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State of Health in Northern Kentucky: How We Compare, Why it Matters to Business

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State of Health in Northern Kentucky How We Compare Why It Matters to Business

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Director of Research



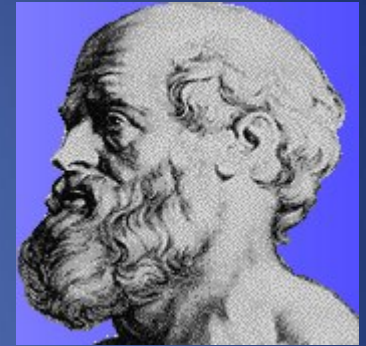
Office of Rural Health Research and Policy
Lexington, KY

June 17, 2008

Good Health

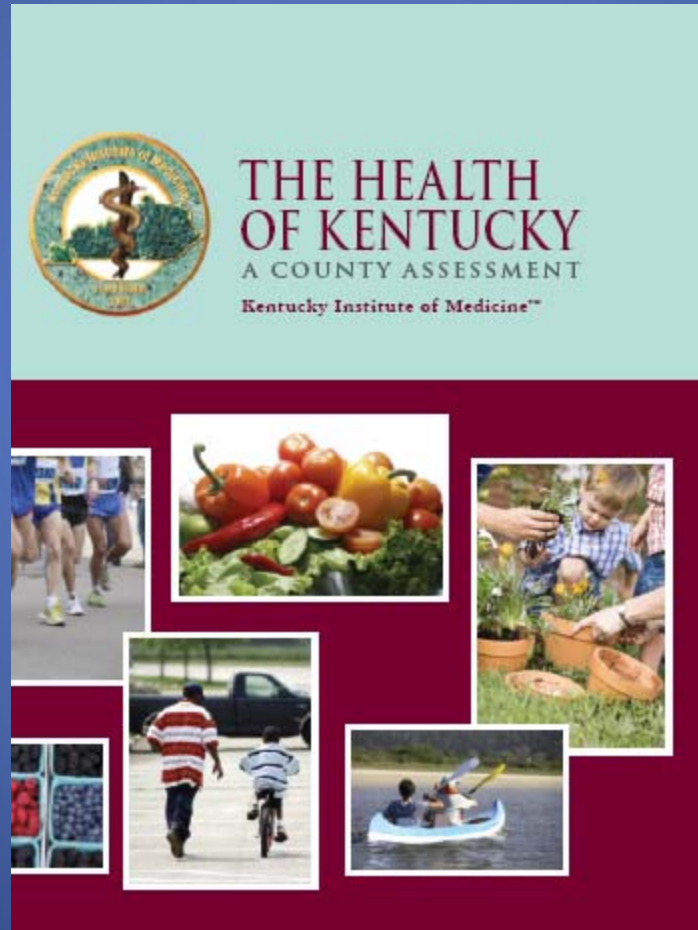
- ▣ Get lots of exercise, walking is good.
- ▣ Get lots of fresh air.
- ▣ Drink clean water.
- ▣ Don't eat too much or too little.
- ▣ Avoid red meat.

- ▣ Above all avoid quarrelsome people for they induce stress and that is the worst thing for your health.



Hippocrates of Chios
470 BC - 410 BC

The Health of Kentucky: A County Assessment



Kentucky Institute of Medicine™

Purpose

- **Provide Reliable County Based Health Data to:**
 - Foster community based health planning
 - Identify key health problems
 - Identify solutions for health improvement
 - Provide measures for health improvement
 - Encourage and support public policy interventions
 - Example of data problem:
 - Smoking rates:

– US	21%
– KY	29%
– KY County Range	20% - 36%



Report Format

- State Profile for each Measure
- County Profiles (Ranked 1-120)
(Factors: Behavioral/Social, Demographic, Health Outcomes)
- Planning for Community-Initiated Interventions
- County Interventions
- Policy Intervention



BRECKINRIDGE

A COMPARATIVE ASSESSMENT OF HEALTH RISK



Rank: 61

	County	State	Nation
Behavioral/Social Factors			
Prevalence of Smoking (percent adult population)	30	29	21
Prevalence of Youth Smoking (percent high school students)	26	25	23
Prevalence of Obesity (percent adult population)	22	29	24
Lack of Physical Activity (percent adult population)	34	32	24
Oral Health (percent adults missing 6 or more teeth)	36	37	33
Motor Vehicle Deaths (per 100,000,000 miles driven)	0.9	2.1	1.5
Violent Crime Offenses (per 100,000 population)	231	267	469
Drug Arrests (per 100,000 population)	798	1,046	700
Occupational Fatalities (per 100,000 workers)	4	8	5
Demographics			
High School Graduation (percent adults 25 or older)	69	72	80
Per Capita Personal Income	\$21,107	\$27,625	\$33,689
Population Age 65 or Older (percent)	14	11	13
Health Access			
Uninsured Population (percent under age 65)	14	15	16
Primary Care Physician to Population Ratio (1:3,500)	1.1	2.5	3.7
Adequacy of Prenatal Care (percent pregnant women)	80	85	75
Immunization Coverage (percent children 19-35 months)	75	80	81
Health Outcomes			
Low Birth Weight (per 1,000 live births)	8	8	8
Infant Mortality (per 1,000 live births)	9	7	7
Infectious Disease (per 100,000 population)	1	8	23
Prevalence of Diabetes (percent adults)	8	9	7
Limited Activities in Previous Month (percent adults)	27	28	19
Cardiovascular Deaths (per 100,000 population)	423	409	326
Cancer Deaths (per 100,000 population)	245	237	202
Total Mortality (per 100,000 population)	1,029	987	842
Premature Death (years lost per 100,000 population)	6,869	9,111	7,562
Cancer Death Rates (per 100,000 population)			
Lung/Bronchus	76	80	55
Colorectal	30	23	20
Breast	31	27	26
Prostate	23	33	28

Strengths:

Low obesity
Low diabetes
Low prostate cancer rate

Challenges:

Smoking
Population age 65 or older
Availability of primary care physicians
Breast cancer

Outliers:

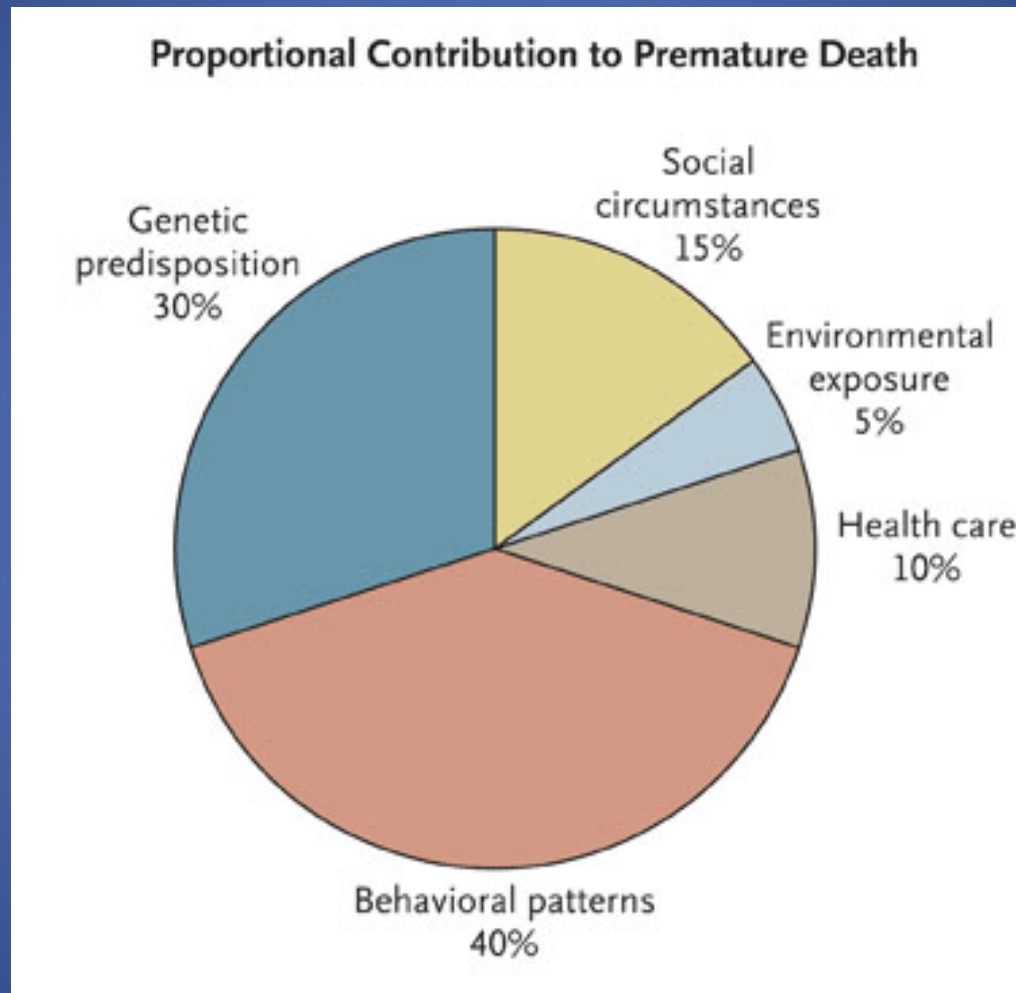
High lung/bronchus cancer rate

County Health Profile

Breckinridge County Health Synopsis

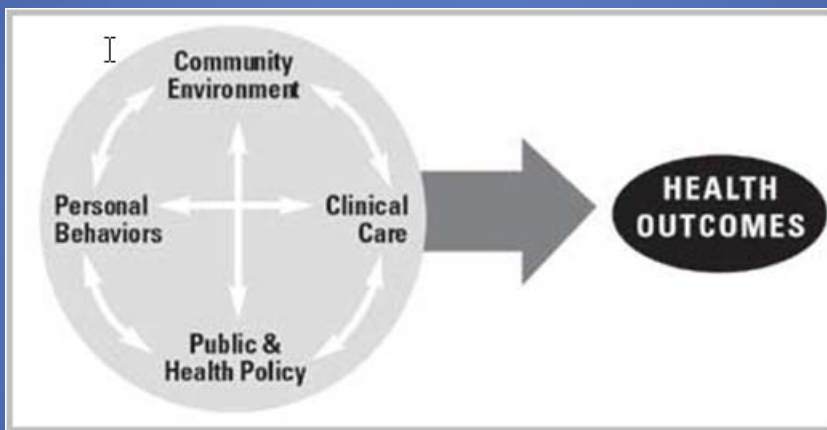
Breckinridge County ranks near the middle of Kentucky's 120 counties. County strengths include a low number of deaths due to prostate cancer, a low incidence of obesity, a low number of motor vehicle deaths, and a rate of adults diagnosed with diabetes lower than the state level. A low number of years of life lost to premature death also numbers among the county's positive outcomes. Along with these strengths, however, the county holds intermediate or poor rankings in several other categories due to high-risk personal behaviors and social conditions. Community leaders can improve the county's health status by improving access to and utilization of child immunizations. Measures to increase the number of health screenings for breast and colorectal cancer should also be considered. High smoking rates can be counteracted by programs that discourage youths from smoking and encourage current smokers to cut back in an effort to fully quit. These efforts will help reduce lung cancer and cardiovascular deaths and improve other health outcomes.

