



Chronic Disease in Nevada

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Public Health: Working for a Safer and Healthier Nevada

What is a Chronic Disease?

- Definition: Conditions that last a year or longer, limit functionality, and/or may require ongoing medical care*
- Meaning varies depending on perspective:
 - Chronic Disease Epidemiologist: Most prevalent, costly, and preventable of all health problems
 - Economist: Prevalence of chronic disease has risen to become the principle problem confronting the health care system
 - Realist: In the absence of a cure, patient's life is irreversibly changed

Impact of Chronic Disease

- 7 out of every 10 deaths are due to a chronic disease
- The number of individuals living in the US with at least one chronic disease exceeded 125 million in 2000
 - > 918,000 Nevadans in 2000
 - Projected to reach 1,132,000 Nevadans by 2005
- One quarter of all individuals with chronic disease have some type of functional limitation and disability

Impact of Chronic Disease

- Individuals with five or more chronic conditions require about 15 physician visits and fill almost 50 prescriptions per year
- Average Medicare beneficiary sees seven different physicians and fills more than 20 prescriptions per year
- Current health care system does not place high priority on primary, secondary and tertiary prevention efforts to avert disease or slow its progress

Source: N Engl J Med 2000; 343:16-22

Disease Comparison

	ACUTE DISEASE	CHRONIC DISEASE
ONSET	Abrupt – Short Incubation Period	Insidious – Relatively Long Latency
DURATION	Limited	Long - Indefinite
CAUSE	Usually Single - Commonly Biological	Multifactorial (physiological, biological, behavioral, genetics, psychosocial, environmental, etc.)
DIAGNOSIS	Commonly Accurate	Often Uncertain

Disease Comparison (con't)

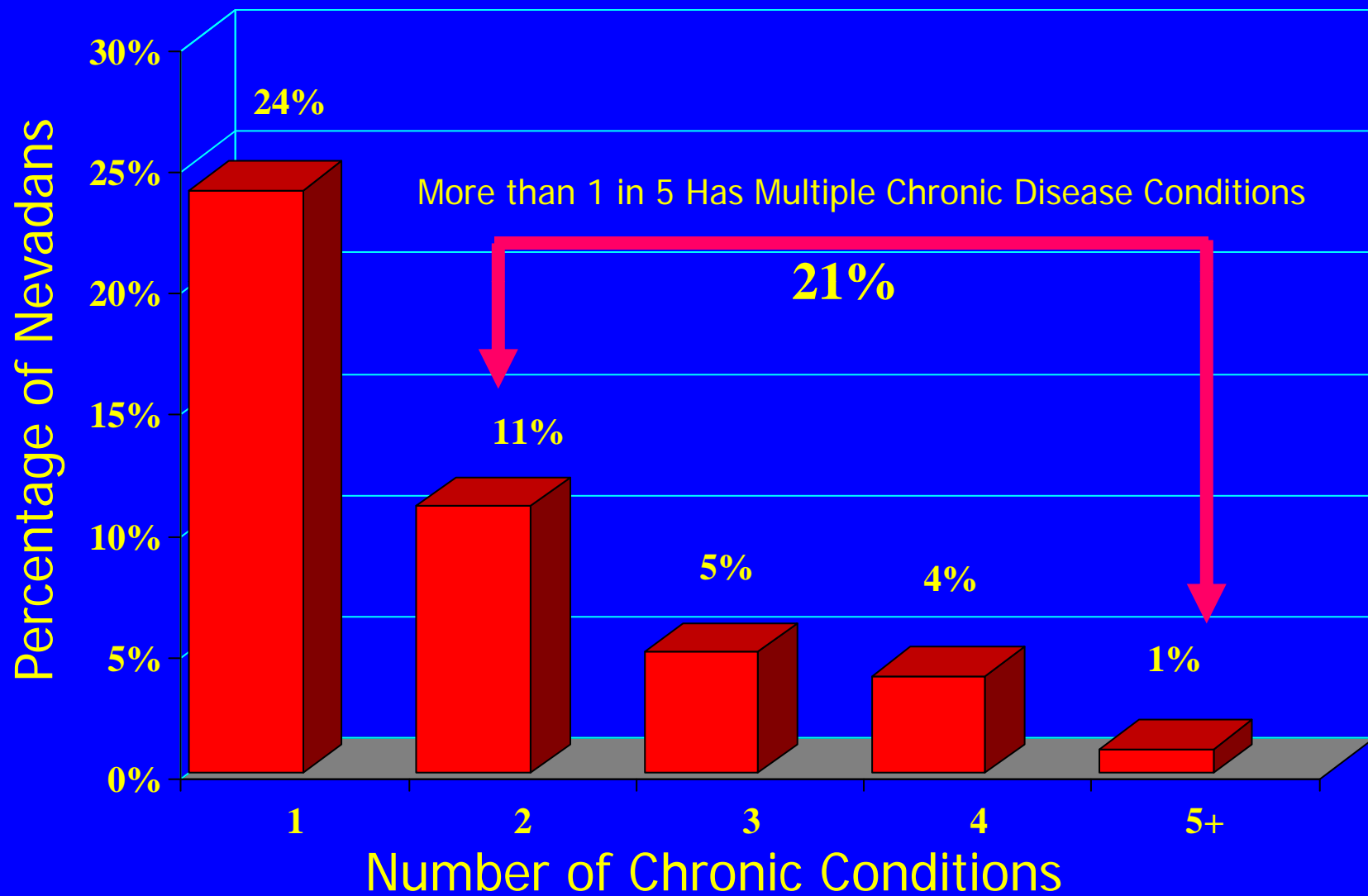
	ACUTE DISEASE	CHRONIC DISEASE
PROGNOSIS	Predictable	Commonly Obscure
INTERVENTION	Usually Effective	Commonly Indecisive
OUTCOME	Cure likely with return to normal health	No known cure - Management over time is required
UNCERTAINTY	Minimal	Pervasive
KNOWLEDGE	Extensive	Experimental - Uncertain
COST	Limited - fixed	Ongoing - increasing

