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PARTNERSHIP TO FIGHT
CHRONIC DISEASE

The Impact and Prevention of Chronic Disease

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Chronic Disease: Key Driver of Rising Health Care Costs, Morbidity and Mortality



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- In 1987, chronic disease accounted for about two-thirds of total health care spending today it accounts for 86 percent.
- Chronic diseases such as heart disease, cancer, diabetes and stroke account for 7 of the top 10 leading causes of death
- Nearly 70 percent of health care spending is linked to patients with 3 or more chronic conditions. Over 35% of spending is associated with patients with 5 or more chronic conditions
- Medicare patients with 5 or more chronic conditions accounted for 70% of Medicare spending
- Up to 80% of chronic disease could be avoided w lifestyle changes



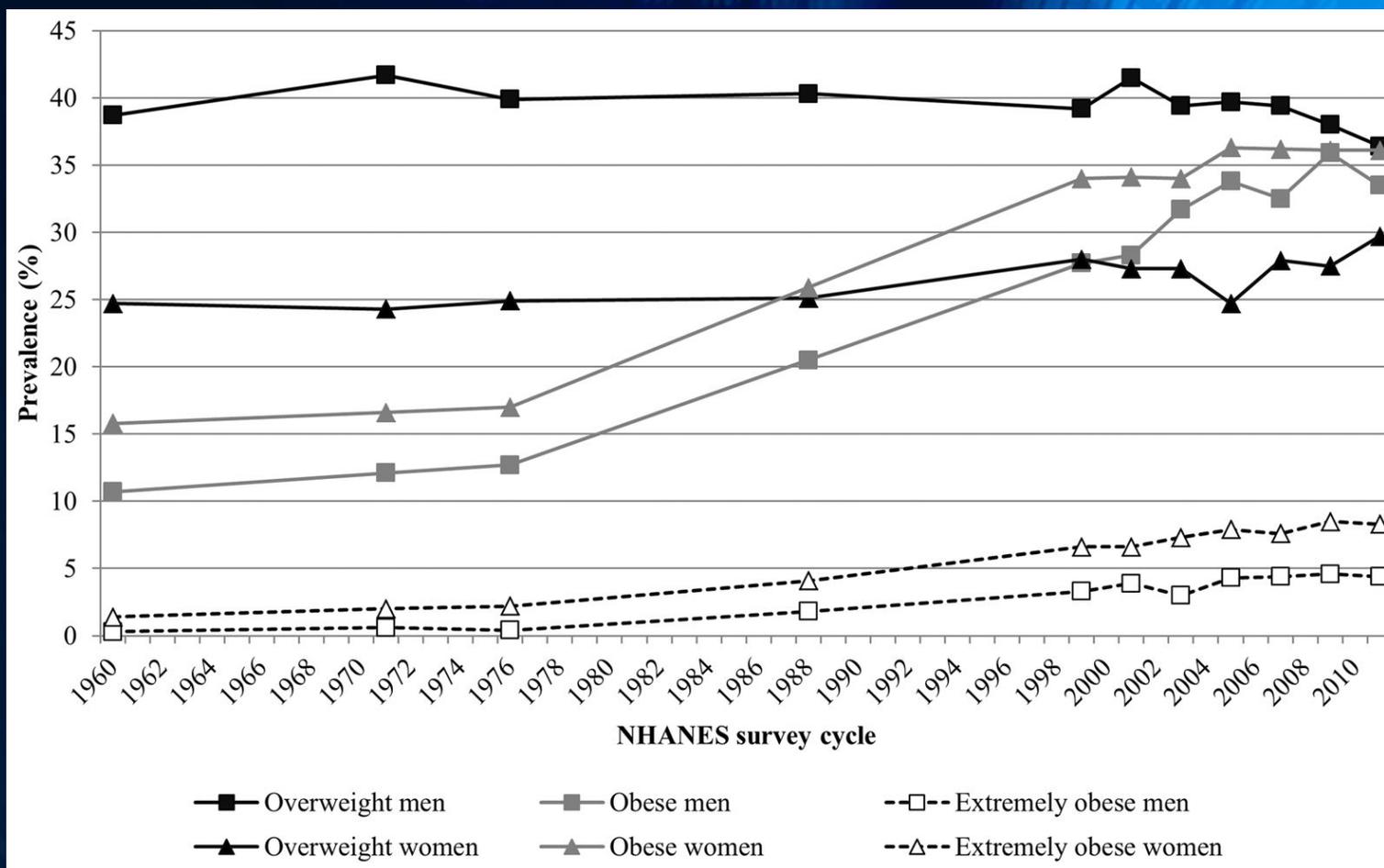
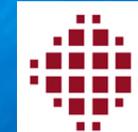
Projected Impact of Chronic Disease



