 - ▶ Support & follow-up
- ▶ Perception of somatic and emotional states – self feedback systems
 - ▶ Biofeedback; discussion of roadblocks



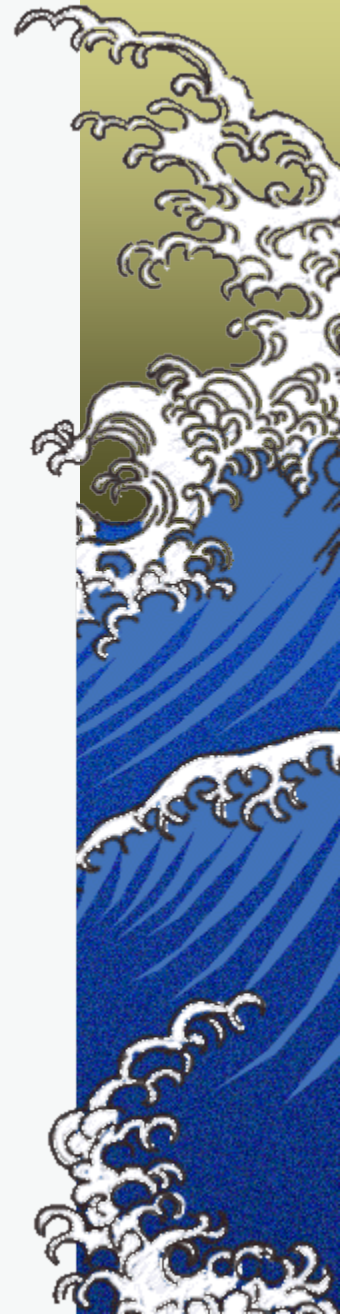
Self Management

- ▶ Empower and prepare patients to manage their health and health care
 - ▶ Emphasize the patient's central role in managing their health
 - ▶ Use effective self-management support strategies that include assessment, goal-setting, action planning, problem-solving and follow-up
 - ▶ Organize internal and community resources to provide ongoing self-management support to patients

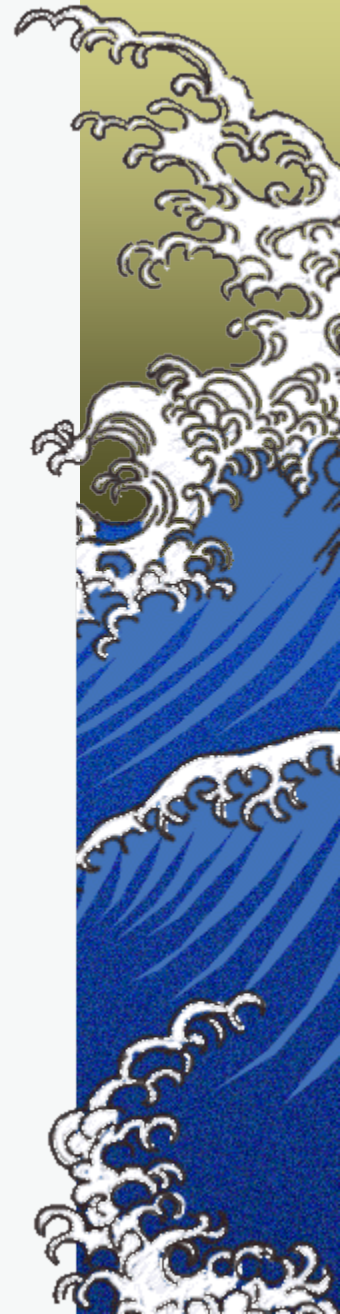


Motivational Interviewing (MI)

- ▲ “Your task is not...one of simply teaching, instructing, or dispensing advice. Rather, the clinician assists and encourages clients to recognize a problem behavior ... **to regard positive change to be in their best interest, to feel competent to change, to develop a plan for change, to begin taking action, and to continue using strategies that discourage a return to the problem behavior**”



<http://www.bu.edu/bniart/sbirt-in-health-care/sbirt-educational-materials/sbirt-videos/>



The Spirit of MI

Partnership

Absolute
Worth

Compassion

Evocation



Engaging

- ▲ Establish rapport
- ▲ Build trust
- ▲ Focus on patient vs. provider concerns



Engaging – OARS

- ▶ **Open-ended questions**
 - ▶ evocative
- ▶ **Affirmations**
 - ▶ recognize & reinforce
- ▶ **Reflective listening**
 - ▶ perspective taking
- ▶ **Summaries**
 - ▶ confirmation & clarification

