

WHY PLACE MATTERS
The Links Between Chronic Diseases and Tobacco Use, Physical Inactivity, and Poor Nutrition

PRESENTED BY:

- The Health Promotion and Chronic Disease Prevention Section of the Oregon Public Health Division
 - Sabrina Freewynn, MPH, Comprehensive Cancer Program Coordinator and Community Programs Liaison
 - Jacqueline Villnave, MPH, Diabetes Program Coordinator and Community Programs Liaison
 - Becky Wright, MPH, Heart Disease and Stroke Prevention Program Coordinator and Community Programs Liaison

CHRONIC DISEASE IN OREGON

- More than **60%** of adults in Oregon have at least one of these chronic conditions: arthritis, asthma, diabetes, heart disease, high blood pressure, high cholesterol, stroke.
- Half of all men will be diagnosed with cancer in their lifetime and ¼ will die from it.
- One third of all women will be diagnosed with cancer in their lifetime and 1/5 will die from it.

CHRONIC DISEASE IN OREGON

Common preventable risk factors for these diseases include:

- tobacco smoke exposure,
- being overweight or obese,
- little physical activity, and
- poor nutrition

CHRONIC DISEASE IN OREGON

In Oregon, **89%** of adults have at least one of these risk factors!

- How did this happen?
- Could it be our environment?
- Does place really matter?

WARM UP

- Remember back to your childhood...



ENVIRONMENTS SHAPE RISK FACTORS

- Where we live, learn, work, pray and play
 - Shapes behavior
 - Shapes risk factors



STREET DESIGN



LOCATION OF SIDEWALKS

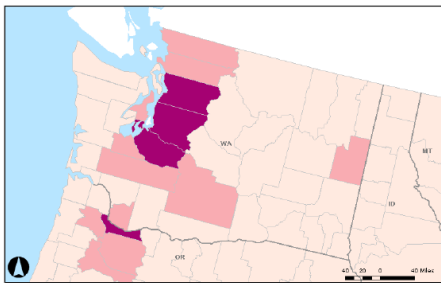


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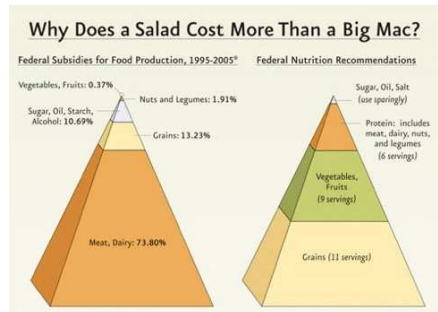
AVAILABILITY OF FAST FOOD



NUMBER OF GROCERY STORES IN WASHINGTON STATE



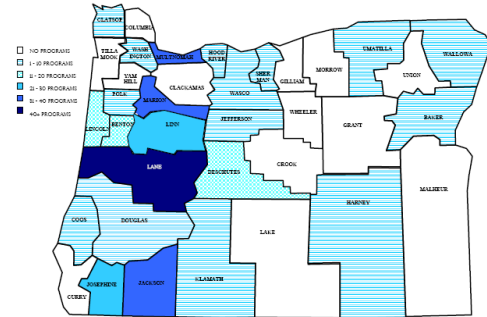
FEDERAL FARM SUBSIDIES



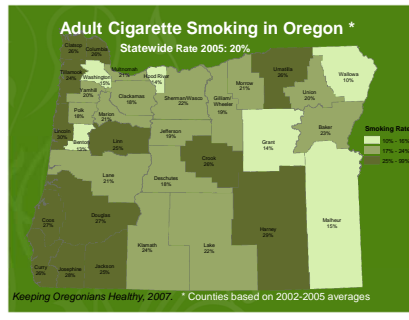
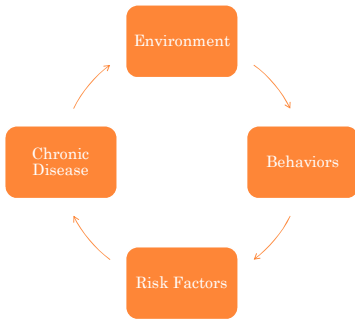
CONFLICTING MEDIA MESSAGES



