

“Measuring Up”

Improving Health Systems Performance in OECD Countries



From Understanding Health Risks to Improving Population Health: An International Perspective on the Role of Public Health

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Health
Canada

Santé
Canada

Canada

Health Care Expenditure per capita in \$ PPP (Purchasing Power Parity), 1997

1. United States	4095	15. Japan	1760
2. Switzerland	2611	16. Italy	1613
3. Germany	2364	17. Finland	1525
4. Luxembourg	2303	18. United Kingdom	1391
5. Canada	2175	19. New Zealand	1357
6. France	2047	20. Ireland	1293
7. Denmark	2042	21. Greece	1196
8. Norway	2017	22. Spain	1183
9. Iceland	1981	23. Portugal	1148
10. Netherlands	1933	24. Czechoslovakia	943
11. Australia	1909	25. Korea	870
12. Austria	1905	26. Hungary	642
13. Belgium	1768	27. Poland	386
14. Sweden	1762	28. Turkey	259

Male Life Expectancy Among OECD Countries (1996)

1. Japan	77.0	15. Austria	73.7
2. Sweden	76.5	16. Germany	73.6
3. Iceland	76.2	17. Belgium	73.5
4. Switzerland	75.7	18. Ireland	73.2
5. Canada	75.7	19. Luxembourg	73.0
6. Norway	75.4	20. Finland	73.0
7. Australia	75.2	21. Denmark	72.9
8. Greece	75.1	22. United States	72.7
9. Italy	74.9	23. Portugal	71.2
10. Netherlands	74.7	24. Czechoslovakia	70.4
11. Spain	74.5	25. Mexico	70.1
12. New Zealand	74.3	26. Poland	67.8
13. United Kingdom	74.3	27. Hungary	66.6
14. France	74.2	28. Turkey	65.9

Female Life Expectancy Among OECD Countries (1996)

1. Japan	83.6		15. Belgium	80.2
2. France	82.0		16. Luxembourg	80.0
3. Switzerland	81.9		17. Germany	79.9
4. Spain	81.8		18. New Zealand	79.6
5. Sweden	81.5		19. United Kingdom	79.5
6. Canada	81.4		20. United States	79.4
7. Italy	81.3		21. Portugal	78.5
8. Norway	81.1		22. Ireland	78.5
9. Australia	81.1		23. Denmark	78.0
10. Iceland	80.6		24. Czechoslovakia	77.3
11. Finland	80.5		25. Poland	76.8
12. Netherlands	80.4		26. Mexico	76.5
13. Greece	80.4		27. Hungary	74.7
14. Austria	80.2		28. Turkey	70.5

Key Elements of Population Health Strategy

Disease risks today exist along a continuum of risk for a number of important exposures

- Blood pressure
- Cholesterol
- Tobacco consumption
- Physical activity
- Environmental risks (e.g. lead)
- Social risks – socioeconomic, social isolation