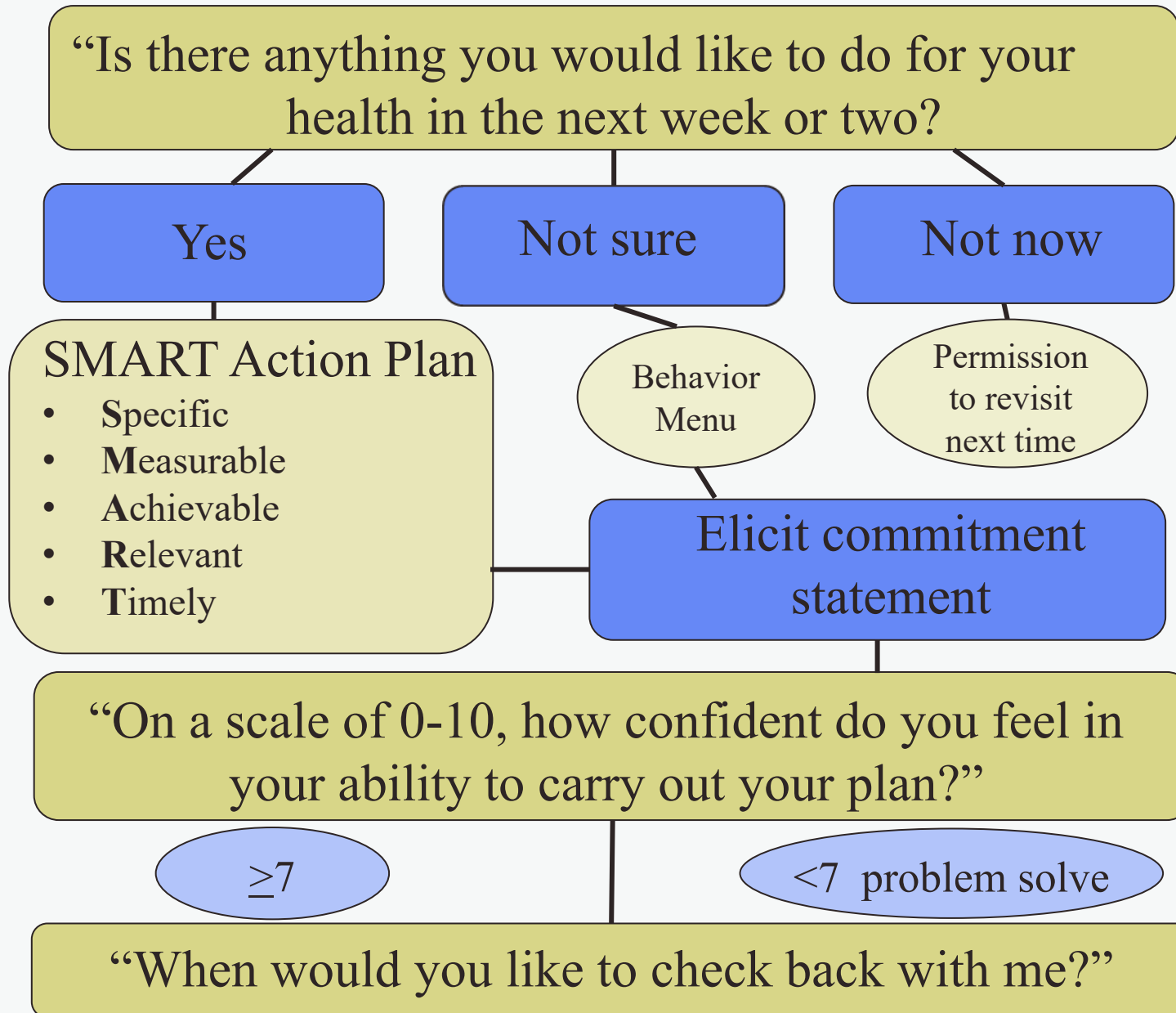


Focusing

- ▶ Establish and prioritize goals
- ▶ Follow the patient's lead and guide them in creating a plan
- ▶ Collaborate and support
- ▶ Avoid premature focus – allow for ambivalence



Focusing – Brief Action Plan



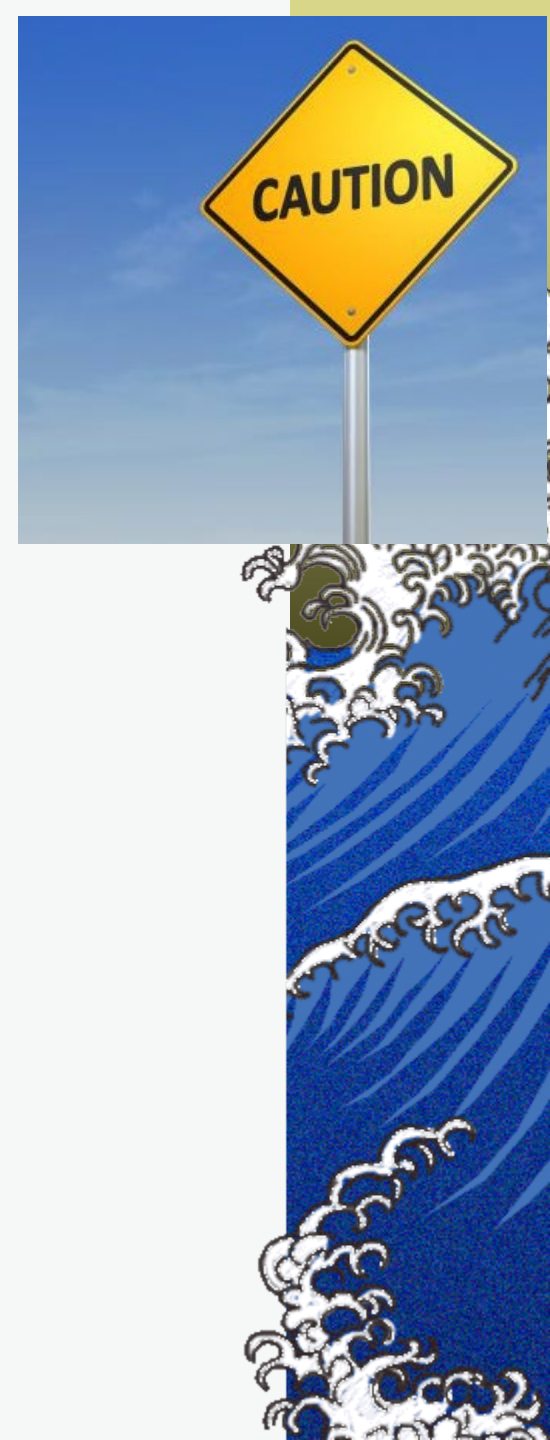
Working with Ambivalence

- ▲ “On a scale of 0-10 ...how confident do you feel about carrying out your plan?”
 - ▲ “Why (number selected) rather than (lower number)?”
 - ▲ “What would need to change to let you move from (number selected) to (higher number)?”



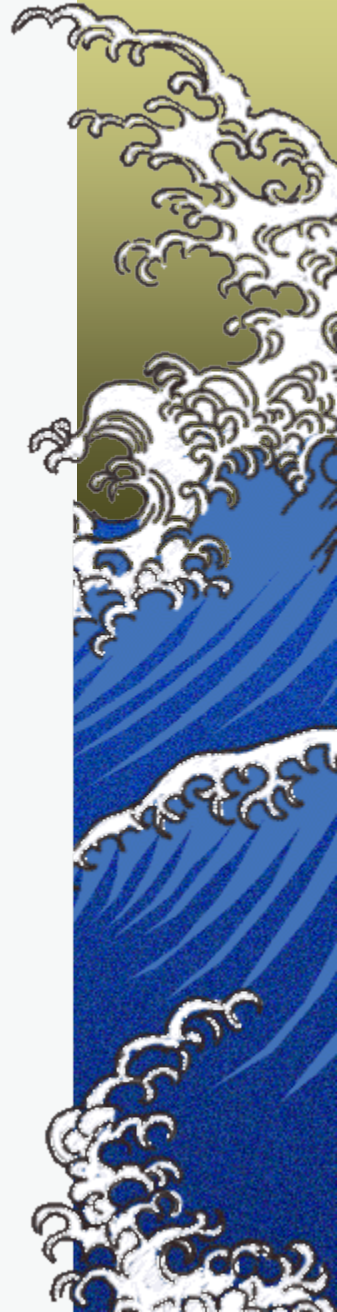
Giving Information

- ▶ Ask permission
- ▶ Tie the information/advise to the patient's goals or concerns
- ▶ Use pictures, metaphors
- ▶ Check understanding
- ▶ Use Ask/Tell/Ask framework





Smoking Cessation



Current smoking

Figure 8.1. Prevalence of current cigarette smoking among adults aged 18 and over: United States, 1997–2016