Source: Halsted Holman, MD Prerequisite for Effectiveness and Efficiency in Health Care 2001 (table edited and modified - IAzzam 2004)

Reasons for Rapid Increase in Chronic Disease Prevalence

- Increasing Incidence
- Increasing Life Expectancy – Aging
- Advances in Medical Science thereby decreasing mortality
 - Advances in Medical Procedures and Pharmaceuticals
 - New Diagnostic Testing
- Population-based Screening
- Earlier Detection

Prevalence of Multiple Chronic Disease Conditions



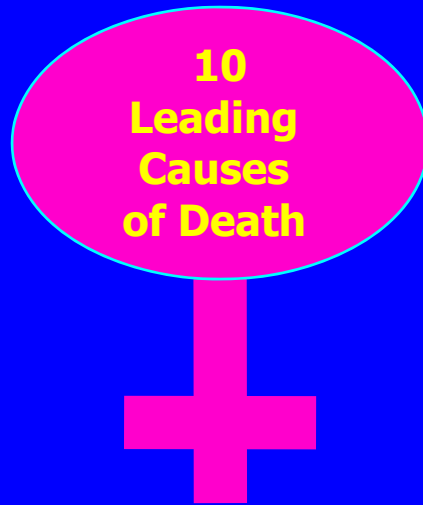
Source: Nevada Demographic Center & Wu, Shin-Yi and Green, Anthony. Projection of Chronic Illness Prevalence October 2000

Chronic Diseases are the Cause of More than **7/10** Deaths in Nevada

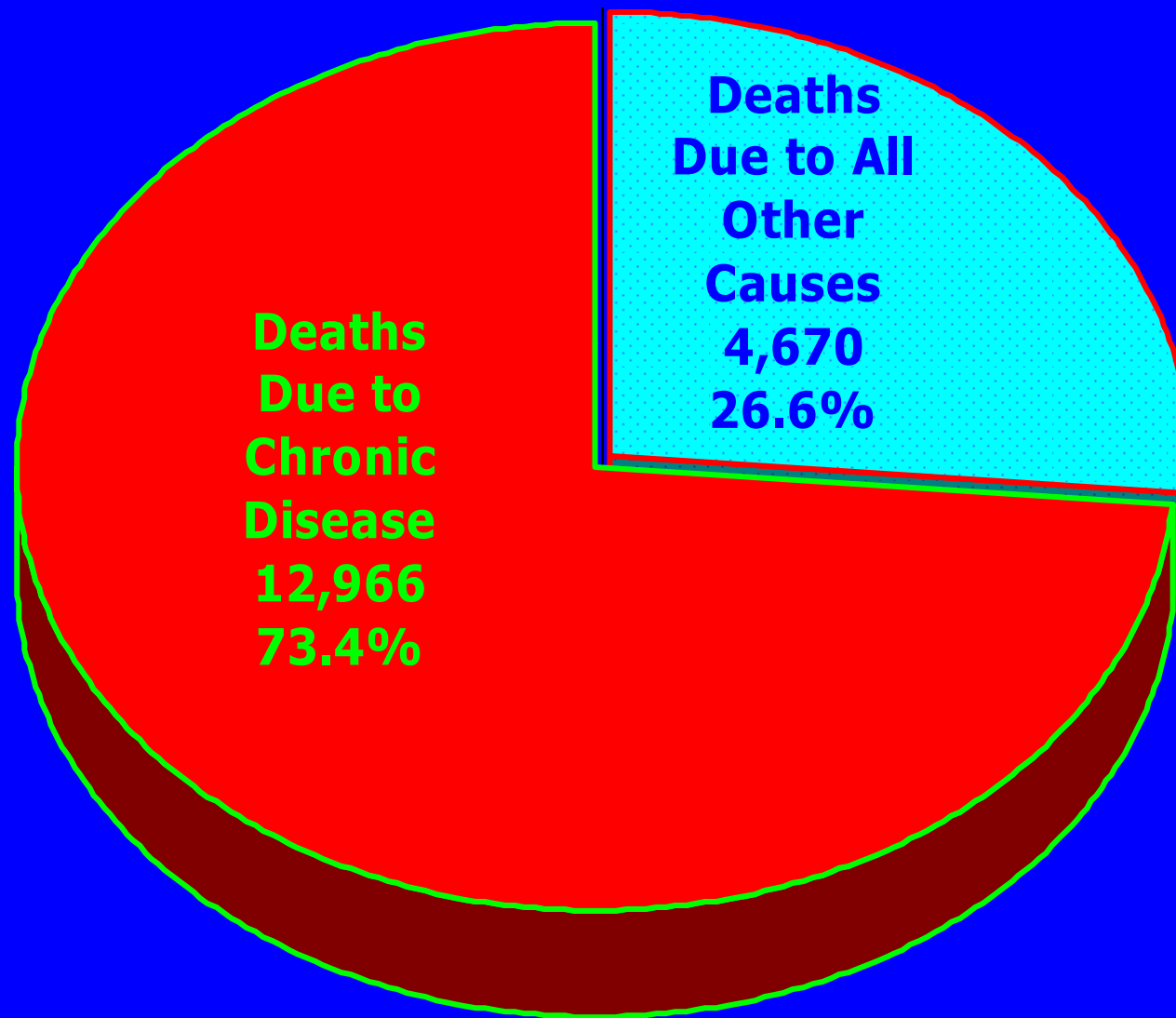
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in Age Group 50-64

