A collection of symbolic objects including a chessboard, medals, a compass, and glasses. The chessboard is in the top left, with several pieces visible. Below it are two medals: one with a red ribbon and a crown, and another with a white star and a central emblem. A pair of glasses with thin frames and red-tipped temples is positioned diagonally across the center. In the bottom left corner is a round compass with a white face and black markings. The background is a light-colored, textured surface.

Evaluating Co-morbid Conditions to Improve Sales Placement

Denise Liston, RN
LifePlans, Inc.
2005 National LTCi Producers Summit
October 2005



Where are we going?

- ◆ What does co-morbid mean
- ◆ Tips on where conditions can be identified
- ◆ Some common conditions
 - Diabetes
 - Cardiovascular Disease



Let's Define it.....

co•mor•bid (k -môr b d) *adj.*

- ◆ Coexisting or concomitant with an unrelated pathological or disease process.
- ◆ Pertaining to two or more disorders simultaneously
- ◆ A disorder that is present in association with another
- ◆ A secondary diagnosis or consideration that affects the primary diagnosis



Basically.....

- ◆ Two conditions when put together can create increased risk and therefore more careful investigation is required to assure good control and stability



Does your applicant have one?

- ◆ Maybe.....
 - Ask what medications are taken for treatment
 - then
 - Check your agent guide
 - then
 - Call the underwriting hotline
- ◆ A company indicating consideration of an application does not guarantee placement



Understanding Co-morbid is...

...the first line of defense in assuring your application gets approved

...something you need to consider and investigate on every client

...when you can read between the lines to flush out the real deal

...when you can consistently place 90% of your written applications



Where are they identified?

- ◆ Your agent guide
 - ...is also a place for you to keep notes as you gather new information
 - ...not all inclusive
 - ...is your best friend when selling LTC
- ◆ Investigative skills
 - current medications are a good first line of defense
 - probing questions
 - clarify with a physician if something does not make sense



Diabetes is...

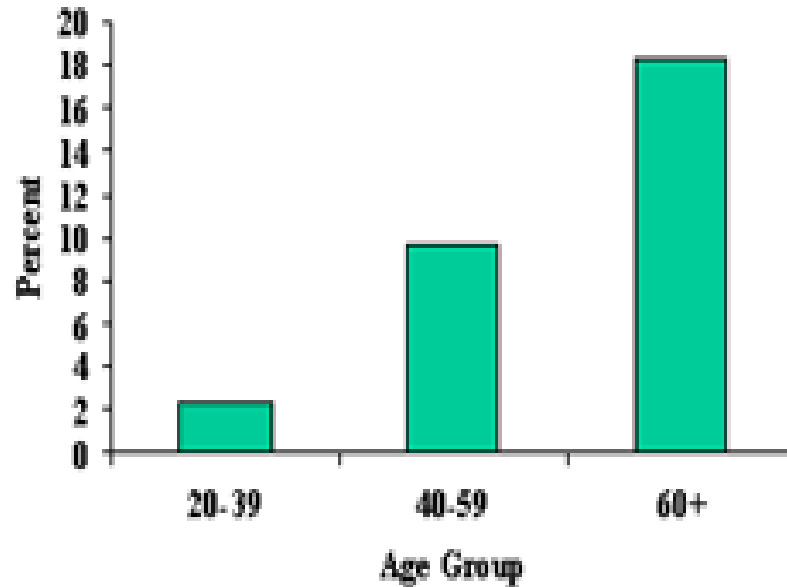
- ◆not a single disease but rather refers to a group of related disorders, all of which result in persistent abnormally high blood sugar levels.
- ◆ Insulin, produced by the pancreas, is needed to enable sugar to enter the cells of the body. Problems that interfere with the production of insulin, or its effectiveness, can cause diabetes mellitus. In addition to persistently high blood sugars there are abnormalities in blood lipids and damage to the endothelial linings of the blood vessels.
- ◆ Damage to the small blood vessels which supply many organs results in impaired circulation to, and subsequently, damage of the respective structures. This "end organ damage" is a hallmark of the diabetic state, representing the expression of vascular damage to the eye, kidney, nerves to various organs, and coronary arteries, among others.



US Prevalence of Diabetes

- ◆ **Total:** 18.2 million people - 6.3% of the population - have diabetes.
- ◆ **Diagnosed:** 13 million people
- ◆ **Undiagnosed:** 5.2 million people
- ◆ **Men:** 8.7 million or 8.7% of all men aged 20 years or older have diabetes
- ◆ **Women:** 9.3 million or 8.7% of all women aged 20 years or older have diabetes.

Total prevalence of diabetes in people aged 20 years or older, by age group—United States, 2002

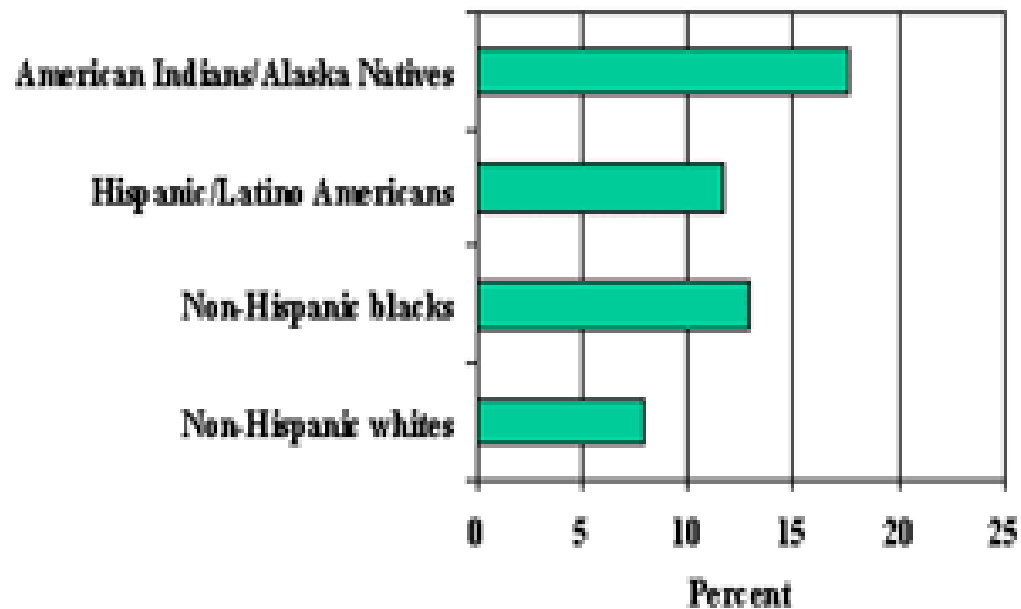


Source: 1999-2001 National Health Interview Survey and 1999-2000 National Health and Nutrition Examination Survey estimates projected to year 2002

LifePlans

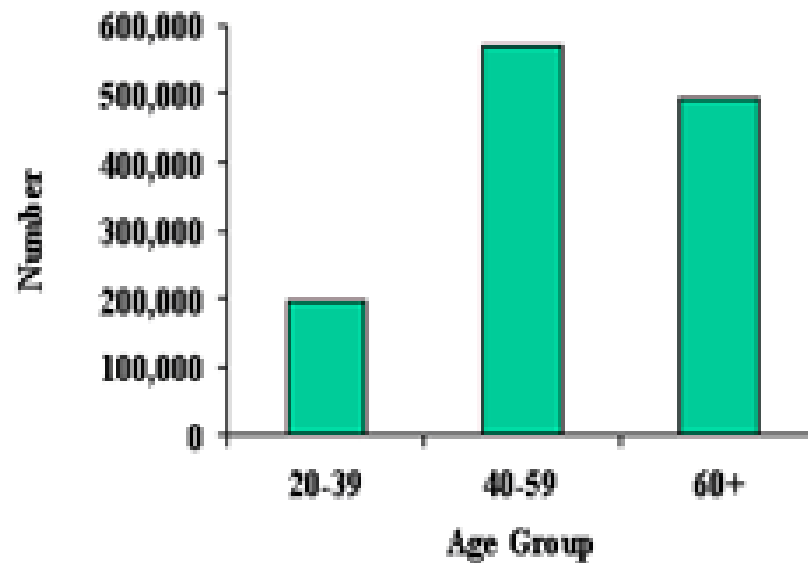
Experience
Quality
Innovation

Age-adjusted total prevalence of diabetes in people aged 20 years or older, by race/ethnicity—United States, 2002



Source: 1999-2001 National Health Interview Survey and 1999-2000 National Health and Nutrition Examination Survey estimates projected to year 2002. 2002 outpatient database of the Indian Health Service.

Number of new cases of diagnosed diabetes in people aged 20 years or older, by age group—United States, 2002



Source: 1999–2001 National Health Interview Survey estimates projected to year 2002



Heart Disease and Stroke

- ◆ Heart disease is the leading cause of diabetes-related deaths. Adults with diabetes have heart disease death rates about 2 to 4 times higher than adults without diabetes.
- ◆ The risk for stroke is 2 to 4 times higher among people with diabetes.
- ◆ About 65% of deaths among people with diabetes are due to heart disease and stroke.



Hypertension

- ◆ About 73% of adults with diabetes have blood pressure greater than or equal to 130/80 (mm Hg) or use prescription medications to control hypertension.



Blindness

- ◆ Diabetes is the leading cause of new cases of blindness among adults 20-74 years old.
- ◆ Diabetic retinopathy causes from 12,000 to 24,000 new cases of blindness each year.



