

CORNING

## Prevention What It's All About

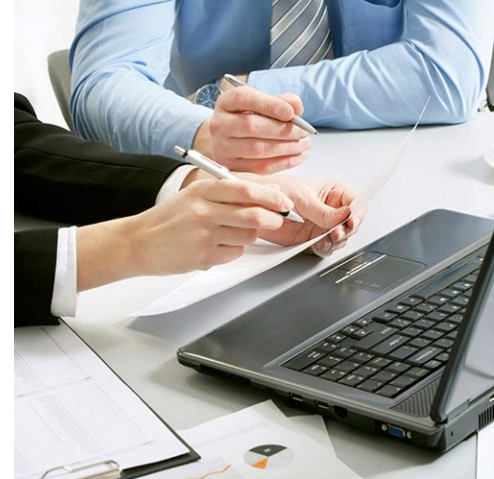
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# CORNING

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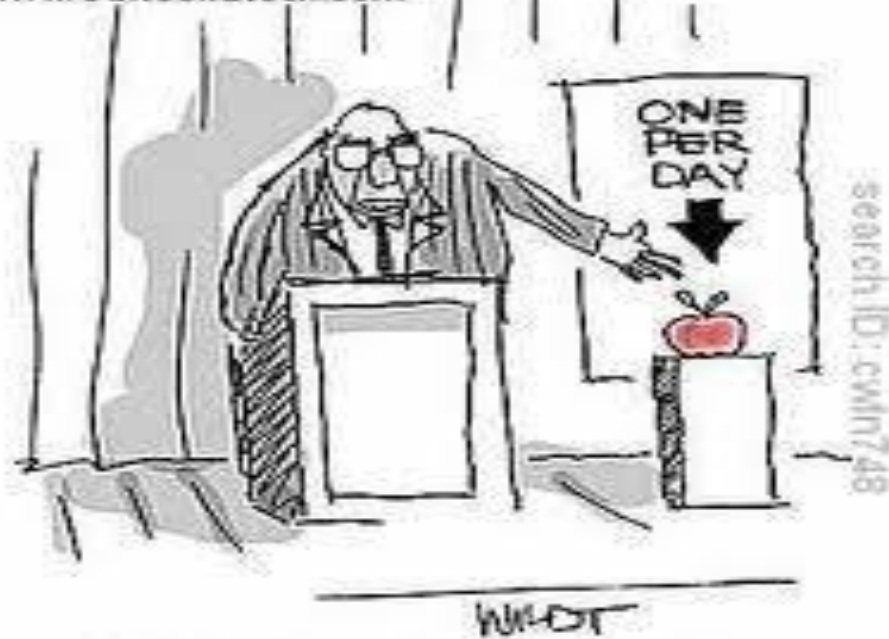


# Agenda

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- Prevention - What do we mean?
- Population Health - What is it?
- Health Risks - What are they and do they matter?
- What Should I Do??

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*"We have heard your demand for preventive health care. These things will now be available in the soda machines."*

# Prevention Defined

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- **Primary-** Methods to avoid occurrence of disease
  - > Immunizations
  - > Water Fluoridation
- **Secondary-** Methods to diagnose and treat disease in early stages before it causes significant morbidity
  - > Mammography for Breast Cancer, PAP Test for Cervical Cancer Screening, PSA Screening
  - > Blood Pressure and Cholesterol Screening
- **Tertiary-** Methods to reduce negative impact of extent disease by restoring function and reducing disease-related complications
  - > Diabetes- controlling blood sugars, hypertension, cholesterol etc...
  - > Asthma- eliminating offending allergens, medication compliance etc...