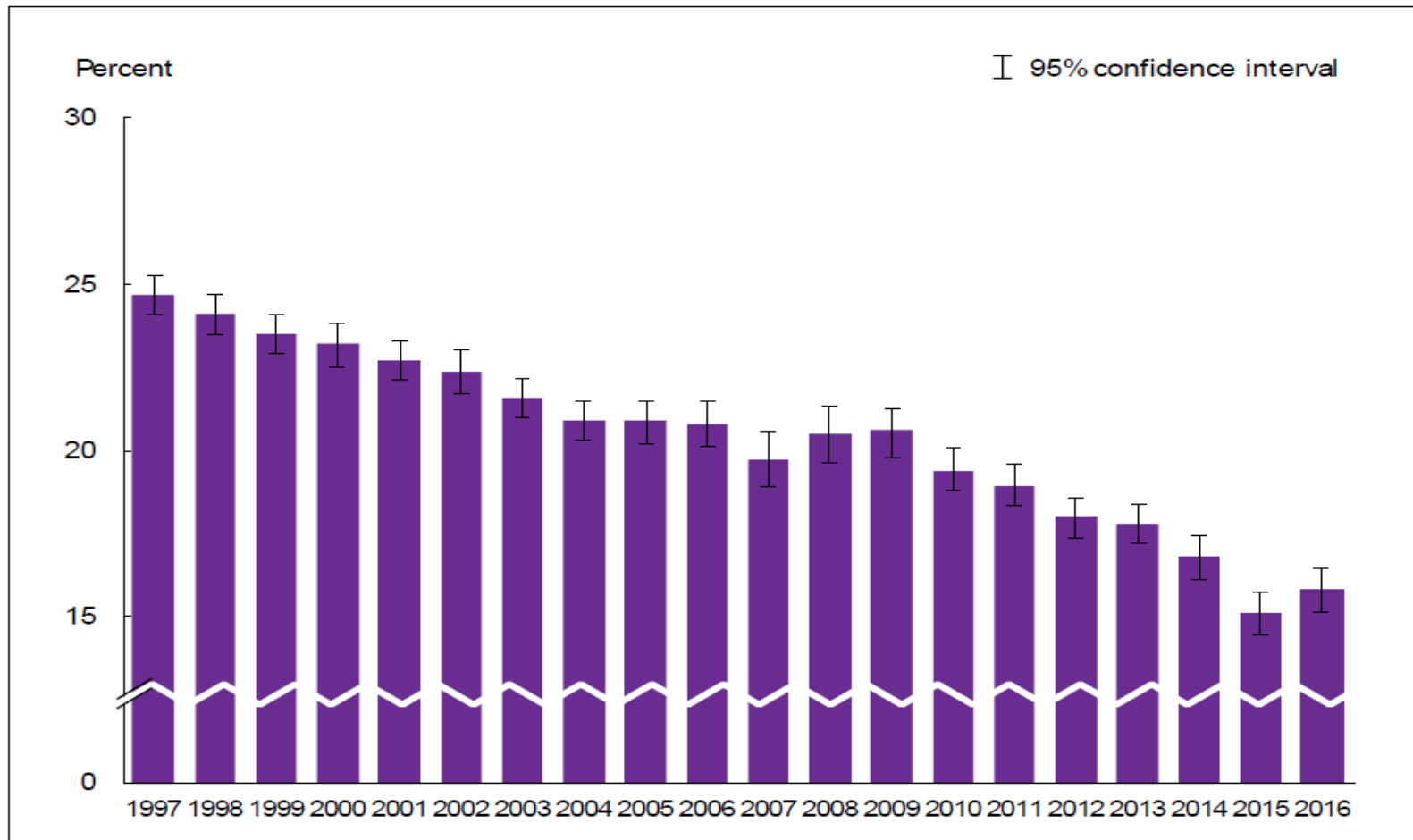
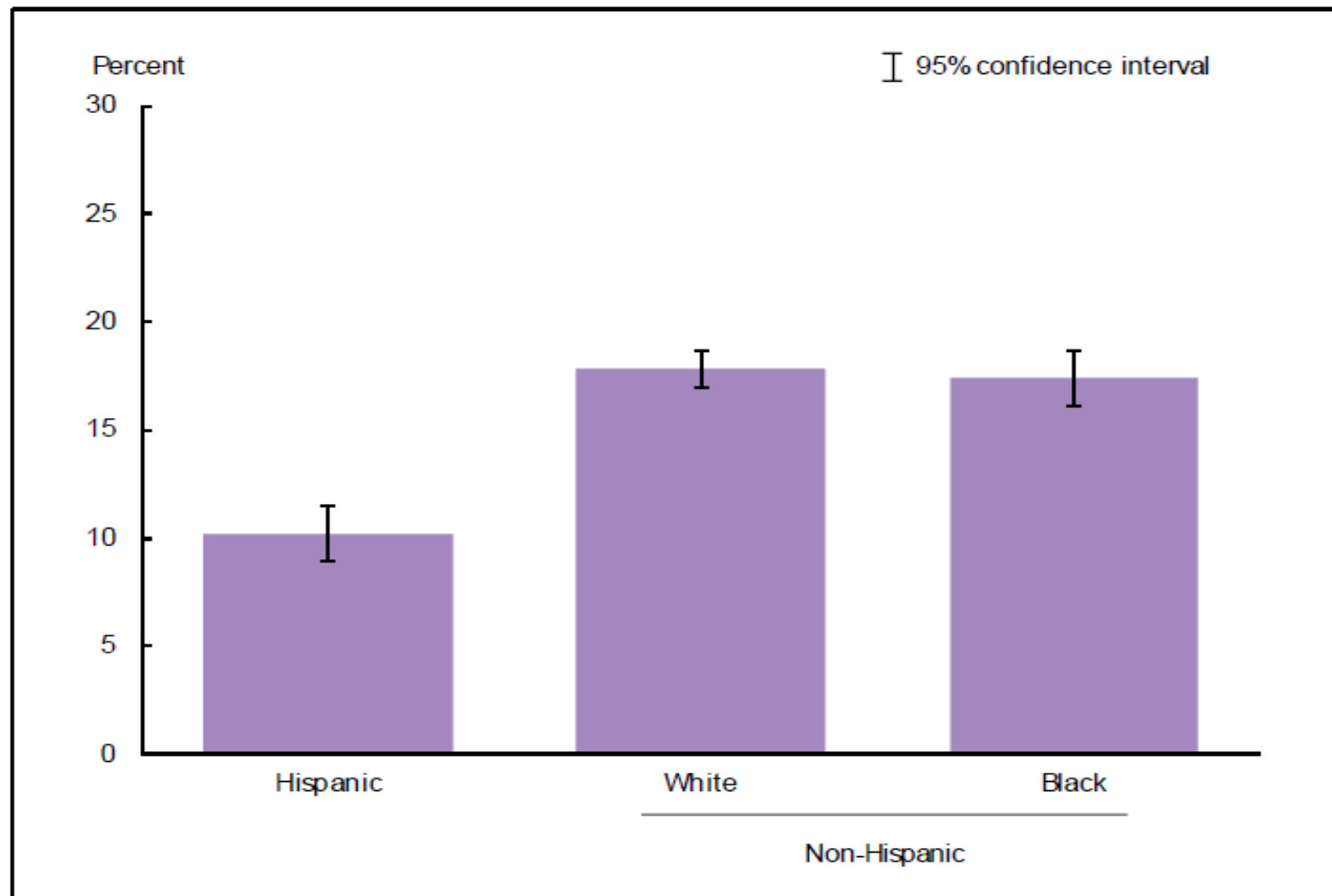


Figure 8.4. Age-sex-adjusted prevalence of current cigarette smoking among adults aged 18 and over, by race and ethnicity: United States, 2016



