

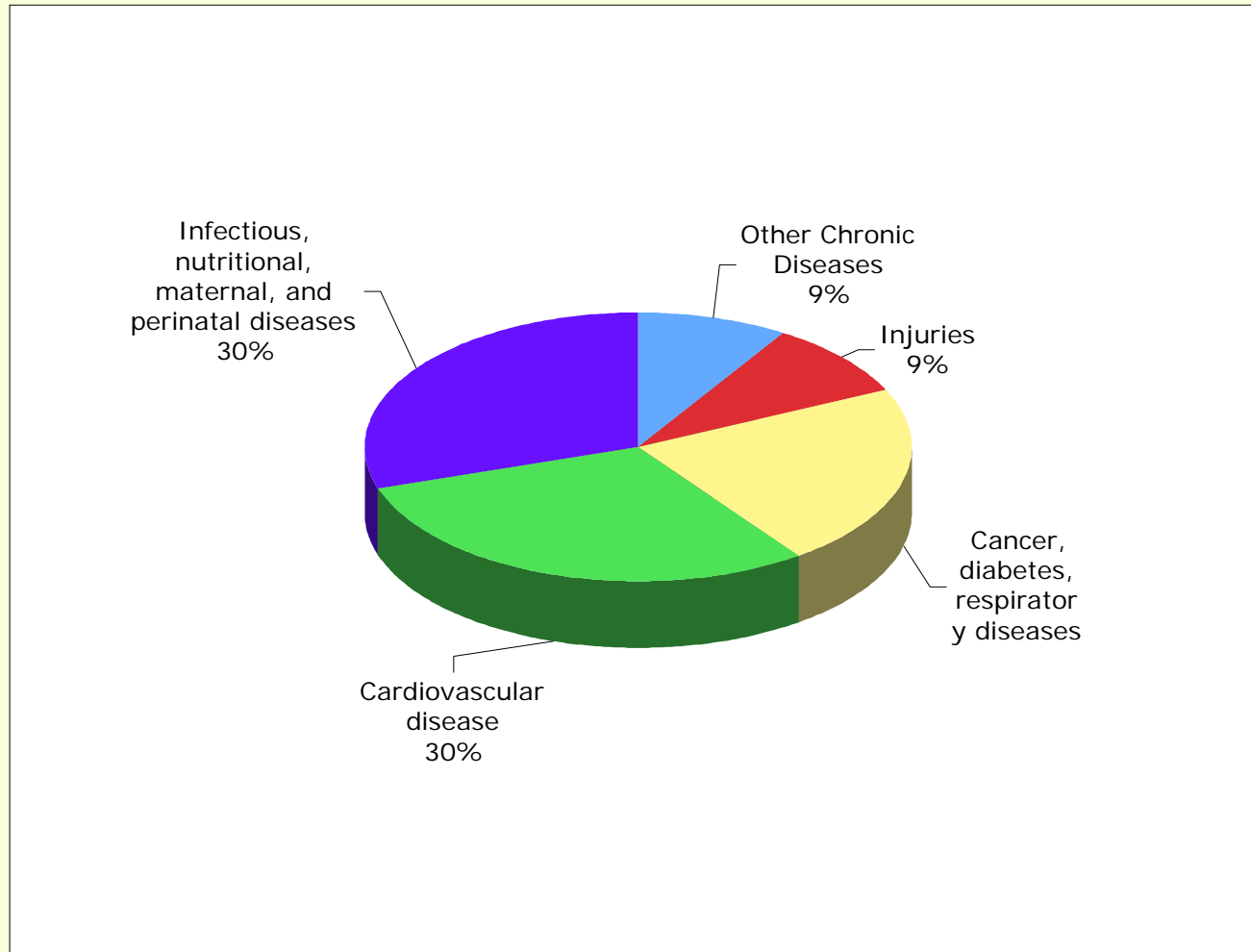
# The near, distant and very distant future of CV care