- The Partnership to Fight Chronic Disease has projected that through increased health care spending and lost productivity, chronic disease will cost \$42 trillion between now and 2030.

http://www.fightchronicdisease.org/sites/default/files/pfcd_blocks/PFCD_US_FactSheet_FINAL1%20%282%29.pdf

- This includes \$800 billion in lost productivity per year
- Traced to the on-going rise in patients with multiple chronic conditions



Obesity rates continue to climb— a key factor accounting for the persistent rise in chronic disease prevalence

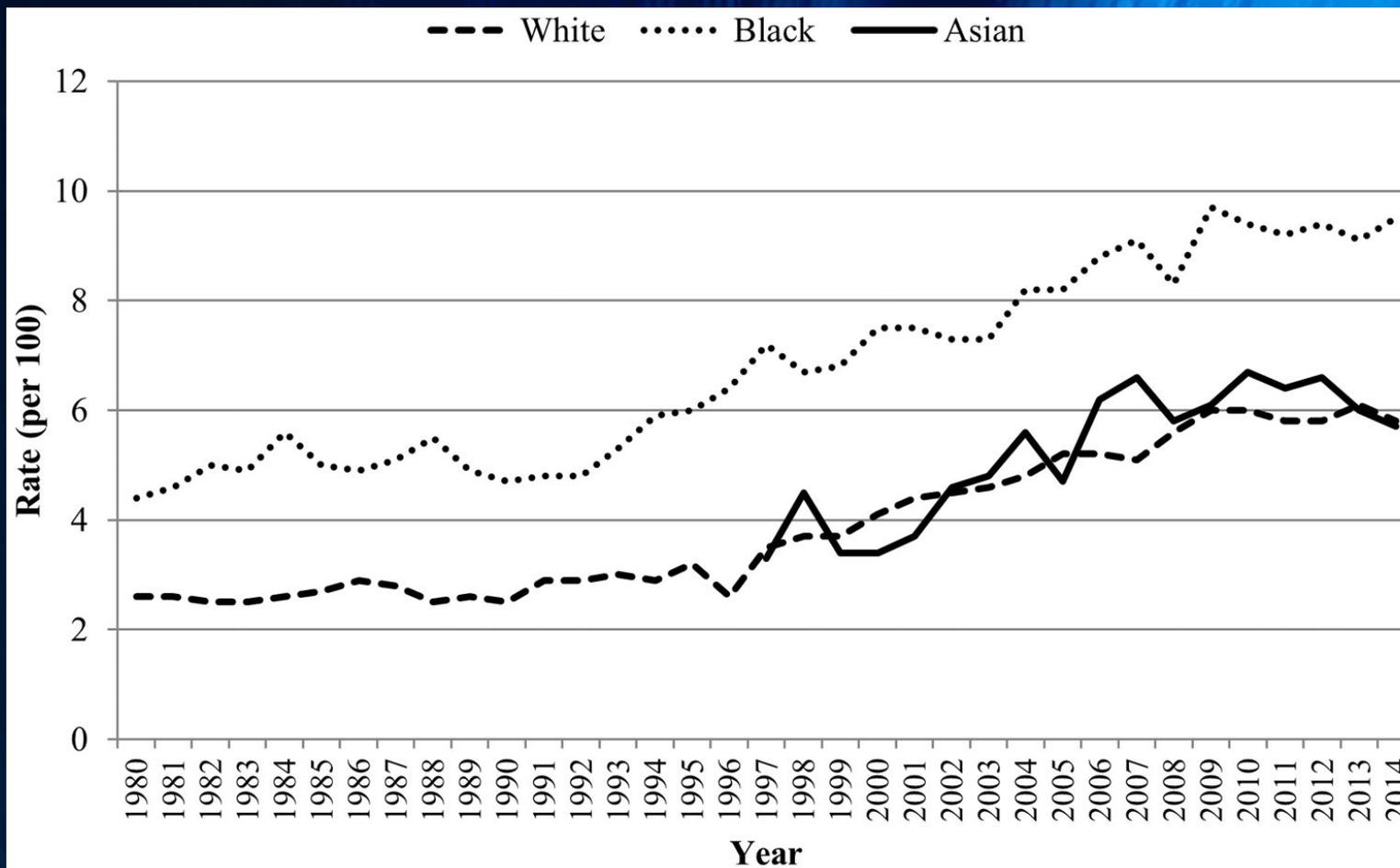


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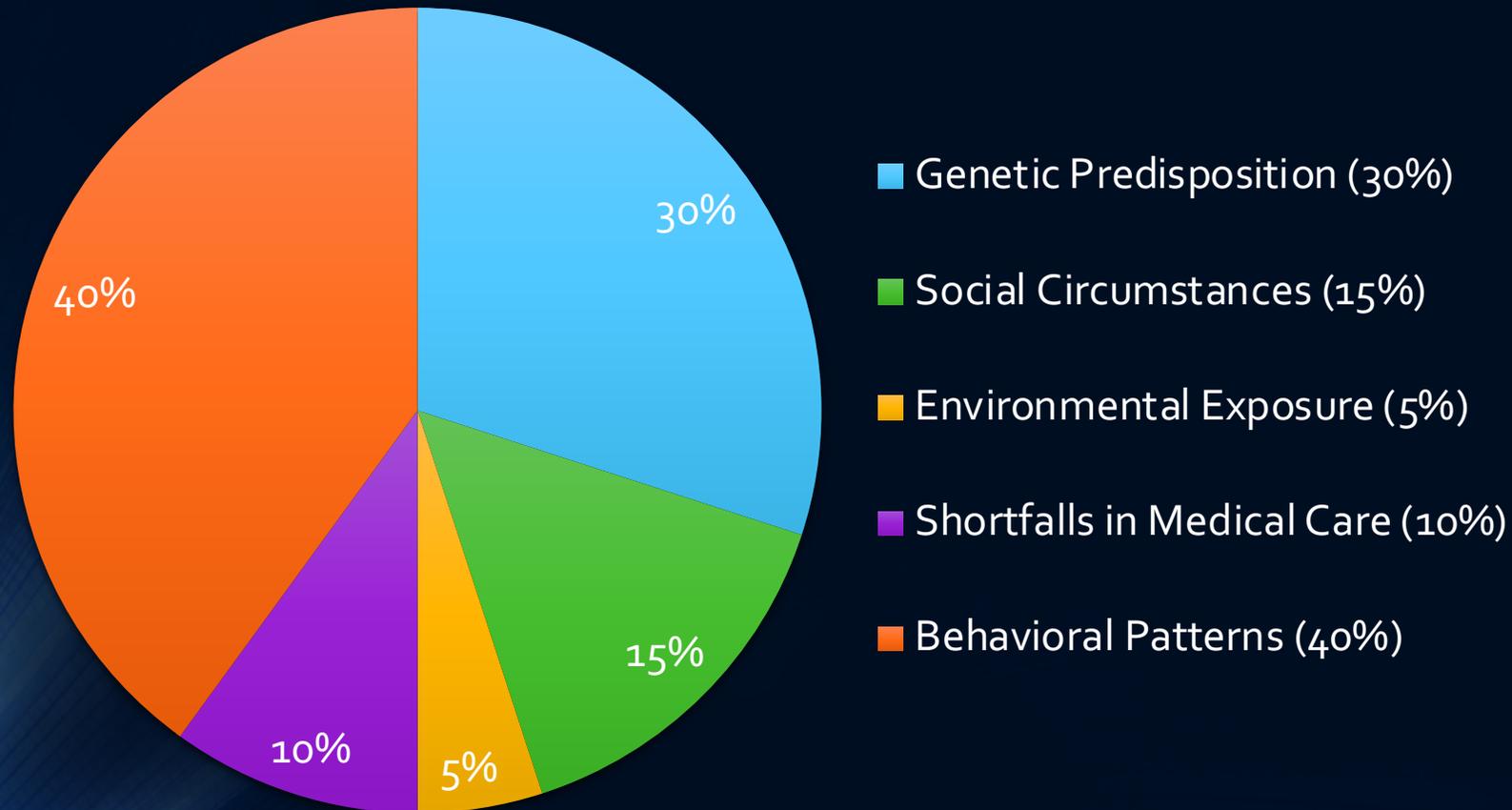
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Prevalence of Diabetes follows the trends for rising rates obesity. Upward trends across the board though prevalence higher among non-Hispanic blacks. Today 30 million Americans have diabetes—predominantly type 2