Balancing Responses

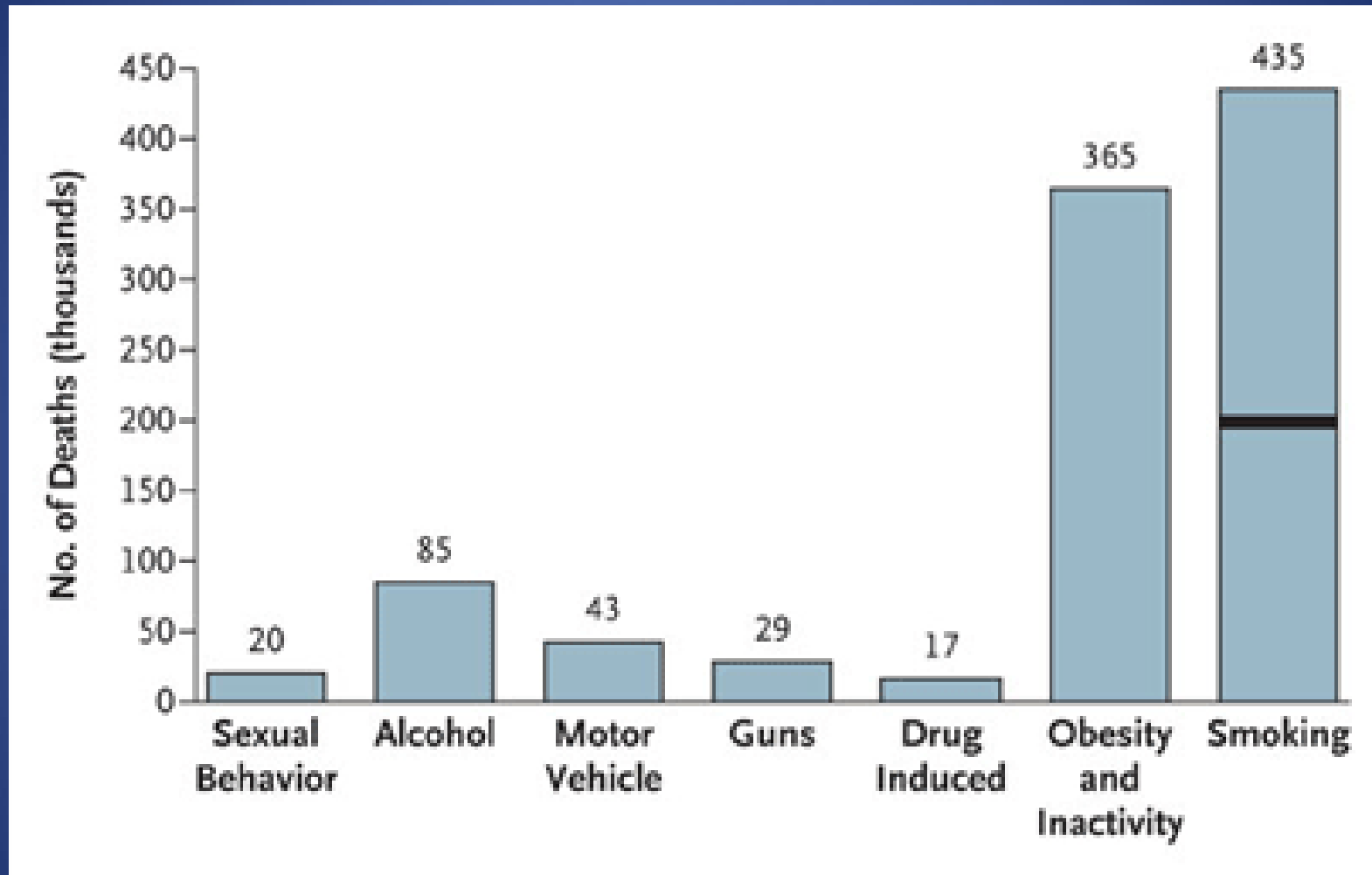


Steven A. Schroeder, M.D., *We Can Do Better — Improving the Health of the American People*, Vol57:1221-1228 [September 20, 2007](#) No. 12

McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. *Health Aff (Millwood)* 2002;21:78-93.



US Preventable Deaths



Steven A. Schroeder, M.D., *We Can Do Better — Improving the Health of the American People*, Vol57:1221-1228 [September 20, 2007](#) No. 12

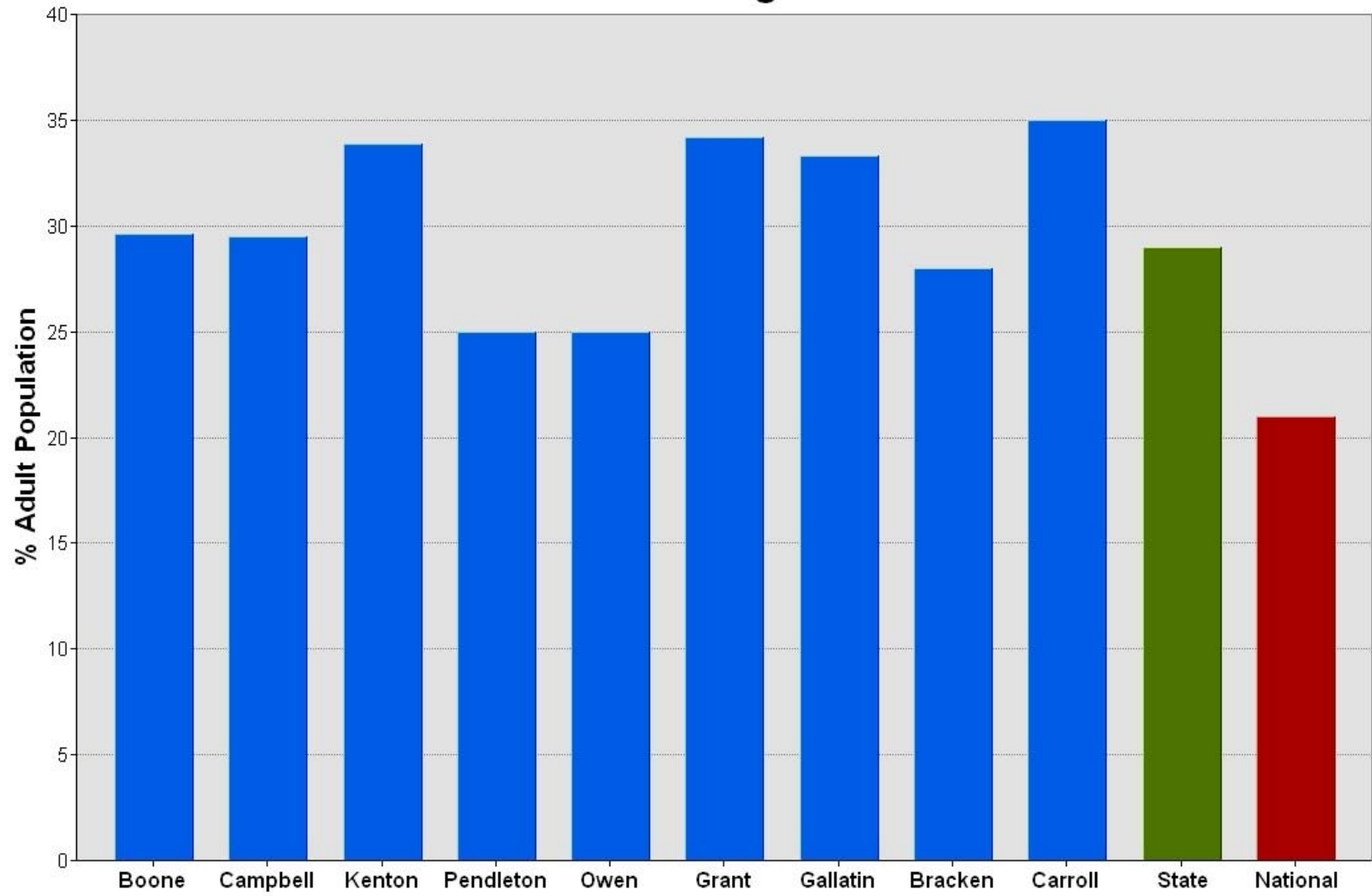
Mokdad AH, Marks JS, Stroup JS, Gerberding JL. Actual causes of death in the United States, 2000. *JAMA* 2004;291:1238-1245.

Years of Potential Life Lost (YPLL) Before Age 75

1999 - 2005 Kentucky
All Races, Both Sexes
All Deaths

Cause of Death	YPLL	Percent
All Causes	2,382,219	100.0%
Malignant Neoplasms	536,863	22.5%
Heart Disease	441,223	18.5%
Unintentional Injury	424,980	17.8%
Suicide	113,447	4.8%
Perinatal Period	84,788	3.6%
Chronic Low. Respiratory Disease	72,538	3.0%
Cerebrovascular	60,316	2.5%
Homicide	58,464	2.5%
Diabetes Mellitus	57,470	2.4%
Congenital Anomalies	57,269	2.4%
All Others	474,861	19.9%