Julio C Palmaz

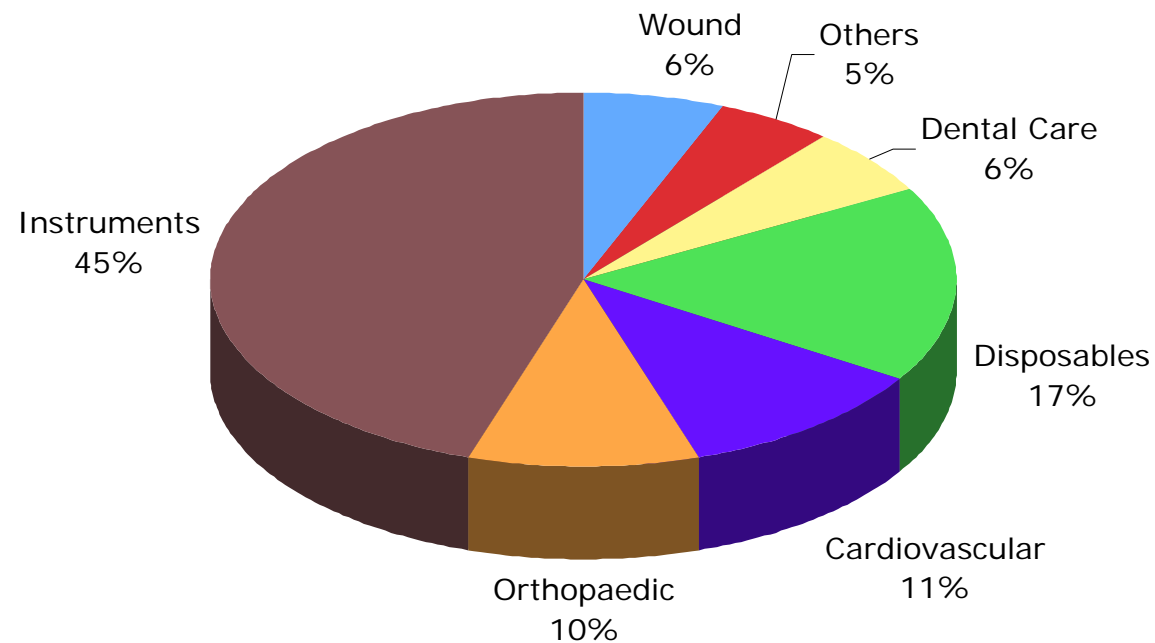
The University of Texas at San Antonio

Palmaz Scientific Co

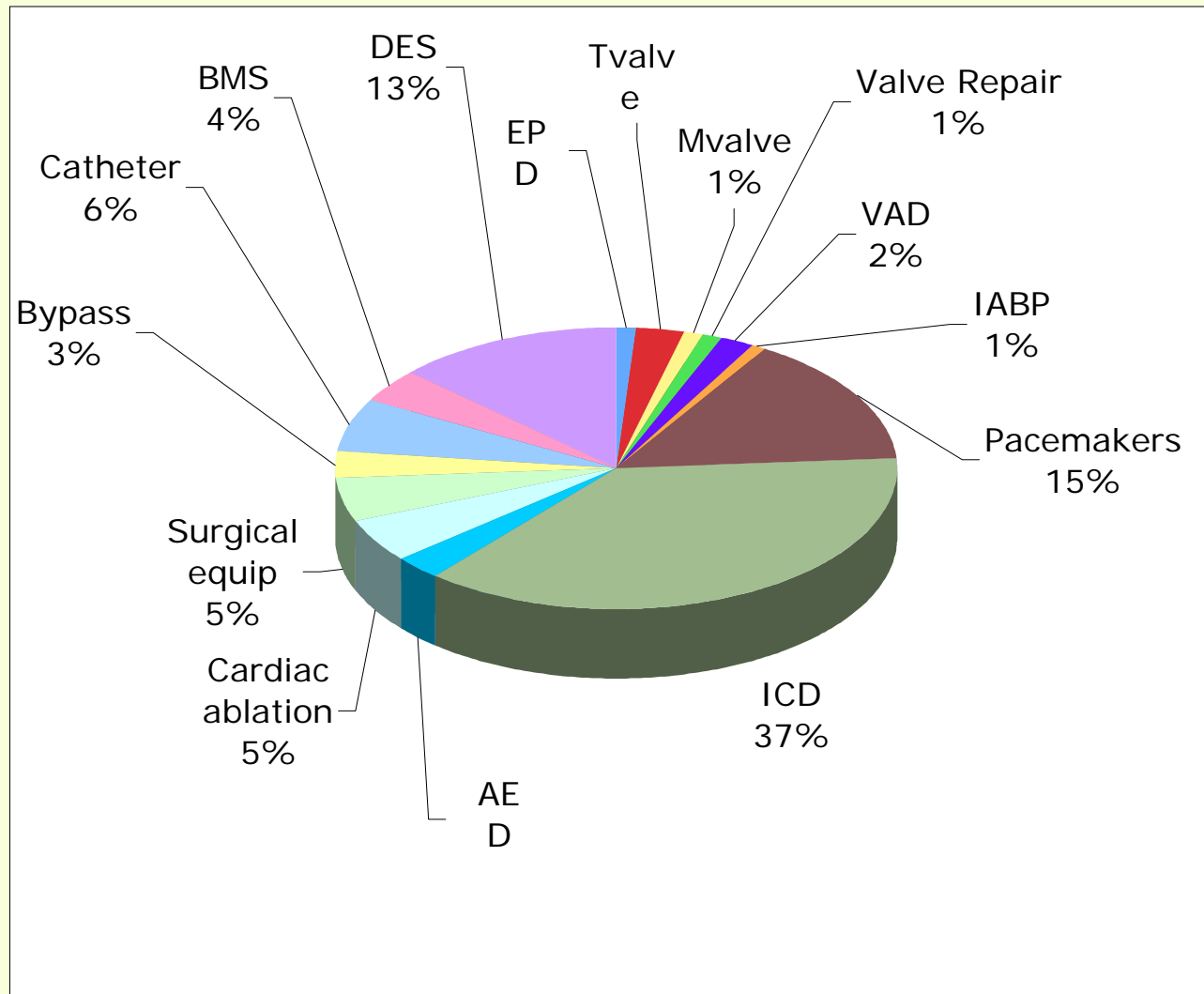
# Global causes of death



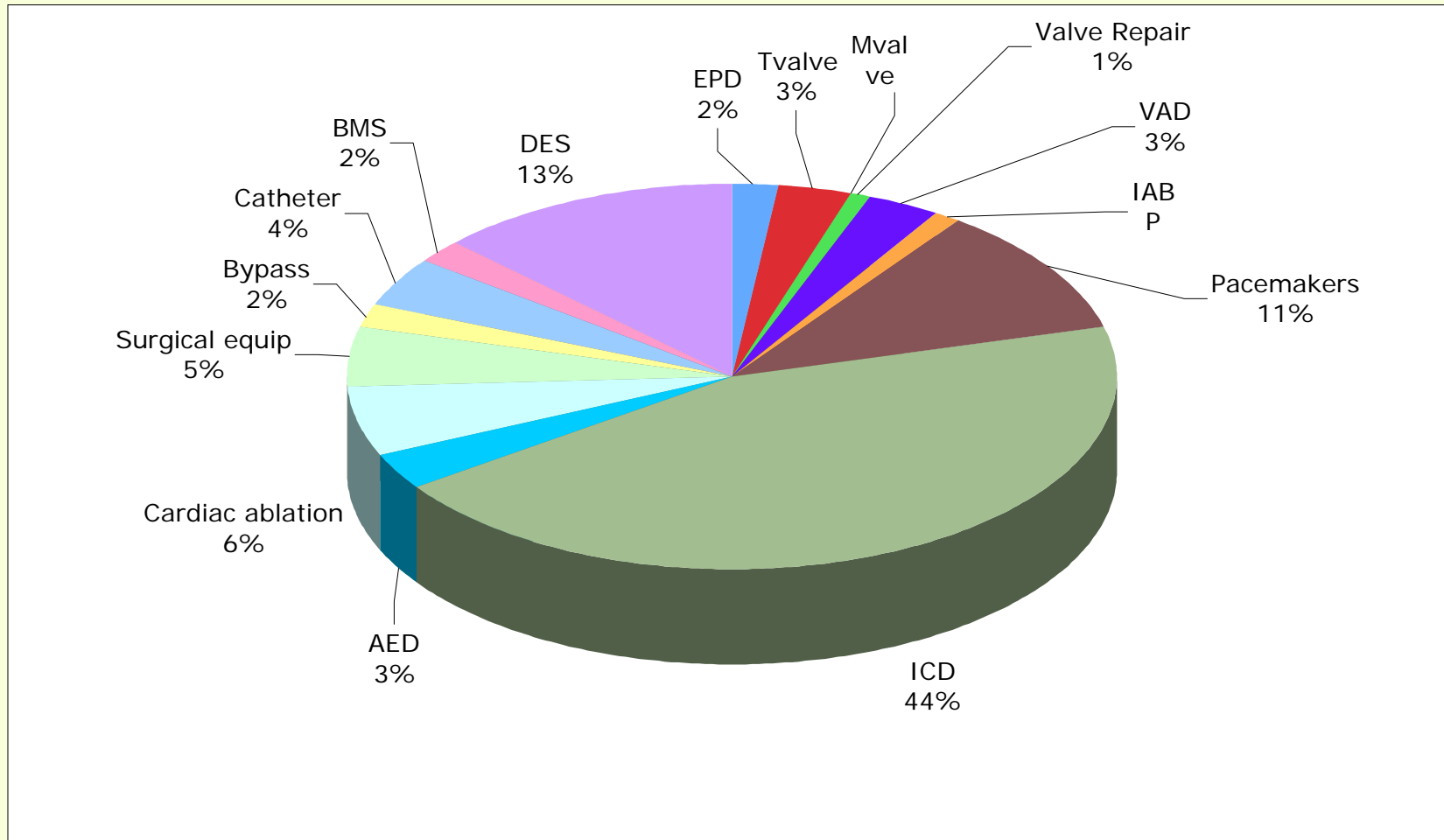
# Global cost of CVD : 403 billion dollars/yr