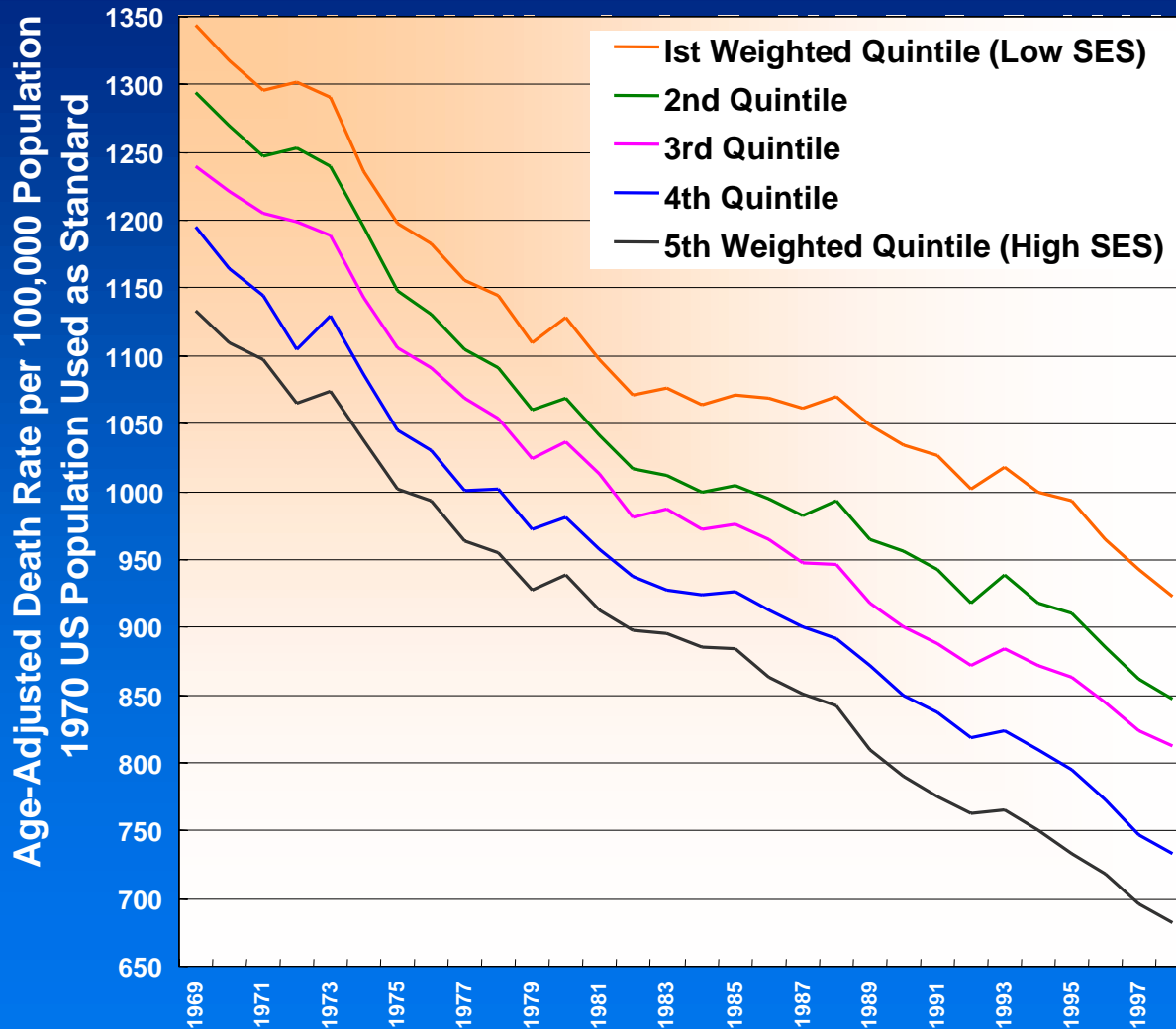
Recommendations for Treating Hypertension