Kidney Disease

- ◆ Diabetes is the leading cause of treated end-stage renal disease, accounting for 43% of new cases.
- ◆ In 2000, 41,046 people with diabetes began treatment for end-stage renal disease.
- ◆ In 2000, a total of 129,183 people with diabetes underwent dialysis or kidney transplantation.



Nervous System Disease

- ◆ About 60% to 70% of people with diabetes have mild to severe forms of nervous system damage. The results of such damage include impaired sensation or pain in the feet or hands, slowed digestion of food in the stomach, carpal tunnel syndrome, and other nerve problems.
- ◆ Severe forms of diabetic nerve disease are a major contributing cause of lower-extremity amputations.



Amputations

- ◆ More than 60% of non-traumatic lower-limb amputations in the United States occur among people with diabetes.
- ◆ From 2000 to 2001, about 82,000 non-traumatic lower-limb amputations were performed each year among people with diabetes.



Other Complications

- ◆ Uncontrolled diabetes often leads to biochemical imbalances that can cause acute life-threatening events, such as diabetic ketoacidosis and hyperosmolar coma.
- ◆ People with diabetes are more susceptible to many other illnesses and, once they acquire these illnesses, often have worse prognoses than people without diabetes. For example, they are more likely to die with pneumonia or influenza than people who do not have diabetes.




Costs of Diabetes

- ◆ **Total (direct and indirect):** \$132 billion
- ◆ **Direct medical costs:** \$92 billion
- ◆ **Indirect costs:** \$40 billion (disability, work loss, premature mortality)



Diabetes...what to look for...

- ◆ Age
- ◆ Gender
- ◆ Blood sugar control – A1c
- ◆ Nephropathy
- ◆ Smoking
- ◆ Obesity
- ◆ Cardiovascular Disease
- ◆ Hypertension
- ◆ Stroke/TIA
- ◆ Neuropathy, Peripheral Vascular Disease
- ◆ Amputation
- ◆ Retinopathy, Retinal Disease/Blindness



Cardiovascular Disease & Stroke is...

- ◆ Refers to diseases of the heart and diseases of the blood vessel system (arteries, capillaries, veins) within a person's entire body, such as the brain, legs, and lungs.
- ◆ disease affecting the heart or blood vessels. Cardiovascular diseases include arteriosclerosis, coronary artery disease, heart valve disease, arrhythmia, heart failure, hypertension, orthostatic hypotension, shock, endocarditis, diseases of the aorta and its branches, disorders of the peripheral vascular system, and congenital heart disease.
- ◆ Any abnormal condition characterized by dysfunction of the heart and blood vessels. CVD includes atherosclerosis (especially coronary heart disease which can lead to heart attacks), cerebrovascular disease (eg, stroke), and hypertension (high blood pressure).

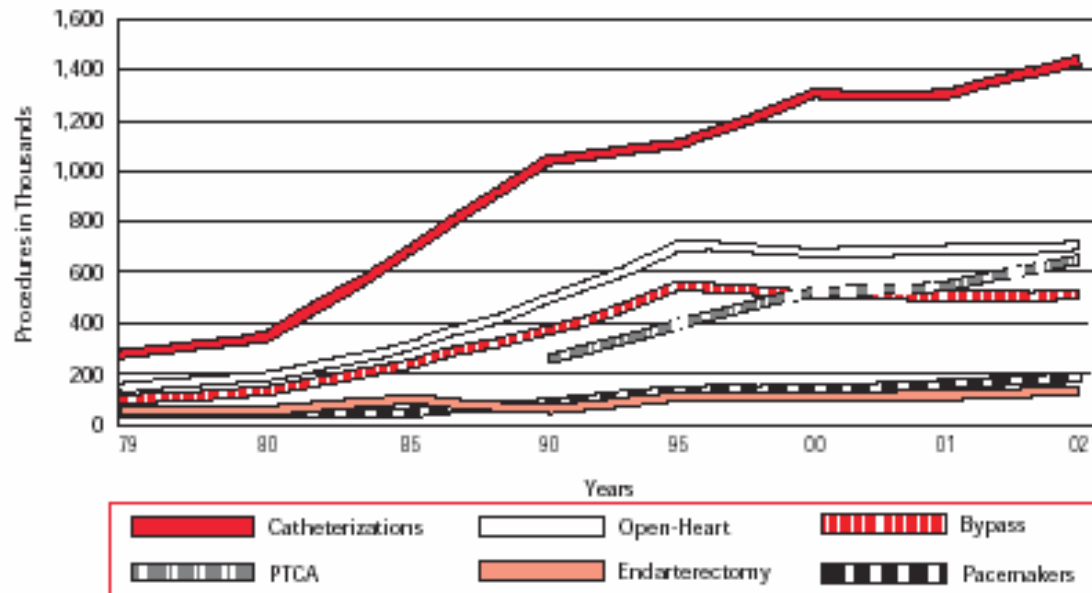


US Prevalence of Cardiovascular Disease (CVD)

- ◆ **Total:** 70.1 million people – will have one or more types of CVD, 27 million are estimated to be age 65 and older
- ◆ **Diagnosed:** 1 of every 4 people has been diagnosed with some form of CVD
 - ◆ 65 million - hypertension
 - ◆ 13 million - coronary heart disease
 - ◆ 4.9 million – congestive heart failure
 - ◆ 5.4 million – stroke
 - ◆ 1 million – congenital cardiovascular defect

Trends in Cardiovascular Operations and Procedures

Trends in Cardiovascular Operations and Procedures
United States: 1979–2002



Source: CDC/NCHS.



Cardiovascular Incidence

- ◆ The average annual rates of first major cardiovascular events rise for 7/1000 men at ages 35-44 to 68/1,000 at ages 85-94.
- ◆ Under age 75, a higher portion of CVD events due to coronary heart disease occur in men and a higher proportion of events due to congestive heart failure occur in women.



Risk Factors

- ◆ Tobacco
- ◆ High Cholesterol
- ◆ Physical Inactivity
 - 38.6% of the US population reports no leisure time activities
- ◆ Overweight & Obesity
 - Annual cost of obesity related diseases is \$100 million per year
- ◆ Diabetes



Risk Factors...

◆ Stroke

- 700,000 Americans, or one every 45 seconds, will have a stroke this year
- Stroke is the number 3 cause of death and the leading cause of severe long term disability



Costs of Cardiovascular Disease

- ◆ **Total (direct and indirect):** \$393.5 billion
- ◆ **Direct medical costs:** \$241.9 billion
- ◆ **Indirect costs:** \$151.6 billion (disability, work loss, premature mortality)



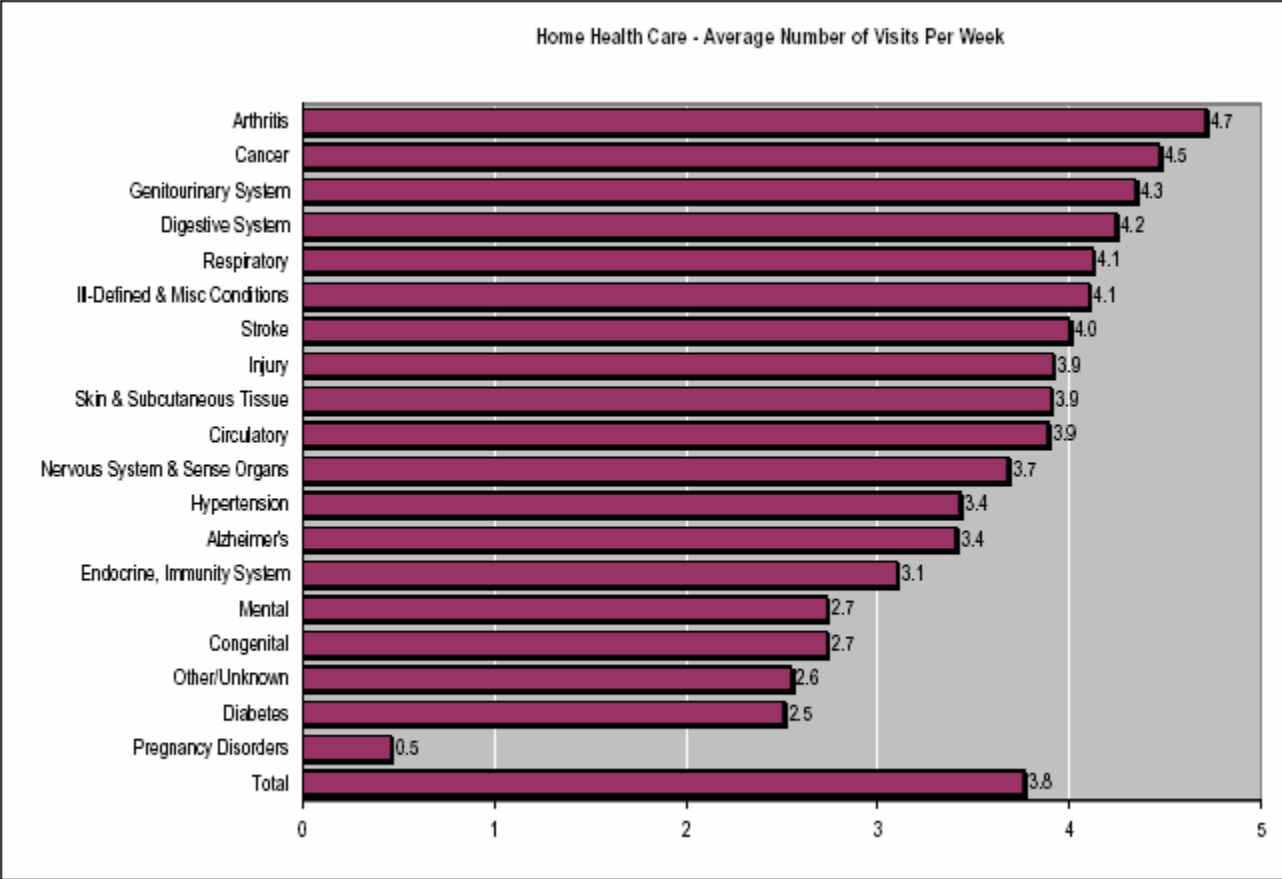
Cardiovascular Disease...what to look for...