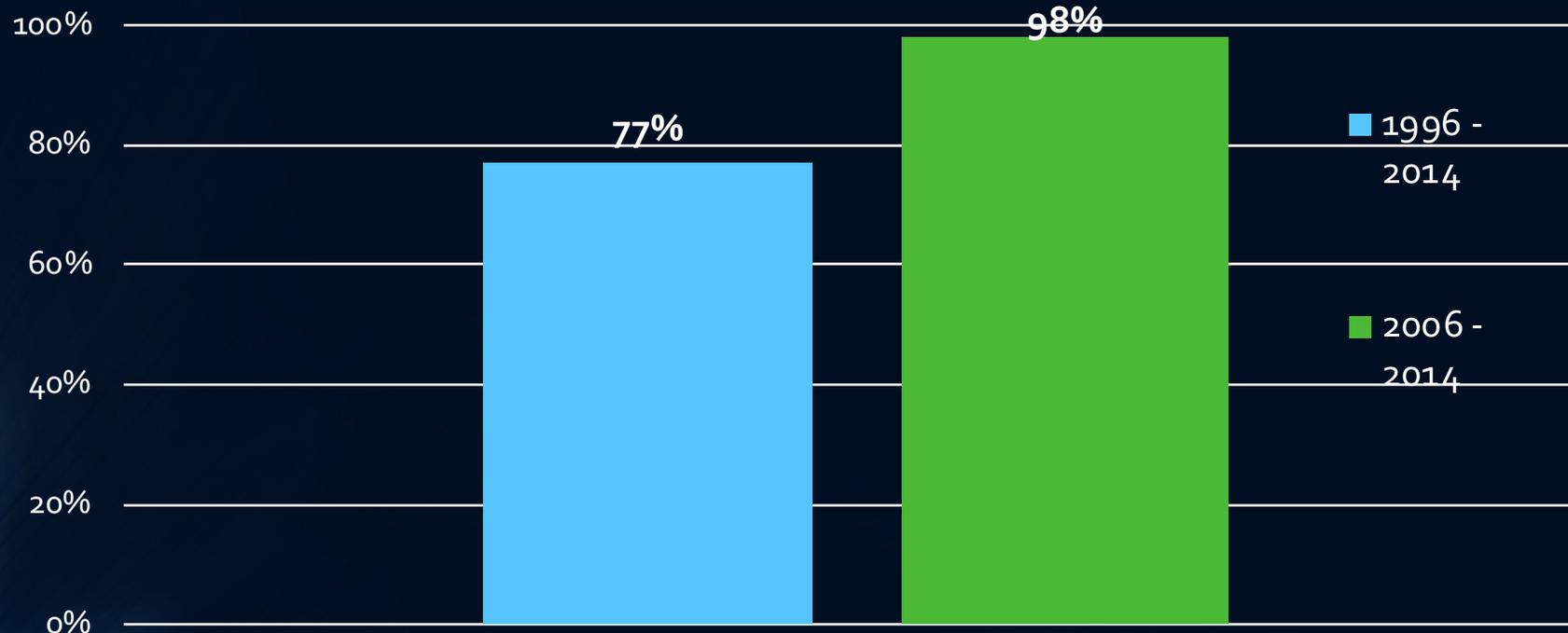
Impacts of Various Domains on Early Deaths in the United States



Adapted from McGinnis JM, Williams-Russo P, Knichman JR. The case for more active policy attention to health promotion. *Health Aff (Millwood)* 2002;21(2):78-93.