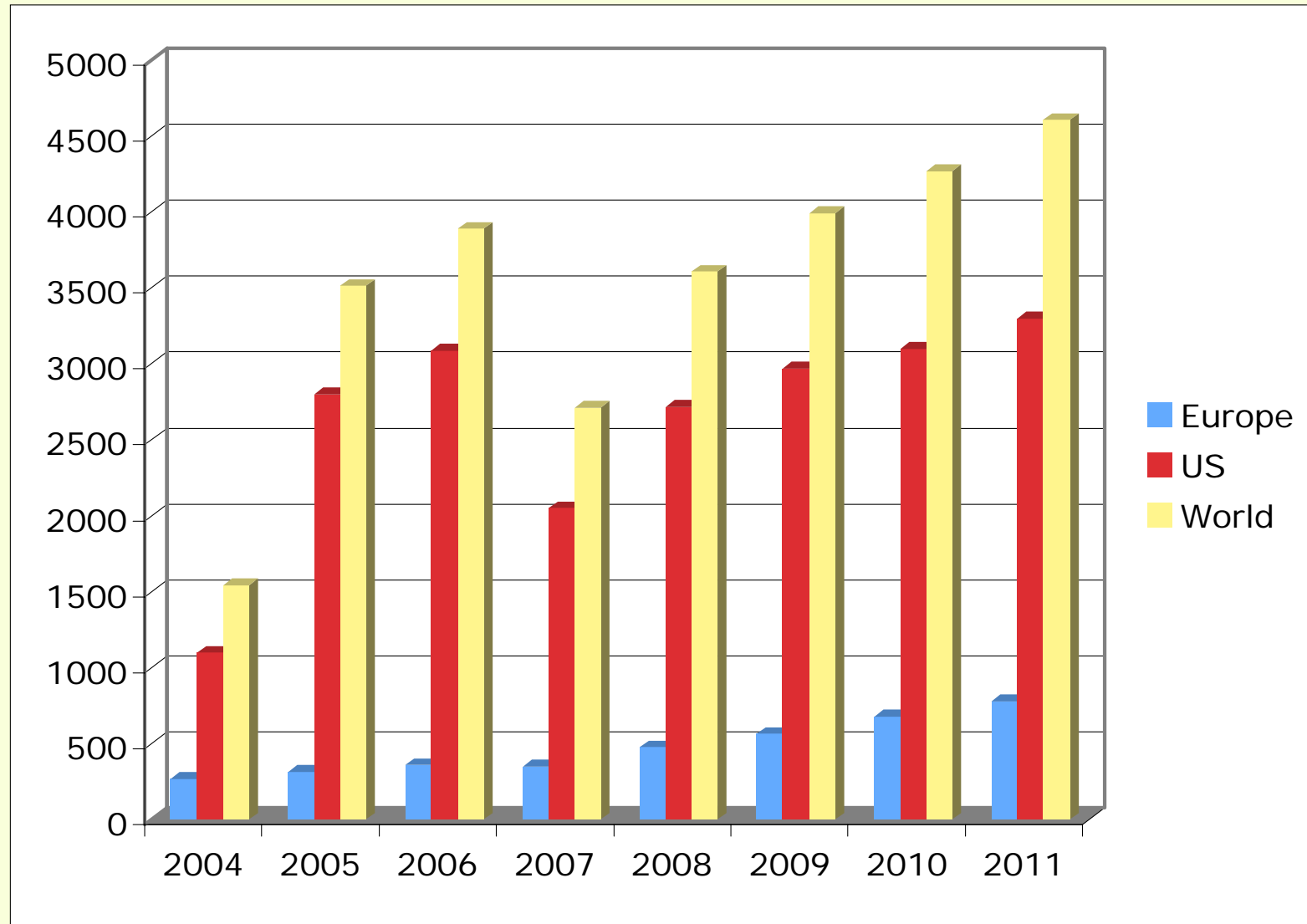
# CV catheters and stents 2007: 8.4 billion \$/yr