- ◆ Age
- ◆ Smoking
- ◆ Obesity
- ◆ Lifestyle – physical activity
- ◆ Chest pain or pressure
- ◆ Past history of Cardiovascular Disease
- ◆ Irregular heart beat – atrial fibrillation
- ◆ Hypertension
- ◆ Stroke/TIA
- ◆ Non- cardiac circulatory problems



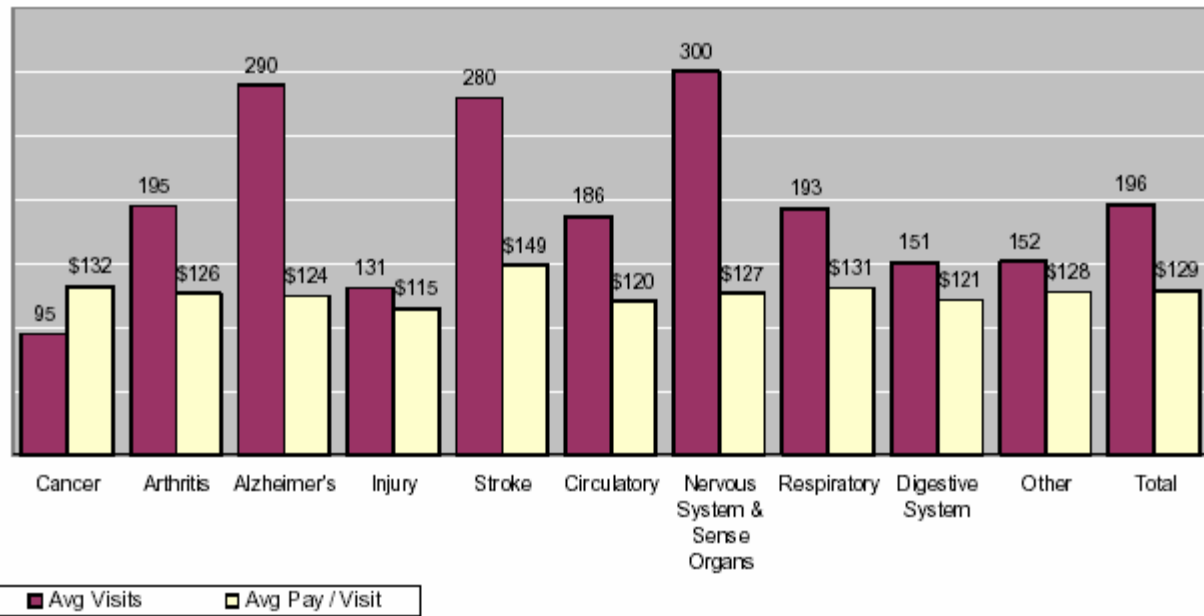
LTC Costs – Diabetes and CVD

- ◆ Home Care Claims by primary diagnosis
 - Diabetes 5%
 - Cardiovascular Disease 89%
 - Dementia 95%
- ◆ Cost of Claim
 - 428.4 days on average
 - \$48,796 average claim expenditure



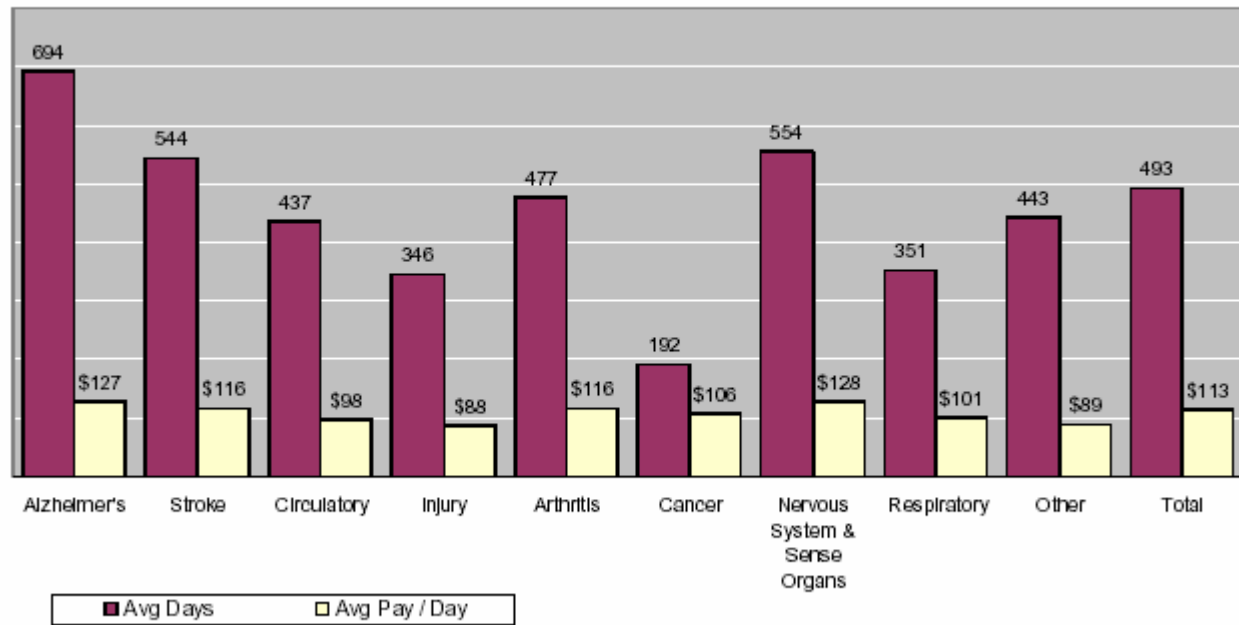



Home Health Care - Average Visits and Payments





Nursing Home - Average Days and Payments



- 
- ◆ Now on to our next speaker
 - Bruce Margolis, D.O.
 - Genworth Financial



GenworthSM
Financial

Understanding Comorbidity

1 + 1 = 3

2005 National LTCi Producers Summit
October 18, 2005

Agenda

- **Build**
 - Obesity
 - Arthritis
 - Underweight
 - Osteoporosis
- **Depression**
 - Fibromyalgia
 - Chronic Fatigue Syndrome
- **Field Considerations**

Obesity

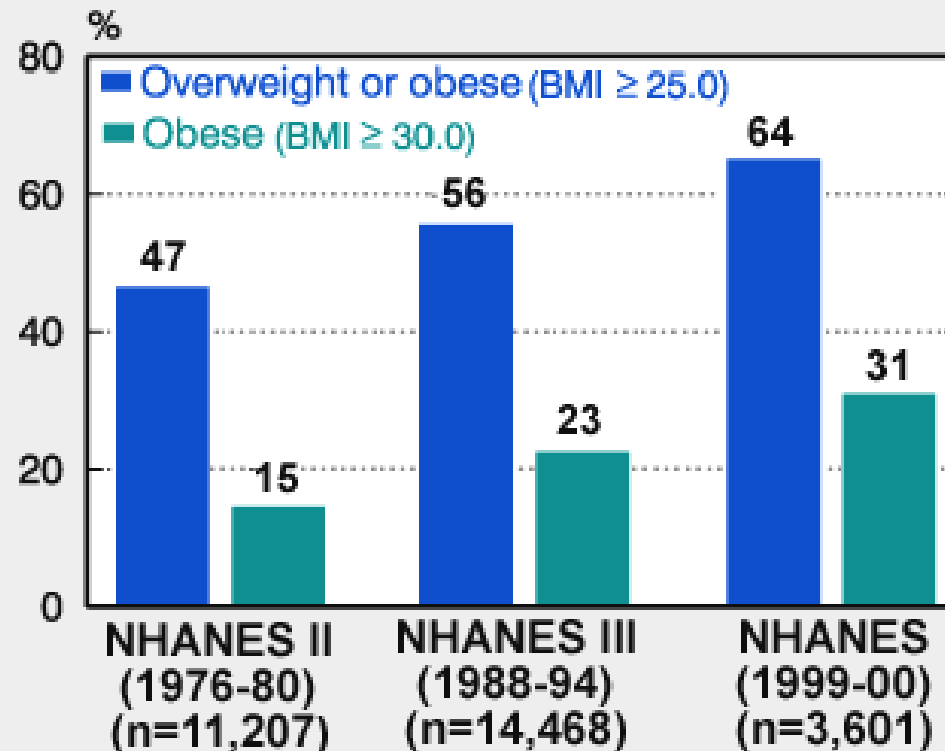
- **Fast Facts**

- 64% US adults overweight or obese
- 150,000 deaths/year in US associated with obesity
- Economic cost of obesity in US estimated at \$ 117B (2000)
 - Approximately 8% healthcare budget
- Less than 1/3 adults engage in recommended physical activity
- 40% US adults do not participate in any leisure time physical activity

Adapted from: www.surgeongeneral.gov/topics/obesity/calltoaction/fact_glance.htm

Obesity

Figure 2. Age-adjusted* prevalence of overweight and obesity among U.S. adults, age 20-74 years



*Age-adjusted by the direct method to the year 2000 U.S. Bureau of the Census estimates using the age groups 20-39, 40-59, and 60-74 years.