# Population Health

## What it means

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- “Population Health” is a phrase used to express the concept of *improving the health status of a population* by:
  - > minimizing chronic diseases (heart disease, diabetes, asthma, etc.)
  - > maximizing preventative care and screenings (vaccinations, colonoscopy etc.)
  - > reducing overall *health risks*

# What Are Health Risks

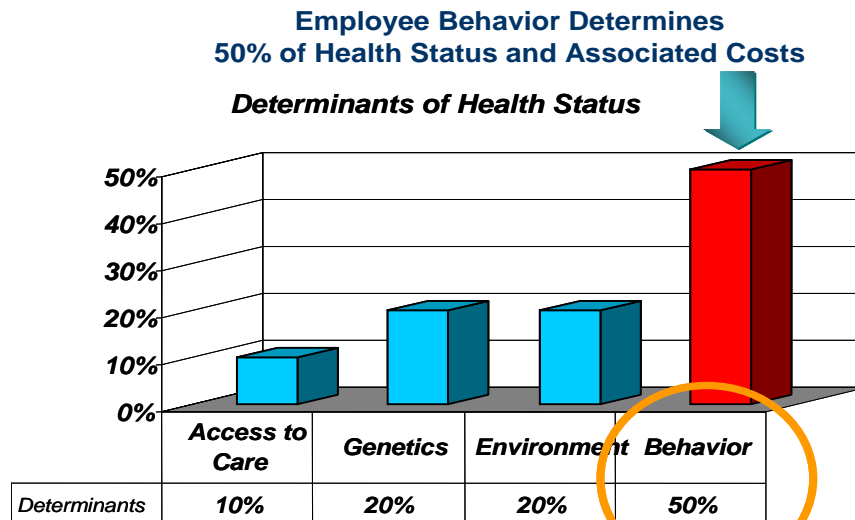
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- Health Risks are precursors or causes of eventual disease
- Examples of health risks:
  - > Overweight or obesity
  - > Lack of physical activity
  - > Poor nutrition
  - > Stress
  - > Tobacco use
- Nationally, more than half of health care cost increases are attributable to chronic illnesses and health risks

# Population Health

## What Determines Health Status and What Can I Influence

- *Changing Behaviors/Individual Choice is Critical to Achieving Prevention Goals...*



Source: IFTF, Center for Disease Control and Prevention

*...and the opportunity is significant!*

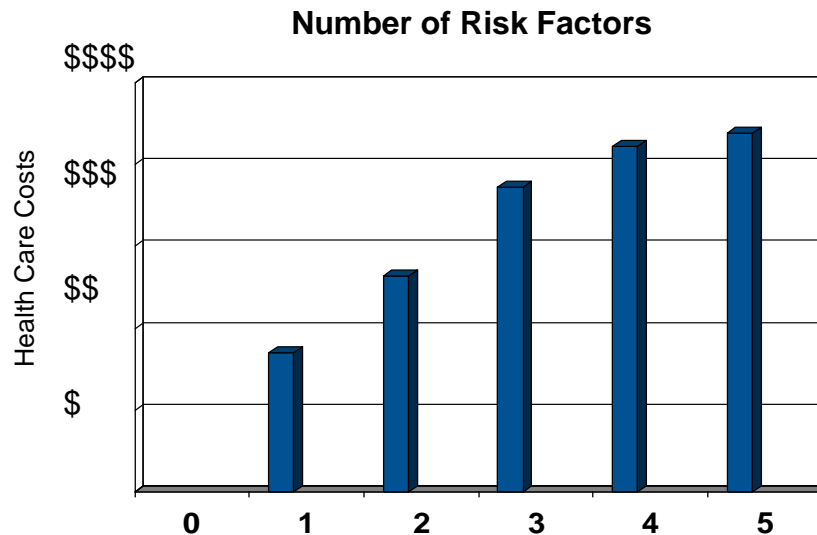


# Population Health

## So Do Risks Matter?

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- 70% of illness is lifestyle related - preventable or modifiable
- The correlation between health risks and health care cost is clear...  
...the more health risks, the higher the health care costs.



