

BEHAVIOR AND CANCER RISK WHAT WE KNOW...

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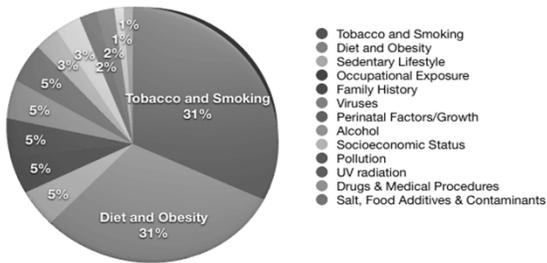


Presentation Outline

- Lifestyle Risk Factors
- Cancer Prevention Guidelines
- What does the data say?
- Self Assessment
- Making small changes



Risk Factors for Cancer



NEARLY
50%
of the most
common cancers
CAN BE PREVENTED

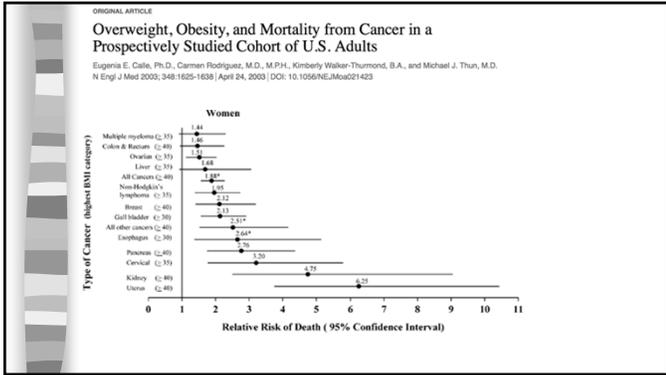
SOURCES: Coates et al. "So There! Most Smoking-related Cancer Prevention." *Sci Transl Med*. 2012 Mar 28;4(127): 405/WR07. Patel, Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective (2017). *Wiley and others for Cancer Prevention (2016). Continuous Update Project reports (2016)*

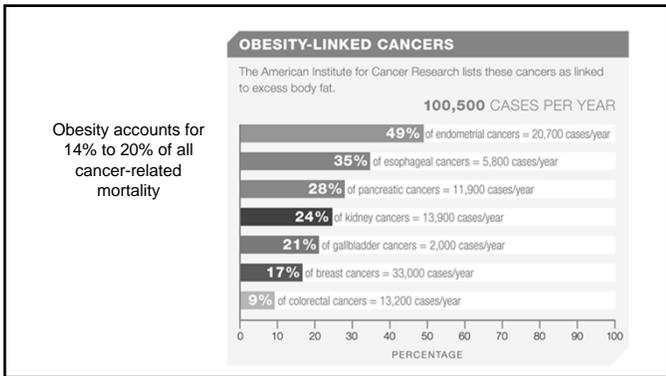
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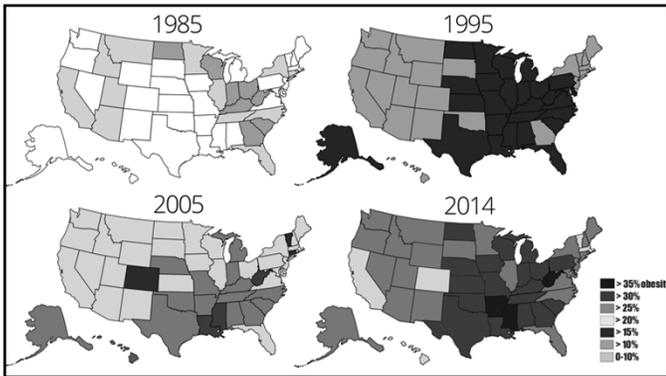


How were guidelines developed and updated?

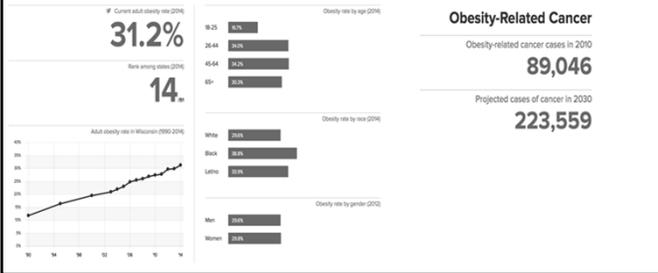
- Review of data from multiple types of studies including:
 - Observational cohort studies (i.e., Nurse’s Health Study, European Prospective Investigation into Cancer– EPIC)
 - Case Control studies
 - Randomized controlled intervention studies
- Data limitations:
 - Behavioral recall is poor
 - Few objective measures for diet