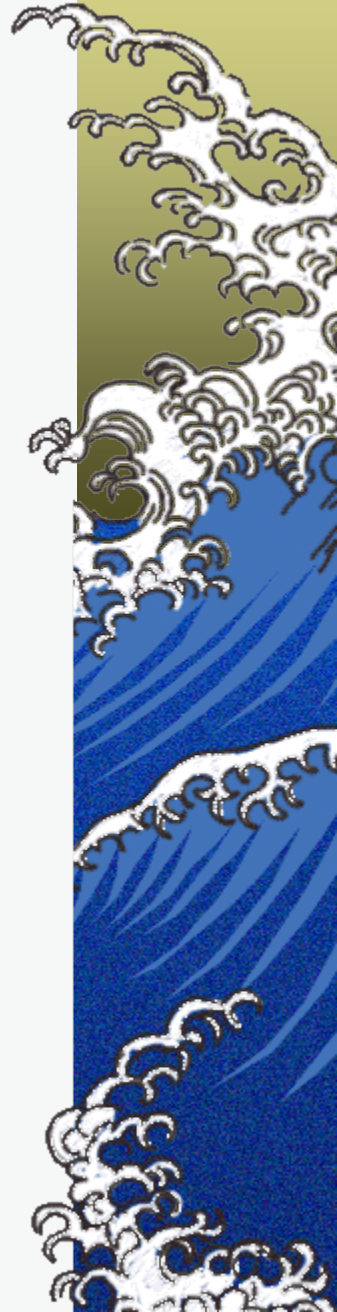
Tobacco dependence...

- ★ is a chronic condition that often requires repeated intervention. However, effective treatments exist that can produce long-term or even permanent abstinence.



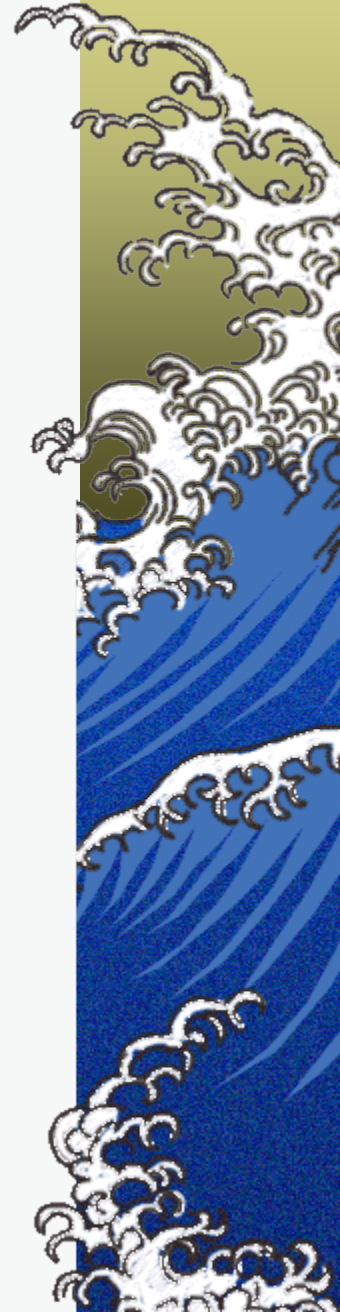
Two Types of Patients:

- ▶ Want to quit
- ▶ Don't want to quit
 - ▶ No prior attempts
 - ▶ Prior attempts



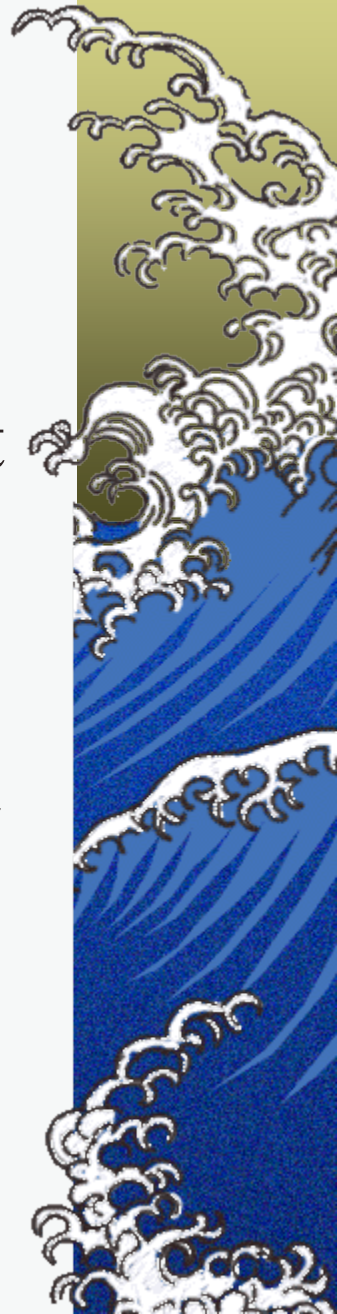
Don't Want to Quit ?– 5Rs

- ▶ **Relevance**
- ▶ **Risks**
- ▶ **Rewards**
- ▶ **Roadblocks**
- ▶ **Repetition**



Want to Quit? 5As

- ▶ **A**sk the patient if he or she uses tobacco
- ▶ **A**dvice him or her to quit
- ▶ **A**ssess willingness to make a quit attempt
- ▶ **A**ssist him or her in making a quit attempt, and
- ▶ **A**rrange for follow-up contacts to prevent relapse



Pharmacotherapy

- ▲ Varenicline
- ▲ Bupropion
- ▲ Nicotine gum
- ▲ Nicotine inhaler
- ▲ Nicotine nasal spray
- ▲ Nicotine patch
- ▲ Nicotine lozenge