Source: Corning

# Population Health

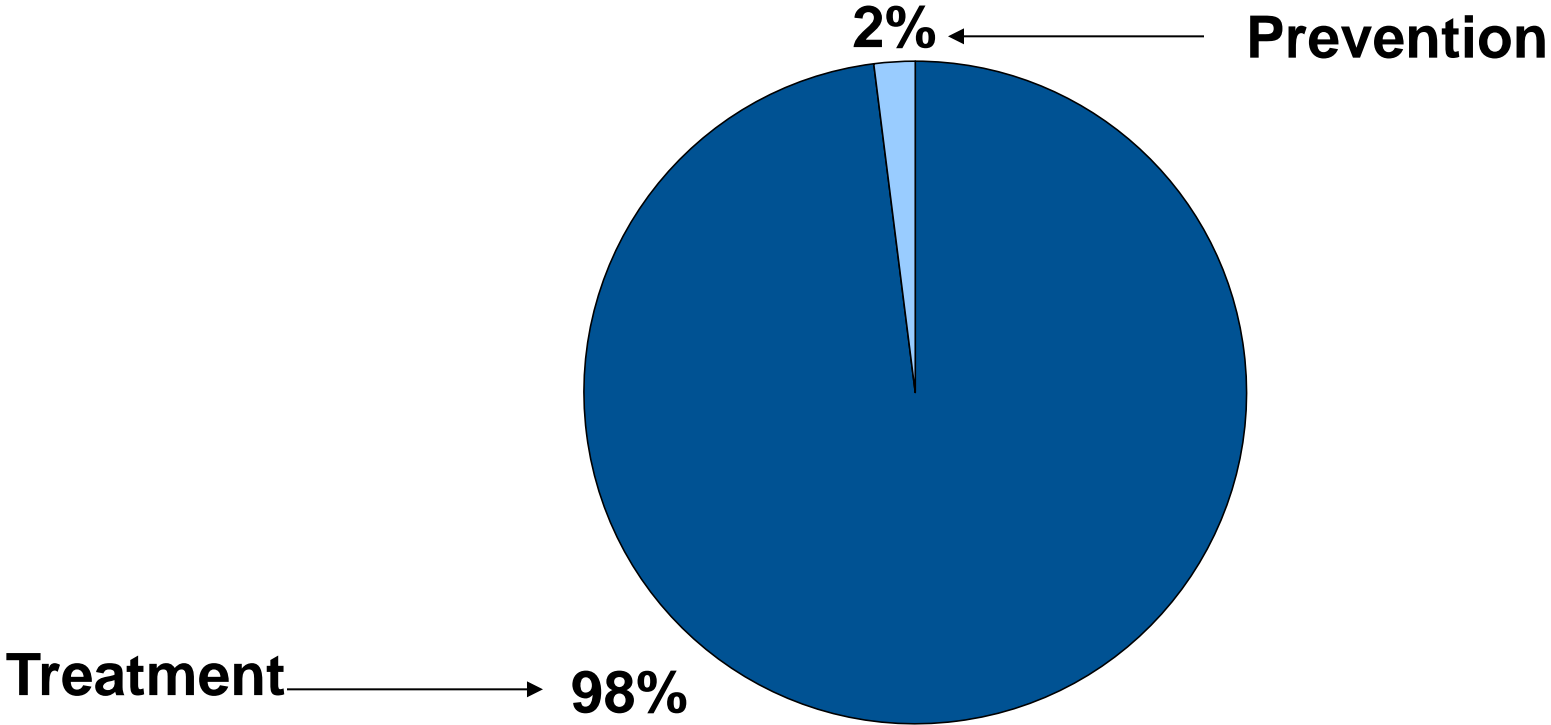
## What is the Problem????

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- Only 55% of U.S. adults receive recommended preventative care
- Between 30-60% of patients are compliant with their doctors recommended treatment
- 80% of heart disease and stroke and 40% of all cancers are preventable!!
- Obesity and physical inactivity may account for 25-30% of several major cancers (colon, breast, kidney etc.)
- What percent of US adults: don't smoke, exercise regularly, eat five fruits/vegetables a day, and aren't overweight?

# \$2.1 Trillion Health Care Budget, U.S.

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# What Should We Focus On?