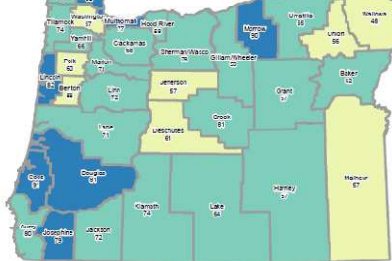
DISTRIBUTION OF LIVING WELL PROGRAMS (2005 – 2009 YTD)



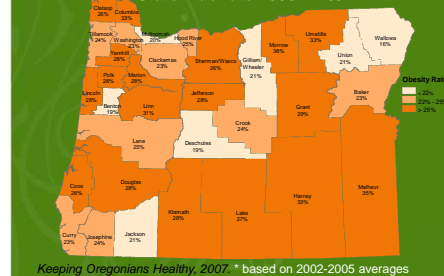
ENVIRONMENTS SHAPE CHRONIC DISEASE

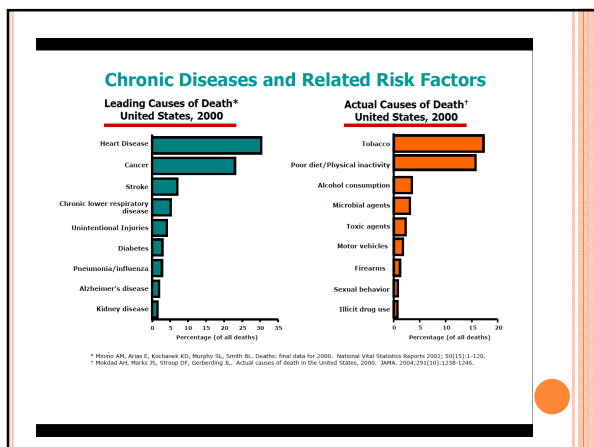
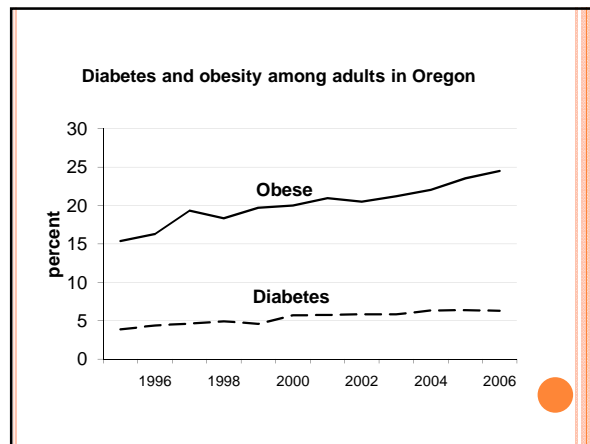
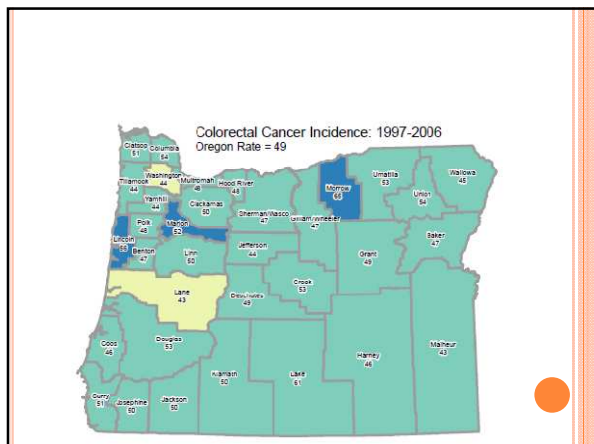


Lung and Bronchial Cancer Incidence: 1997-2006
Oregon Rate = 70



Adult Obesity in Oregon *
Statewide rate 2005: 22%





WHY SHOULD WE CARE?

- More than six of every ten adults in Oregon have at least one of these chronic conditions: arthritis, asthma, diabetes, heart disease, high blood pressure, high cholesterol, stroke.
- In 2005, hospitalization costs alone for these conditions in Oregon were more than **\$1.4 billion**.

WHY DO WE *REALLY* CARE?

- We are **all** affected by chronic disease
- Think of the most important people in your life.
- Think of other people who impact your life.
- How many of them deal with a chronic condition?
- How many of them have preventable risk factors?

SECONDHAND SMOKE AND HEART ATTACKS

- The Institute of Medicine concluded that exposure to secondhand smoke significantly increased the risk of a heart attack among both smokers and nonsmokers.
- Data from 11 studies in Canada, Italy, Scotland and the US show that smoking bans reduced the incidence of heart attacks from 6 to 47%, and that the reductions occurred shortly after the changes.