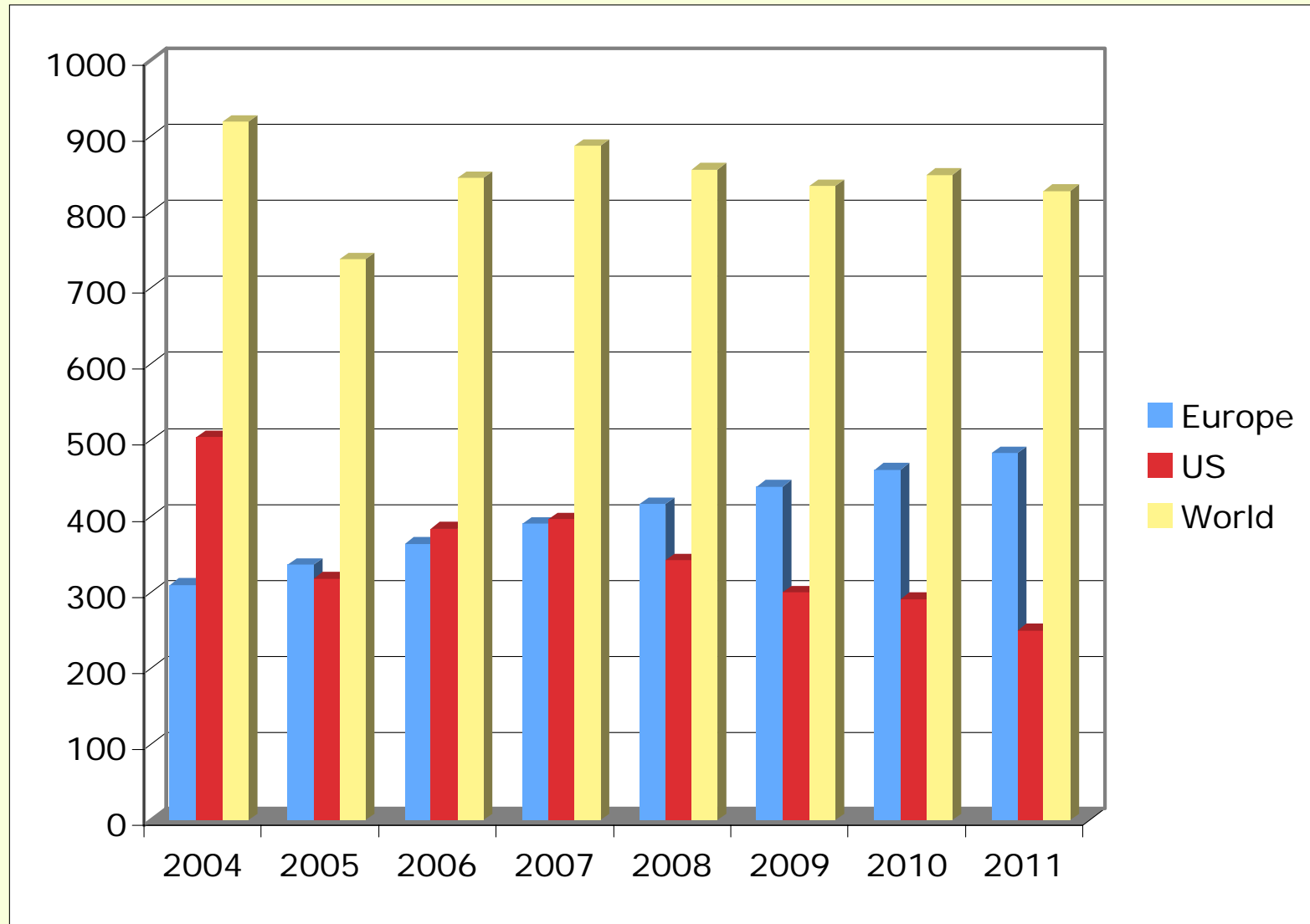
# CV catheters and stents, 2011



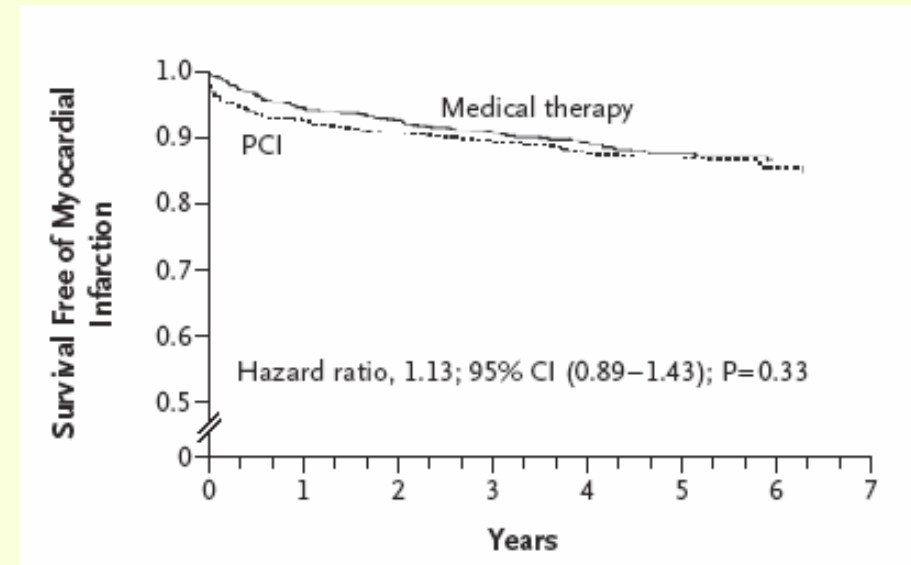
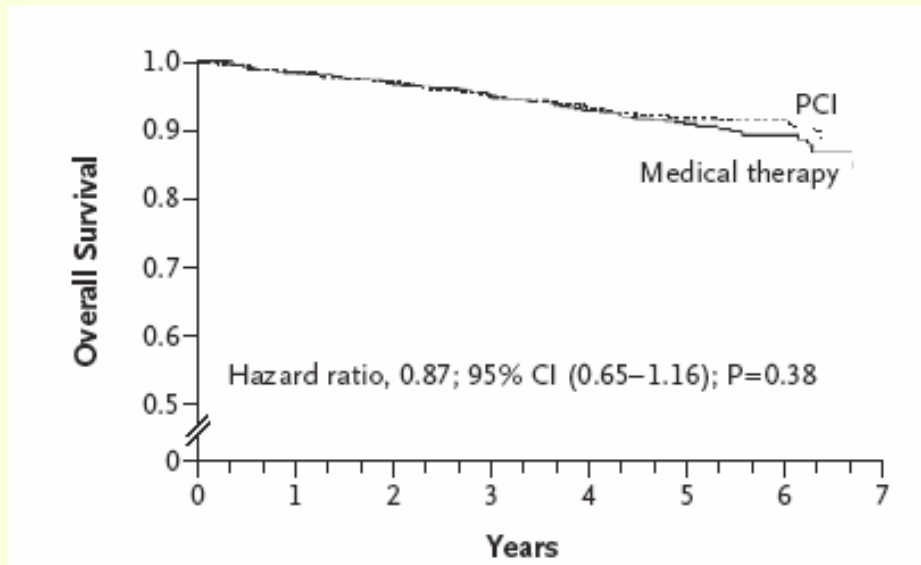
# Drug eluting stent market