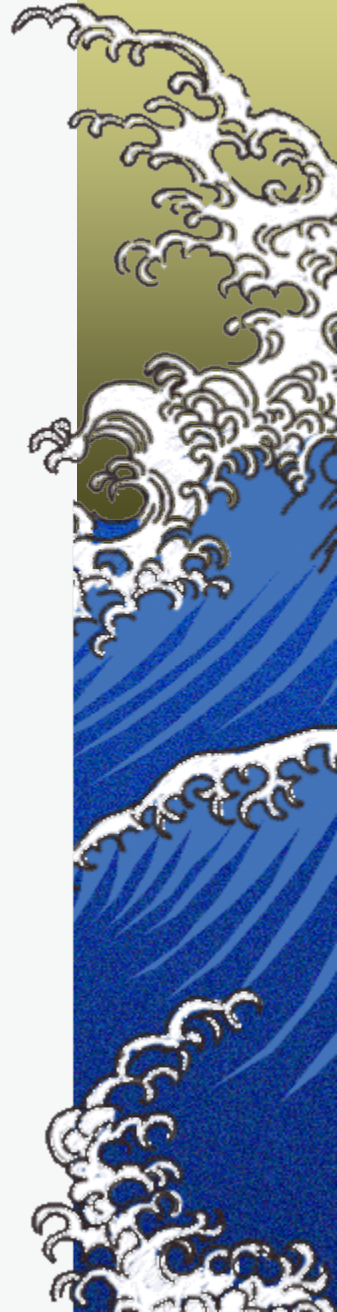


Complementary and Alternative

- ▶ Hypnosis
- ▶ Acupuncture
- ▶ Biofeedback

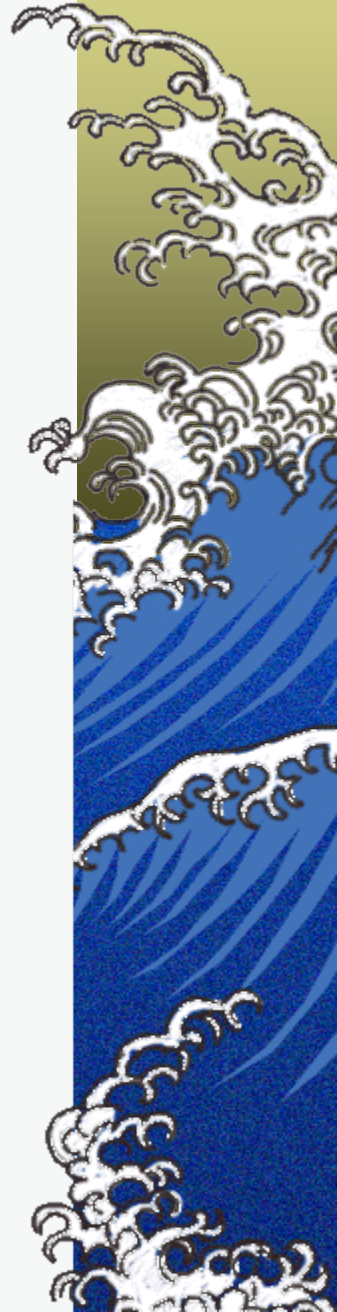


Weight Management



BMI Weight Status

- ▲ Below 18.5 Underweight
- ▲ 18.5 – 24.9 Normal
- ▲ 25.0 – 29.9 Overweight
- ▲ 30.0 and Above Obese



DASH Diet

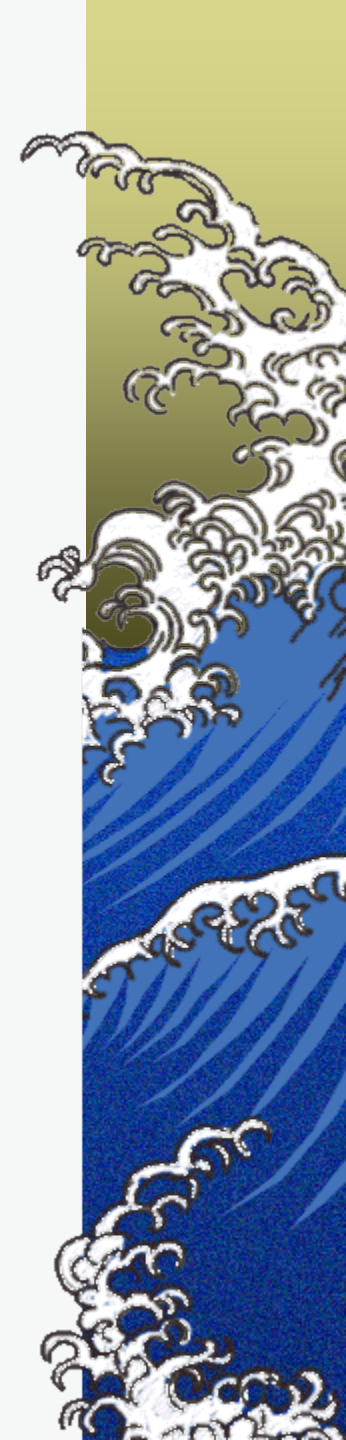
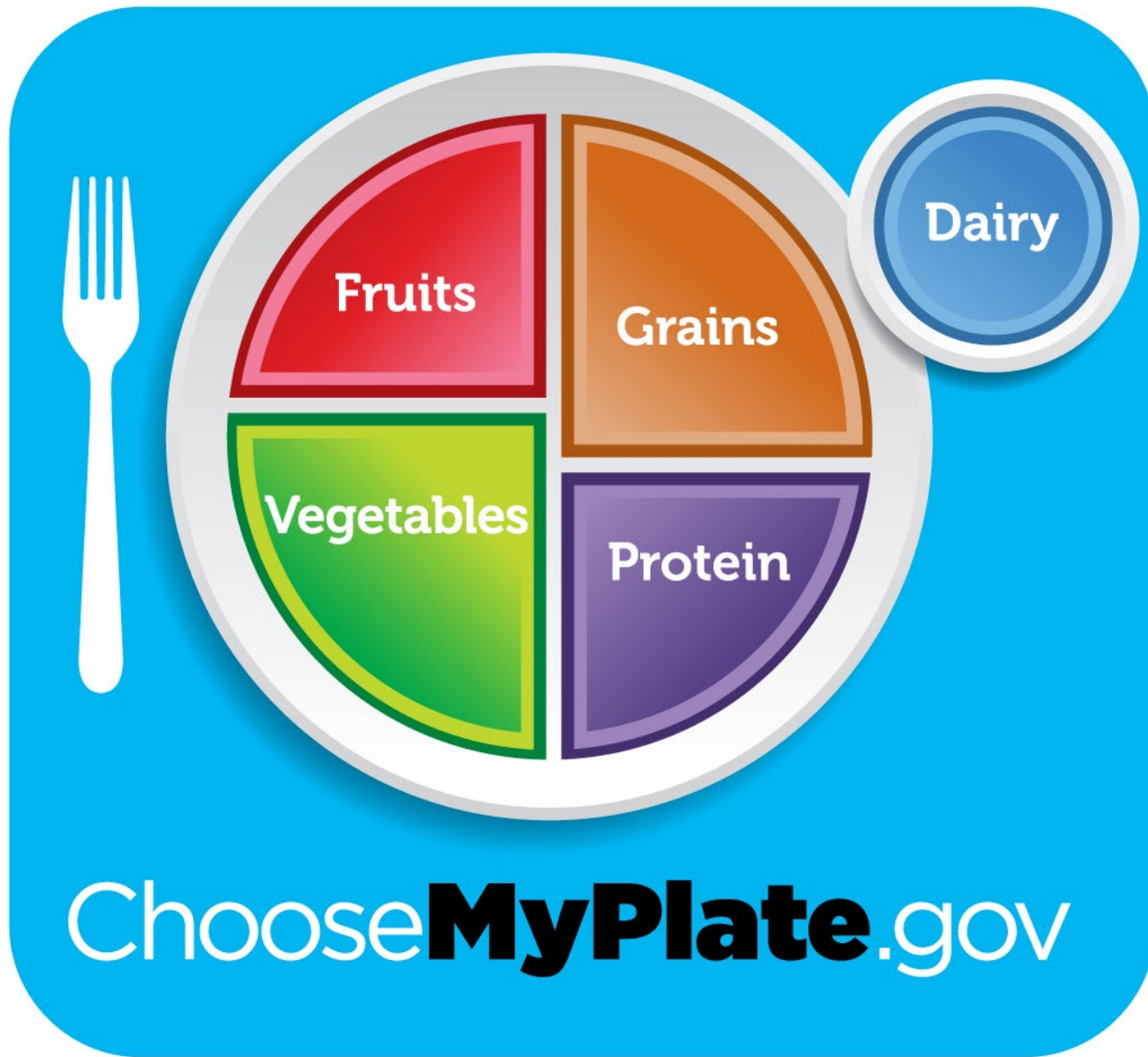
- ▲ **Grains:** 7-8 daily servings
- ▲ **Vegetables:** 4-5 daily servings
- ▲ **Fruits:** 4-5 daily servings
- ▲ **Low or fat-free dairy products:** 2-3 daily servings
- ▲ **Meat, poultry, & fish:** 2 or less daily servings
- ▲ **Nuts, seeds, and dry beans:** 4-5 servings per week
- ▲ **Fats and oils:** 2-3 daily servings
- ▲ **Sweets:** try to limit to less than 5 servings per week