Smoking



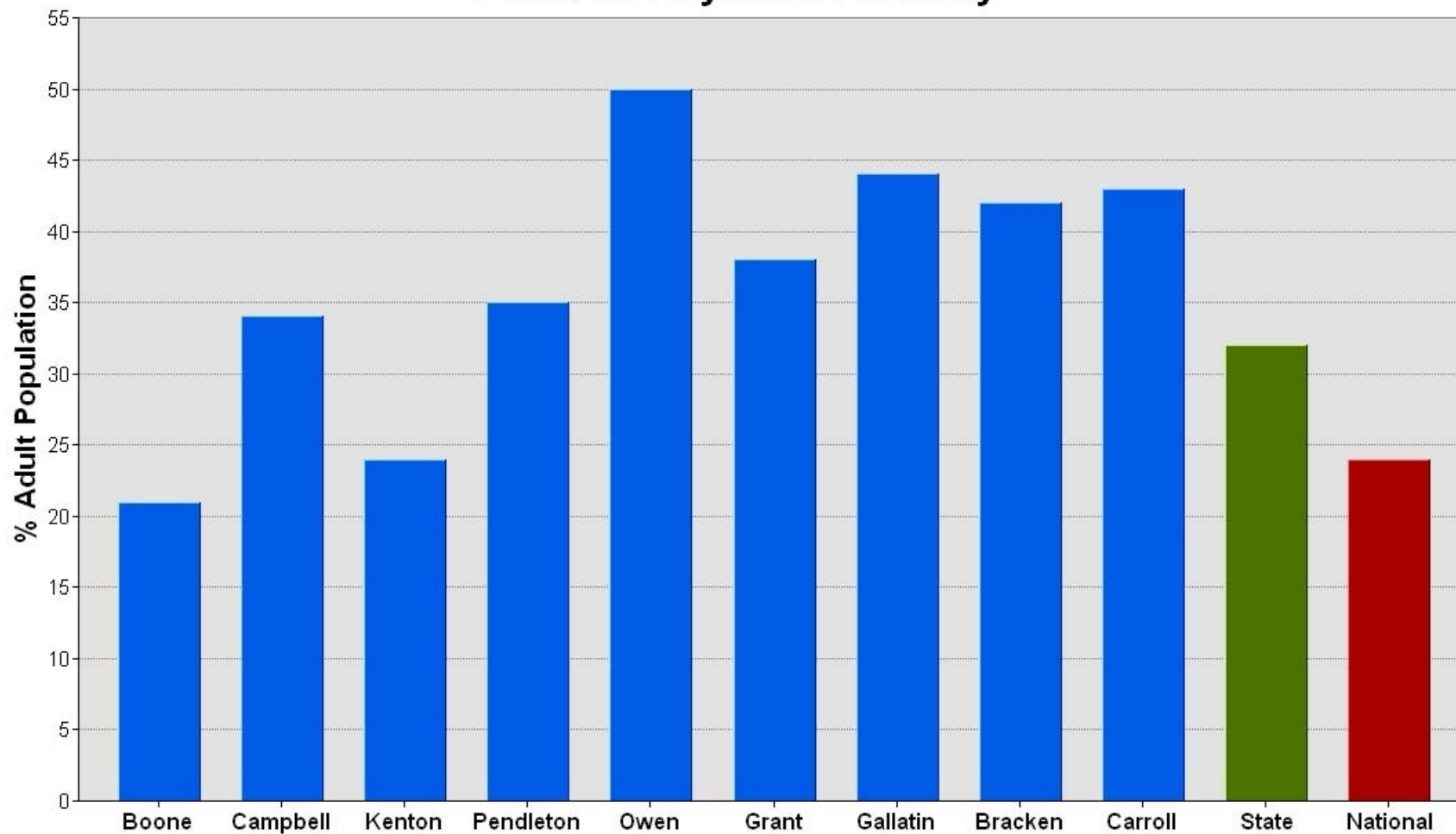
Smoking's Toll In Kentucky



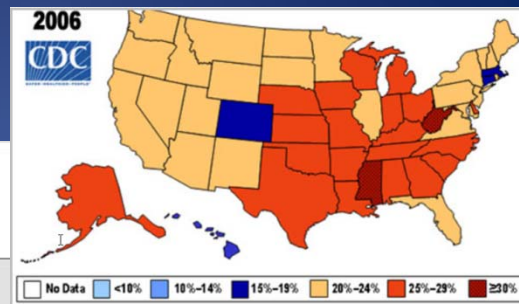
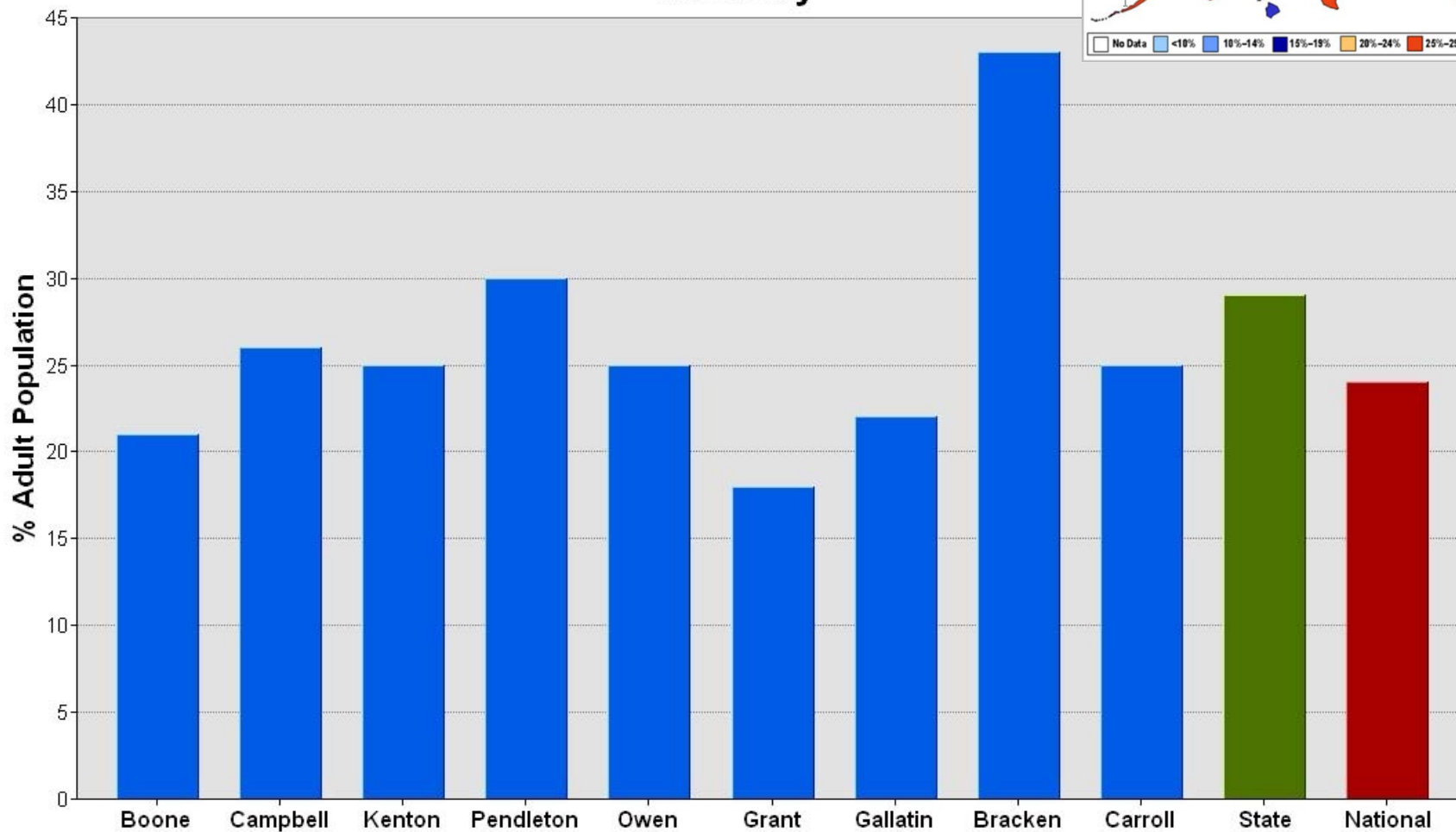
Table 1. Estimated Smoking-Attributable Years of Potential Life Lost (YPLL) By Cause of Death and Gender, Kentucky, 1996

Cause of Death (ICD-9 Rubric)	Male	Female	Total
Neoplasms			
Total	31,139	18,848	49,987
Cardiovascular Diseases			
Total	31,377	17,163	48,540
Respiratory Diseases			
Total	11,545	10,603	22,148
Perinatal Conditions			
Total	1,102	812	1,914
Burn Deaths	857	704	1,561
Total	76,020	48,130	124,150