# Bare metal stent market

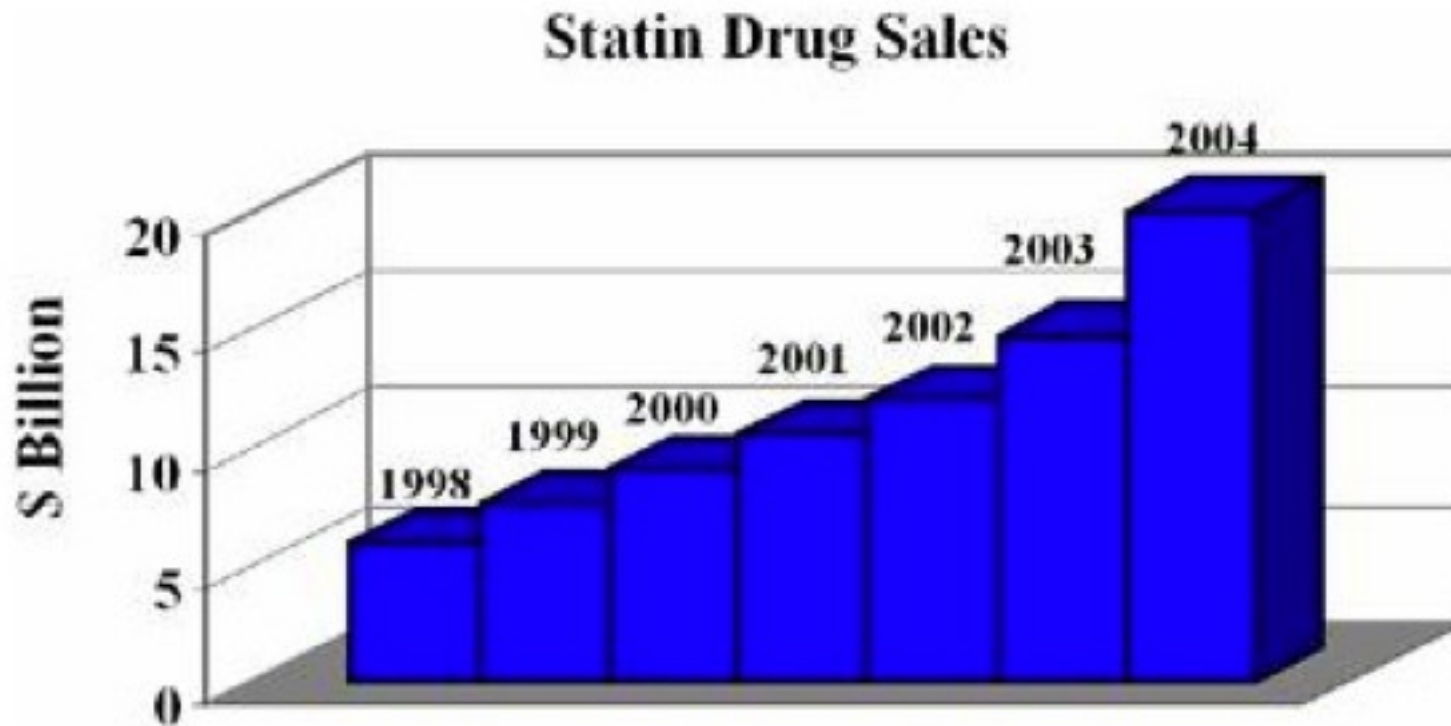


# Stents vs. medical therapy: COURAGE trial



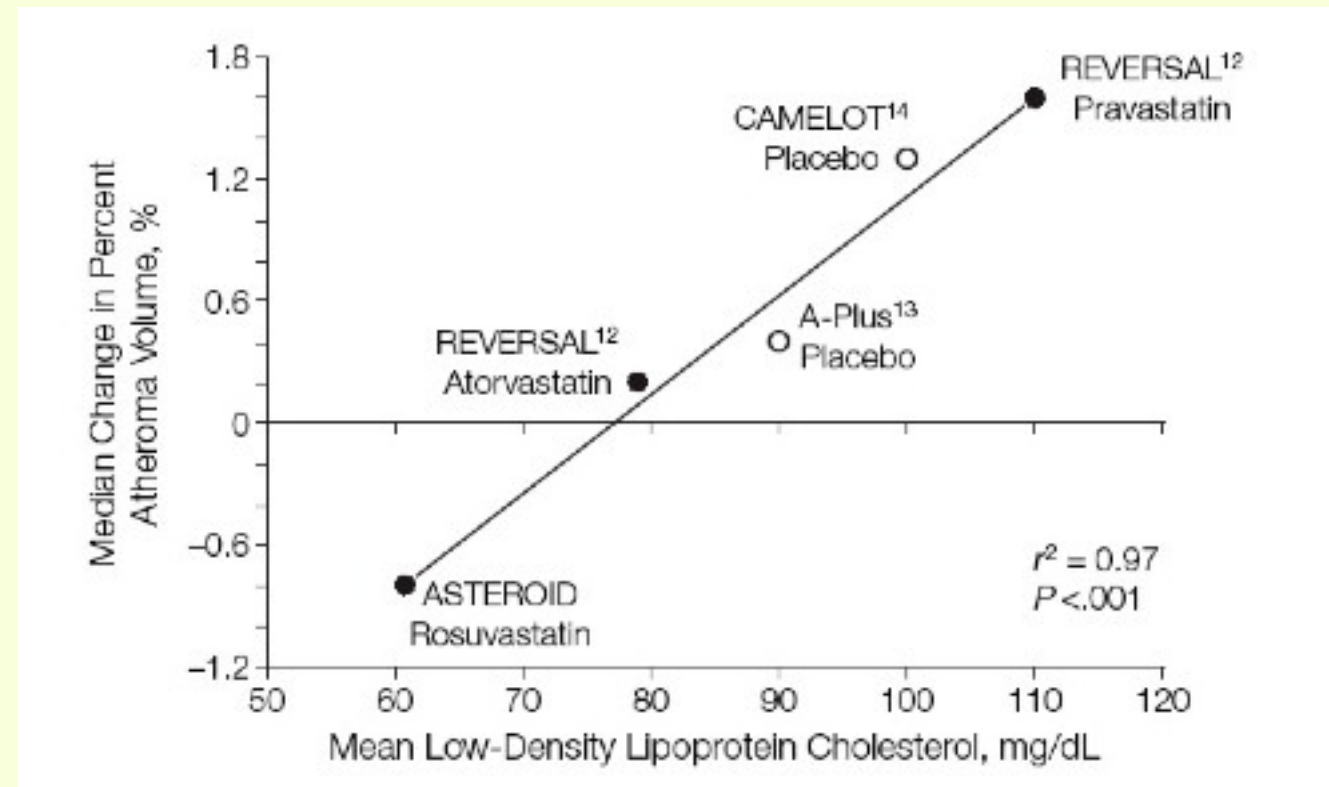
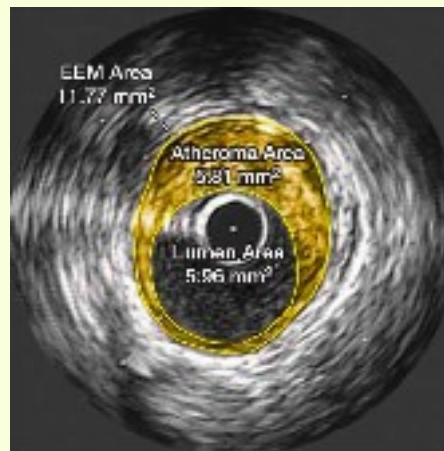
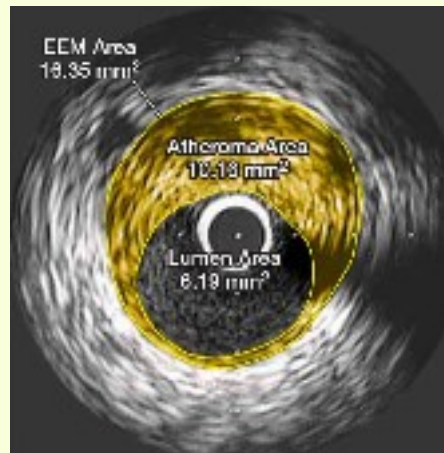
W Boden, NEJM April, 07