Obesity

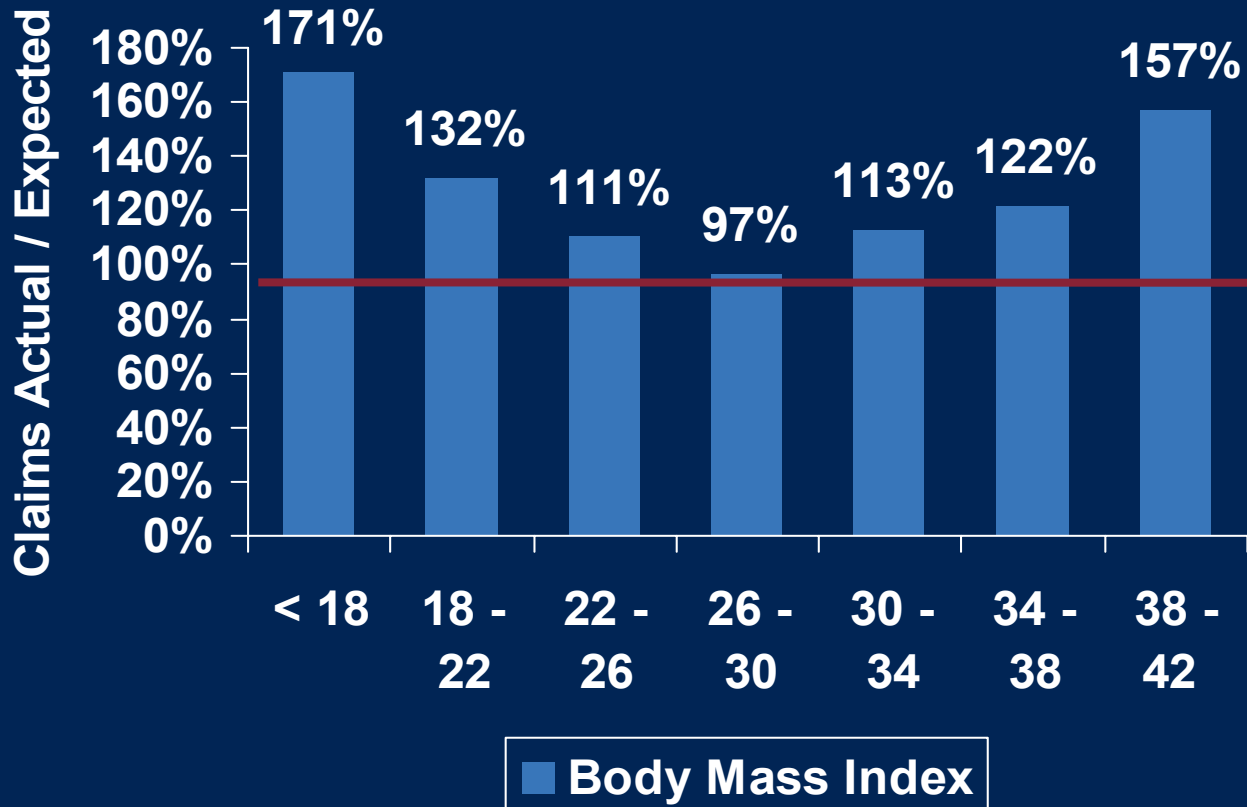
- **Health Consequences**
 - Hypertension
 - Type 2 Diabetes/Metabolic Syndrome
 - Coronary Artery Disease
 - Stroke
 - Osteoarthritis
 - Sleep Apnea
 - Cancer
 - Depression

The Obesity Epidemic

- **UnumProvident Short Term Disability Experience (1996-2003)**
 - 4000% increase fibromyalgia, chronic fatigue syndrome, irritable bowel syndrome
 - 100% increase hypertension
 - 100% increase diabetes
 - 78% increase musculoskeletal disorders
 - 63% increase in cancer
 - 46% increase in back disorders
 - 17% increase cardiovascular disease

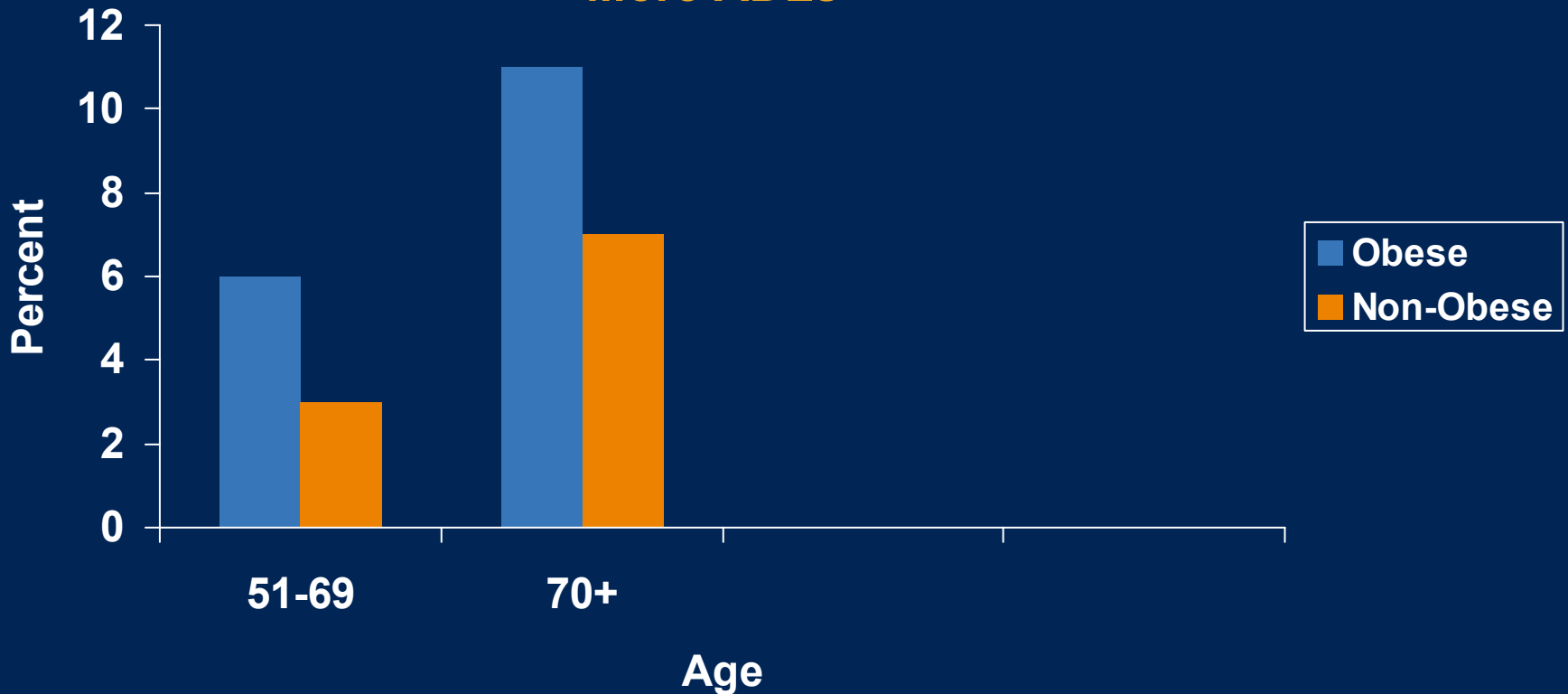
http://www.unumprovident.com/newsroom/news/corporate/08182004_Obesity.aspx

Obesity



Obesity

Proportion of Adults 51+ Having Difficulty with 3 or More ADLs



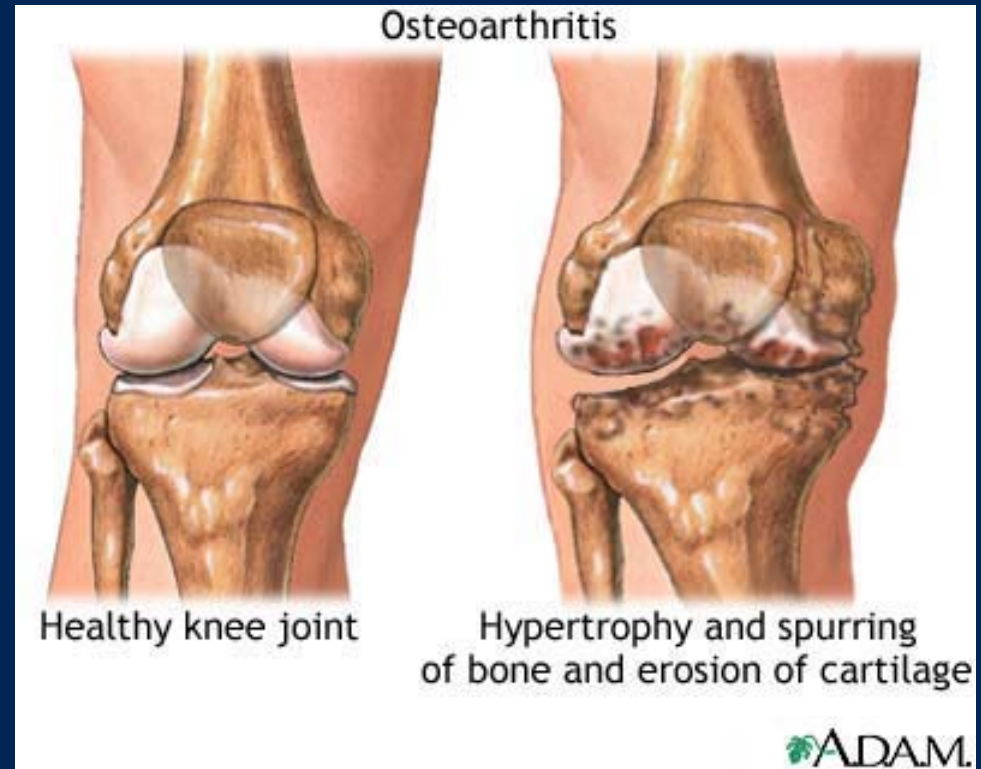
Center on an Aging Society analysis of data from the 2000 National Health Interview Survey