One Serving =

- ▶ 1/2 cup cooked rice or pasta
- ▶ 1 slice bread
- ▶ 1 cup raw vegetables or fruit
- ▶ 1/2 cup cooked veggies or fruit
- ▶ 8 ounces of milk
- ▶ 1 teaspoon of olive oil (or any other oil)
- ▶ 3 ounces cooked meat (or tofu)

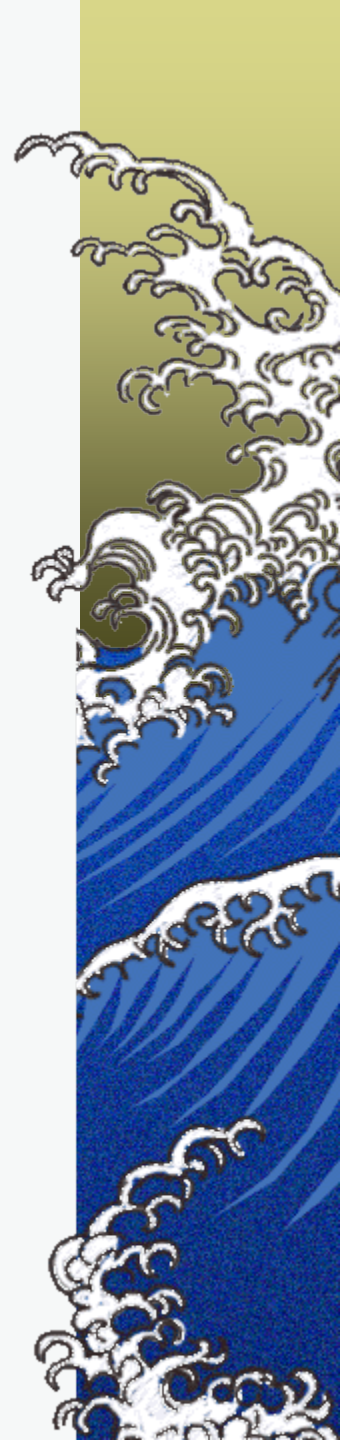




https://commons.wikimedia.org/wiki/File:Myplate_blue.jpg

USPTF Recommendations

- ▲ **The USPSTF found that intensive weight loss programs improved weight loss**
 - ▲ include 12 to 26 sessions in the first year
 - ▲ include group and/or individual sessions
 - ▲ help people make healthy eating choices
 - ▲ include physical activity
 - ▲ address issues that make it difficult to change behaviors
 - ▲ help people monitor their own behaviors
 - ▲ help people develop strategies to maintain healthy eating and physical activity behaviors



▲ For obese patients with elevated plasma glucose, behavioral interventions decreased the incidence of diabetes diagnosis by about half over 2 to 3 years (number needed to treat [NNT]=7). Behavioral interventions also demonstrated some improvement in intermediate health outcomes such as blood pressure, waist circumference, and glucose tolerance.

-US Preventive Services Task Force

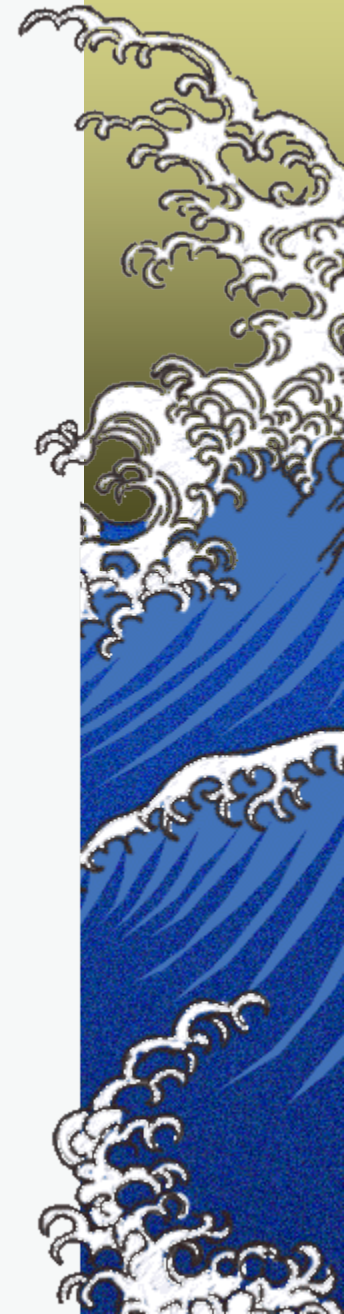


Surgery?

- ▶ Obesity surgery (e.g., gastric banding, vertical banded gastroplasty, and gastric bypass) has been performed for only a select group of patients;
- ▶ the NHLBI clinical guide for identification, evaluation, and treatment of overweight and obesity in adults recommends surgical intervention only for those people with a BMI >40 or a BMI of 35 to 40 with at least 1 obesity-related comorbidity.