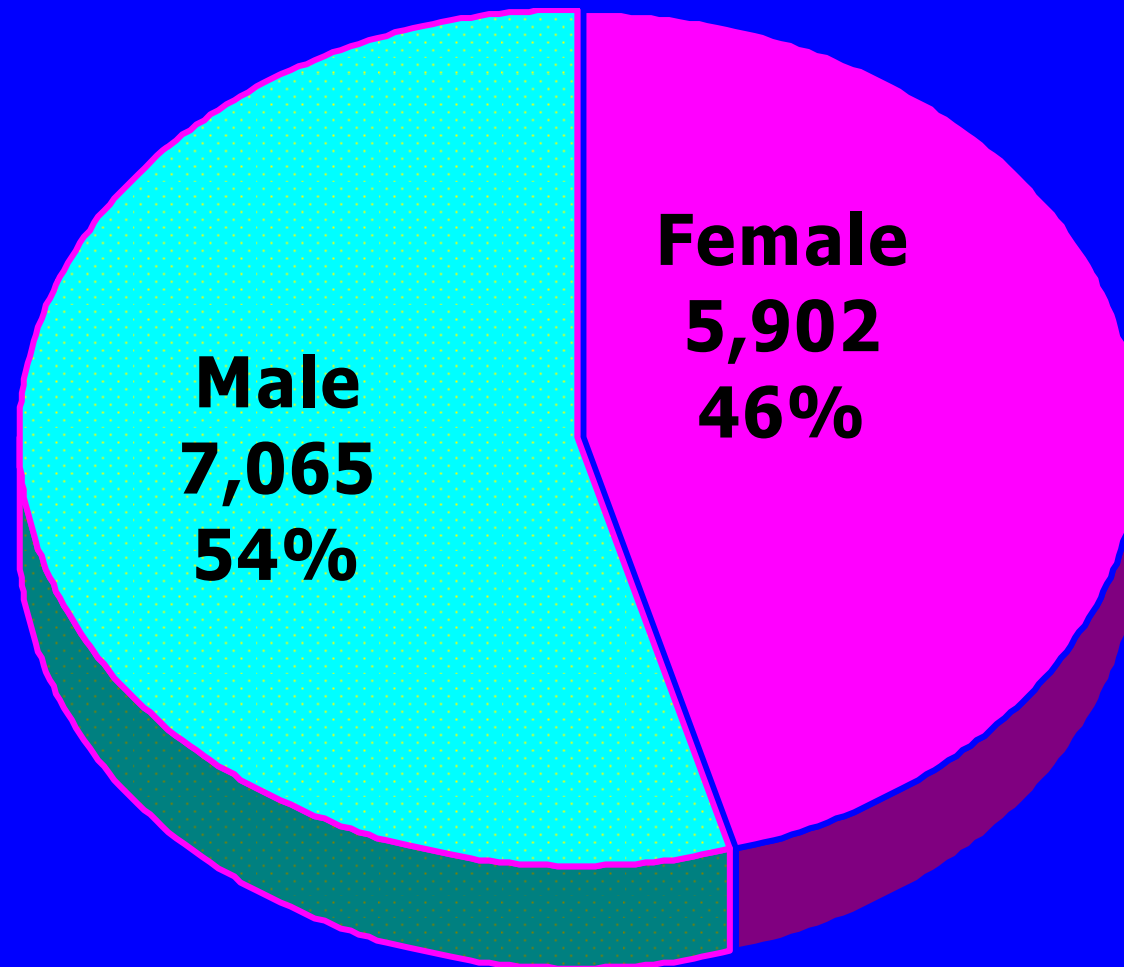
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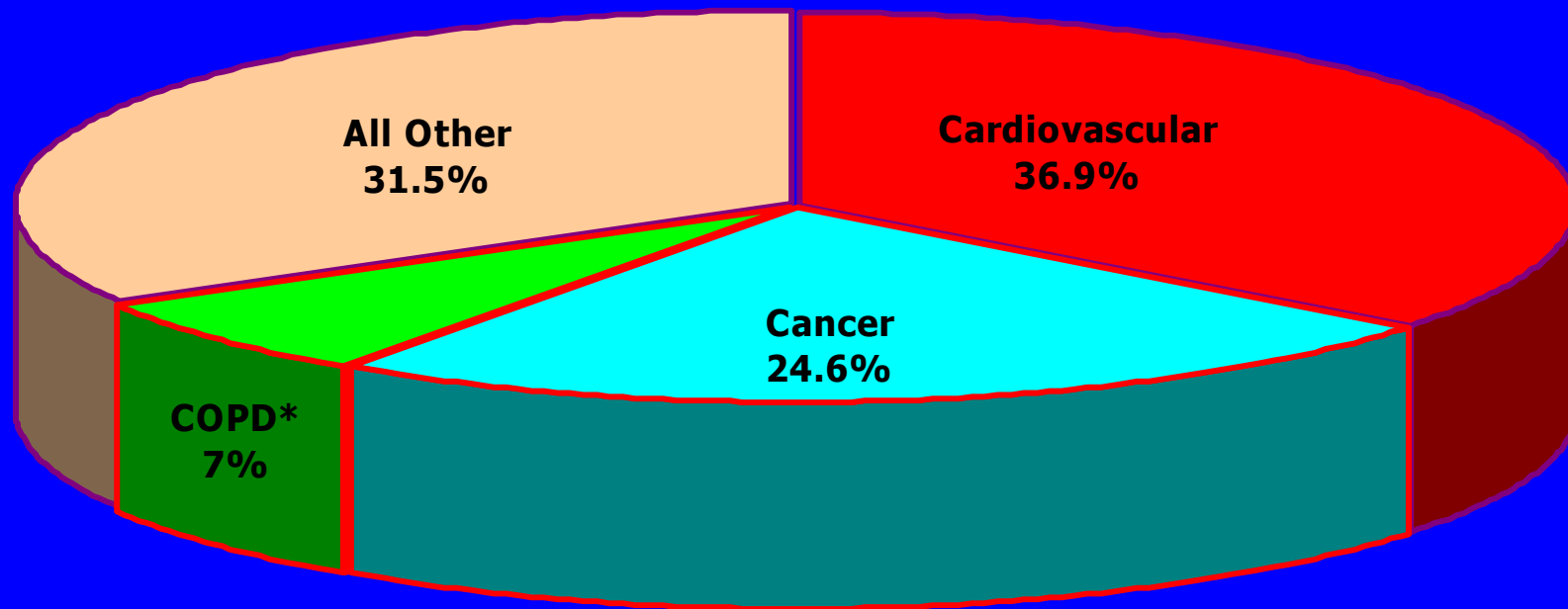
Mortality – Nevada 2003