Osteoarthritis

- **What Is It?**
 - Progressive Loss of Joint Cartilage
 - Excess Bone Formation
- **Risk Factors**
 - Overweight
 - Age
 - Joint Injury
 - Job or Sports Related Joint Stress

Osteoarthritis

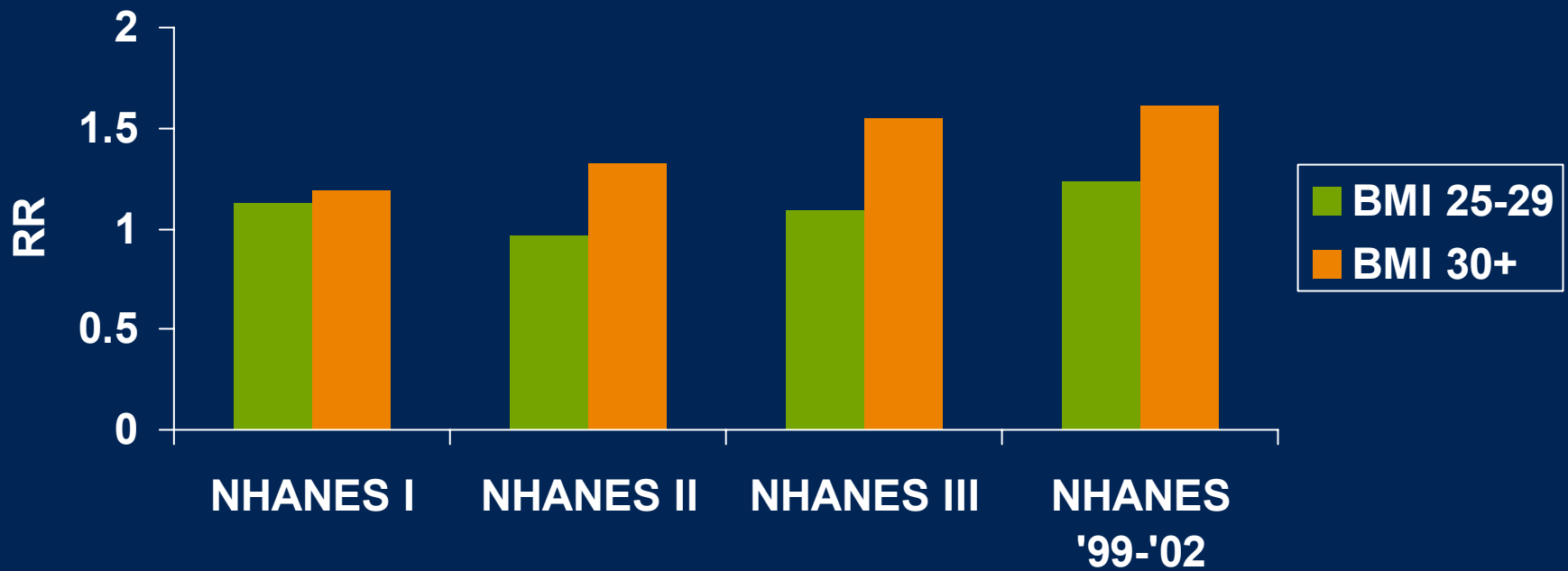
- **Symptoms**
 - Pain
 - Stiffness
 - Swelling
 - Joint Distortion
 - Loss of Function
- **Treatment**
 - Exercise
 - Weight Control
 - Physical Therapy
 - Pain Relief
 - Anti-inflammatory Agents
 - Surgery