SALT AND CARDIOVASCULAR DISEASE

- High blood pressure is a major risk factor for heart disease and stroke
- A diet high in dietary salt is a risk factor for high blood pressure



TOBACCO AND CANCER

- Lung cancer is the leading cause of cancer death in Oregon, with over 80% of cases due to smoking.
- Tobacco use also leads to cancer in the throat, mouth, bladder, cervix, pancreas, kidney, and gastrointestinal tract, just to name a few.



NUTRITION, PHYSICAL ACTIVITY AND CANCER

The percentage of cancers that could be prevented via healthy diet, regular physical activity, and healthy weight in the US:

- Endometrium – 70%
- Esophagus – 69%
- Mouth, pharynx, & larynx – 63%
- Stomach – 47%
- Colon – 45%
- Pancreas – 39%
- Breast – 38%
- Lung – 36%
- Kidney – 24%
- Gallbladder – 21%
- Liver – 15%



TOBACCO AND DIABETES

- Smoking increases insulin resistance, leading to increased blood sugar levels
- Smoking affects circulation, decreasing blood flow to the feet, resulting in more foot amputations among those with diabetes
- Cessation has resulted in clinically significant improvements in HbA1c levels



PHYSICAL ACTIVITY AND DIABETES

- Physical activity reduces the risk of developing diabetes, even without weight loss.
- Physical activity improves glucose, blood pressure and cholesterol levels, which are critical in the management of complications from diabetes



TOBACCO AND ARTHRITIS

- The risk of developing rheumatoid arthritis is almost double for current smokers compared to non-smokers
- People with arthritis are at higher risk of falls, resulting in broken bones. The average time to heal from a broken bone was two months longer for smokers than non-smokers.



PHYSICAL ACTIVITY AND ARTHRITIS

- Physical activity is important in the management of arthritis because it can keep muscles around affected joints strong, decrease bone loss, and reduce joint swelling and pain.
- Excess body weight contributes to both the onset and progression of arthritis. Physical activity is important to maintain a healthy body weight.



TOBACCO AND ASTHMA

- Second hand smoke is associated with the development of asthma in pre-school aged children
- Second hand smoke is a trigger for asthma attacks

PHYSICAL ACTIVITY AND ASTHMA

- Physical activity can help manage stress and reduce obesity
 - Stress is a common trigger for asthma
 - Obesity makes it more difficult to manage asthma

GROUP ACTIVITY



DISCUSSION

In groups of twos or threes role play or discuss the challenging questions you face:

- What about personal freedom and individual choice?
- Don't the people we work with have more important issues to deal with?

DEBRIEF

- How does changing the environment support individual choice and freedom?

GROUP ACTIVITY



WHERE CAN WE GO FROM HERE

- In a Mental Health and Addictions context (as an example), what needs to change in the environment to help staff and clients prevent and manage chronic disease?
- What policies and systems changes would help us get there?

SUMMARY

- Chronic disease is a common and expensive problem
- Preventable risk factors are shared by many chronic diseases. They are behavior based and shaped by our environment
- There is an interplay between the environment and individual behavior choice
- Policy options exist for creating supportive environments for the prevention and management of chronic diseases

RESOURCES

- Centers for Disease Control, Arthritis Risk Factors. Available at http://www.cdc.gov/arthritis/basics/risk_factors.htm
- World Cancer Research Fund/American Institute for Cancer Research. Policy and Action for Cancer Prevention. Food, Nutrition, and Physical Activity: a Global Perspective. Washington DC: AICR 2009. Available at <http://www.dietandcancerreport.org/>
- Centers for Disease Control, Prevent Diabetes. Available at <http://www.cdc.gov/diabetes/consumer/prevent.htm>
- Centers for Disease Control, Heart Disease Prevention. Available at http://www.cdc.gov/heartdisease/what_you_can_do.htm

RESOURCES, CON'T.

- Keener, D., Goodman, K., Lowry, A., Zaro, S., & Kettel Khan, L. (2009). *Recommended community strategies and measurements to prevent obesity in the United States: Implementation and measurement guide*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Available at: http://www.cdc.gov/obesity/downloads/community_strategies_guide.pdf

RESOURCES, CONT.