Chronic Disease Mortality by Gender - Nevada 2003

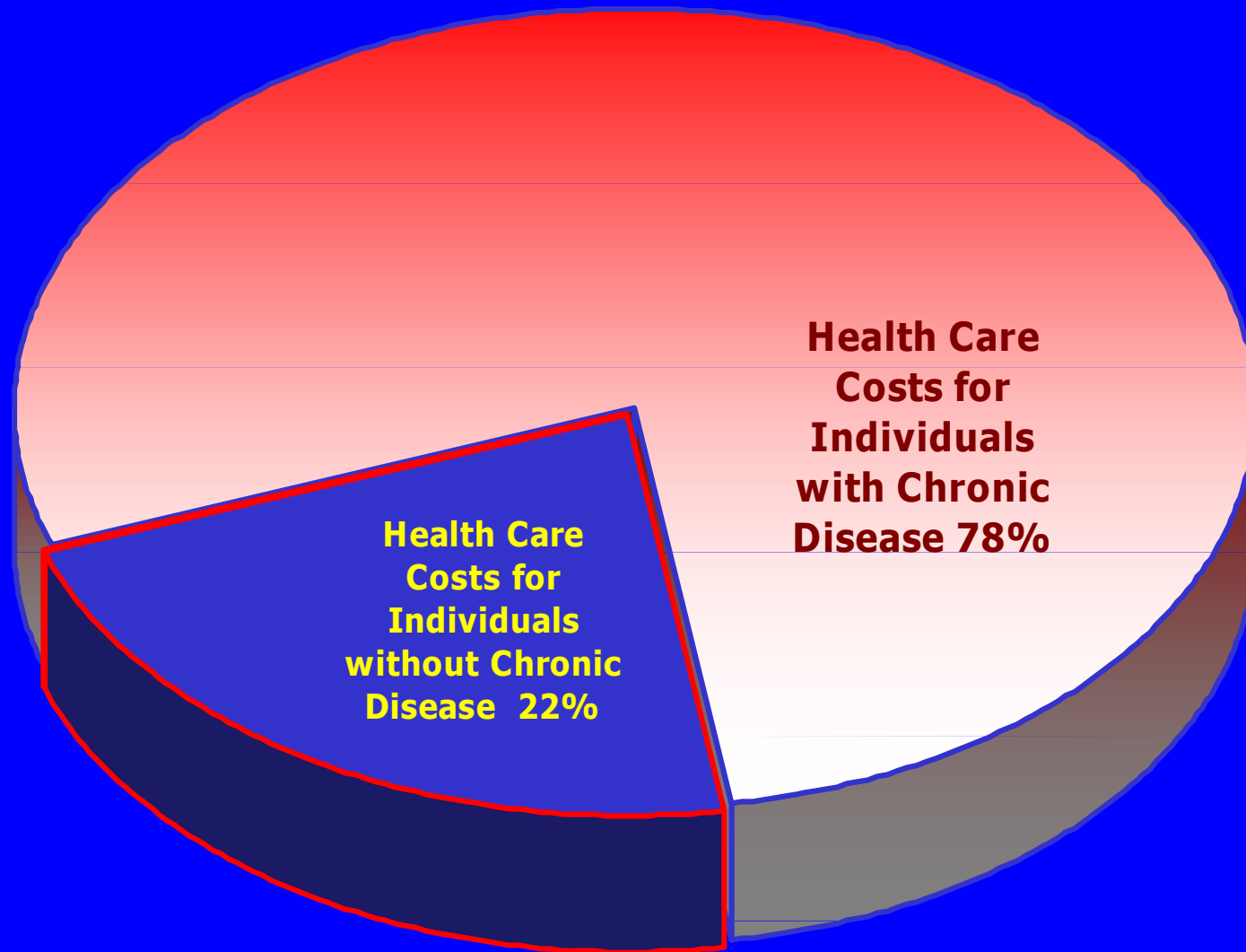


Major Causes of Death - Nevada 2003



* Chronic Obstructive Pulmonary Disease

Chronic Disease Cost - Nevada 2001



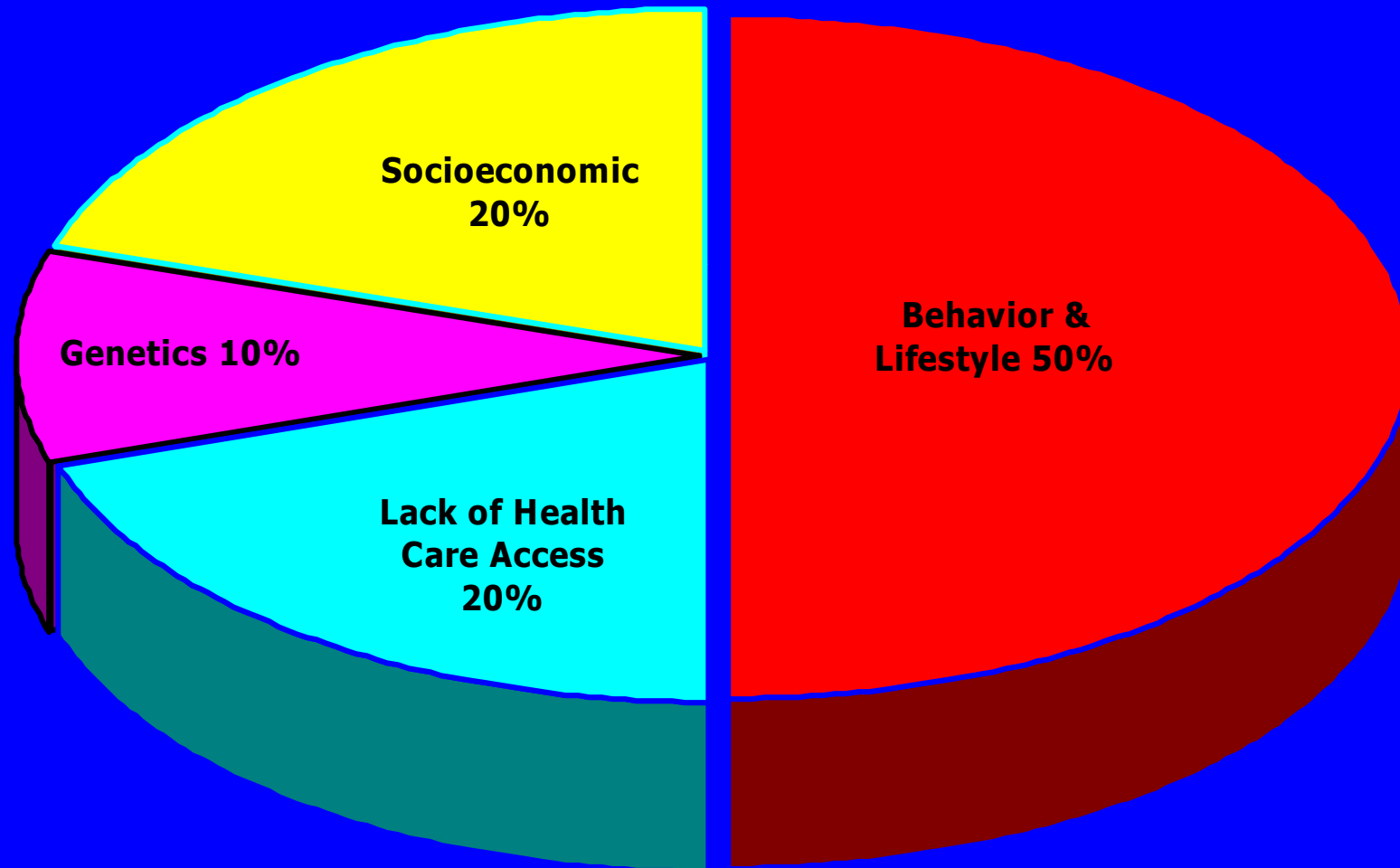
Nevada – Thought Provoking Facts

- For the past 17 years, Nevada has been the fastest growing state in the nation including all age groups
- About 1 in 2 Nevadans will develop one or more chronic conditions in their lifetime
- 1 in 5 will have two or more chronic conditions