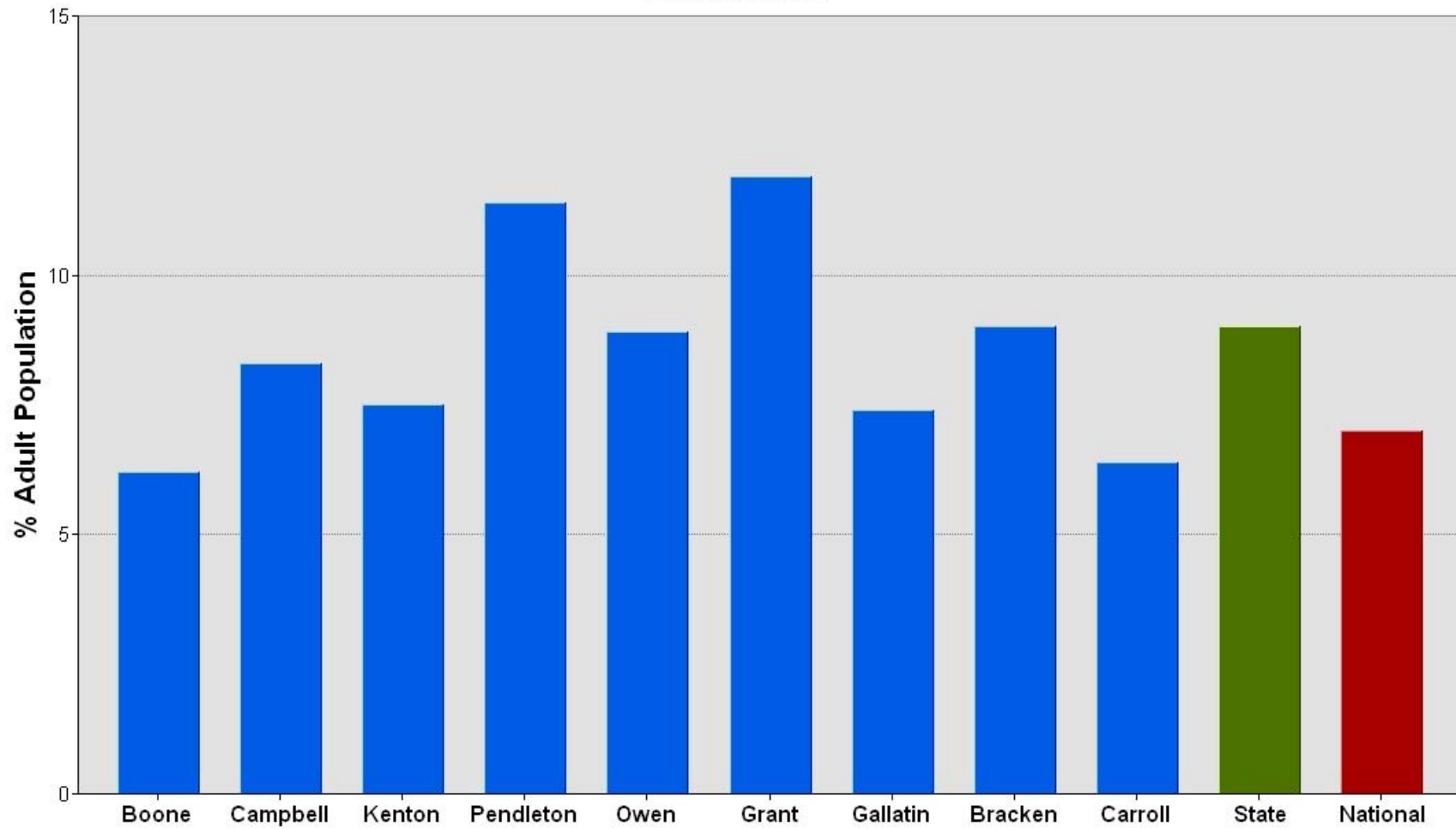
Lack of Physical Activity



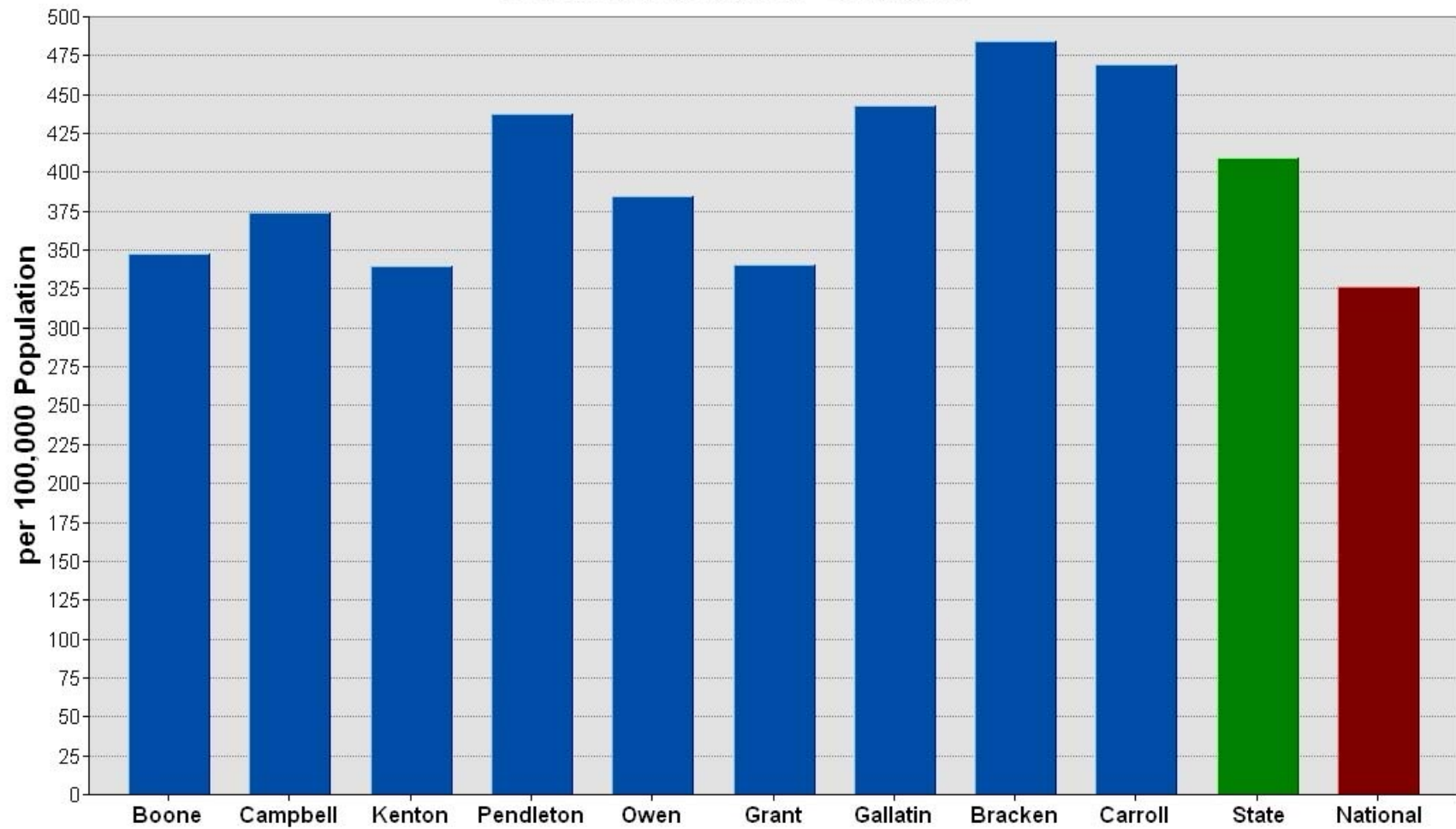
Obesity



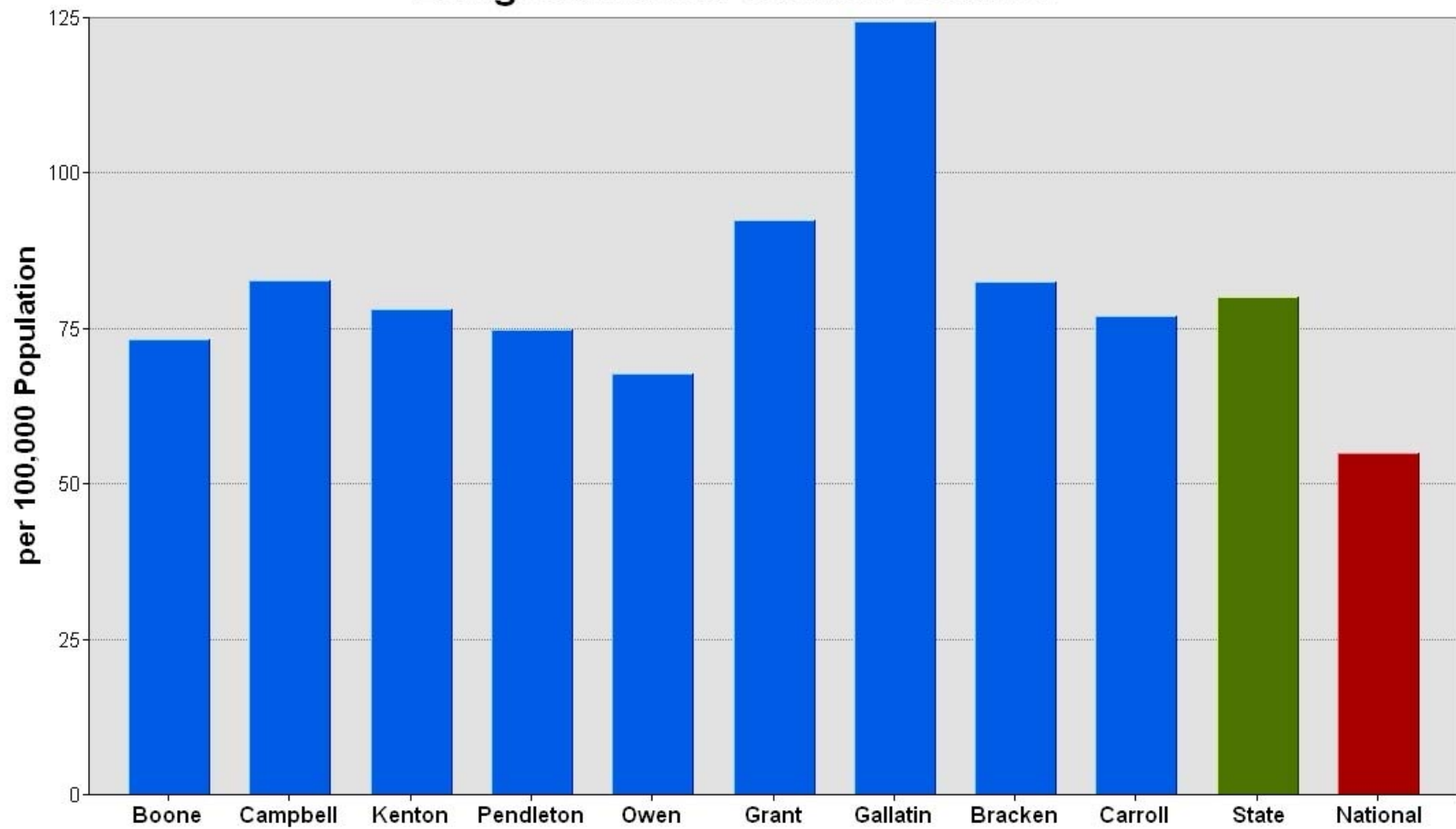
Diabetes



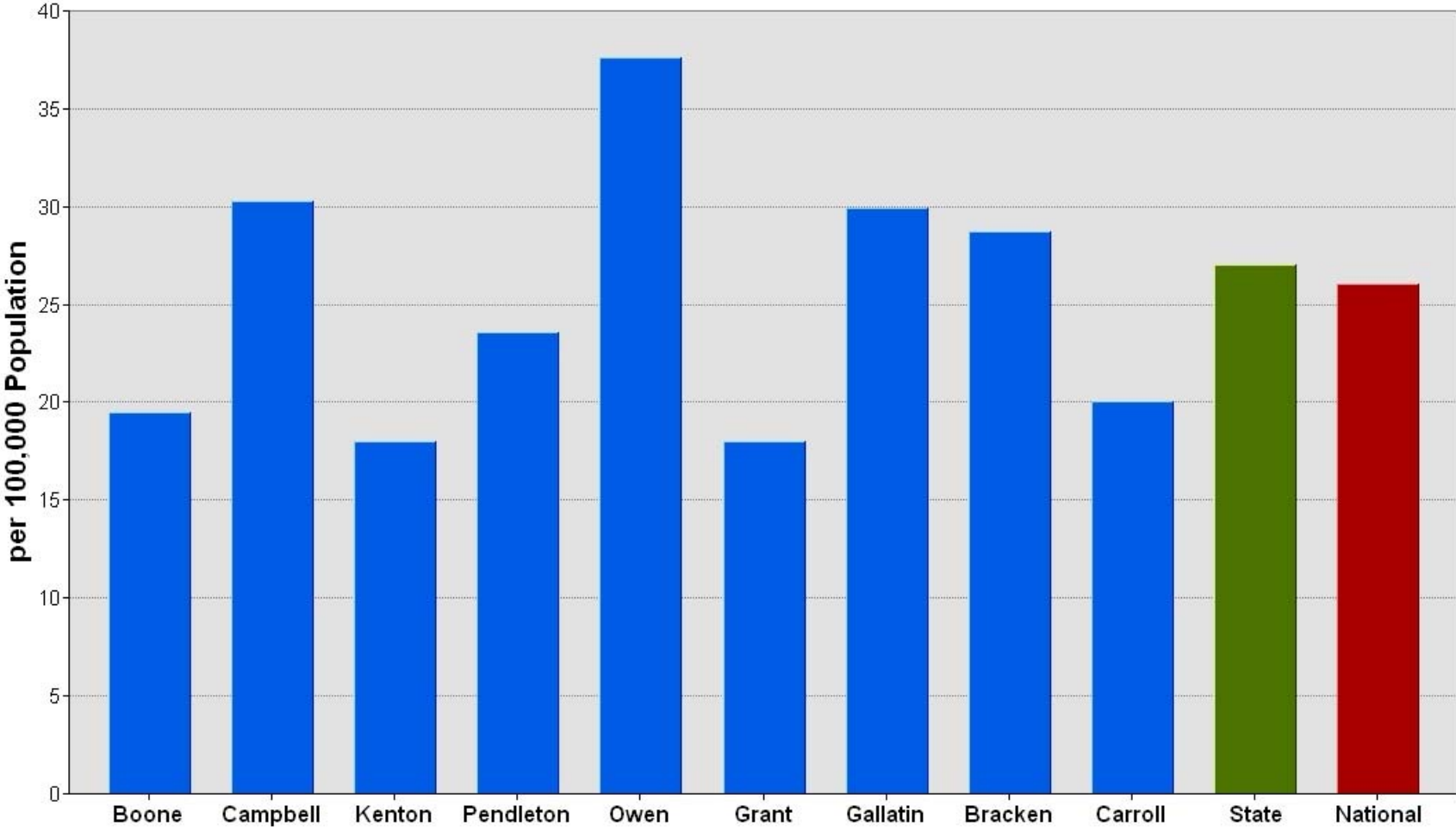
Cardiovascular Deaths



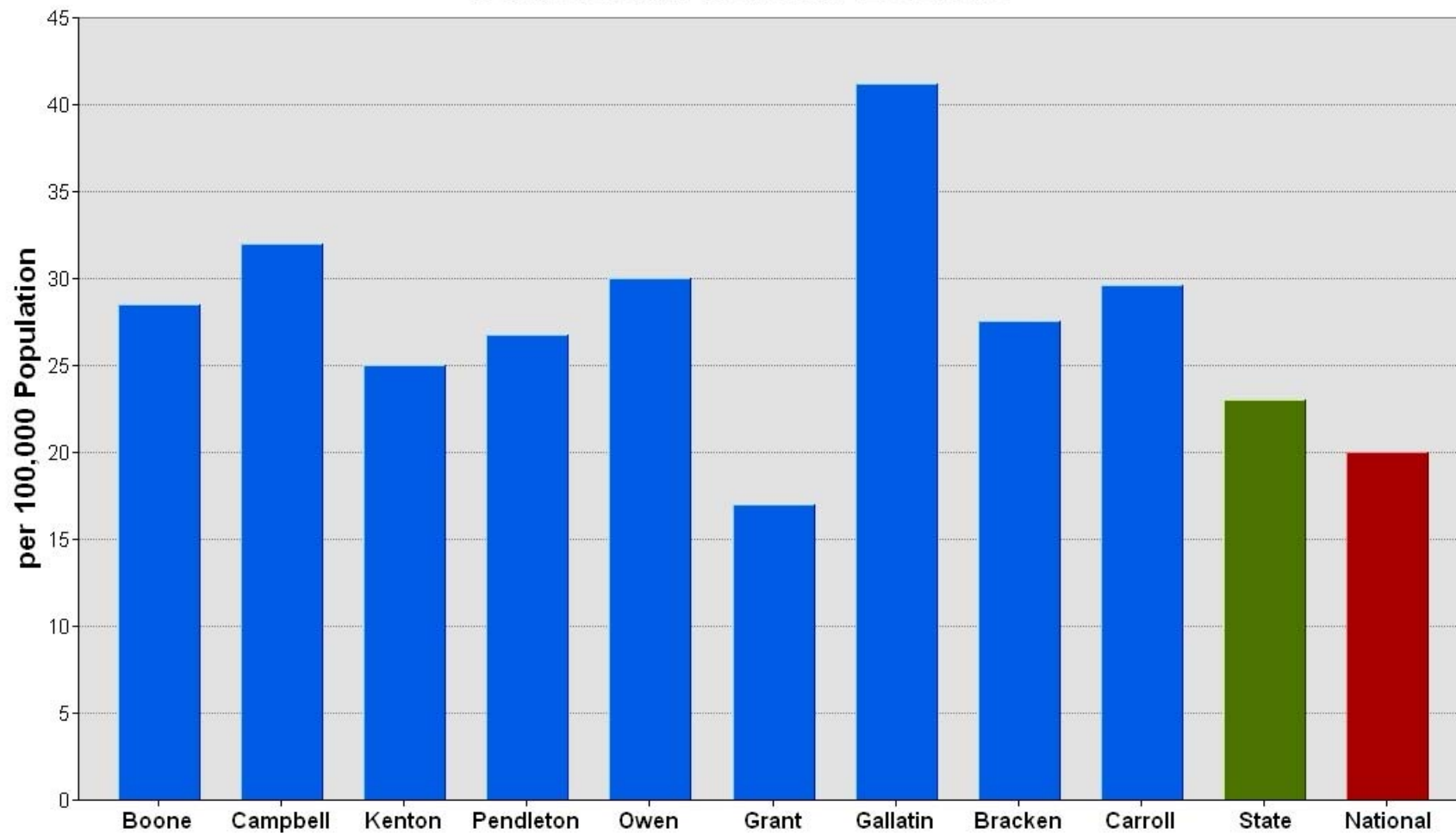
Lung/Bronchus Cancer Deaths



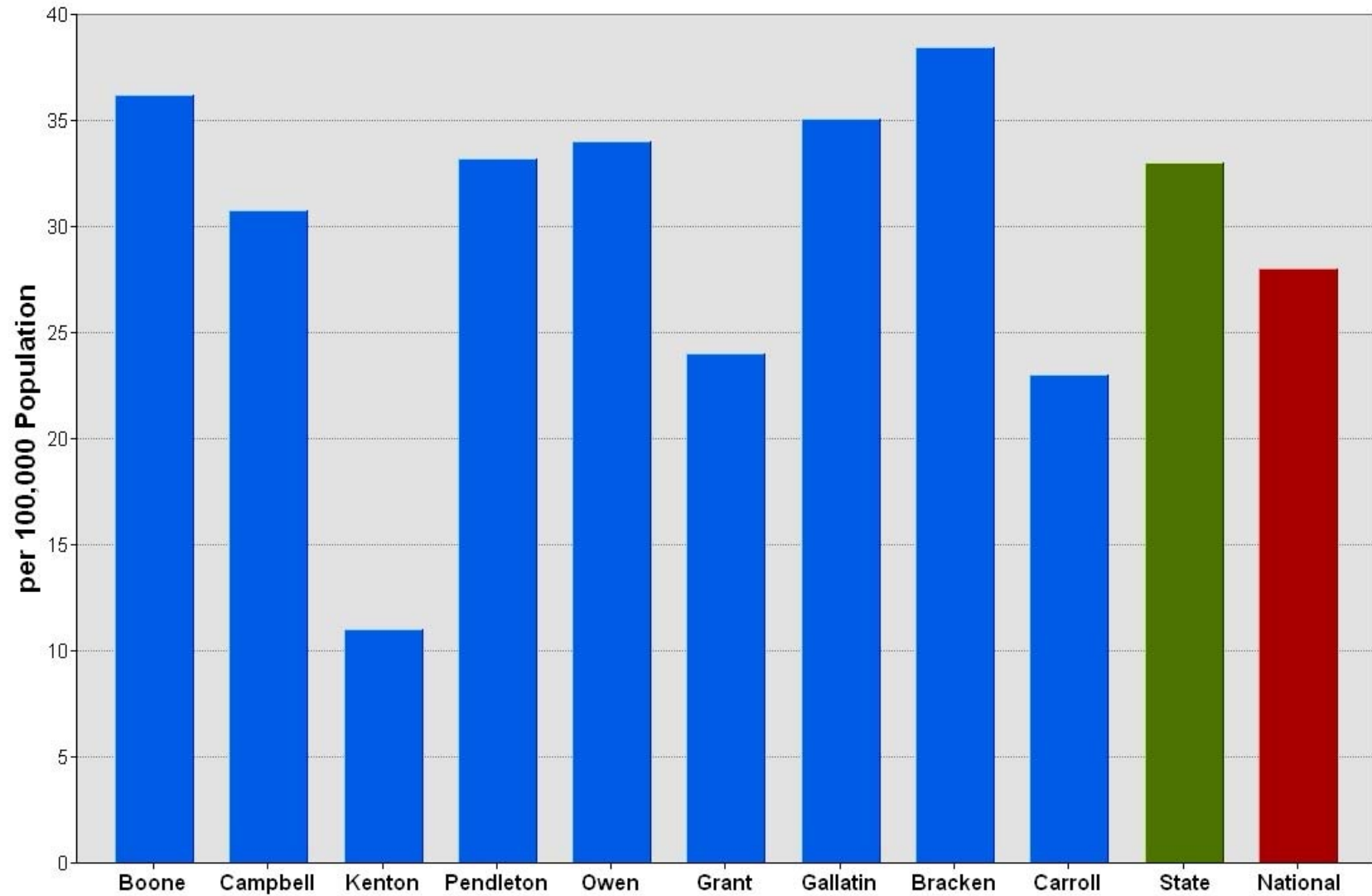
Breast Cancer Deaths



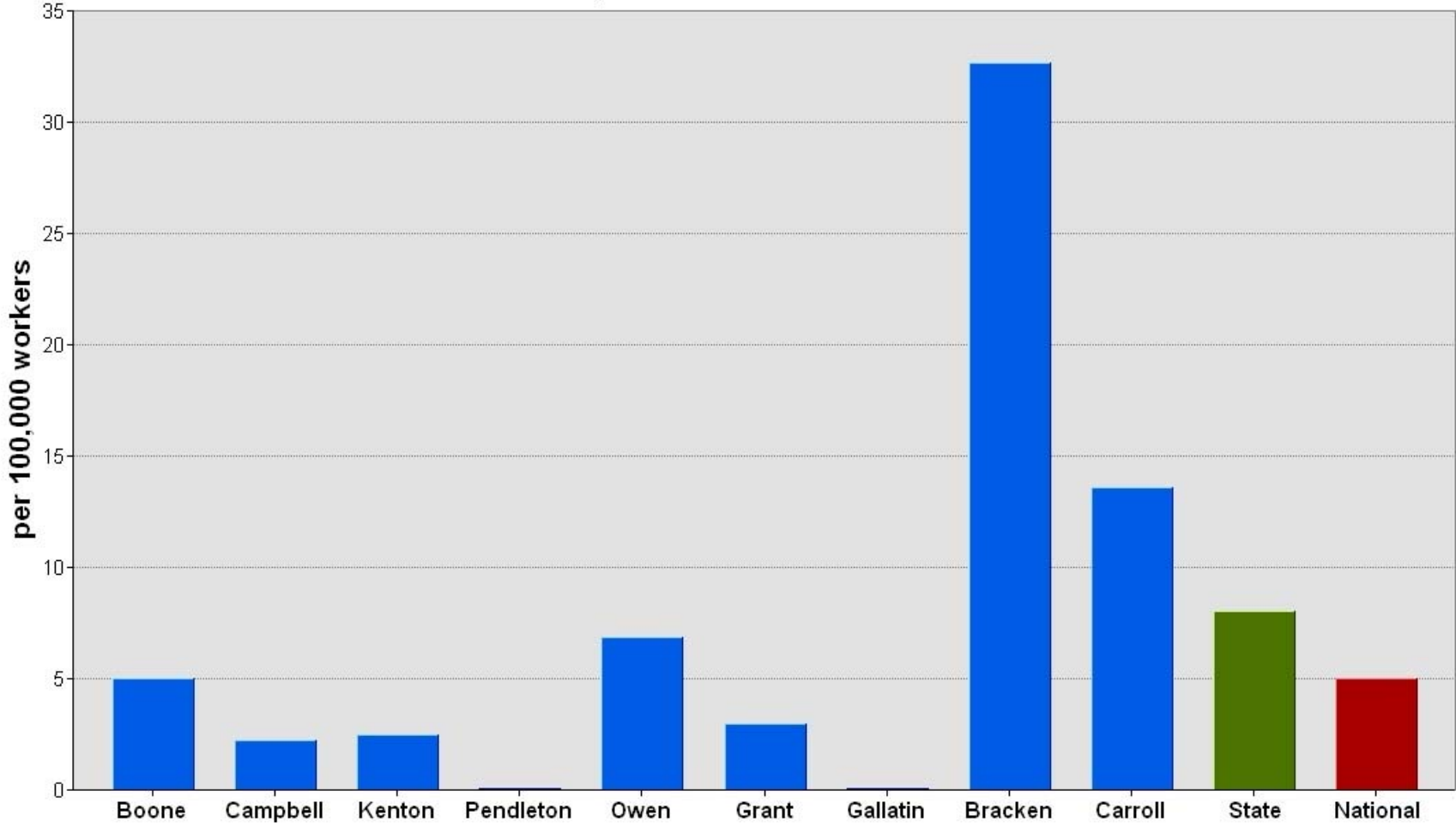
Colorectal Cancer Deaths



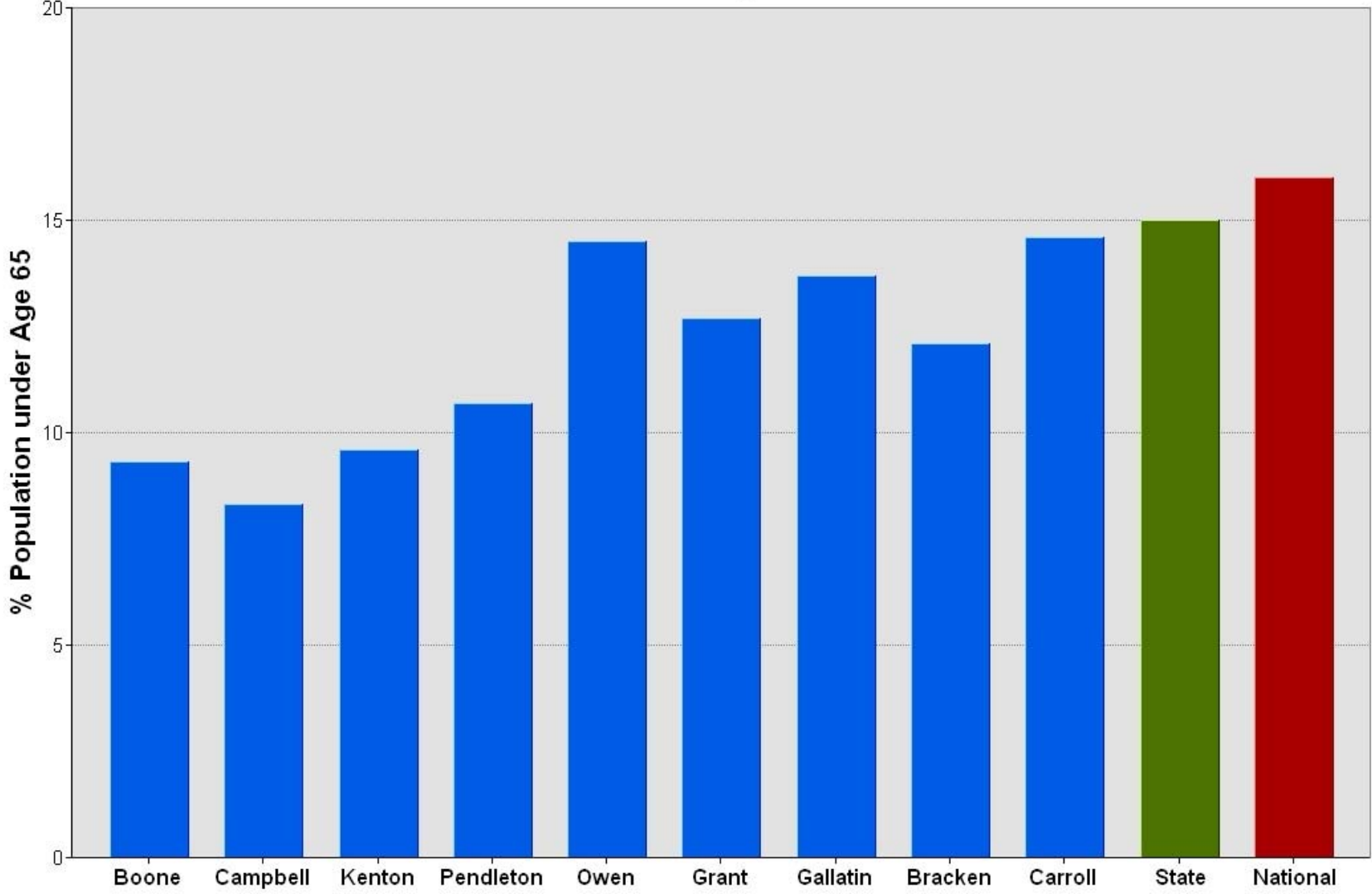
Prostate Cancer Deaths



Occupational Fatalities

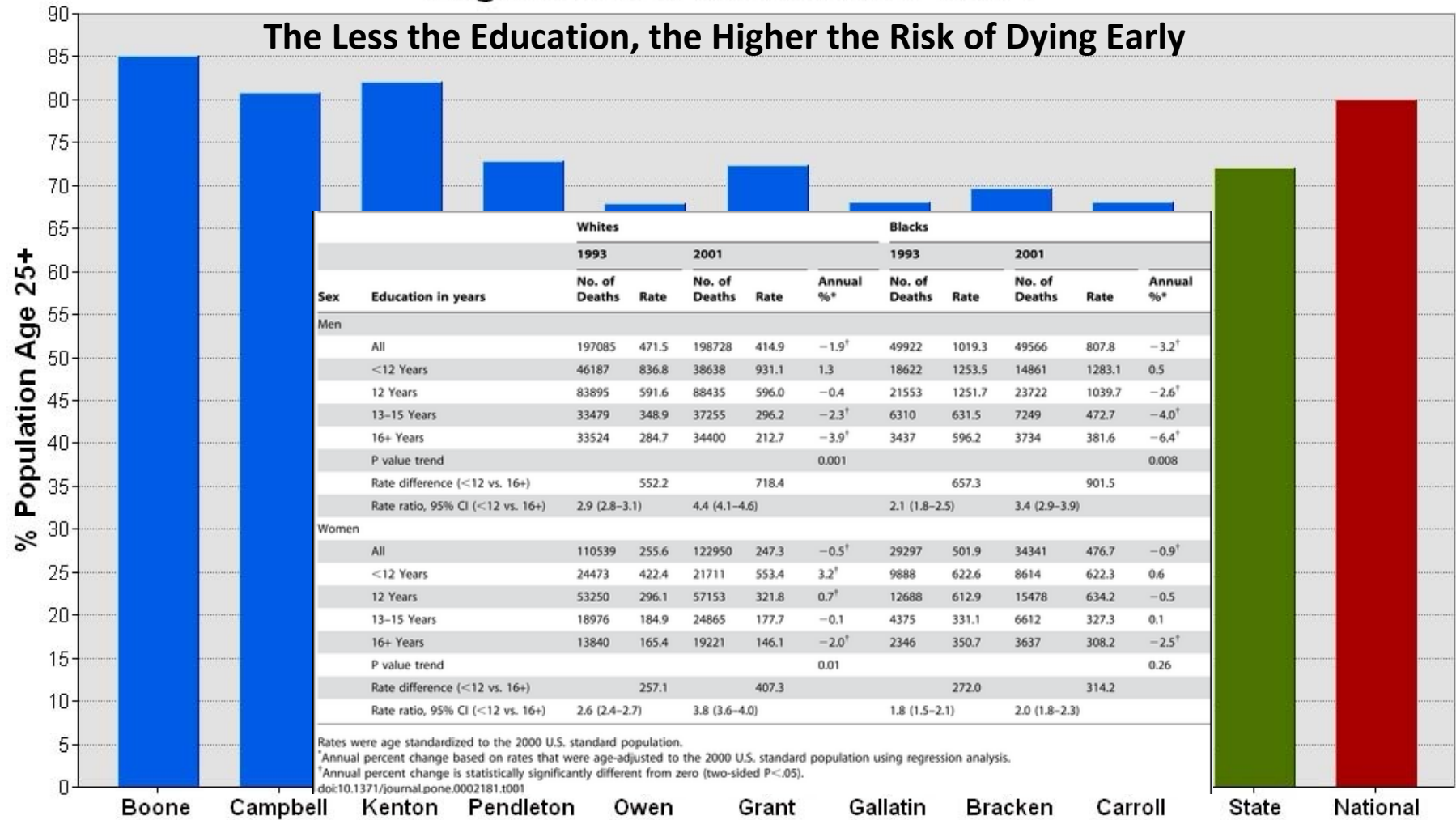


Uninsured Population