www.nlm.nih.gov/medlineplus

Osteoarthritis

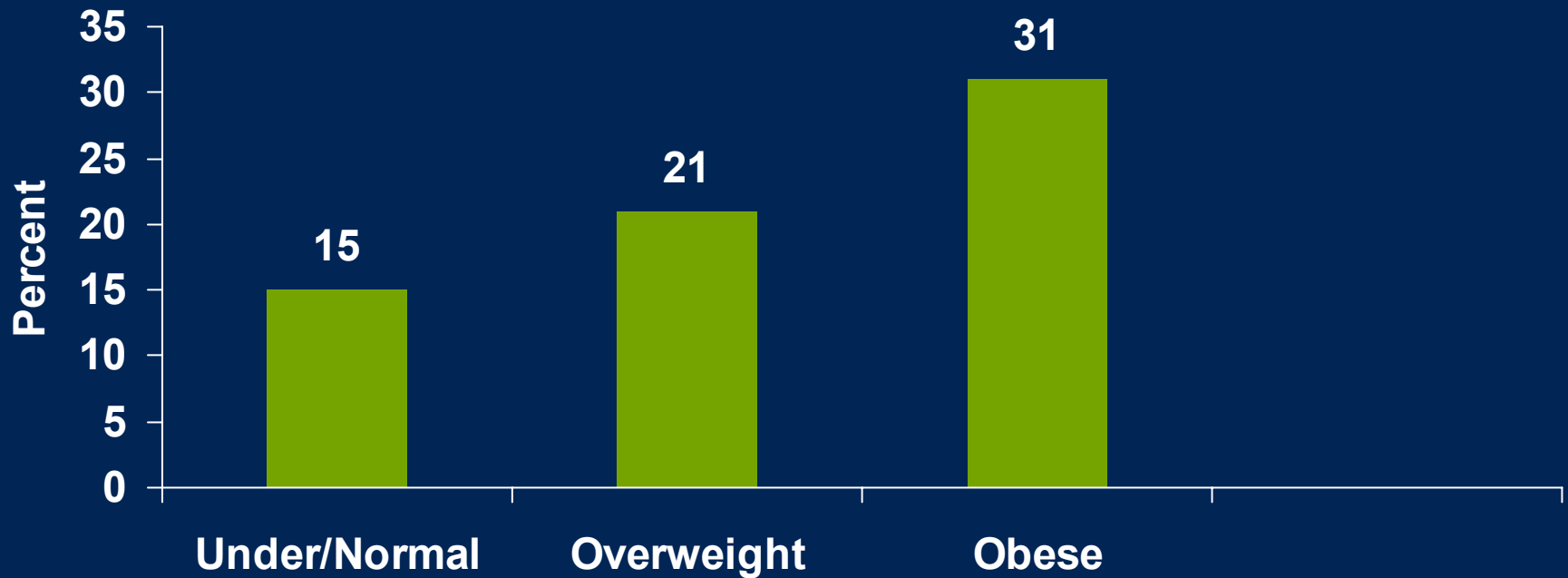
Relative Risk of Arthritis



Leveille AG, et al. Am J Pub Hlth. 2005;95:1607

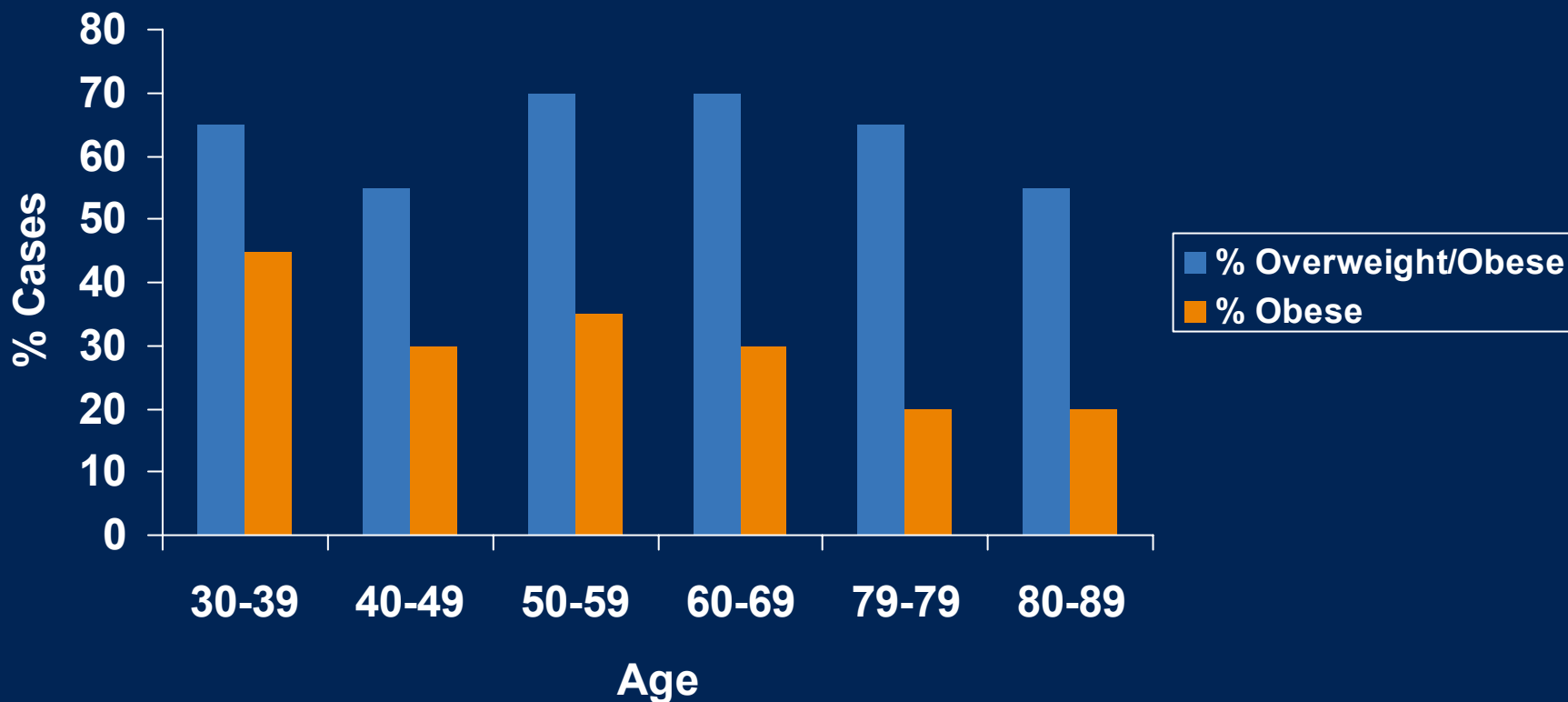
Osteoarthritis

Doctor Diagnosed Arthritis



Arthritis Rheum 1998; 41:1343

Osteoarthritis

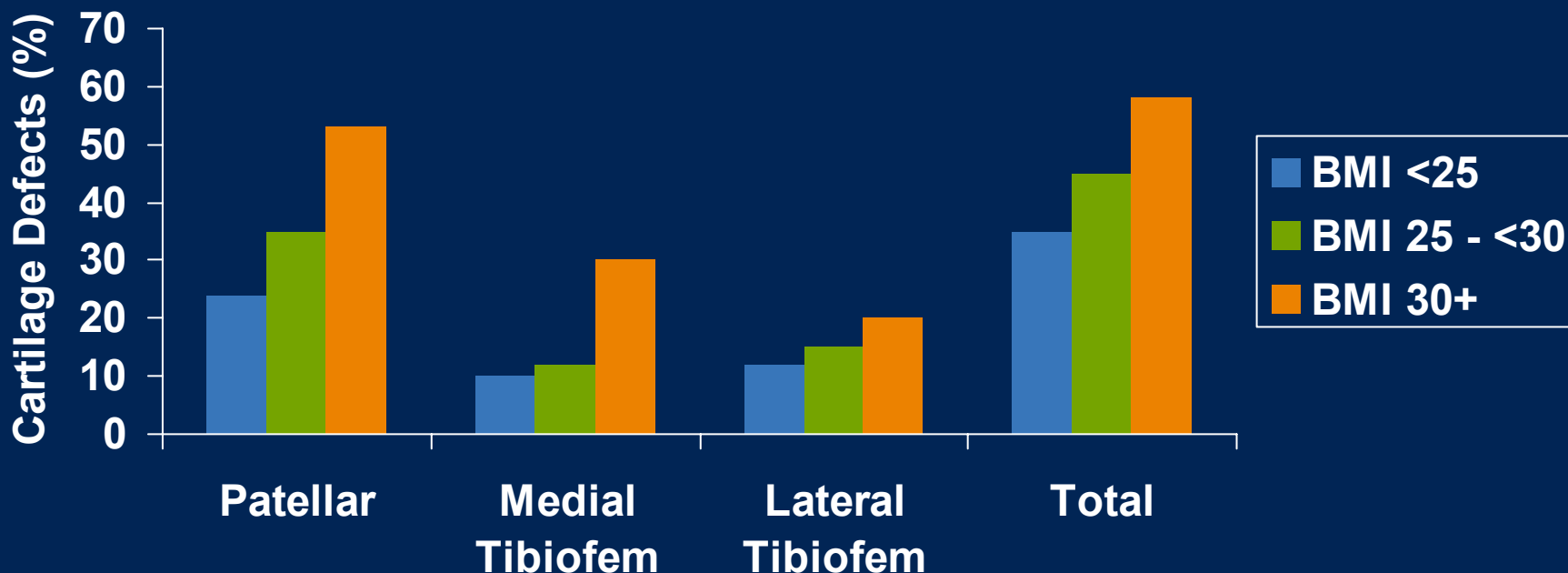


Percentage of patients with hip osteoarthritis who were overweight or obese, according to age ($N = 1021$).

Marks, R. , Allegrante, JP. *Body mass indices in patients with disabling hip osteoarthritis*. Arthritis Res 2002, 4:112-116.

Osteoarthritis

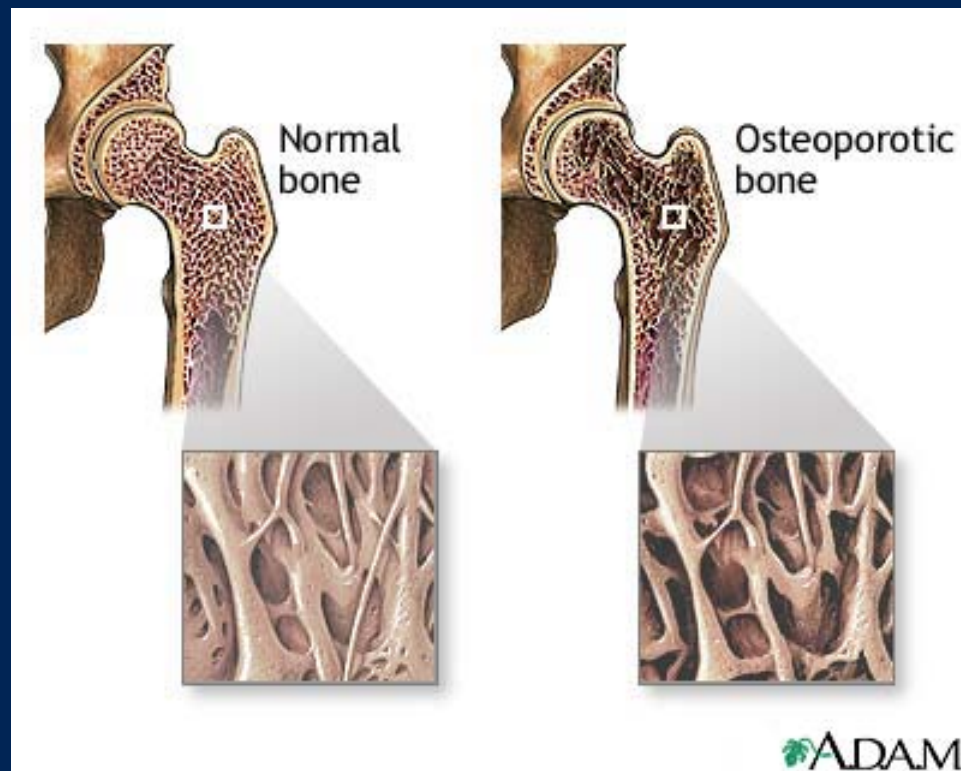
Knee Cartilage Defects (Women)



Ding, C. Obesity Research. 2005;13:350

Osteoporosis

- **What Is It?**
 - Progressive Loss of Bone Mass
 - Deterioration of Bone Tissue
- **Risk Factors**
 - Female
 - White/Caucasian
 - Post Menopause
 - Age
 - Small Body Size
 - Low Calcium Intake
 - Physical Inactivity
 - Smoking
 - Excessive Alcohol Intake
 - Family History