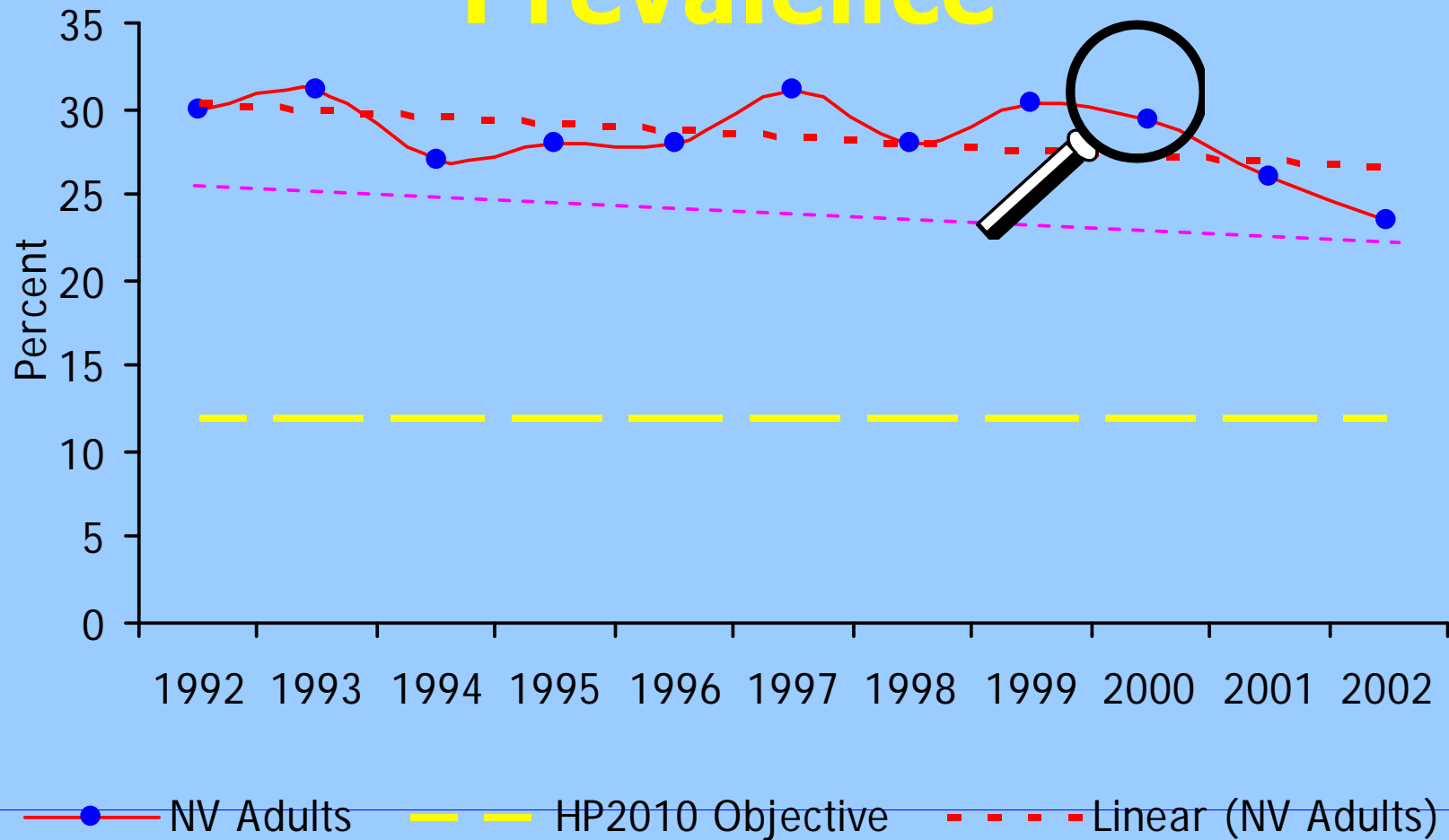
Nevada – Thought Provoking Facts (con't)

- Chronic, disabling conditions cause major limitations in activity for more than 1 of every 10 Nevadans
- Women are more likely than men to have Chronic Disease
- About half (44+%) of all individuals with chronic disease have multiple conditions