High School Graduation Rate

The Less the Education, the Higher the Risk of Dying Early



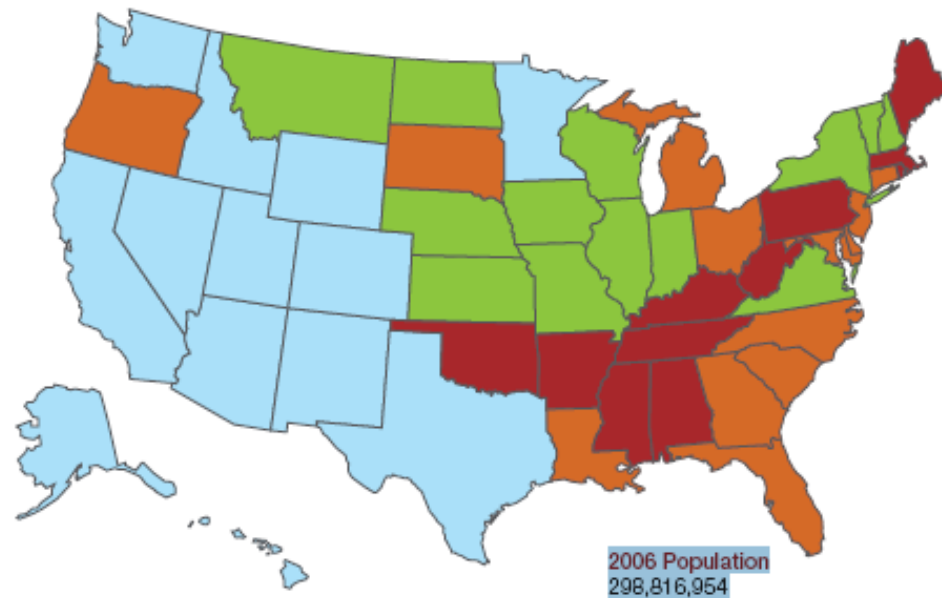
Current Toll on The United States TODAY

Over 162 million cases of seven common chronic diseases — cancers, diabetes, heart disease, hypertension, stroke, mental disorders, and pulmonary conditions — were reported in The United States in 2003. These conditions shorten lives, reduce quality of life, and create considerable burden for caregivers. The following map shows how states compare based on the prevalence of the seven common chronic diseases.