# Will drug therapy take over?



# Asteroid trial

High dose rosuvastatin (Crestor) on coronary plaque volume in symptomatic patients



JAMA 2006;295:1556

# Meteor trial

High dose rosuvastatin (Crestor) on carotid artery medial thickness in asymptomatic pts

Crestor

-.0014 mm

Placebo

+.0131 mm

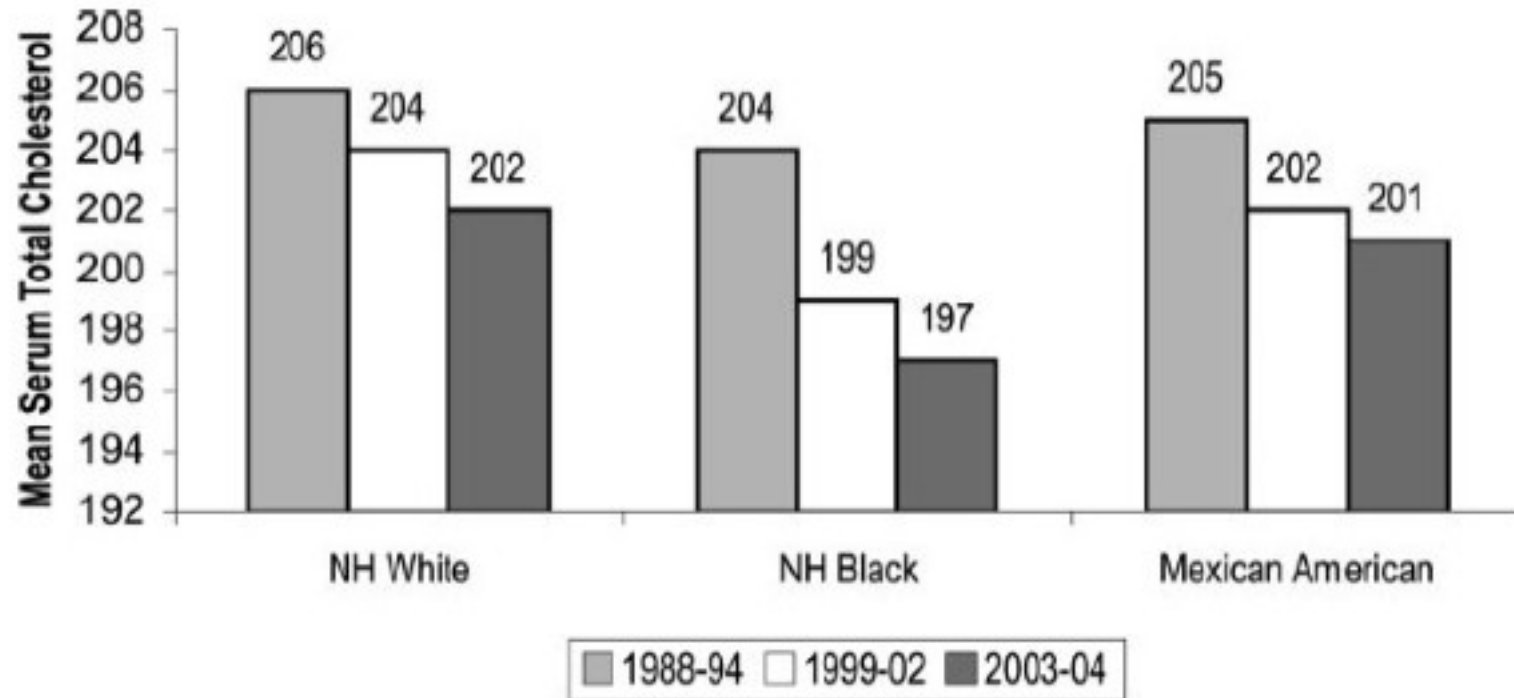
P

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JAMA 2007; 297:1344

# Epidemiological trends in CVD

Serum cholesterol is decreasing



# Epidemiological trends in CVD

Obesity is increasing

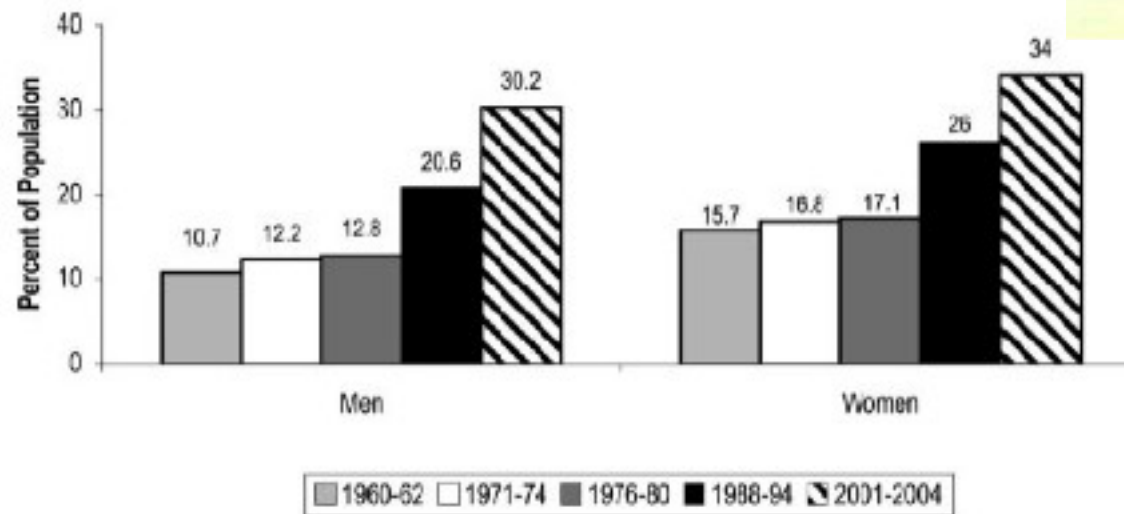