Year	Therapeutic Threshold
1977	105 mm Hg
1980	90 mm Hg
1993	85 mm Hg

Recommendations for Treating High Cholesterol

Year	Diet	Drug
1983	260-279	340-359
1986	240-259	300-319
1990	200-219	240-259

All Cause Mortality Among US Men by Area Socioeconomic Status, 1969-1998

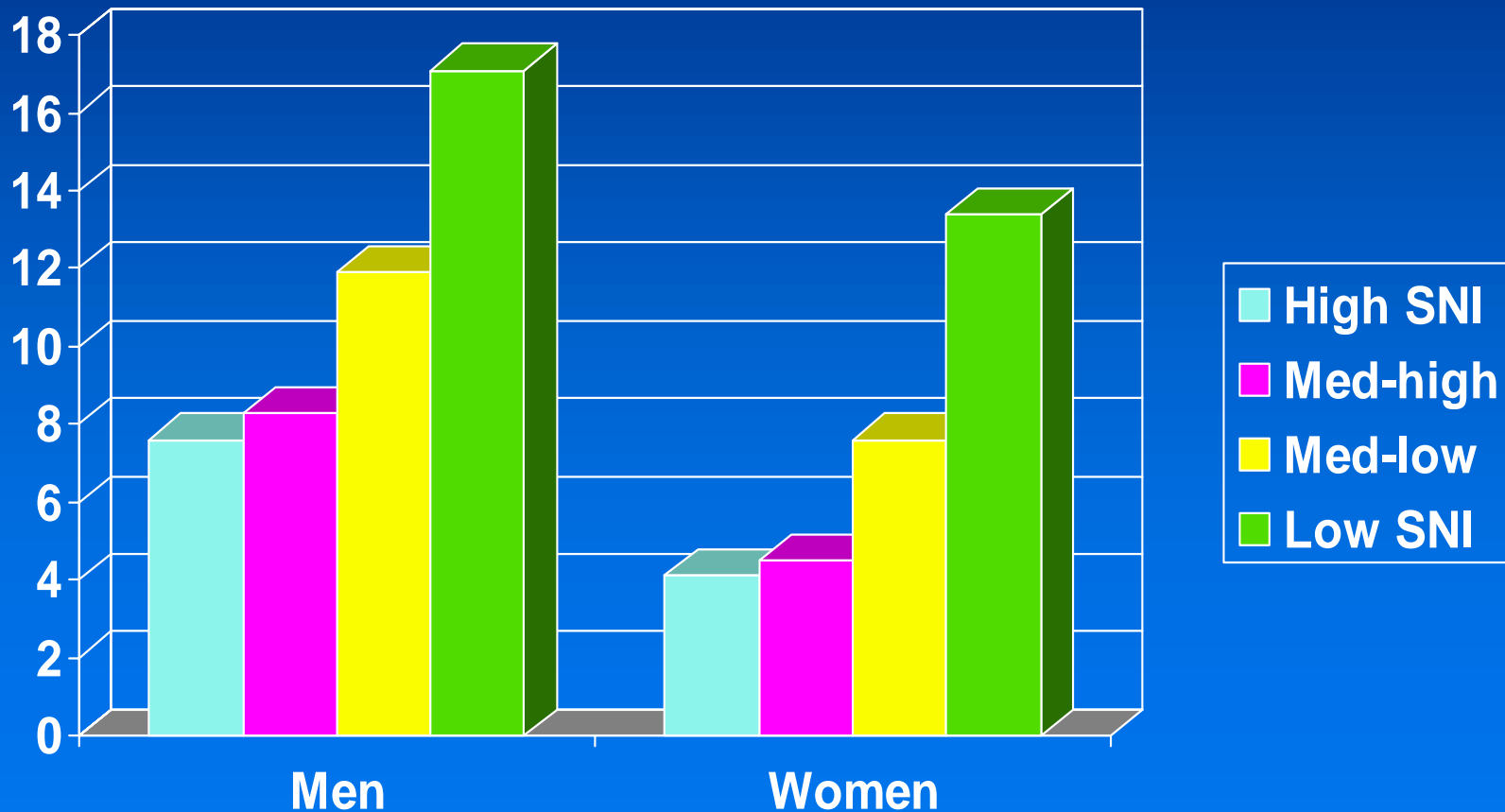


Source: Singh GK, Miller BA, Hankey BF, Edwards BK. Challenges in Monitoring Health and Cancer Disparities among Ethnic and Socioeconomic Groups in the United States

Social Relationships

- **Social isolation is linked to higher mortality, morbidity, and lower survival**
- **Care giving relationships are important for early childhood development**

Mortality Rate from All Causes by Social Network Index (SNI)



- **A small percent of any population falls in the tail of risk distribution**
- **“A large number of people exposed to a small risk may generate more cases than a small number exposed to a huge risk.”**

- G. Rose 1992

The Prevention Paradox

A preventative measure that brings large benefits to the community offers little to each participating individual