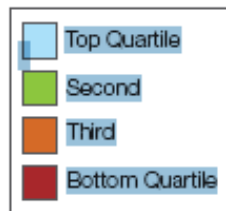
**Reported Cases in The United States, 2003
(and as % of population*)**

Cancers:	10,555,000	(3.7%)
Diabetes:	13,729,000	(4.9%)
Heart Disease:	19,145,000	(6.8%)
Hypertension:	36,761,000	(13.0%)
Stroke:	2,425,000	(0.9%)
Mental Disorders:	30,338,000	(10.7%)
Pulmonary Conditions:	49,206,000	(17.4%)

* As % of non-institutionalized population. Number of treated cases based on patient self-reported data from 2003 MEPS. Excludes untreated and undiagnosed cases.



2006 Population
298,816,954



Milken Institute State Chronic Disease Index
States in the top quartile have the lowest rates of seven common chronic diseases.

Lost Productivity

And while the human cost is enormous, the economic cost also is great. The cost of treating these conditions — without even taking into consideration the many secondary health problems they cause — totaled \$277 billion in 2003. These conditions also reduce productivity at the workplace, as ill employees and their caregivers are often forced either to miss work days (absenteeism) or to show up but not perform well (presenteeism). The impact of lost workdays and lower employee productivity resulted in an annual economic loss in The United States of over \$1 trillion in 2003.



Economic Impact in The United States 2003 (Annual Costs in Billions)

Treatment Expenditures:	\$277
Lost Productivity:	\$1,047
Total Costs:	\$1,324

Figures may not sum due to rounding.



From: DeVol, Ross, and Armen Bedroussian, *An Unhealthy America: The Economic Burden of Chronic Disease*, Milken Institute, October 2007.
Report prepared with support from the Pharmaceutical Research and Manufacturers of America. Report available at www.milkeninstitute.org.

An aerial photograph of a city, likely Louisville, Kentucky, showing a river on the left with a bridge crossing it. The city is densely packed with buildings, including several tall skyscrapers. The text is overlaid on the center of the image.

**THE IMPACT OF POOR HEALTH
ON BUSINESSES**
in Northern Kentucky

Not a Level Playing Field

The National Federation of Independent Business says, "Small businesses pay 18% more for health insurance premiums and spend a larger percentage of their payroll on health care than larger companies.



Private health insurance use increasing
Workers at small companies find it less expensive than employer's offering
COMMENTARY by Victoria E. Knight Tues., Nov. 13, 2007

Primary Care vs. Emergency Care

Uninsured patients rarely receive preventive, primary or ongoing care for chronic conditions. Instead they receive episodic care, often delivered in the emergency room at roughly three times the cost.¹⁰ During these episodes, they see multiple physicians and other health care providers with little or no continuity, and as such are likely to receive duplicate lab work, X-rays and other tests. Without access to preventive care, conditions like hypertension and diabetes worsen and progress to complex disease states, which are more expensive to treat and often leave patients more debilitated and dependent. All of these factors add unnecessary cost to the health system, and, in the end, the patient receives lower quality care. Inappropriate utilization and high costs are both the symptoms and cause of our fractured health care system.

For example:

- In California, one in five recent emergency room visits were avoidable.¹¹ One study found that more than 80 percent of all Medi-Cal and uninsured patient visits to the emergency department could have been treated in a non-emergency environment.¹²
- Further, almost half of emergency room patients (46 percent) believed that their problem could have been handled by a primary care physician, had one been available.¹³



Impact of Rising Health Care Costs on the Economy



EFFECTS ON LOCAL COMMUNITIES

- An increasing or high uninsured rate, and the attendant high public costs, may discourage employers from locating or continuing to operate in a given locale.
- Costs of treating patients with little or no health insurance are passed on to employers and taxpayers (Estimated \$32 billion in uncompensated care was provided to uninsured patients in 2006).
- These costs are passed on to private sector patients in the form of higher hospital bills resulting ultimately in higher premiums for employers in the community with high uninsurance rates.
- A higher than average uninsured rate and the corresponding burden of uncompensated care on the local hospital(s) may threaten the survival of such institutions and reduce the viability of the economic base of the community.
- High health insurance premiums resulting in a greater number of uninsured people in the community financially affect health care providers and hospitals.

Impact of Rising Health Care Costs on the Economy

EFFECTS ON LOCAL COMMUNITIES

- **Communities with relatively high numbers of uninsured people may experience economic difficulties when uninsurance places new financial demands on local health care providers who make significant contributions to the local economy.**
- **Unreimbursed expenditures for health services delivered to uninsured persons are borne by private and public payers, employers, and by federal taxpayers as well as state and local residents.**
- **Providing affordable health insurance to all Americans would alleviate substantial financial demands on communities, especially those local areas disproportionately affected by high uninsurance rates.**
- **To address the issues of uncompensated care and uninsurance affecting communities, we need comprehensive health care reform where all Americans have health insurance which includes equitable health insurance financing in order to reduce cost shifting from payer to payer and patient to patient.**



Notes

1. Institute of Medicine. Hidden Costs, Value Lost – Uninsurance in America. *The National Academies Press*, 2003.

2. AHA Health and Hospital Fact Sheets. www.aha.org/aha/research-andtrends/health-and-hospital-trends/2007.html.

3 Institute of Medicine. A Shared Destiny – Community Effects of Uninsurance. *The National Academies Press*, 2003.

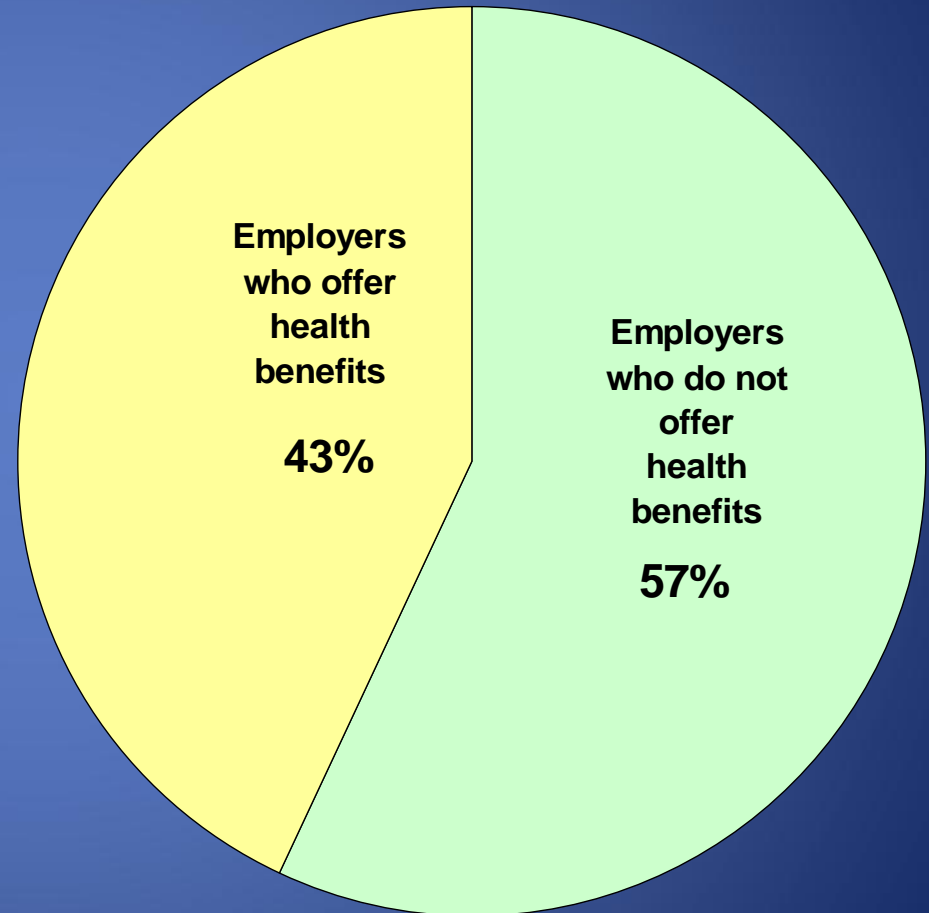
MEPS Kentucky Data on Health Insurance Coverage by Firm Size, 2002

	More than 50 employees		50 or fewer employees	
		Percent of Total		Percent of Total
Total Employees	1,060,663		382,235	
Employees in firms that offer health insurance	1,046,874 (98.7%)	98.7%	248,453 (65.0%)	65.0%
Employees in offering firms who are eligible	843,781 (80.6%)	79.6%	200,253 (80.6%)	52.4%
Eligible employees who are enrolled	725,651 (86.0%)	68.4%	158,600 (79.2%)	41.5%
Total employees who are not enrolled	335,012	31.6%	223,635	58.5%

*Source: Agency for Healthcare Research and Quality, Center for Financing, Access and Cost Trends, 2002
Medical Expenditure Panel Survey-Insurance Component*

Size of Small Kentucky Employers and Percent Offering Health Insurance

Size of Small Firms	
Number of Employees	Percent of Businesses
1 to 3	55%
4 to 7	21%
8 to 25	20%
26 to 47	4%



Source: UK Center for Rural Health, Kentucky Long-Term Policy Research Center, and UK Survey Research Center

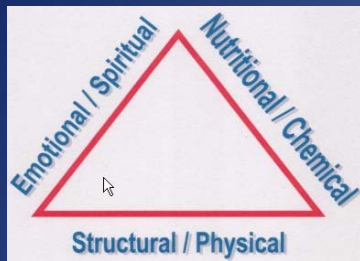


! Cost an Obstacle to Treatment in Past Year !