Obesity in Wisconsin



CANCER PREVENTION

WEIGHT: aim to be a healthy weight throughout life

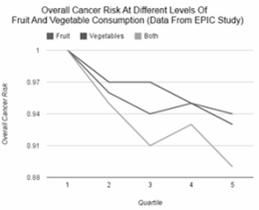
DIET: choose mostly plant foods, limit red and avoid processed meats

PHYSICAL ACTIVITY: be physically active every day for 30 minutes or more, 5 days a week

EAT LESS AND EXERCISE MORE TO ACHIEVE AND MAINTAIN A HEALTHY WEIGHT (more muscle less fat)

EAT WELL: Eat a plant based diet

Consume at least 2 ½ cups of fruits and vegetables a day



- Much uncertainty about the impact of fruit and vegetable consumption on cancer risk...
- Recent large prospective studies have found no or minimal effects of consumption on overall cancer incidence or mortality.
- BUT....
 - Highly associated with weight status
 - Highly associated with cardiovascular risk

EAT WELL: Eat a plant based diet

- Women who ate a "healthy" or plant based diet had lower breast cancer risk compared to women who ate "meat and potatoes"
- High-meat/sugar diet associated with increased risk of CRC and plant-based diet associated with decreased risk
- Western vs prudent diet: no associations for prostate, pancreatic
- Adherence to Mediterranean dietary pattern reduced overall cancer risk

Am J Clin Nutr, 2015, Nutr J, 2015, CEBP 2009, BJC, 2011

MOVE MORE!

Adults: 150 minutes of moderate intensity or 75 minutes of vigorous intensity activity each week (or a combination of these), preferably spread throughout the week.

Children and teens: Get at least 1 hour of moderate or vigorous intensity activity each day, with vigorous activity on at least 3 days each week.

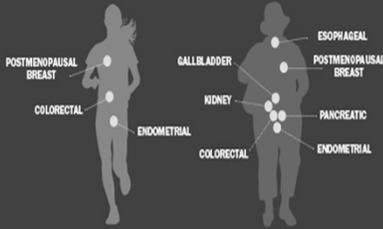
Limit sedentary behavior such as sitting, lying down, watching TV, and other forms of screen-based entertainment.

Doing some physical activity above usual activities, no matter what one's level of activity, can have many health benefits.

THERE IS A STRONG LINK

between physical activity and a decreased risk of these cancers:

between body fitness and an increased risk of these cancers:



Sedentary Behavior and Cancer Risk

■ Positively associated with:

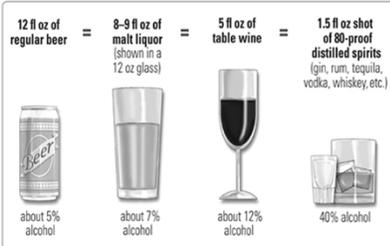
- Colorectal
- Endometrial
- Ovarian
- Prostate
- Cancer mortality

Lynch, Cancer Epidemiology and Biomarkers, 2010

DRINK WELL:

IF YOU DRINK ALCOHOL, LIMIT YOUR INTAKE:

DRINK NO MORE THAN 1 DRINK PER DAY FOR WOMEN OR 2 PER DAY FOR MEN

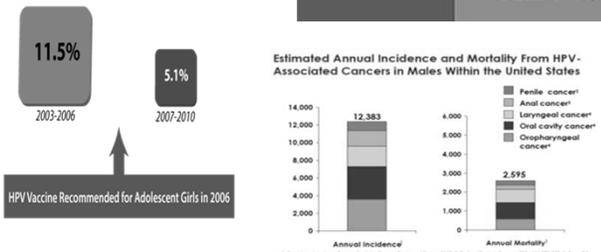


The percent of "pure" alcohol, expressed here as alcohol by volume (alc/vol), varies by beverage.

VACCINATE CHILDREN

Decline in Prevalence of HPV6, 11, 16, and 18 Among U.S. Girls Ages 14 to 19 Following HPV Vaccine Introduction

YOU CAN PREVENT CANCER **HPV VACCINE IS THE KEY**



HPV Vaccine Recommended for Adolescent Girls in 2006

11.5% (2003-2006) vs 5.1% (2007-2010)

Estimated Annual Incidence and Mortality From HPV-Associated Cancers in Males Within the United States

Annual Incidence: 12,383

Annual Mortality: 2,595

1. Based on data from Centers for Disease Control and Prevention, National Health and Medical Research Council, and the American Cancer Society. 2. Denny, et al., Cancer, 2004;111(12):2061-3. 3. Kuper, et al., N Engl J Med, 2009;361(10):1072-1078. 4. Kuper, et al., N Engl J Med, 2009;361(10):1072-1078.