-US Preventive Services Task Force



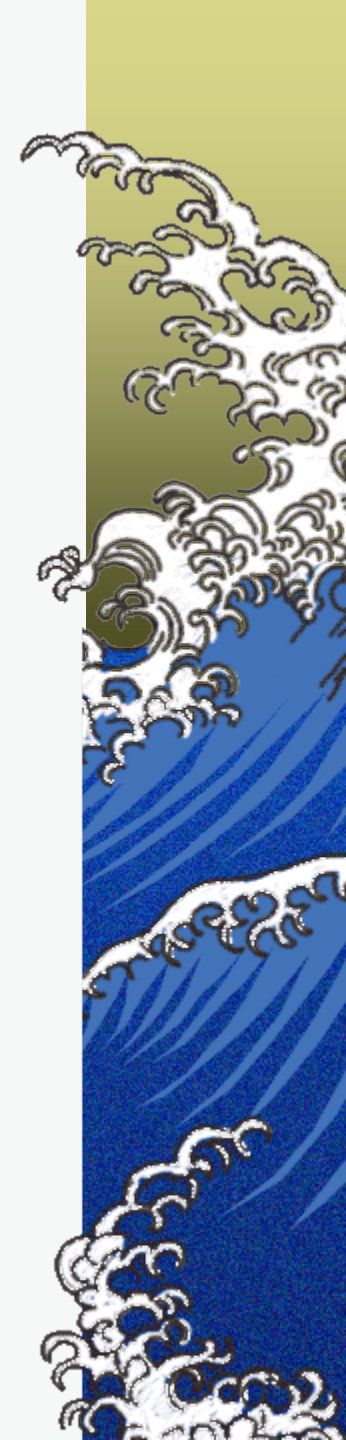
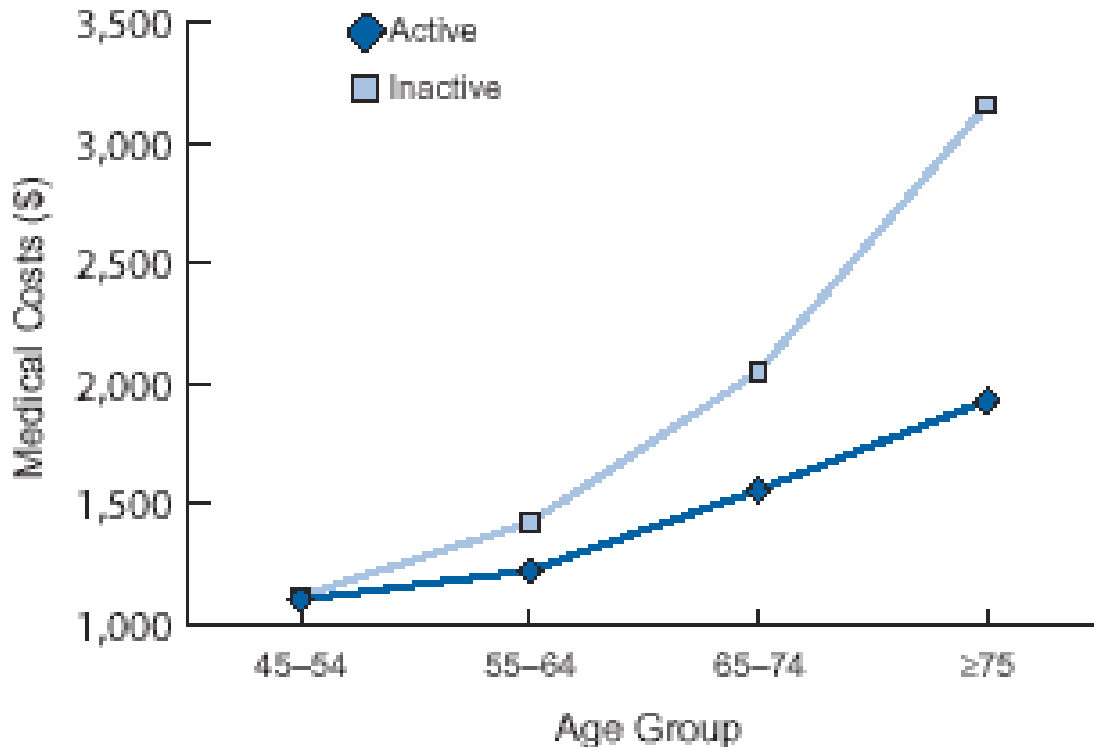


Healthy People 2030

- ▲ Reduce the proportion of adults (25.4% to 21.2%) who engage in no leisure-time physical activity
- ▲ Increase the proportion of adults (54.2% to 59.2%) engaged in at least 150 minutes/week of moderate intensity physical activity or 75 minutes/week vigorous physical.



Annual Medical Costs of Active and Inactive Women (Aged 45 or Older) Without Physical Limitations

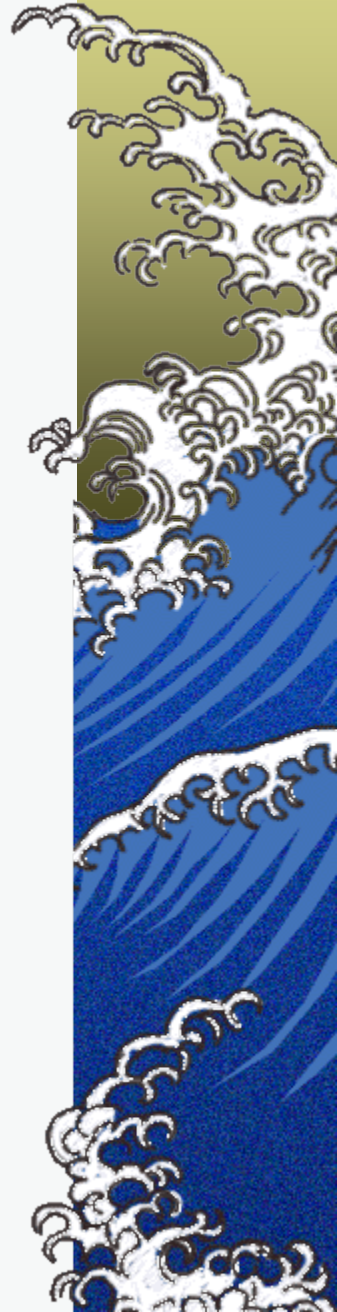


Bottom Line

- ▶ People who are usually inactive can improve their health and well-being by becoming even moderately active on a regular basis.
- ▶ Physical activity need not be strenuous to achieve health benefits.
- ▶ Greater health benefits can be achieved by increasing the amount (duration, frequency, or intensity) of physical activity.