www.nlm.nih.gov/medlineplus

Osteoporosis

- **Diagnosis**

- DXA

- Spine, Hip, ,Wrist
 - Diagnosis/Follow Up

- pDX

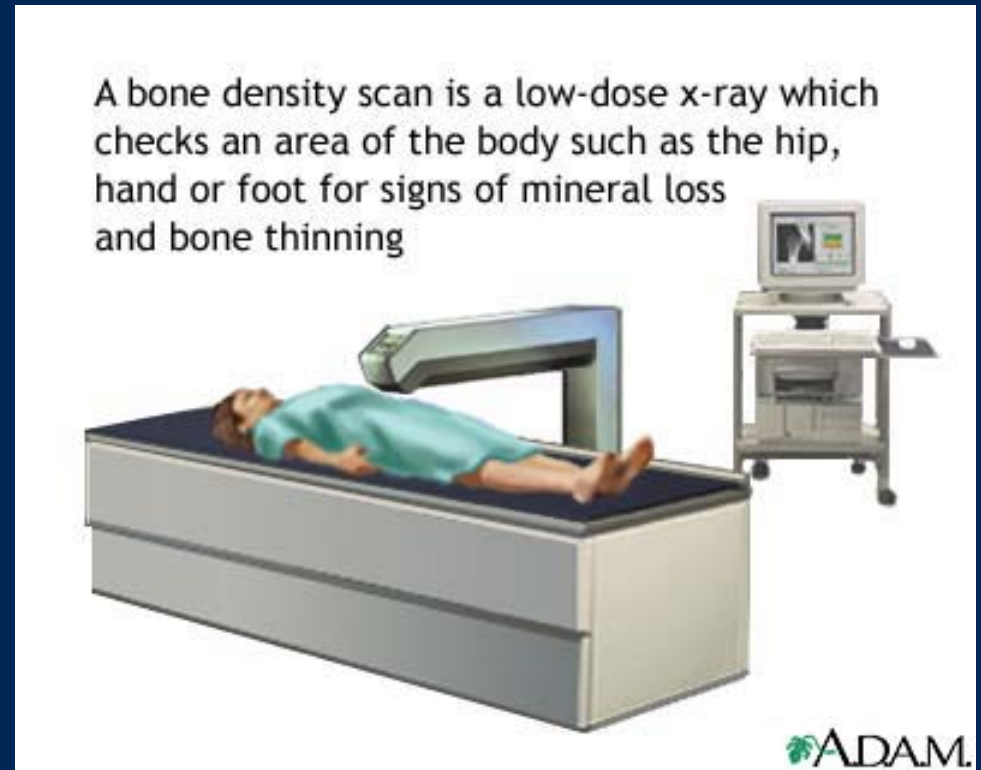
- Wrist, Heel, Finger

- QUS

- Heel
 - Inexpensive/Portable
 - Low Precision

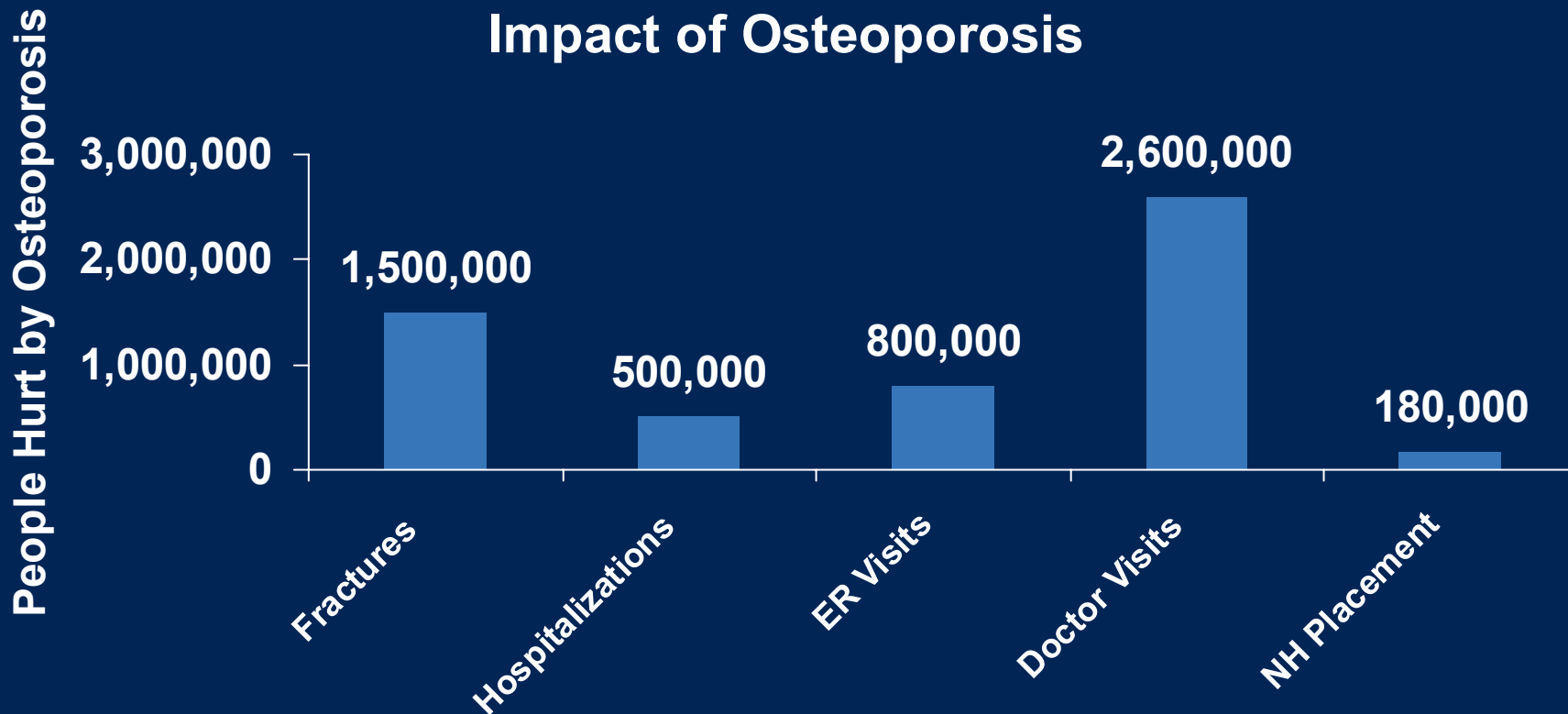
- QCT

- Spine, Hip
 - Expensive/Hi Radiation



www.nlm.nih.gov/medlineplus

Osteoporosis



The 2004 Surgeon General's Report on Bone Health and Osteoporosis

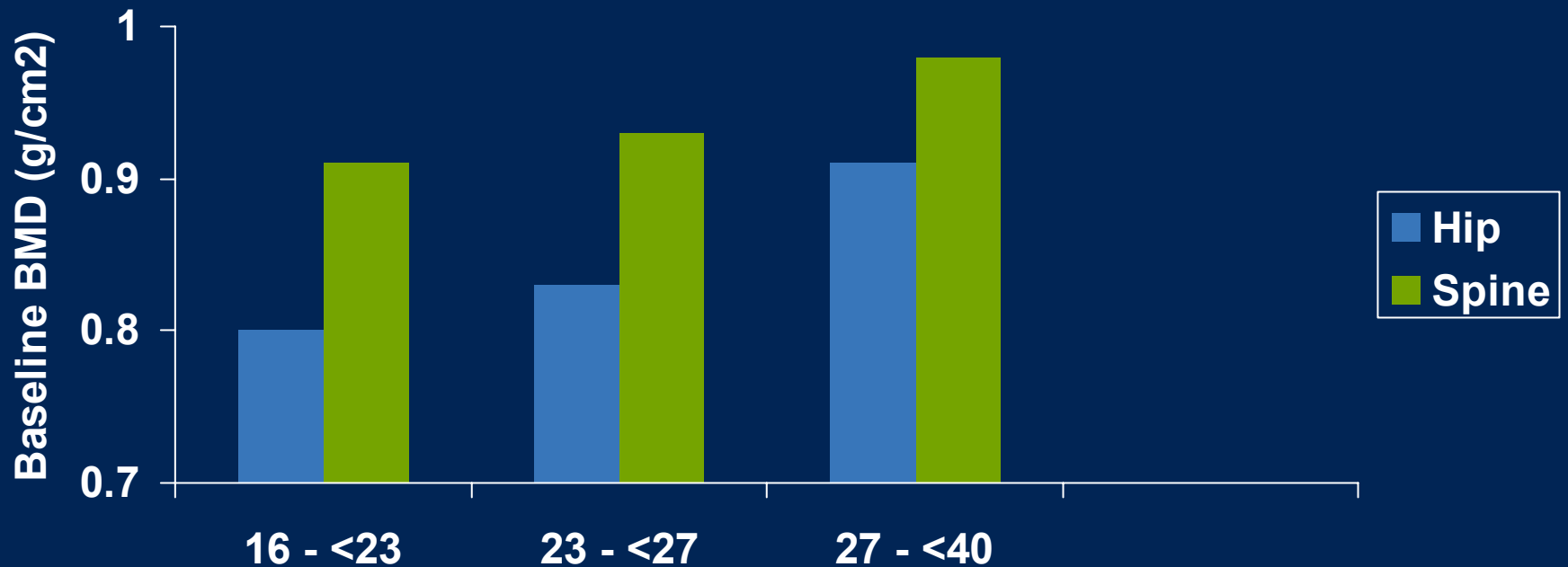
Osteoporosis

- **Morbidity**
 - Spinal Compression Fractures (700,000/yr)
 - Hip Fractures (300,000/yr)
 - Wrist Fractures (250,000/yr)
- **Treatment**
 - Bisphosphonates
 - Fosamax®, Actonel®
 - Calcitonin
 - Miacalcin®
 - Estrogen/Hormonal
 - Parathyroid Hormone (PTH)
 - Forteo®
 - Selective Estrogen Receptor Modulators
 - Evista®