	Uninsured	Insured
<i>Sick but did not seek care</i>	70%	22%
<i>Skipped a test</i>	54%	21%
<i>Did not fill a prescription</i>	53%	26%
<i>Did not see a specialist</i>	42%	15%

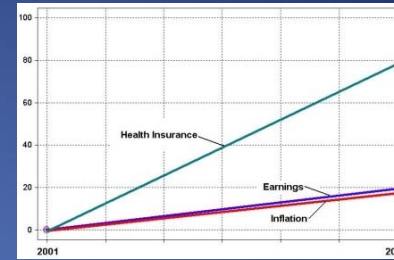
Source: UK Center for Rural Health, Kentucky Long-Term Policy Research Center, and UK Survey Research Center



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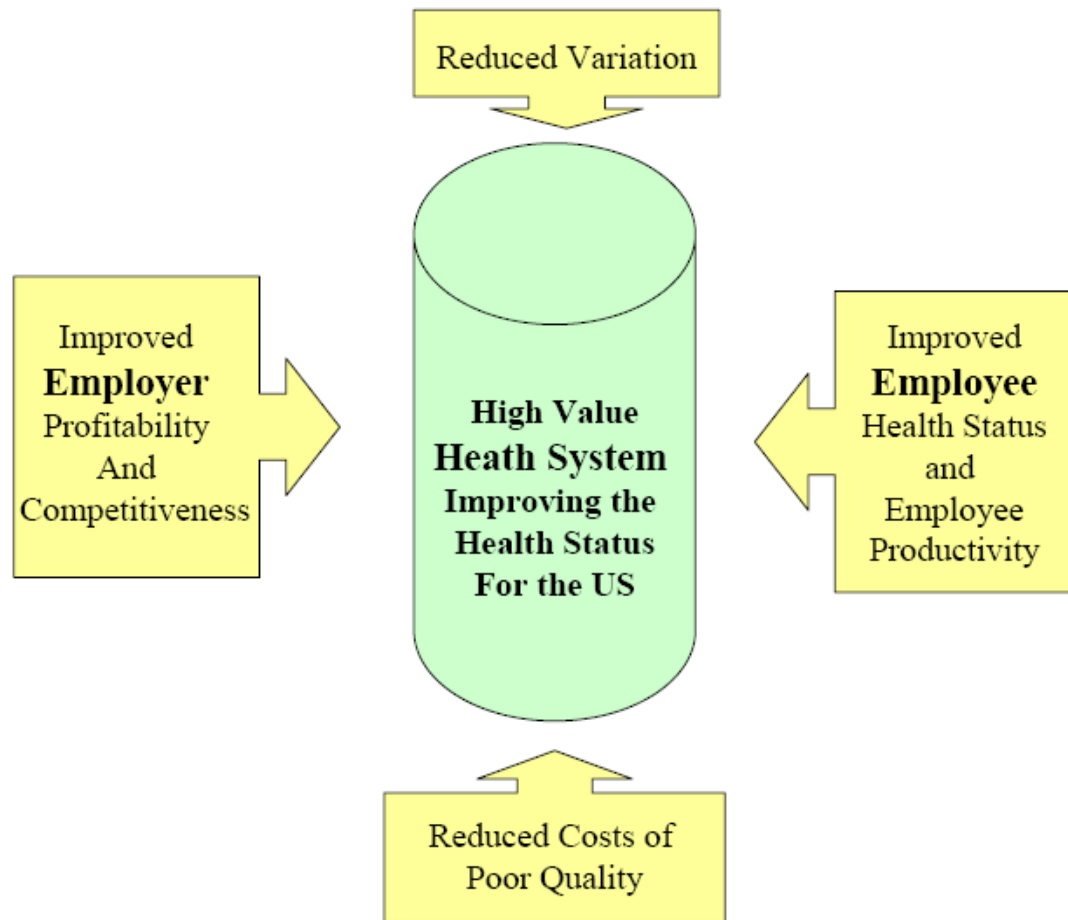


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- Poor health means lower productivity and higher health insurance costs.
- Research shows the dramatic impact of chronic, preventable illnesses have on business' bottom line.
- The right decision is to promote health education, physical activity and preventive benefits in the workplace.

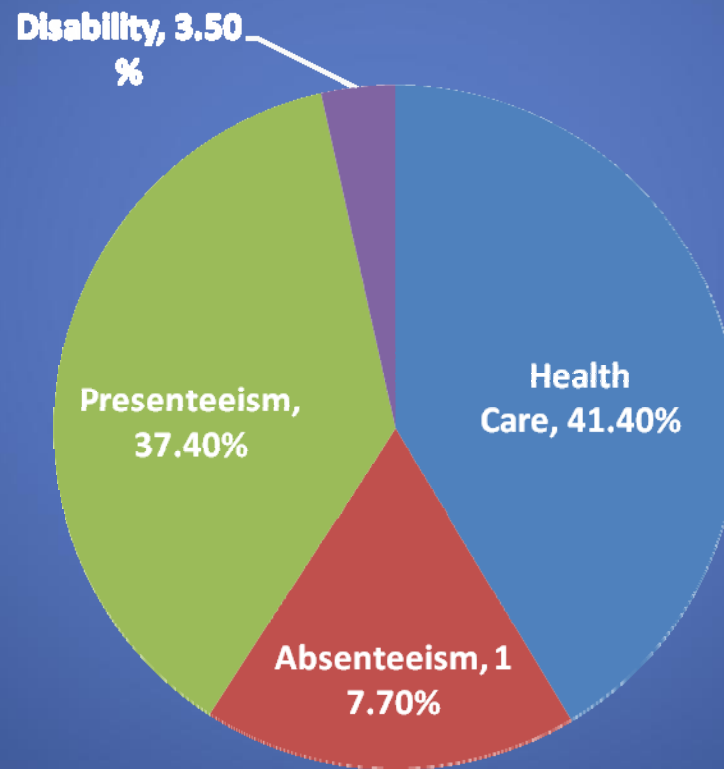
It Is About Creating More Value



“Who Wins, Who Loses, Who Cares: What Do We Know About Who Does Not Participate in Health Protection and Promotion” Dennis E. Richling, MD, President Midwest Business Group on Health, Chicago, IL, 2004.

The True Cost of Health to Business

Percent Estimated Cost



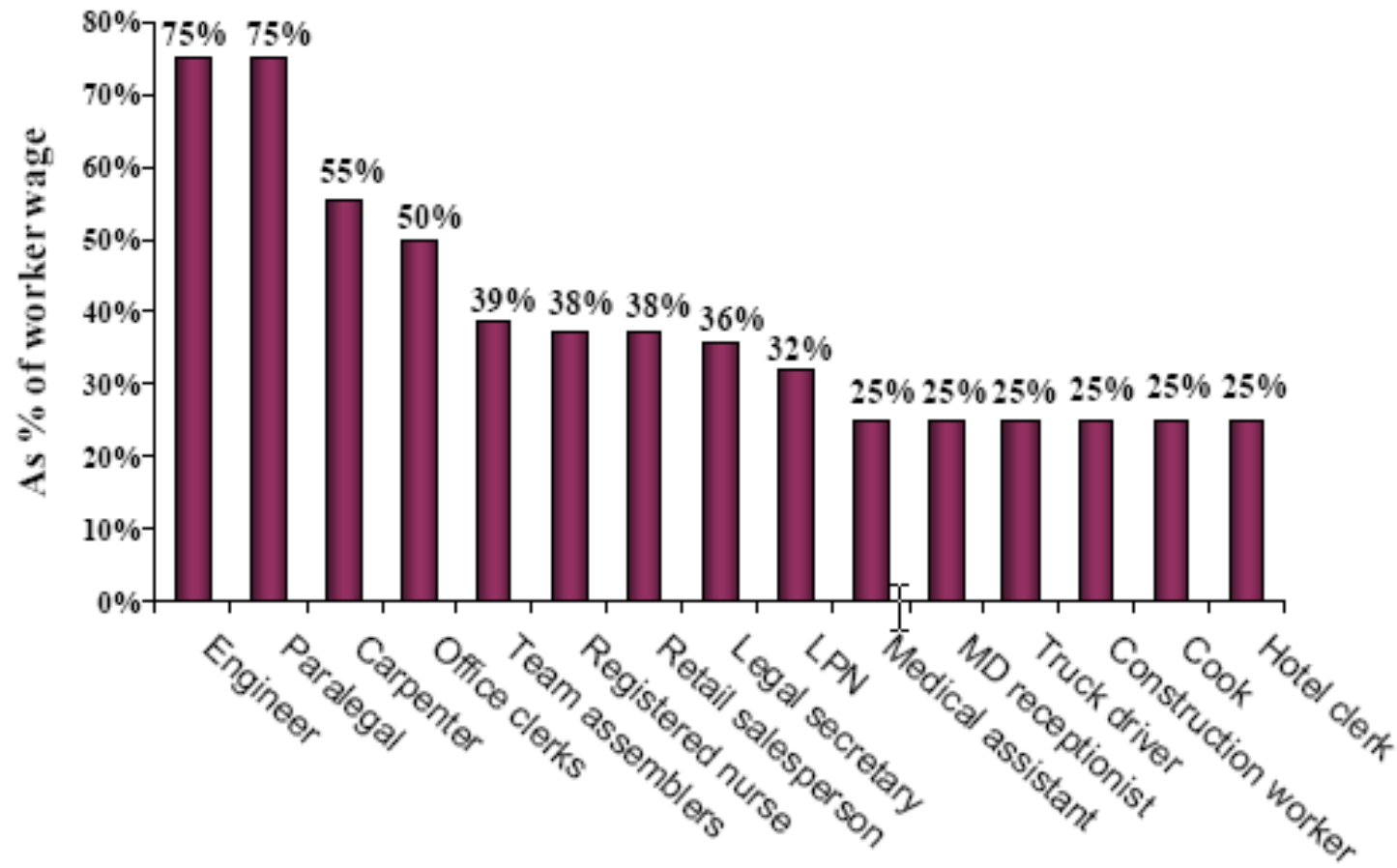
HEALTH, PRODUCTIVITY & ABSENCE MANAGEMENT

Impact of Health Risk Behaviors ,
Stress and Work/Life Imbalance on
Overall Productivity Loss

Alberto Colombi MD MPH
Zorianna Hyworon, CEO InfoTech Inc

<https://www.businessgrouphealth.org/meetings/forum2007/presentations/breakout/3c.pdf>

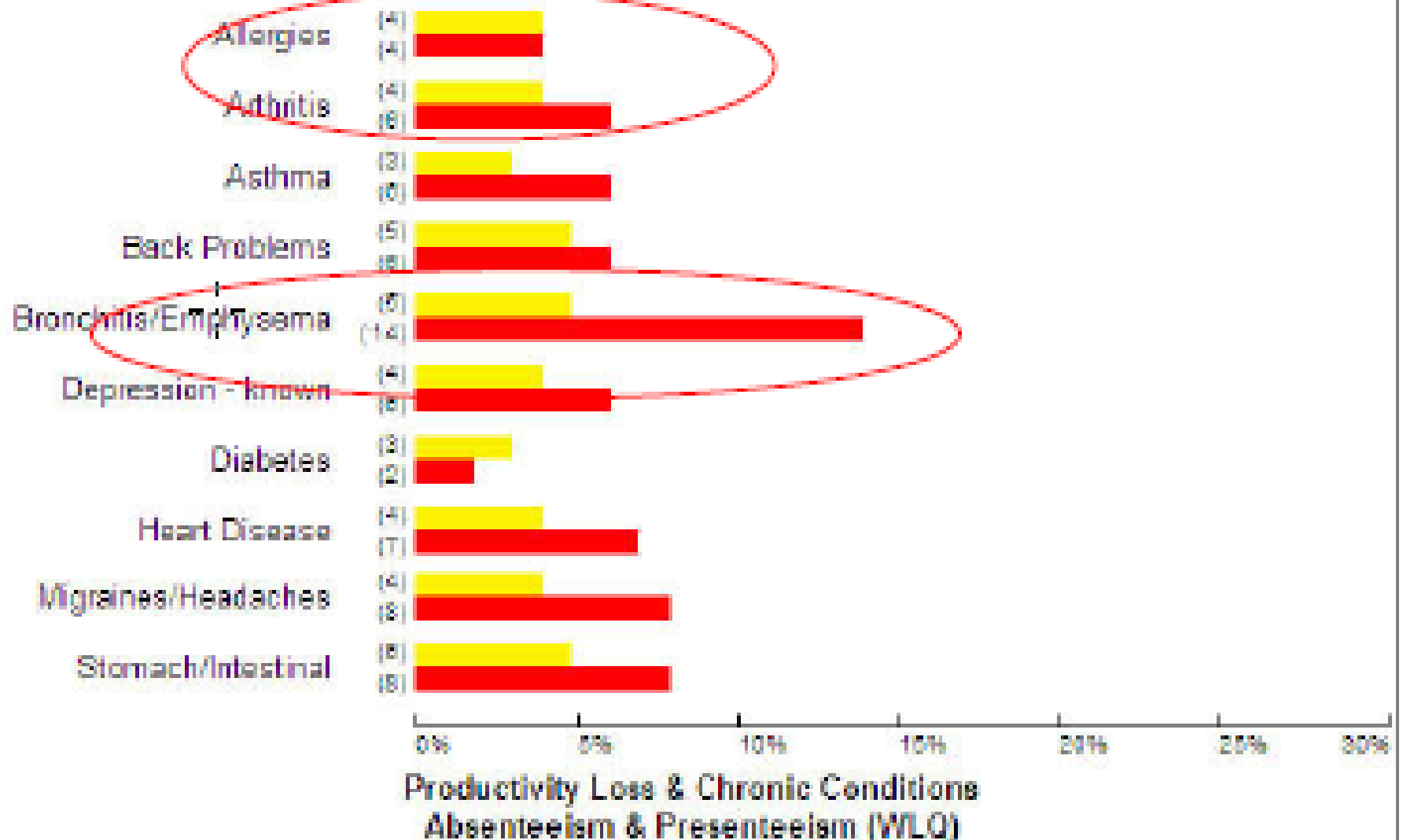
Presenteeism Costs per Day (Chronic conditions only)



Mark Pauly, Sean Nicholson, et al., "Valuing Reductions in On-the-Job Illness: 'Presenteeism' from Managerial and Economic Perspectives," accepted for publication in *Health Economics*.