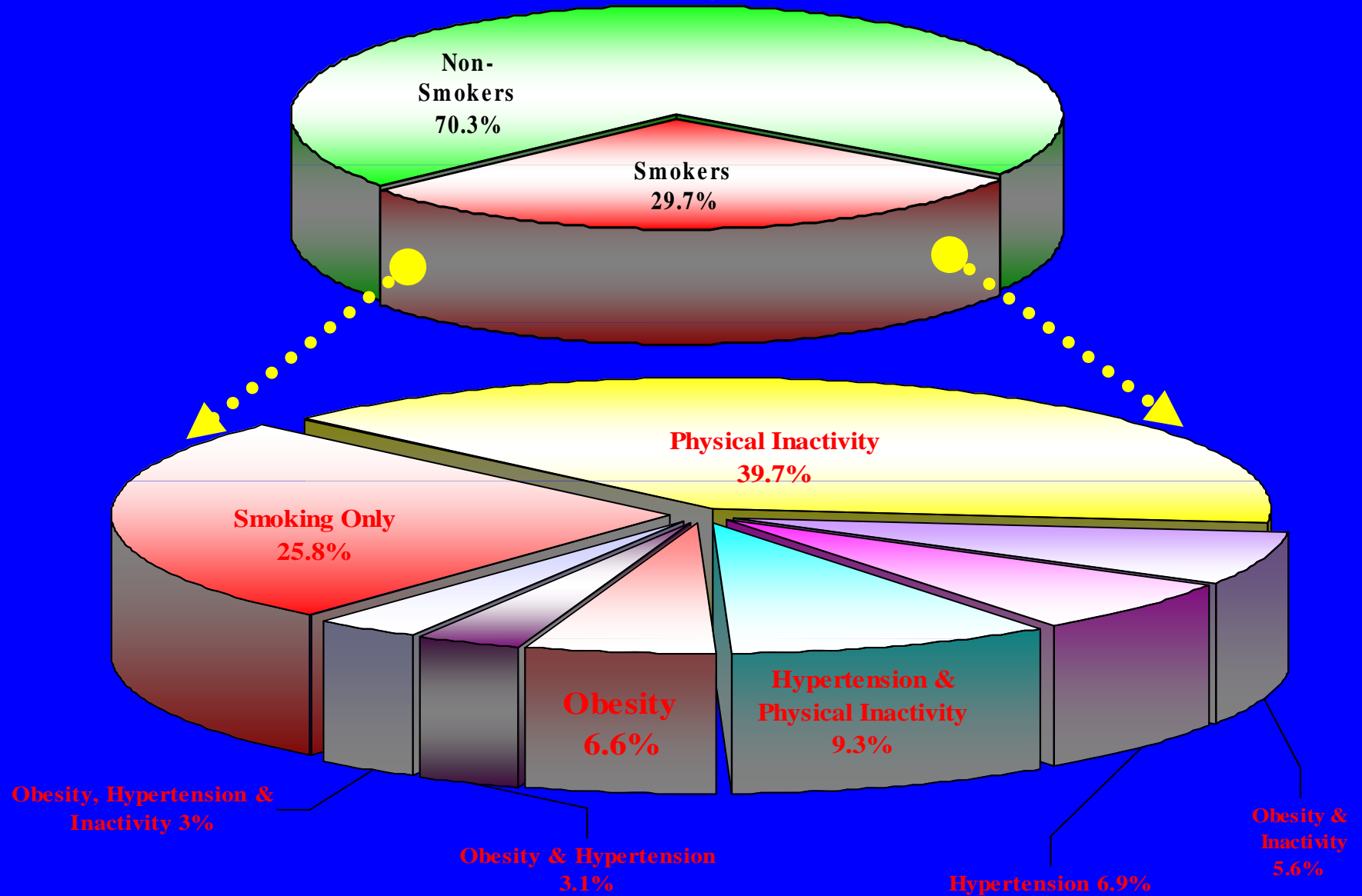
Chronic Disease Determinants



Tobacco (smoking) Prevalence

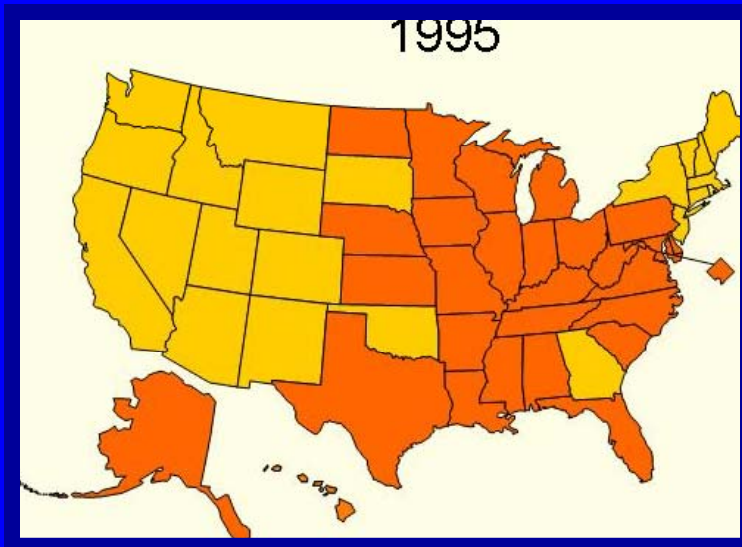
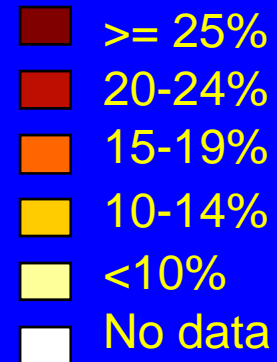
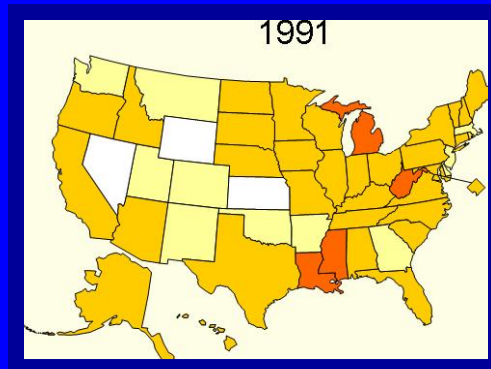