National Osteoporosis Foundation

Osteoporosis

BMI and Bone Mineral Density



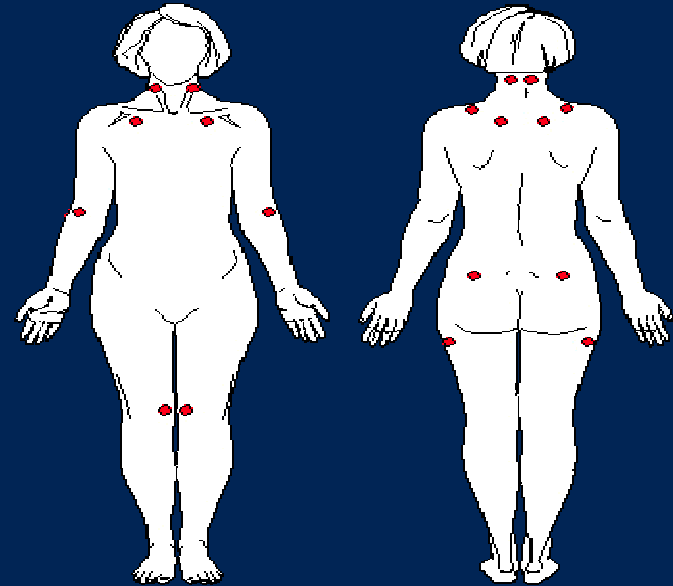
Ravn, P. J Bone Miner Res 1999;14:1622

Depression as a Comorbidity

- **Coronary Artery Disease**
- **Cancer**
- **Stroke**
- **Diabetes**
- **Parkinson's**
- **Musculoskeletal Disorders**
 - Arthritis
 - Fibromyalgia
 - Chronic Fatigue Syndrome

Fibromyalgia

- **Definition**
 - A Syndrome
 - Widespread Pain, Fatigue, and Multiple Tender Points
- **Diagnosis**
 - Pain All Four Body Quadrants More Than Three Months
 - Eleven or More Tender Points



Fibromyalgia

- **Symptoms**

- Tender Points Neck, Shoulders, Back, Hips, Extremities
- Fatigue
- Sleep Disturbance
- Morning Stiffness
- Headache
- Irritable Bowel Syndrome
- Painful Menses
- Numbness/Tingling Extremities
- Cognitive/Memory Problems

Fibromyalgia

- **Demographics**
 - Affects 3 to 6 Million Americans
 - 80 to 90 % Are Women
 - Peak Incidence Middle-Age
 - May Run in Families
- **Etiology**
 - Unknown
 - Disturbance in Neurotransmitters
 - Associated
 - Traumatic Event
 - Illness
 - Rheumatoid Arthritis/Lupus

Fibromyalgia

- **Treatment**
 - Analgesics
 - Nonsteroidal Anti-Inflammatory Drugs
 - Antidepressants
 - Muscle Relaxants
 - Massage, Movement Therapy

Chronic Fatigue Syndrome

- **Definition**
 - Severe Fatigue Six Consecutive Months
 - No Definable Organic Disease
 - Associated Physical Symptoms
- **Symptoms**
 - Fatigue/Post Exertional Fatigue
 - Muscle Aches
 - Joint Pains
 - Sore Throat
 - Headache
 - Enlarged Lymph Nodes
 - Impaired Memory/Concentration
 - Depression (50 – 70%)

Chronic Fatigue Syndrome

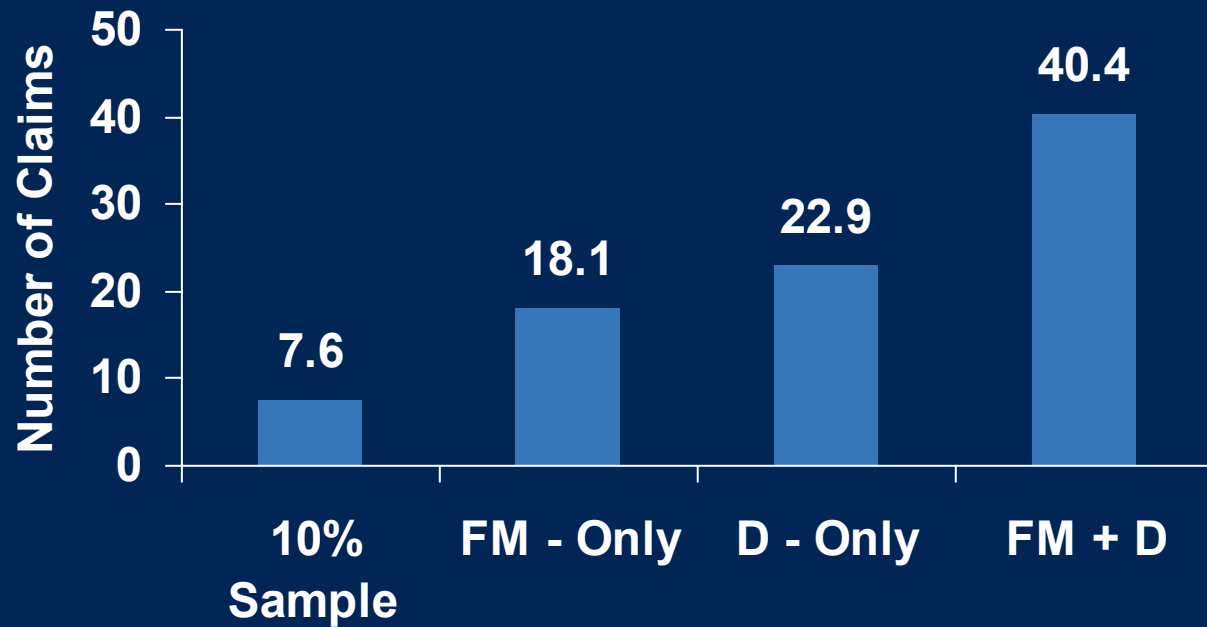
- **Demographics**
 - Affects All Races/Socioeconomic Backgrounds
 - 800,000 Americans
 - Most Common White Females Ages 20 - 50
- **Etiology**
 - Unknown
 - Infectious, Immunologic, Neurologic Possibilities
 - Similarities with Fibromyalgia

Chronic Fatigue Syndrome

- **Treatment**
 - Lifestyle Changes
 - Physical Activity
 - Nonsteroidal Anti-Inflammatory Drugs
 - Antidepressants
 - Behavioral Therapy

Fibromyalgia

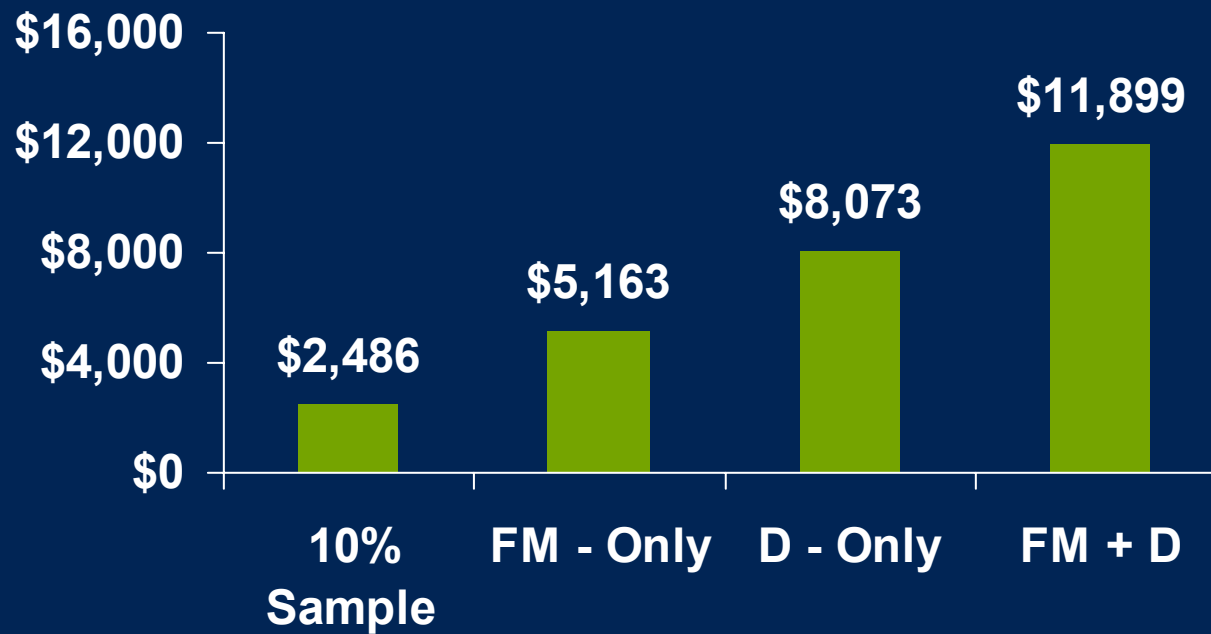
Medical Claims History



Robinson RL, et al. *Depression and fibromyalgia: Treatment and cost when diagnosed separately or concurrently.* J Rheum 2004;31:1621-9

Fibromyalgia

Healthcare Costs



Robinson RL, et al. *Depression and fibromyalgia: Treatment and cost when diagnosed separately or concurrently.* J Rheum 2004;31:1621-9

Field Considerations

- **Review All Medications**
 - Reason For Taking
- **Review All Healthcare Professionals Seen**
 - Physician and Non-Physician
- **Consult Field Guides**
- **Utilize Underwriting Hotlines**

Conclusion

Physical and mental/nervous impairments do not exist in silos. The presence of more than one issue may have implications greater than either issue alone.

APPENDIX

Body Mass Index

$$\text{BMI} = \left(\frac{\text{Weight (lbs)}}{\text{Height (ins)} \times \text{Height (ins)}} \right) \times 703$$

$$\text{BMI} = \left(\frac{\text{Weight (kgs)}}{\text{Height (mtrs)} \times \text{Height (mtrs)}} \right)$$

- **Questions**
- **Share your pre-qualification tips**