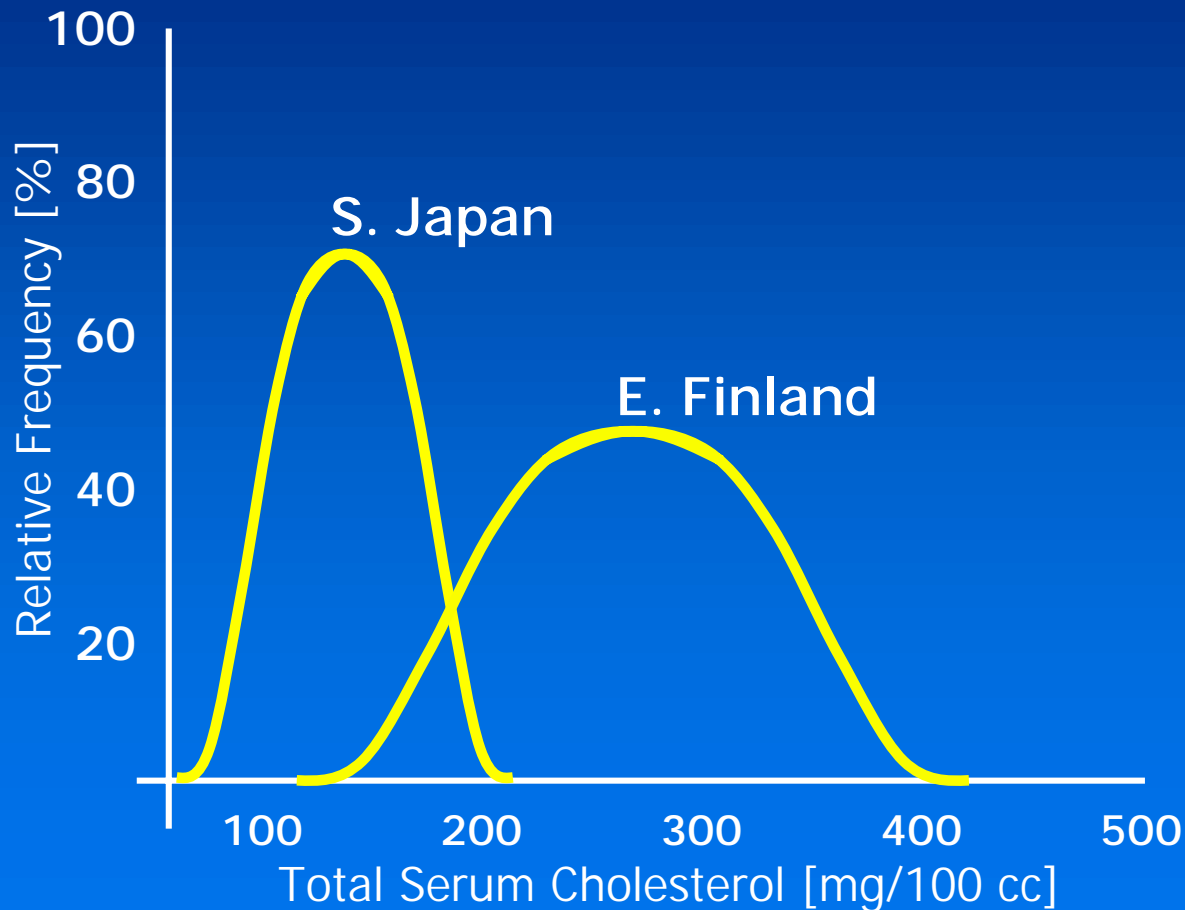
Population Health

‘Why do some individuals have hypertension?’