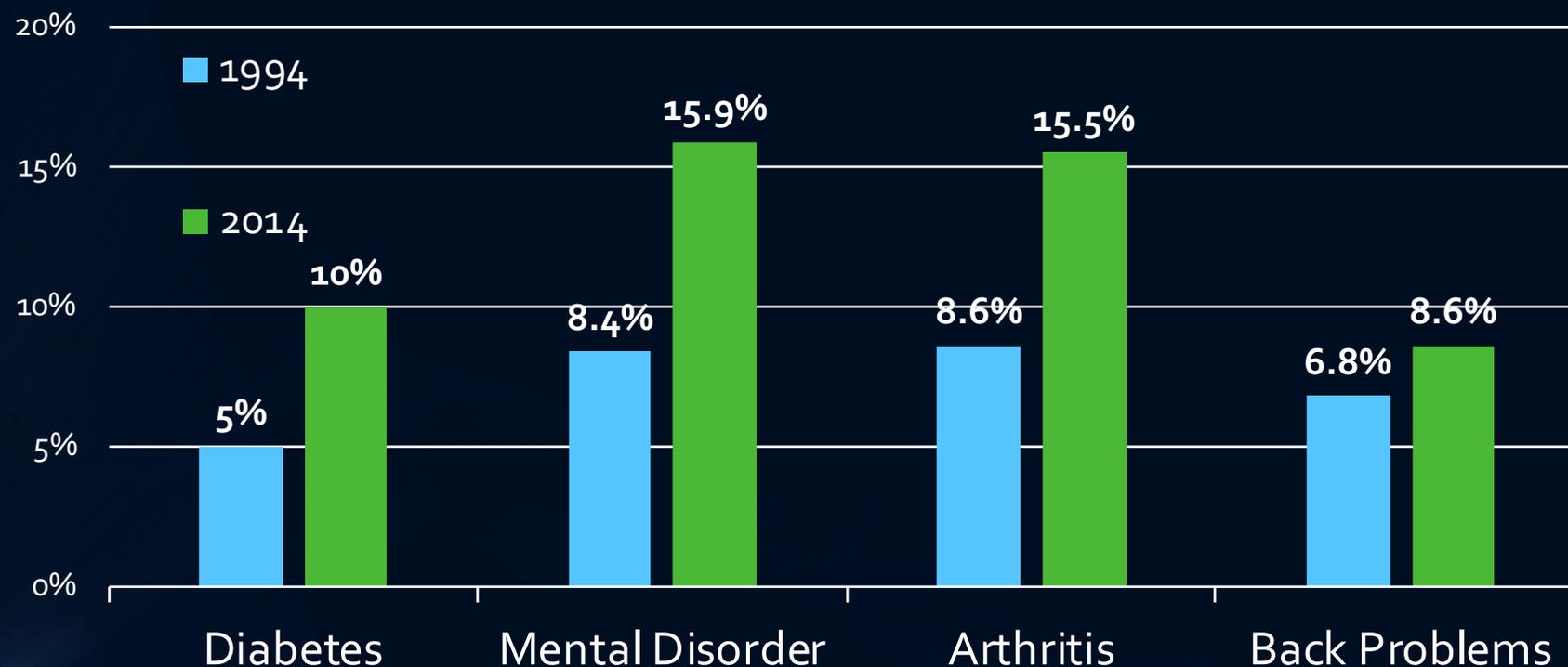


Percent of Per Capita Medicare Spending Increases Due to Rising Chronic Disease Prevalence