- Centers for Disease Control and Prevention. *Community Health Assessment aNd Group Evaluation (CHANGE) Action Guide: Building a Foundation of Knowledge to Prioritize Community Needs*. Atlanta: U.S. Department of Health and Human Services, 2010. Available at: <http://www.cdc.gov/healthycommunitiesprogram/tools/change.htm>
- Centers for Disease Control and Prevention. Community Guides, including obesity, physical activity, nutrition, tobacco. Available at: <http://www.thecommunityguide.org/index.html#topics>

ASTHMA


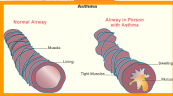
What is asthma?
 •Asthma is a chronic disease involving inflammation of the airways, causing wheezing, shortness of breath, chest tightness, and coughing.
 •Asthma symptoms may be triggered by factors including allergens (e.g. mold, dust mites) and irritants (e.g. secondhand smoke, ozone, particulates).

Who has asthma?
 •10% of Oregonians (both adults and children) have asthma.
 •In 2009, Oregon was in the top five states for the highest percentage of the adult population with asthma.
 •Rates are higher among African Americans (15.5%), American Indian/Alaskan Natives (15.2%), and homosexual or bisexual individuals (16.0%) – groups known to have high smoking rates.
 •Oregonians without a college education, with lower income, or on Medicaid or the State Children's Health Insurance Program (CHIP), are more likely to have asthma.

Risk factors include tobacco & obesity
 •Oregonians who currently smoke are more likely to have asthma (27.3%) than those who have never smoked (9.7%).
 •Extremely obese people are twice as likely to report having asthma (19.3%) as compared to healthy weight individuals (7.2%).

Policy Options to Reduce the Burden of Asthma
 •Smoketox workshops, multi-unit housing, and parks
 •Allowing students with asthma to carry their inhalers at school
 •Reimbursement for evidence-based self-management programs

Cost of asthma
 •The total cost of Oregon asthma hospitalizations in 2008 was more than \$28 million.
 •Additional costs include doctor visits, medications, and value of lost time from school and work.

DIABETES

What is diabetes?
 Diabetes is a chronic disease in which the body does not produce or use insulin adequately to maintain normal glucose (sugar) levels in the blood. Uncontrolled, it can lead to complications such as blindness, amputations, heart disease, nerve damage, and kidney failure. It requires diligent, daily management.

Who has diabetes?
 •6.3% of adults in Oregon have diabetes, higher than the national average.
 •Rates are higher among African Americans (13%), American Indian/Alaska Natives (12%), Hispanic/Latino (10%), and Asian/Pacific Islanders (7%)
 •Over 15% of Oregonians age 65 and older have diabetes.
 •It is estimated that more than twice as many adults with diabetes have prediabetes, which puts a person at high risk for developing diabetes.

Cost of Diabetes
 •In Oregon, it costs the public and private health care systems \$1.4 billion each year to treat diabetes.
 •These costs do not reflect the toll in human suffering experienced by those with diabetes and their families.

Risk factors include obesity & tobacco
 •Obesity puts people at high risk for diabetes and prediabetes, and the development of complications. Achieving and maintaining a healthy weight is very effective in managing diabetes.
 •Tobacco use makes it difficult to control blood glucose levels, and increases the risk of complications.

Policy Options to Reduce the Burden of Diabetes in Oregon
 •Menu labeling
 •Tax on sugar sweetened beverages
 •Reimbursement for evidence based self management programs.
 •Smoke free housing, parks and public venues.



Arthritis

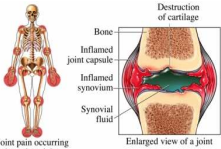
What is arthritis?
 Arthritis is the term used to describe more than 100 rheumatic diseases and conditions that affect joints, the tissues which surround the joint and other connective tissue. Arthritis is characterized by pain and stiffness in and around one or more joints. Arthritis is the most common cause of disability in the nation.

Who has arthritis?
 •26% of adults in Oregon have clinically diagnosed arthritis.
 •It is estimated that over 1.8 million adults in Oregon have arthritis or chronic joint symptoms.
 •Adult females (31%) are more likely to have arthritis than adult males (21%).
 •Arthritis is more prevalent among older Oregonians.
 •Prevalence of arthritis is higher among people living in households with low income levels.