Chart 12-2. Age-adjusted prevalence of obesity in adults, ages 20–74, by sex and survey (NHES: 1960–1962; NHANES: 1971–1974, 1976–1980, 1988–1994, and 2001–2004). Note: Obesity is defined as a BMI  $\geq 30.0$  kg/m<sup>2</sup>. Source: *Health, United States, 2006*.<sup>2</sup>

# Epidemiological trends in CVD

Diabetes mellitus prevalence is on the rise

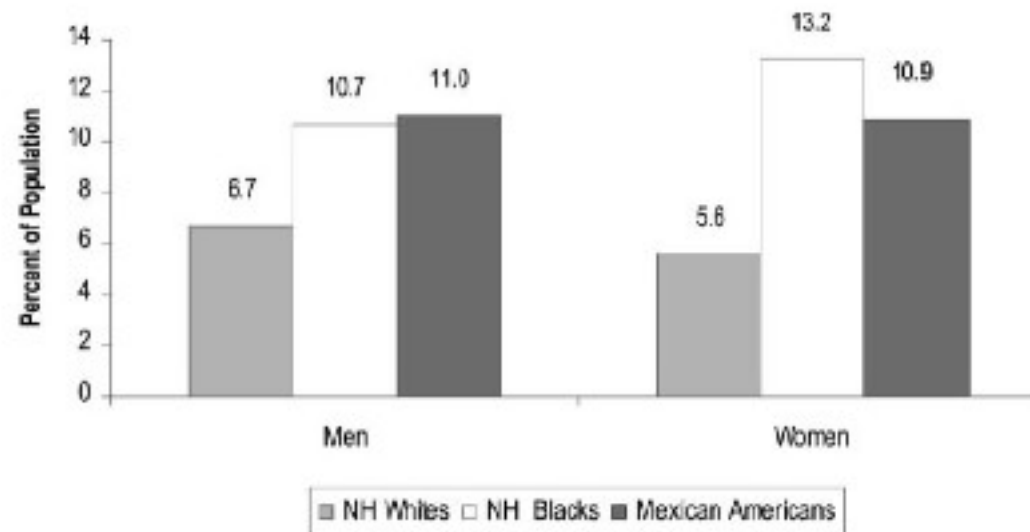


Chart 13-1. Prevalence of physician-diagnosed DM in adults  $\geq 18$  years of age by race/ethnicity and sex (NHANES: 1999–2004). Source: NCHS and NHLBI.

# Epidemiological trends in CVD

Patient's age: biggest factor in prevalence of CVD

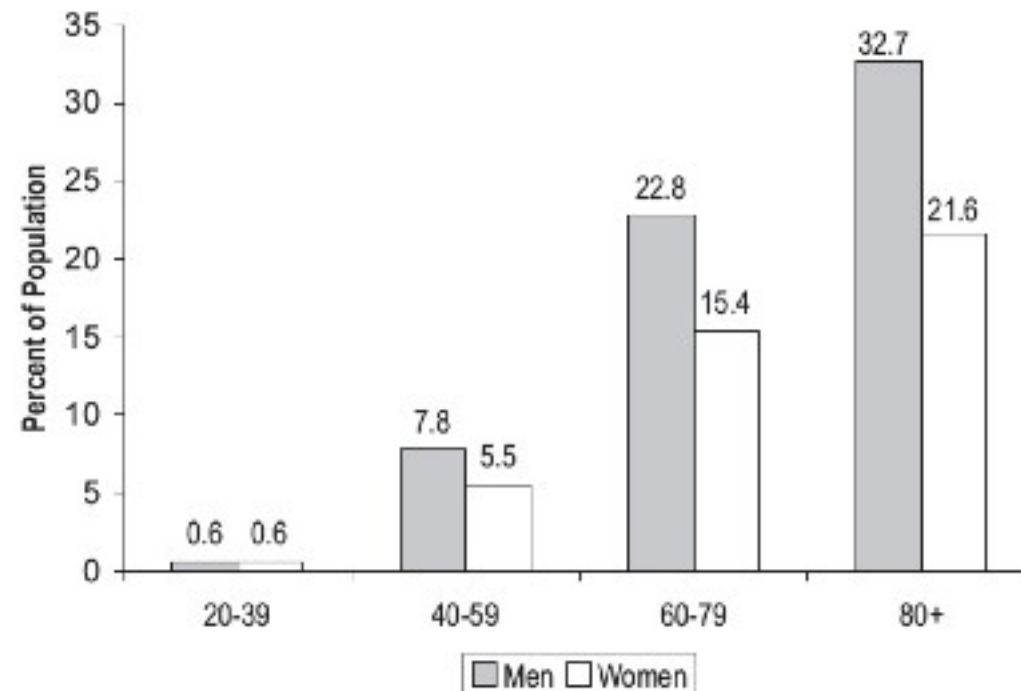


Chart 3-1. Prevalence of coronary heart disease by age and sex (NHANES: 1999-2004). Source: NCHS and NHLBI.