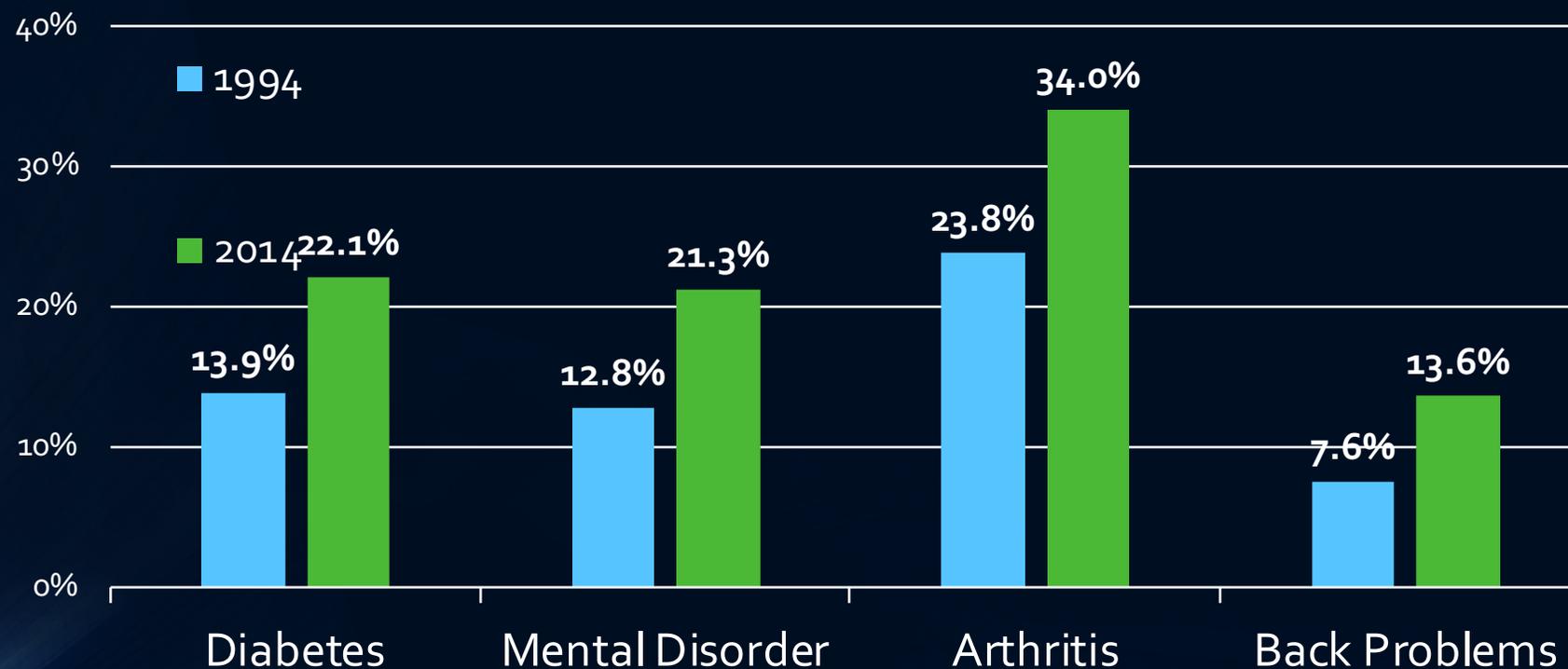


Treated Chronic Disease Prevalence All Adults, 1996 and 2014





Treated Chronic Disease Prevalence Medicare, 1996 and 2014



Case and Deaton work show declining life expectancy among mid-age white males



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- More recently, the overall life expectancy among white males have decreased in the US and other countries.
- Why? Since 1900 major decrease in life expectancy in the US happened in World Wars (WW) I and II and the 1918-19 Influenza Pandemic (which killed more people than WW I).
- **But CVD and cancer mortality continue to increase due to opioid and heroin overuse.**