## Measuring Value

Highest Ranking Preventive Services for U.S. Population	H.I.	C.E.	Total	H.I. = Health Impact C.E. = Cost Effectiveness
Discuss daily aspirin use—men 40+, women 50+	5	5	10	<p><b>NCPP scoring system to indicate relative value:</b></p> <p><i>Health Impact Score</i>  <b>5 = Highest impact</b>  among these preventive services  <b>1 = Lowest impact</b></p> <p><i>Cost Effectiveness Score</i>  <b>5 = Most cost effective</b>  among these preventive services  <b>1 = Least cost effective</b></p> <p><b>Total Score Range:</b>  <b>10 to 2</b></p>
Childhood immunizations	5	5		
Smoking cessation advice and help to quit—adults	5	5		
Alcohol screening and brief counseling—adults	4	5	9	
Colorectal cancer screening—adults 50+	4	4	8	
Hypertension screening and treatment—adults 18+	5	3		
Influenza immunization—adults 50+	4	4		
Vision screening—adults 65+	3	5		
Cervical cancer screening—women	4	3	7	
Cholesterol screening and treatment—men 35+, women 45+	5	2		
Pneumococcal immunization—adults 65+	3	4		
Breast cancer screening—women 40+	4	2	6	
Chlamydia screening—sexually active women under 25	2	4		

Increasing the use of just FIVE preventive services would save more than 100,000 lives each year in the U.S.

Preventive Service	Additional Lives Saved Each Year
Aspirin Use to Prevent Heart Disease	45,000
Smoking Cessation Advice and Help to Quit	42,000
Colorectal Cancer Screening in Adults 50+	14,000
Influenza Immunization in Adults 50+	12,000
Breast Cancer Screening in Women 40+	4,000

# Preventative Testing

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- **Body Mass Index**
  - > Your body mass index, or BMI, is a measure of your body fat based on your height and weight. It is used to screen for obesity. You can find your BMI by visiting <http://www.nhlbisupport.com/bmi>.
- **Cholesterol**
  - > Once you turn 35 (or once you turn 20 if you have risk factors like diabetes, history of heart disease, tobacco use, high blood pressure, or BMI of 30 or over), have your cholesterol checked regularly. High blood cholesterol is one of the major risk factors for heart disease.
- **Blood Pressure**
  - > Have your blood pressure checked every 2 years. High blood pressure increases your chance of getting heart or kidney disease and for having a stroke. If you have high blood pressure, you may need medication to control it.
- **Cardiovascular Disease**
  - > Beginning at age 45 through age 79, ask your doctor if you should take aspirin every day to help lower your risk of a heart attack. How much aspirin you should take depends on your age, your health, and your lifestyle.
- **Colorectal Cancer**
  - > Beginning at age 50 and through age 75, get tested for colorectal cancer. You and your doctor can decide which test is best. How often you'll have the test depends on which test you choose. If you have a family history of colorectal cancer, you may need to be tested before you turn 50.
- **Other Cancers**
  - > Ask your doctor if you should be tested for prostate, lung, oral, skin, or other cancers

# Colon Cancer

## Why preventive care matters

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- Colorectal cancer is the third most commonly diagnosed cancer in the United States, In 2013, an estimated about 142,820 new cases of colorectal cancer will be diagnosed, split almost evenly between men and women. Colon cancer is estimated to have killed 50,830 in 2013!
- It is estimated that as many as 60 to 70 percent of colorectal cancer deaths could be prevented if all men and women aged 50 years or older were screened routinely.

# High Cholesterol

## Why should I get screened?

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- Having high blood cholesterol puts you at risk for heart disease, the leading cause of death in the United States. About one of every six adult Americans has high blood cholesterol.
- There are no symptoms of high cholesterol. Many people have never had their cholesterol checked, so they don't know they're at risk. A simple blood test can tell you your level. The good news is that there are steps you can take to prevent high cholesterol—or to reduce your levels if they are high.



# Cervical Cancer

## Why preventive care matters

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- All women are at risk for cervical cancer.
- Cervical cancer occurs most often in women over age 30.
- Cervical cancer is highly preventable because screening tests (such as the Pap test) and vaccines to prevent HPV infections are available.
- When cervical cancer is found early, it is highly treatable and associated with long survival and good quality of life.