<http://www.ibiweb.org/publications/download/644>

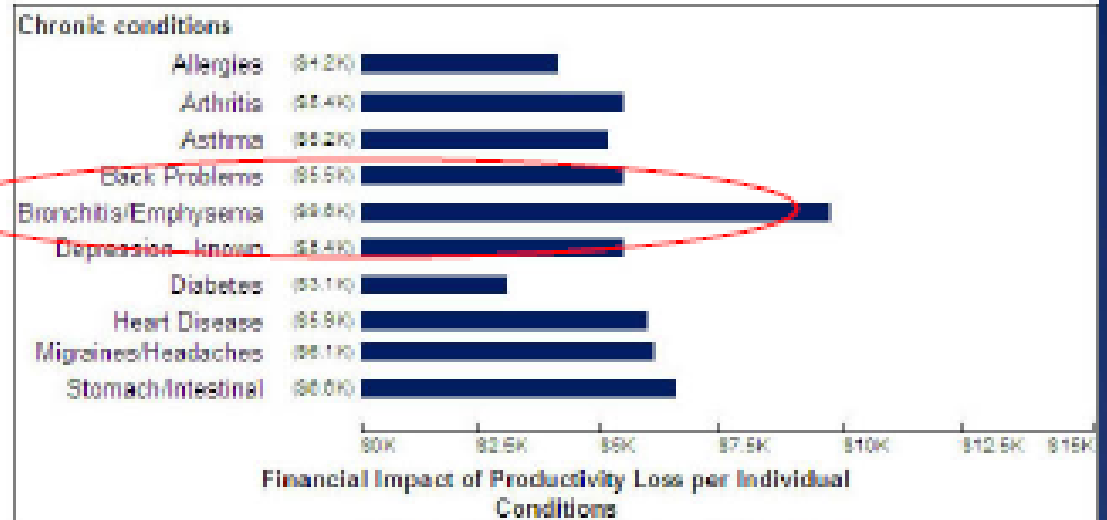
Chronic conditions



- Presenteeism** - as measured by the Work Limitations Questionnaire (W/LQ)
- Absenteeism** - Time Loss reported with W/LQ

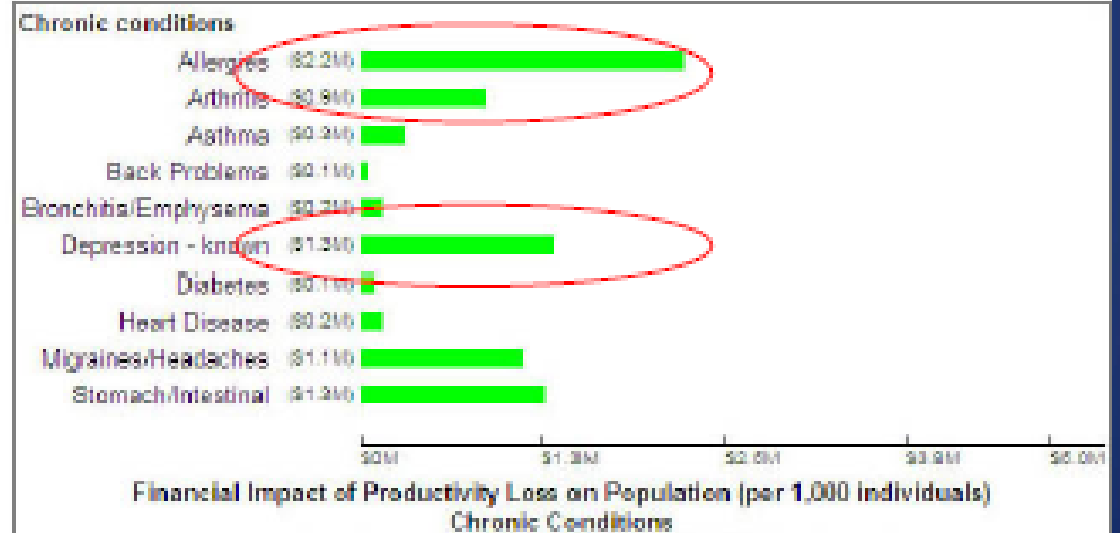
Financial correlates for Productivity Loss

per
individual



based on an average annual salary of \$50,000 .

per 1,000
employees



based on an average annual salary of \$50,000 and prevalence.

Based on average annual salary of \$50,000

SPECIFIC CONDITIONS



With chronic conditions, we observe the greatest effect of the interplay of prevalence X per capita productivity loss



Obesity and Diabetes predictors are associated with the highest productivity loss impact of this category



Stress is the risk factor with most impact on population based productivity loss

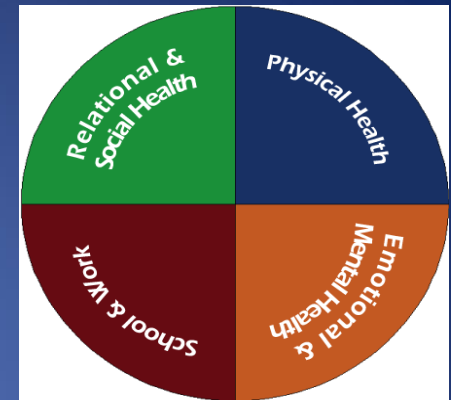


Stress at home is as relevant as stress at work hinting at the need of Work-Life imbalances studies



Severe depression has the highest individual burden of productivity loss, but, due to prevalence, it is the mild cases that have most population impact.

Wellness Programs



- Innovative employers are providing their employees with a variety of work-site-based health promotion and disease prevention programs.
- These programs have been shown to improve employee health, increase productivity and yield a significant return on investment for the employer.

Wellness Programs

- Reduce absenteeism
- Reduce medical costs
- Decrease presenteeism
- Increased productivity
- Reduced Worker's Comp/Disability
- Reduced Injuries
- Increased Morale and Loyalty



TOP REASONS EMPLOYERS GAVE FOR INSTITUTING HEALTH PROMOTION PROGRAMS



- **Improve employee morale (77 percent)**
- **Retain good workers (75 percent)**
- **Attract good employees (67 percent)**
- **Improve productivity (64 percent).**

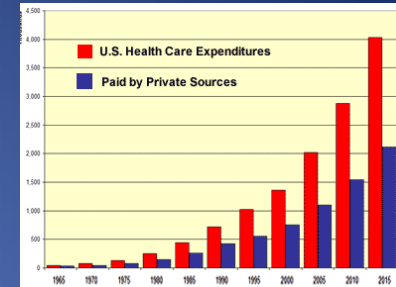
COSTS



Presenteeism/ Absenteeism/Health and Disability Benefits

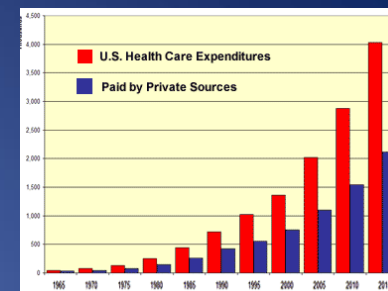
- Presenteeism - Productivity losses (up to 80% of employers total health care costs).
- 20 – 40 % of total health care costs are loss of productivity.
- Most expensive conditions for employer :
 - High blood pressure (\$392. per employee per year)
 - Heart disease (\$368. per employee per year)
 - Mental health problems (\$348. per employee per year)
 - Arthritis (\$327. per employee per year)
 - Allergies (\$271. per employee per year)

COSTS



- An economic analysis found that a health plan's annual costs for covering treatments to help people quit smoking ranged from 89 cents to \$4.92 per smoker, while the annual costs of treating smoking-related illness ranged from \$6 to \$33 per smoker.
- Obesity-related health problems cost U.S. businesses an estimated \$13 billion in 1994, including about \$8 billion in health insurance costs, \$2.4 billion for sick leave, \$1.8 billion for life insurance and nearly \$1 billion for disability insurance.

COSTS



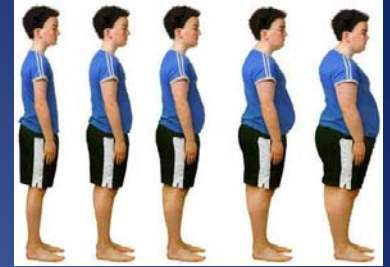
- Average health care expenditures for people with diabetes run about \$13,243 per person, compared with \$2,650 per person for people without diabetes.
- Even after the differences in age, sex, race and ethnicity are taken into account, people with diabetes had medical expenditures that were 2.4 times higher than comparable people without diabetes.

SMOKING



- Health care costs among former smokers increase relative to continuing smokers in the year after cessation but fall to a level that is statistically indistinguishable in the second year post quit.
- Net increase in costs among former smokers relative to continuing smokers appears compensated for within two years post-quit and is maintained for at least six years after cessation.”

OBESITY



“Moderately or extremely obese workers (BMI \geq 35) experienced the greatest health-related work limitations, specifically regarding time needed to complete tasks and ability to perform physical job demands.

These workers experienced a 4.2% health-related loss in productivity, 1.18% more than all other employees, which equates to an additional \$506 annually in lost productivity per worker”

“Overweight and obesity-attributable costs range from dollar 175 per year for overweight male employees to dollar 2485 per year for grade-II obese female employees. The costs of obesity (excluding overweight) at a firm with 1000 employees are estimated to be dollar 285,000 per year”

DIABETES AND OTHER ASSORTED ALIMENTS

The mean total productivity (absenteeism + presenteeism) losses per employee per year were:

- \$593 Allergic rhinitis
- \$518 High stress
- \$277 Migraine
- \$273 Depression
- \$269 Arthritis/rheumatism
- \$248 Anxiety disorder
- \$181 Respiratory infections
- \$105 Hypertension or high blood pressure
- \$95 Diabetes
- \$85 Asthma
- \$40 Coronary heart disease.



EXAMPLES

• **Caterpillar** offers a Healthy Balance Program aimed at motivating workers to make positive changes to reduce their health risks and improve their long-term health. The company projects long-term savings for this effort totaling \$700 million by 2015.



• **Motorola** offers wellness and work/life programs that reach 45,000 employees, family members and retirees across the country. The efforts include disease management programs, flu immunizations, cancer screenings and other health screenings, smoking-cessation programs and a 24-hour nurse telephone line. The company reports saving almost \$4 for every \$1 it invests in its wellness benefits.



• **Northeast Utilities** offers a WellAware program to employees and their families to reduce lifestyle-related health risks. The program includes a health-risk assessment and targeted follow-up efforts, such as smoking-cessation counseling and rebates for purchasing sand behavior choices by \$1.4 million. making-cessation aids. During its first 24 months, the program reduced claims related to lifestyle



RETURN ON INVESTMENT PER DOLLAR FOR LIFESTYLE PROGRAMS



Coors	\$6.15
Kennecott	5.78
Equitable Life	5.52
Citibank	4.56
General Mills	3.90
Travelers	3.40
Motorola	3.15
PepsiCo	3.00
Unum Life	1.81
Source: 2004 T.E. Brennan Company, as reported in <i>In Business: Madison</i> , September, 2004.	

•Internal Management of Costs

- Nurse Case Managers
- Healthy Mother/Baby
- Disease Management
- Wellness Programs
- Pharmacy Review
- Medical Director



**“20% OF HEALTH INSURANCE ENROLLEES
ACCOUNT FOR 80% OF COST”**

Population Health Management... As Practiced with Today's Employers



"Who Wins, Who Loses, Who Cares: What Do We Know About Who Does Not Participate in Health Protection and Promotion" Dennis E. Richling, MD, President Midwest Business Group on Health, Chicago, IL, 2004.

Workplace Wellness: Small Business Options



Communications and Promotion

- Send out a regular “wellness” newsletter in hard copy or online. Or send out a simple message such as the weekly *Healthy U* Hot Tip.
- Use promotions that are already designed such as Healthy Workplace Week.

Active Living and Healthy Eating

- Encourage staff to sign up for the Stairway to Health stair climbing competition.
- Get pedometers for employees and track their steps.
- Rent a nearby school or community gym and offer exercise classes.
- Hire a local fitness instructor to give classes or lead stretch breaks. Costs can be shared with employees.
- Install secure bike parking.
- Serve healthy alternatives at company meetings and lunches.

Policy and Organizational Initiatives

- Hire an ergonomics specialist to assess workstations.
- Develop policies to support work-life balance (for example, mandatory vacations, flextime, limits to work and e-mail on personal time).
- Provide a wellness subsidy for a variety of health and leadership activities and courses.
- Offer financial incentives to be healthy.
- Offer wellness incentives as rewards and recognition for a job well done.
- Conduct an organizational health audit (NQI Healthy Workplace Week).
- Become a partner with the community (for example, daycare, gyms, festivals, parks, restaurants).
- Spread the workload. Set up a wellness committee.



NORTHERN KENTUCKY PRIORITIES?



Smoking Cessation
Obesity
Lack of Physical Activity
Oral Health
High School Graduation

QUESTIONS / COMMENTS?