# Epidemiological trends in CVD

High blood pressure increases with age

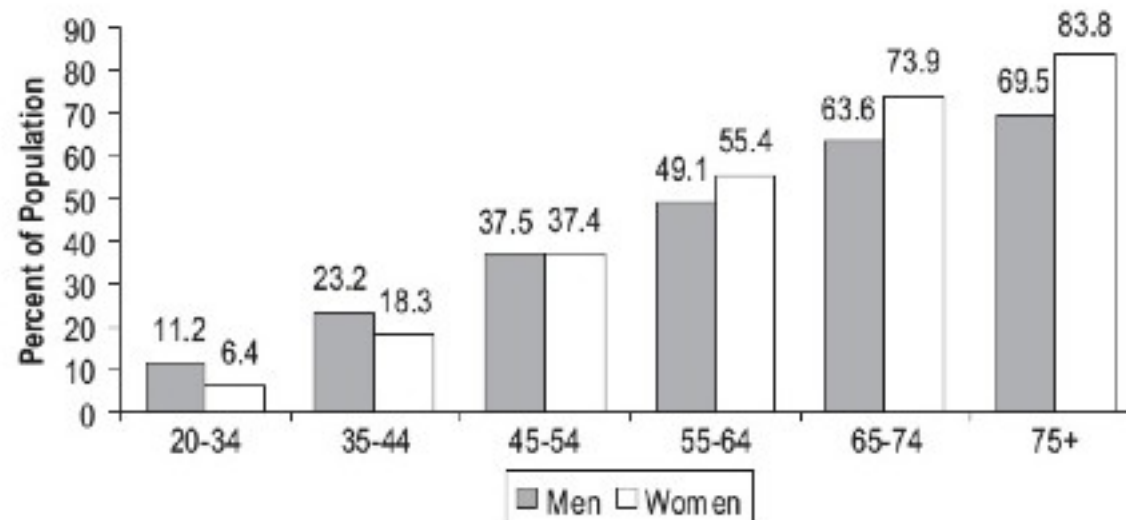
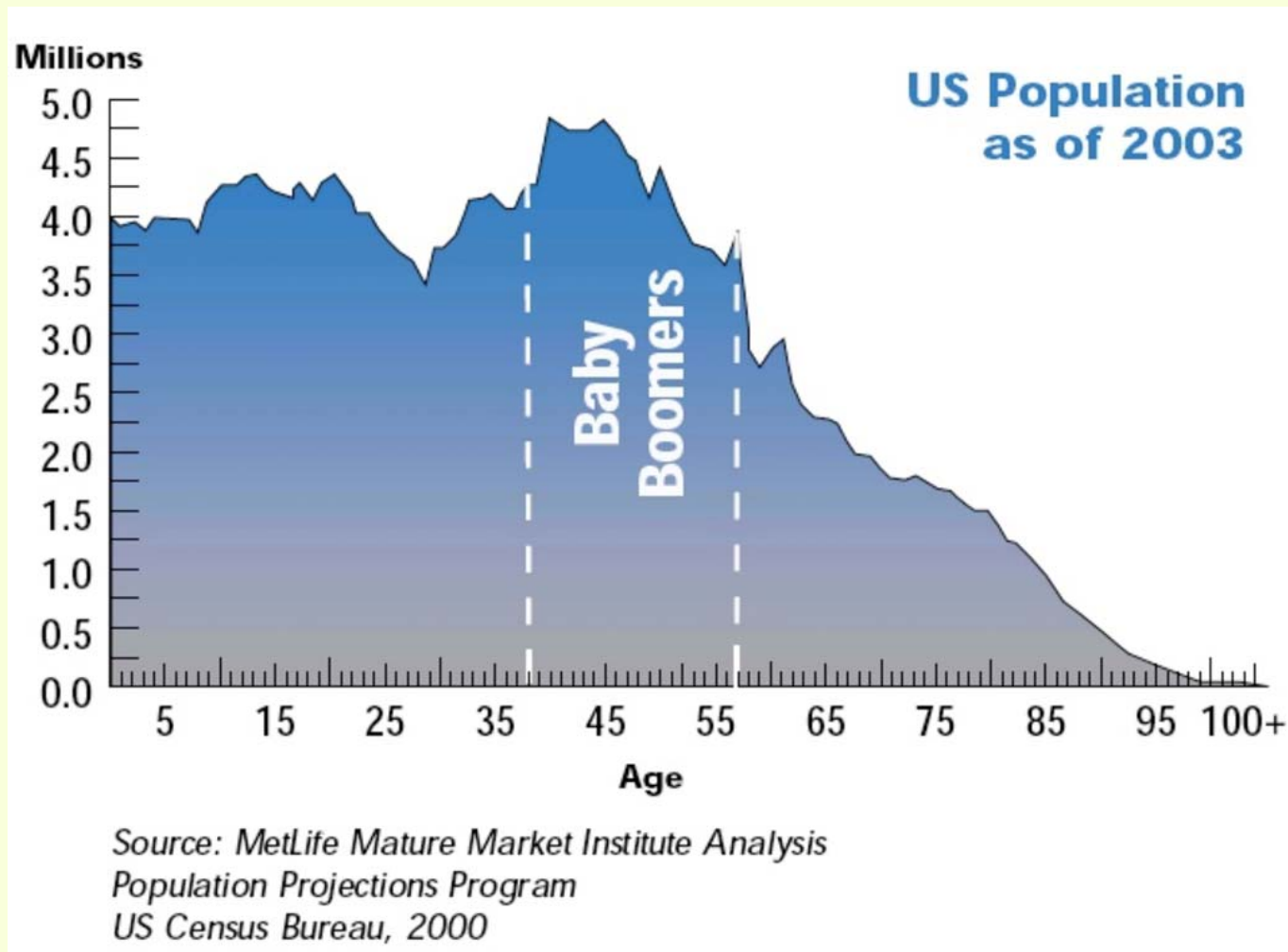


Chart 5-1. Prevalence of HBP in adults age  $\geq 20$  years by age and sex (NHANES: 1999–2004). Source: NCHS and NHLBI.

# Epidemiological trends in CVD

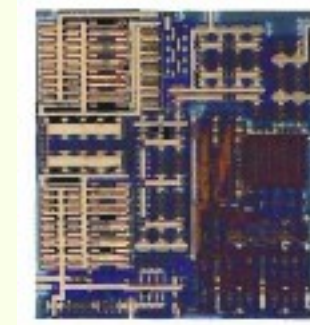
Boomers will likely be CVD patients in 5-8 yrs



**The future of medical care in  
the vascular tree?**

**Monitoring and control  
of risks factors**

# RFID “powder”



50X50 micron

T Horniak  
Sci Am 08

# Conclusion

- No big change in the next 5-10 yrs
- Significant increase in patient load starting 2013
- Monitoring CVD risk will be big business in 20-30 yrs.