Obesity is a risk factor
 •Being overweight or obese increases a person's risk for developing osteoarthritis.
 •Arthritis makes it more difficult for people to be physically active, and not being physically active is a risk factor for many chronic diseases.
 •A sedentary lifestyle has been linked to increased morbidity in people with arthritis.

Policy Options to Reduce the Burden of Arthritis in Oregon
 •Reimbursement for evidence based self management programs.
 •Physical activity interventions such as the Arthritis Foundation Exercise Program
 •Menu labeling
 •Tax on sugar sweetened beverages

Cost of Arthritis
 •In Oregon, the cost of hospitalizations involving joint replacement for people with rheumatoid arthritis or osteoarthritis costs more than \$247 million each year.
 •Additional costs include medications, healthcare visits and the value of lost time from work.



Cardiovascular Disease

What is cardiovascular disease?
 Cardiovascular disease includes heart disease and stroke, high blood pressure, and disease of peripheral blood vessels. Heart disease is any disease that affects the structure or function of the heart, including coronary artery disease, heart failure, and congestive heart failure. Stroke is damage to the brain caused by an interruption in its blood supply - this can happen through a blood vessel bursting (hemorrhagic stroke), or, more commonly, when blood flow is cut off (ischemic stroke). High blood pressure is a major risk factor for heart disease, stroke, congestive heart failure and kidney disease.


Who has cardiovascular disease?
 •The prevalence of high blood pressure among Oregon adults is 27%. This is higher among African Americans at 42% and American Indian/Alaska Natives at 30%.
 •African Americans consistently have higher death rates than other racial/ethnic populations for stroke.

Risk factors include obesity & tobacco
 •The risk of cardiovascular disease persists even at one to two cigarettes smoked a day
 •Smoking 15 cigarettes a day can increase the risk for stroke by up to four times
 •Chewing tobacco more than doubles the risk of heart attack
 •Excess body weight raises LDL cholesterol and triglyceride levels, and increases blood pressure and incidence of Type 2 Diabetes. These contribute to hardening of the arteries and ultimately heart disease.

Policy options to reduce the burden of cardiovascular disease
 •Reimbursement for evidence based self management programs.
 •Smoke free housing, parks and public venues.
 •Menu labeling
 •Tax on sugar sweetened beverages

Cost of cardiovascular disease
 •Thousands of Oregonians are hospitalized each year for heart attack, heart failure, or stroke.
 •The total cost for hospitalizations alone was more than \$1.2 billion in Oregon.

In Oregon, heart disease is the 2nd leading cause of death and stroke is the 4th leading cause of death.



Cancer

What is cancer?
 Cancer is a term used for diseases in which abnormal cells divide without control and are able to invade other tissues. Cancer is not just one disease but many diseases. There are more than 100 different types of cancer.

Who has cancer?
 Approximately 1/3 of all men and 1/4 of all women will be diagnosed with cancer in their lifetime.
 On an average day in 2006, 55 Oregonians were diagnosed with cancer and 20 died from it.
 Someone is considered a cancer survivor from the day they are diagnosed.

Risk Factors for Cancer
 •Tobacco is the number one modifiable risk factor for cancer. It is estimated that 1/3 of all cancers are due to tobacco use.
 •Obesity, physical inactivity and poor diet together are the second leading modifiable risk factor for cancer. Estimates are harder, but current thinking is that up to 1/3 of all cancers are due to these factors.
 •Additional risk factors include environmental exposures such as workplace carcinogens and sunlight, genetic predisposition, alcohol, and some viruses and bacteria.

Screening for Cancer
 There are only three cancers for which screenings are recommended for everyone of the appropriate age and gender:
 •Colorectal cancer screening for everyone 50-74 years old. In 2008, Oregon's screening rate was 59.2%.
 •Breast cancer screening is recommended for all women 50 and over (or 40 and over depending on the guidelines). In 2008, Oregon's screening rate was 82.1%.
 •Cervical cancer screening is recommended for all sexually active women 21 and over. In 2008, Oregon's screening rate was 84.3%.

Cost of cancer
 •Cancer is the leading cause of death for Oregonians. In 2006, 7,401 Oregonians died due to cancer.
 •The annual cost of cancer in Oregon is approximately \$2.6 billion in 2007 dollars. This includes only direct health care costs and indirect costs due to premature mortality.