Smoking and Multiple Chronic Disease Risk Factors



Source: University of Nevada 2004 – CDC – Aggregate Nevada BRFSS Data

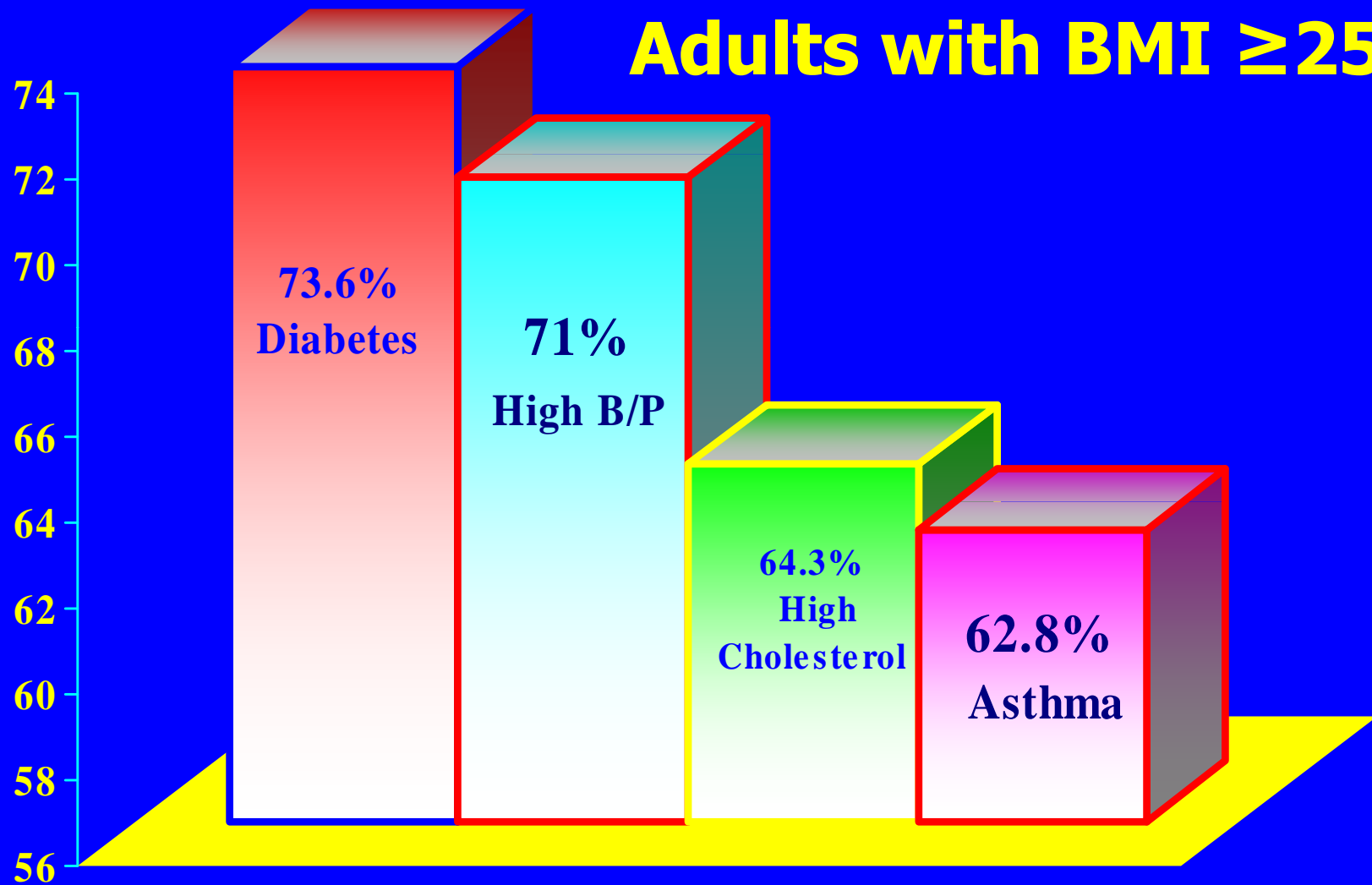
Prevalence of Adult Obesity



Note: Data are for ages 18 years and over, based on self-reported weight and height via telephone interview. Obesity is defined as BMI ≥ 30.0 .

Source: Behavioral Risk Factor Surveillance System, NCCDPHP, CDC.

Health Risks of Nevada Adults with BMI ≥ 25



Source: Aggregate 1996-2003 Data from Behavior Risk Factor or Surveillance System (BRFSS)

Percentage of New Cases That Could Be Avoided by Healthy Lifestyles

	Heart Disease	Diabetes	Stroke	Cancer
Proportion of Cases	> 80%	>80%	> 70%	>50%

Source: N Engl J Med 2000; 343:16-22

Conclusions

- **Effective measures exist today to prevent (reduce the incidence) much of the chronic disease burden and to limit their devastating consequences through practicing wellness by:**
 - **Promoting healthy behaviors and reducing unhealthy behaviors/lifestyle (at school, workplace and home) such as:**
 - **Limiting Tobacco Use**
 - **Increasing Physical Activity**
 - **Appropriate Nutrition (neither inadequate nor over-adequate)**
 - **Increasing the frequency of use of early detection modalities**
 - **Consumer and Provider Education**
 - **Partnering with community-based organizations in order to achieve healthier communities.**

Conclusions (con't)

- **Unless the current health care system changes, an increasing number of Nevada residents with chronic diseases and conditions will have unmet needs**
- **By working together, public health professionals and policy makers can change the way health care is delivered so the needs of these Nevada residents are met**



Questions?

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