# Breast Cancer

## Why preventive care matters

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- Aside from non-melanoma skin cancer, breast cancer is the most common form of cancer in women
- Breast cancer is the number one cause of cancer death in Hispanic women
- It is the second most common cause of cancer death in white, black, Asian/Pacific Islander, and American Indian/Alaska Native women
- In 2013, 232,340 new cases of breast cancer were diagnosed
- In 2013, 39,620 women died from breast cancer

# Prostate Cancer

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- Most common cancer in men
- Every 2.5 minutes an American is diagnosed with prostate cancer
- Every 15 minutes an American dies of prostate cancer

# PSA and Prostate Cancer

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- 1980s: 16% diagnosed with metastatic prostate cancer
- 2002: 4% diagnosed with metastatic prostate cancer
- Prostate cancer mortality rate declined 33% from 1993 to 2003
- 70% of men with elevated PSA have negative biopsies
- PSA can fluctuate by 36% day to day
- Prostate Biopsy - 1 in 200 will have a serious infection or urinary retention

# PSA and Prostate Cancer Screening

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- PSA increases the detection of organ confined prostate cancer
- Serial PSA screening improves the ability to detect organ confined prostate cancer
- PSA detects 2x as many cancers as DRE

# Screening Men with a Family History

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- 2-3 fold increased risk if first-degree relative with prostate cancer (Keetch, J Urol, 1995; Walsh, Cancer, 1997)
- Younger age at presentation
- Begin screening at age 40

# Prostate Cancer Incident and Death Rates by Race and Ethnicity, 2000-2004 Cancer Statistics (per 100,000)

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<b>Caucasian</b>	<b>African American</b>	<b>Asian American</b>	<b>American Indian</b>	<b>Hispanic</b>
161.4	255.5	96.5	68.2	140.8
25.6	62.3	11.3	21.5	21.2

# Prostate Cancer Screening Recommendations

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- Baseline PSA and DRE at 40 if PSA <1 repeat at 45 if still <1, at 50 (then regular screening if <1)
- If high risk because African American, family history or PSA >1, annual PSA and DRE at 40 (category 2B)
- Routine screening less frequent in older men (65-75) and not advocated especially >75



# What's a person to do?

## Practical Tips

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- Physicians Health Study II (450,000 participants) effects of multivitamin supplementation on cognitive function, cardiovascular disease, cancer and age related eye disease- no difference (Ann. Int. Med. 2013)
- Randomized Double blind study (1708 patients) 28 component high dose multivitamin or placebo- risk of recurrent cardiac events unchanged (Ann. Int. Med. 2013)
- Zinc for colds- studies indicate significant reduction in duration of cold symptoms (about 1 day). Recommended dose – 75mg/dy (Cochrane review 2013)

## Practical Tips

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- Lower Cerebrovascular Risk- fish consumption but not omega 3 fatty acid supplements
- Several large trials have consistently shown omega 3 fatty acid supplementation does not lower Cardiovascular disease. Eat fish- Atlantic salmon and trout a better bet
- General Health Checks- in asymptomatic people does not lower all cause cardiovascular or cancer mortality (Cochrane Review)
- Powered or Manual Toothbrushes- Powered toothbrushes provide statistically significant benefit for plaque reduction and reduction of gingivitis. Most of the evidence was for rotation oscillation brushes. (Cochrane Review)

## Practical Tips

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- Chocolate and red wine don't benefit heart after all. Prospective cohort study found that resveratrol (antioxidant found in red wine, grapes, dark chocolate and some berries) does not reduce the risk of heart disease or cancer. (JAMA 2014, John Hopkins Medicine)
- Get Immunized- Flu, 65 years+Pneumococcal Vaccine (PCV13 & PPSV23), Zostavax (age 60 but approved to be administered in age 50)
- Abdominal Aortic Aneurysm Screening- one time ages 65-75 in men who have ever smoked (studies show reduction in death from AAA but not improved overall mortality)

## Practical Tips

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- Artificial Sweetener- may cause glucose intolerance by altering the gut bacteria thus raising blood sugar levels (seen primarily at highest levels of artificial sweetener intake)
- Cup of Coffee- may be protective against Type II Diabetes and protective against heart failure (UCLA, Harvard School of Public Health)
- Regular coffee consumption may protect eyesight- coffee consumption may help prevent retinal degeneration. It may do this since it is high in chlorogenic acid (CGA) a powerful antioxidant. In mice models CGA treated mouse retinal cells showed increased viability.



**“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”**

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Questions?????

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