**Creating a Lifestyle to Support Health...
Where to begin?**

- Take an honest look at your modifiable risk...
 - Body fat
 - weight is a good substitute
 - Diet
 - Write down everything you eat for a few days
 - Alcohol Use
 - Include alcohol in food diary
 - Activity level
 - Keep track of steps with smart phone or pedometer
 - Tobacco use
 - Count number of cigarettes, etc per day

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1. How physically active is your work – whether you go to a job or take care of a home?

- a. Not very active – I spend most of my day sitting down
- b. I don't have an active job but I make an effort when I can
- c. Very active – I'm always on the move

2. If you were to honestly describe your current level of fitness, you'd say you were:

- a. Not in very good shape at the moment
- b. In average shape for your age
- c. In excellent condition

3. You're on the 8th floor, and you need to get to the 10th. Do you:

- a. Choose the elevator
- b. Take the stairs if I'm not in a rush
- c. Always take the stairs

4. You play a sport or do an active hobby, such as walking, dancing, jogging:

- a. Almost never
- b. About once a week
- c. Several times a week

5. If you have to pick up something at a store about half a mile away, would you:

- a. Drive or take the bus
- b. Walk if it was sunny
- c. Always walk or cycle



Choose the answer that most closely represents what you actually do, or what you would be most likely to do, in each situation.

1. Breakfast is usually:

- A. Egg white omelet and sausages
- B. A muffin and orange juice
- C. A bowl of oatmeal or cereal with fresh or dried fruit

2. Thinking about the amount of meat in your diet, do you:

- A. Always include a large portion of red or processed meat with your meals
- B. Have a medium-sized portion of red or processed meat 5 or more times week
- C. Usually fill at least two thirds or more of your plate with plant foods and one third or less with lean meat

3. If you think about the meals and snacks you've eaten over the past week, your choices of plant foods (vegetables, fruits, whole grains and beans) have included:

- A. Less than 10 different kinds
- B. 10 - 20 different kinds
- C. More than 20 different types of these foods

4. You eat take out or fast food:

- A. Almost every day
- B. A few times a week
- C. Occasionally as a treat

5. The number of portions of fruit and vegetables you have in a typical day is:

Identify **1-2** areas to focus on changing...

Commit to small Changes...

Make a realistic plan to make the change...

Use reminders at home, work, car, phone to support your changes



EAT WELL

Change: Eat one more fruit and/or vegetable each day; try a new color

Plan (for example):

- Add a whole fruit to breakfast
- Add a cup of greens to your lunch
- Eat a fruit or veggie for snack
- Cook and eat 2 veggies at dinner

Reminder (for example):

- Plant veggies in pots or garden
- Post a sign on your refrigerator
- Put a sticky on your desk at work
- Start with your shopping in the produce section the grocery store
- Post farmers' market schedules
- Set a phone alarm for snack



EAT WELL

Change: Change out one refined grain for a whole grain

Plan (for example):

- Choose brown instead of white rice
- Use whole grain bread (first ingredient says whole wheat) at one meal
- Eat oatmeal for breakfast (not sugary kind)
- Try quinoa!

Reminder (for example):

- Make at least 1/2 of grains in your grocery basket whole grains
- Leave oatmeal out on counter
- Make a sign and post your cabinet

MAKE THE HEALTHIER CHOICE!



EAT WELL

Change: Have no meat at one of your meals every day or less meat when you eat it

Plan (for example):

- Limit how much processed or red meat you buy
- Choose fish, poultry or beans instead of red or processed meat when you are planning meals
- Try tofu?!

Reminder (for example):

- Cook chicken and have in fridge for sandwiches
- Print out sign that meat is a carcinogen and place on your kitchen cabinet!



How do people make changes?

One theory



Health Crisis, Risk Perception, Knowledge

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"Refusing to go to the gym is not the same thing as resistance training."

WWW.ANDERSONS.COM



"I was going to wake up early to go jogging, but my toes voted against me 10 to 1."

Remember to always keep you sense of humor!

THANK YOU!

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