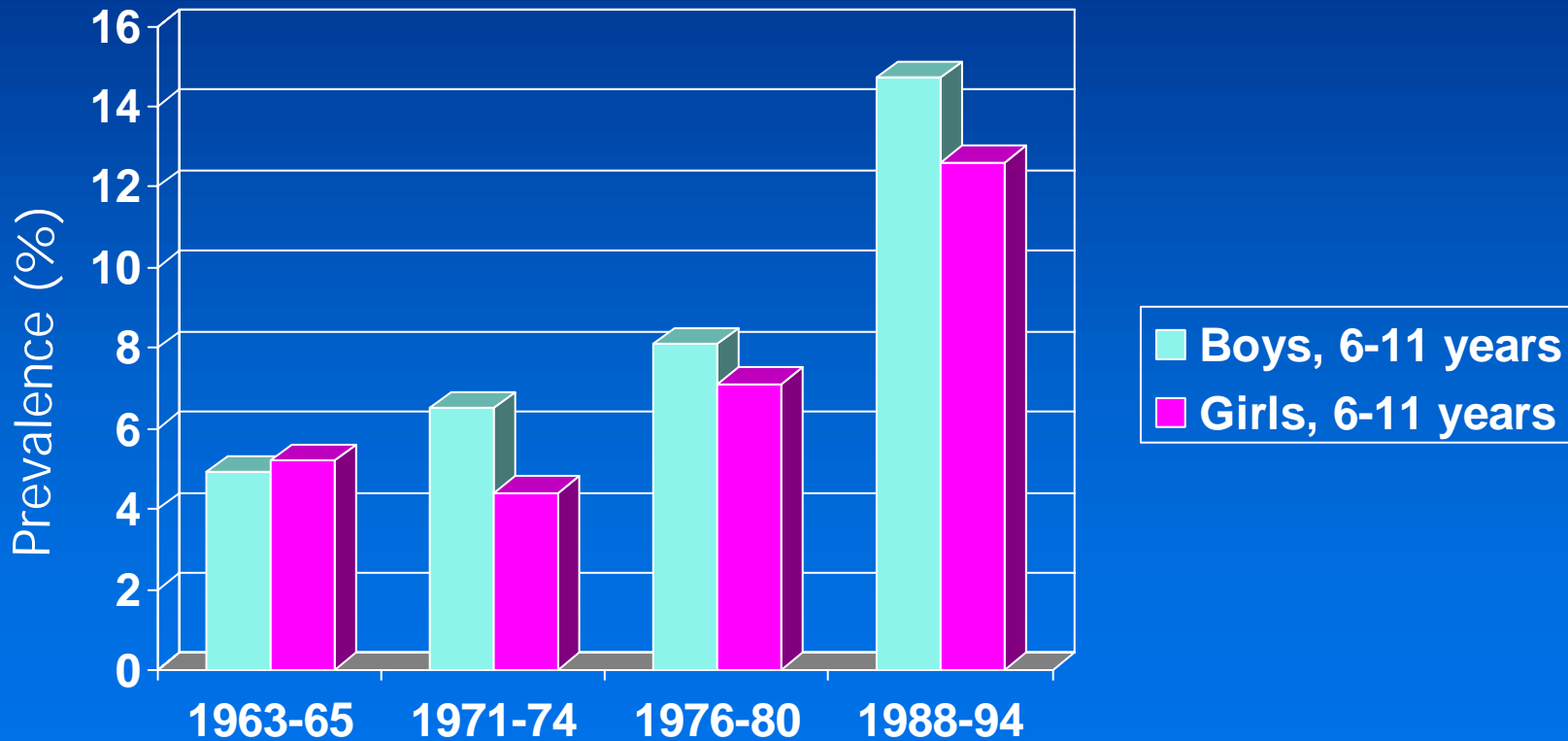
Is quite a different question from:

‘Why do some populations have much hypertension, whilst in others it is rare?’

Contrasting Distributions of Serum Cholesterol



Rise in Overweight Children



Overweight is defined as BMI at or above 95th percentile
Source: NCHS. Health US, 2000

Approaches to disease prevention and health promotion

The case of CHD risk reduction

- **Multiple Risk Factor Intervention Trial – a US intervention**
- **The North Karelia Project**
- **Stanford Three Community Study**

⇒ ***Linked, multilevel interventions should be the norm, rather than the exception***

The Cost-effectiveness Criterion

- Some preventive interventions are less expensive ways to buy healthy yrs of life than some treatments
- Prevention is less expensive, and therefore more cost-effective when it is built into personal behaviors rather than clinical interventions
- Many economic savings of prevention are external to the payer (health care system, employer, etc)
- Inputs and outputs of prevention are complex and rarely adequately considered

The Case of Legal Interventions to Advance the Population's Health

Government has a number of 'levers' (Gostin, *IOM Promoting Health*)

- Economic incentives and disincentives – taxing and spending
- Informational environment – education labeling and commercial speech
- Direct regulation – penalties for engaging in risk behavior
- Indirect regulation – The tort system
- Deregulation

The Case of Canada and the US

The Case of Social and Economic Policies to Advance the Population's Health

French, Canadian, US experiences

- **Socioeconomic inequality does not predict mortality in Canadian cities/provinces as it does in US cities/states**
- **French women are among those with the longest life expectancy in the world**
- **France and Canada have extensive social and economic policies aimed at family friendly work polices and income maintenance**

Conclusion

- The determinants of health include “upstream” social, economic, and environmental conditions as well as more “proximate” behaviors, exposures, and genetic risks
- Preventive measures that incorporate the social and economic environment into health improvement strategies will be more effective than interventions aimed at only high risk individuals