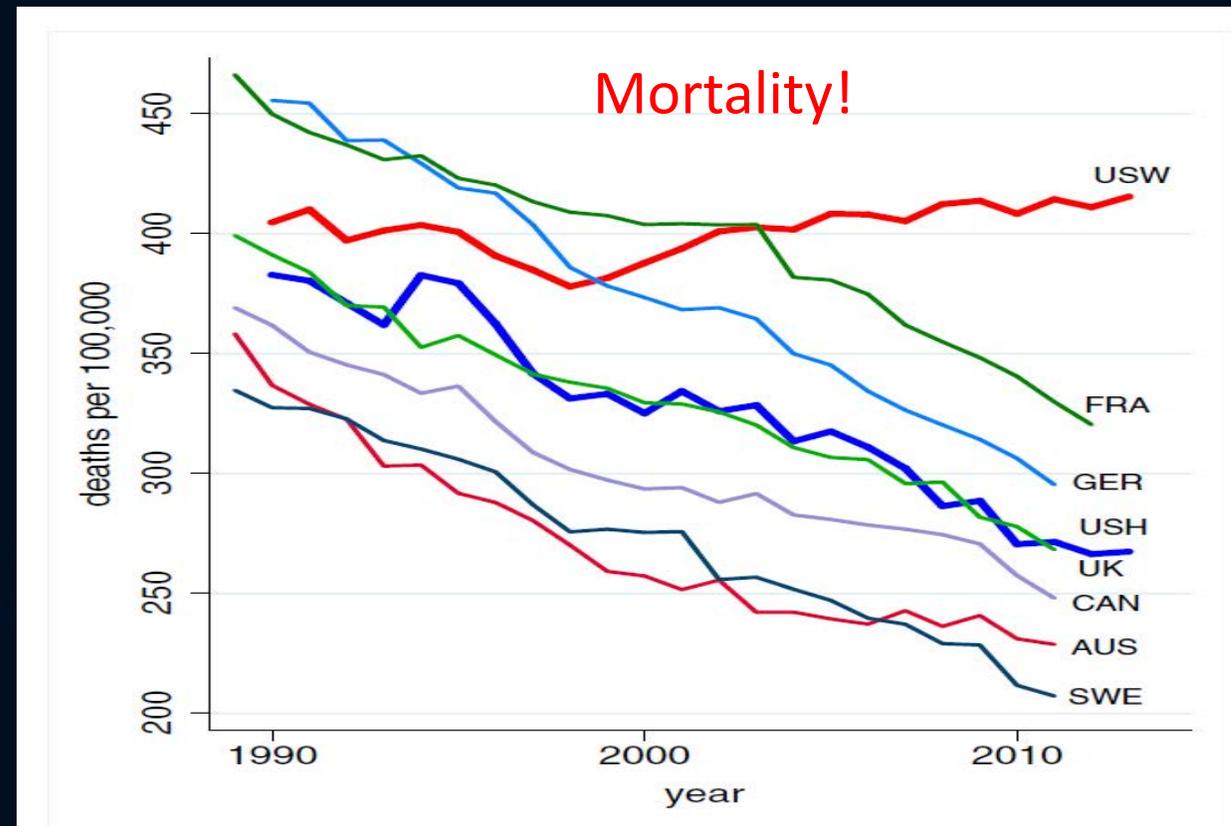


Fig. 1. All-cause mortality, ages 45–54 for US White non-Hispanics (USW), US Hispanics (USH), and six comparison countries: France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE).



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Prevention Framework

Develop an evidence based health system that:

- ***Deters*** the rise in disease incidence and prevalence
- Improves disease ***detection***
- More effectively engages and ***manages*** patients with chronic disease



Prevention Framework

Prevention can only succeed if:

1. Prevention policies affect behavior
2. Behavior affects health
3. Changes in health affect spending, life expectancy, and quality of life



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Community Based Determinants of Health



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- Health behaviors
- Demographics
- Transportation
- Economics/income
- Education
- Environmental quality
- Social services spending per capita on education, parks and recreation and public welfare
- Per Capita Health Care Spending (especially primary care)



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Impacts of Healthy Living and Community Based Interventions on Health Outcomes

- Percent obese
- Average number of days last month with restricted activities due to poor physical or mental health
- Average number of days last month not in good physical health
- Average number of days last month not in good mental health
- Age adjusted mortality rate
- Age adjusted cancer mortality rate
- Asthma prevalence
- Diabetes prevalence
- Cardiovascular disease prevalence



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Interventions

- ***Diabetes prevention program*** (covered by Medicare this year) targets diet, exercise and lifestyle. Evaluations have shown that it saves about \$280 per enrollee per quarter.
- ***Excise taxes on tobacco.*** Smoking is associated with a variety of chronic illnesses. Increasing the federal excise tax on cigarettes and small cigars would reduce smoking rates by 3%



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Interventions

- *Community based interventions*
 - *Increased education investment associated with improved mental health and other health outcomes*
 - *Environment (ozone and particulate levels) associated with lower rates of cancer and age-adjusted mortality rates*
 - *Social service spending (parks and recreation, public welfare spending) is associated with reduced rates of chronic disease prevalence (asthma) and improved physical health*
- *Results from Thorpe in Population Health Management*
- *<https://www.liebertpub.com/doi/abs/10.1089/pop.2017.0136>*

QUESTIONS ?