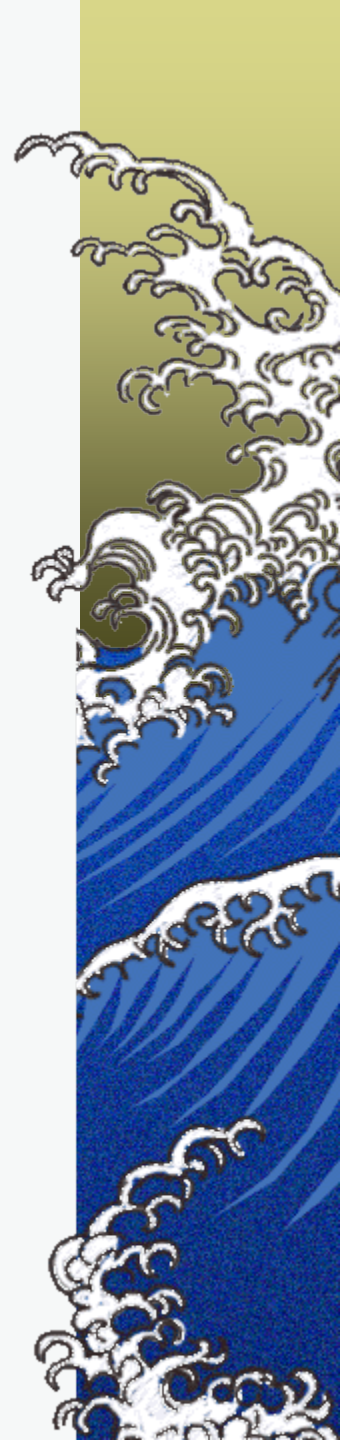


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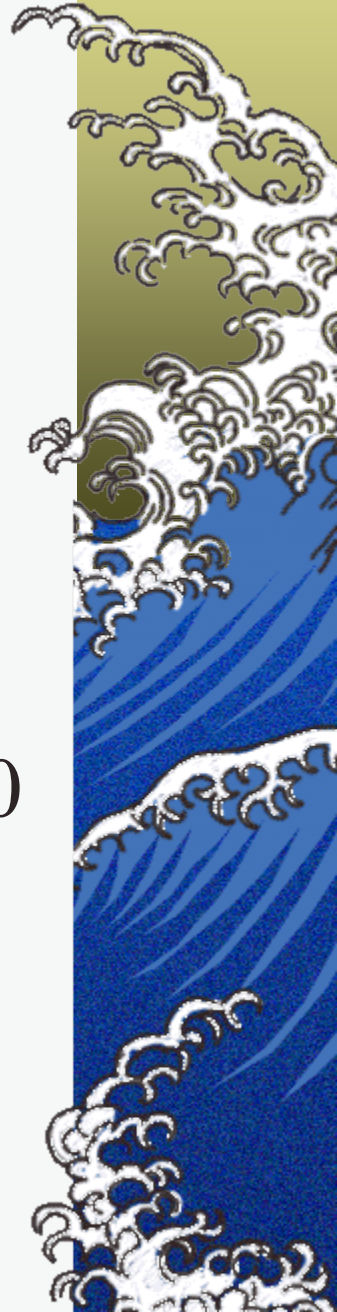
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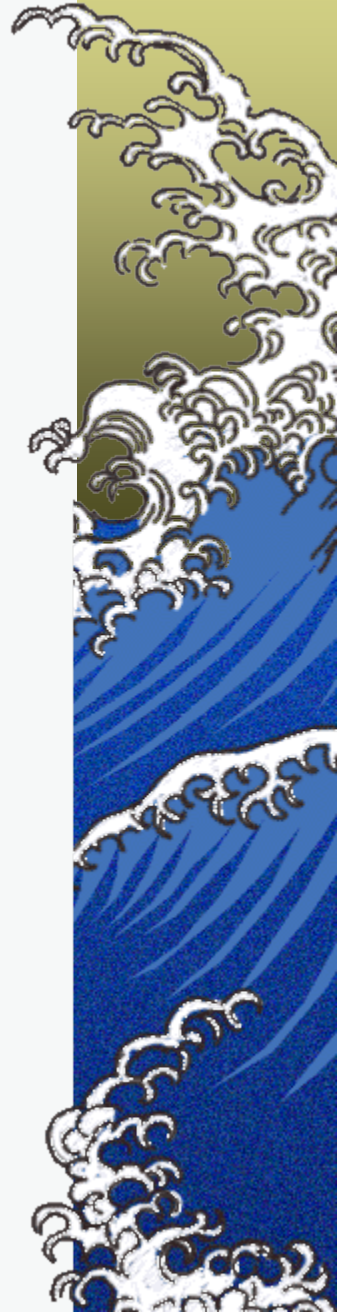
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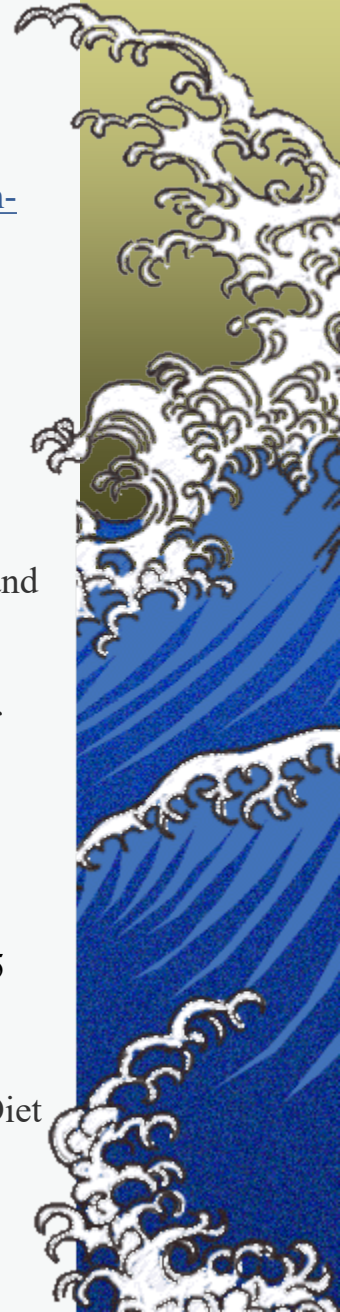
Take Home Points

- ▶ Listen more, talk less
- ▶ Accept your patient and their goals
- ▶ Be patient but be persistent
- ▶ Remember it is not about you



References

- ▲ Bandura, A. (1983). Self-efficacy determinants of anticipated fears and calamities. *Journal of Personality and Social Psychology*, 45(2), 464–469. <https://doi.org/10.1037/0022-3514.45.2.464>
- ▲ Boston University School of Public Health, SBRIT ideos <http://www.bu.edu/bniart/sbirt-in-health-care/sbirt-educational-materials/sbirt-videos/>
- ▲ Centers for Disease Control and Prevention National Center for Health Statistics. <https://www.cdc.gov/nchs/products/databriefs/db355.htm> Page last reviewed: January 30, 2020
- ▲ Centers for Disease Control and Prevention Smoking and Tobacco Use Resources for Clinicians https://www.cdc.gov/tobacco/basic_information/related_links/clinician-resources/ Page last reviewed: March 8, 201
- ▲ Henderson JT, Senger CA, Henninger M, Bean SI, Redmond N, O'Connor EA. Behavioral Counseling Interventions to Prevent Sexually Transmitted Infections: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. *JAMA*. 2020;324(7):682–699. doi:10.1001/jama.2020.10371
- ▲ Procheska JO, DiClemente CC. The transtheoretical approach: Crossing traditional boundaries of therapy 1994 - Krieger Publishing Company
- ▲ SAMHSA/CSAT Treatment Improvement Protocols. Conceptualizing Motivation and Change <http://www.ncbi.nlm.nih.gov/books/NBK26251/>
- ▲ U.S. Preventive Services Task Force. The Guide to Clinical Preventive Services 2014: Recommendations of the U.S. Preventive Services Task Force [Internet]. c2012–2014 [cited 2015 Jun 11]. Available from: <https://www.ahrq.gov/professionals/clinicians-providers/guidelines-recommendations/guide/index.html>
- ▲ US Preventive Services Task Force. Behavioral Counseling Interventions to Promote a Healthy Diet and Physical Activity for Cardiovascular Disease Prevention in Adults With Cardiovascular Risk Factors: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2020;324(20): 2069–2075. doi:10.1001/jama.2020.21749



Questions?

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