

# Adverse Selection

Your annual income: \$48,259

After taxes: \$38,00

Monthly after taxes: \$3,166

- 1) Come up with a monthly budget.
- 2) Get your group-mates to approve it.

# Adverse Selection Activity

Minor incident: Single visit to ER or condition such as knee pain that may require several months under a doctor's care

Major illness: Illness requiring several surgeries, many days in the hospital and follow up care

Cost of minor incident: \$8,000

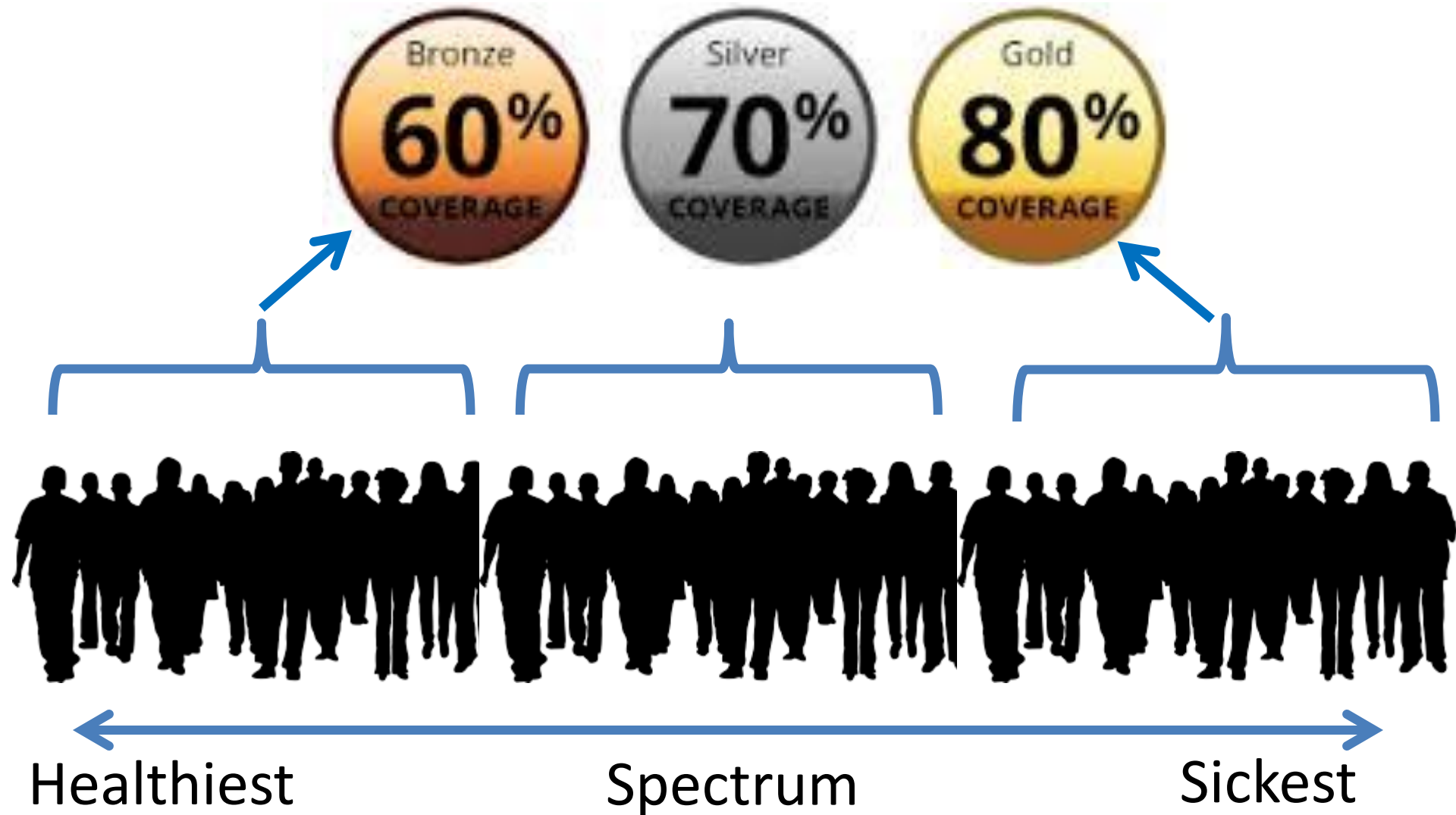
Cost of major illness: \$200,000

# Insurance Options

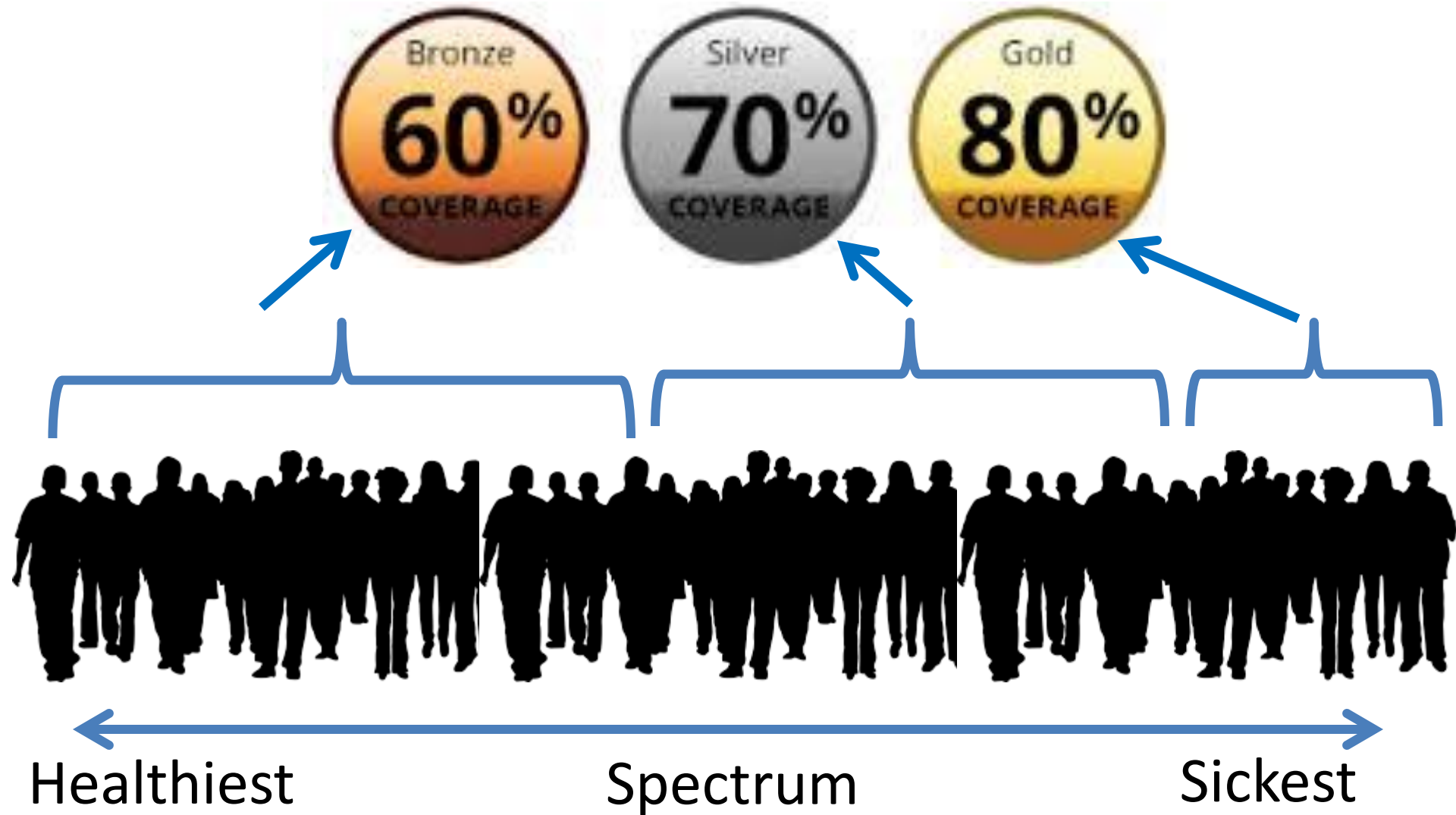
- Bronze insurance: \$5,674 (\$473/month)
  - Financial quality: \$1,000 deductible and 30% copayment.
- Silver insurance: \$6,531 (\$544/month)
  - Financial quality: \$500 deductible and 20% copayment.
- Gold insurance: \$8,222 (\$685/month)
  - Financial quality: No deductible, no copayment.

Excel

# Adverse selection market unraveling / death spiral



# Round 2



# Round 3



Healthiest

Spectrum

Sickest



# Adverse selection market unraveling / death spiral

Insurer puts  
insurance  
package on  
the market



The healthiest people move  
into lower quality packages



The premium on  
high quality  
insurance increases,  
because the  
“average” person in  
the plan is sicker



The new higher  
price scares away  
the next healthiest  
group

**Financial  
dimensions of insurance  
quality**

**Non-financial  
dimensions of insurance  
quality**

**Financial  
dimensions of insurance  
quality**

**Non-financial  
dimensions of insurance  
quality**

Co-pay  
Deductible

Network (doctors in-  
network)  
Procedures covered  
Red tape  
Process for  
reimbursement  
Experimental  
treatments?

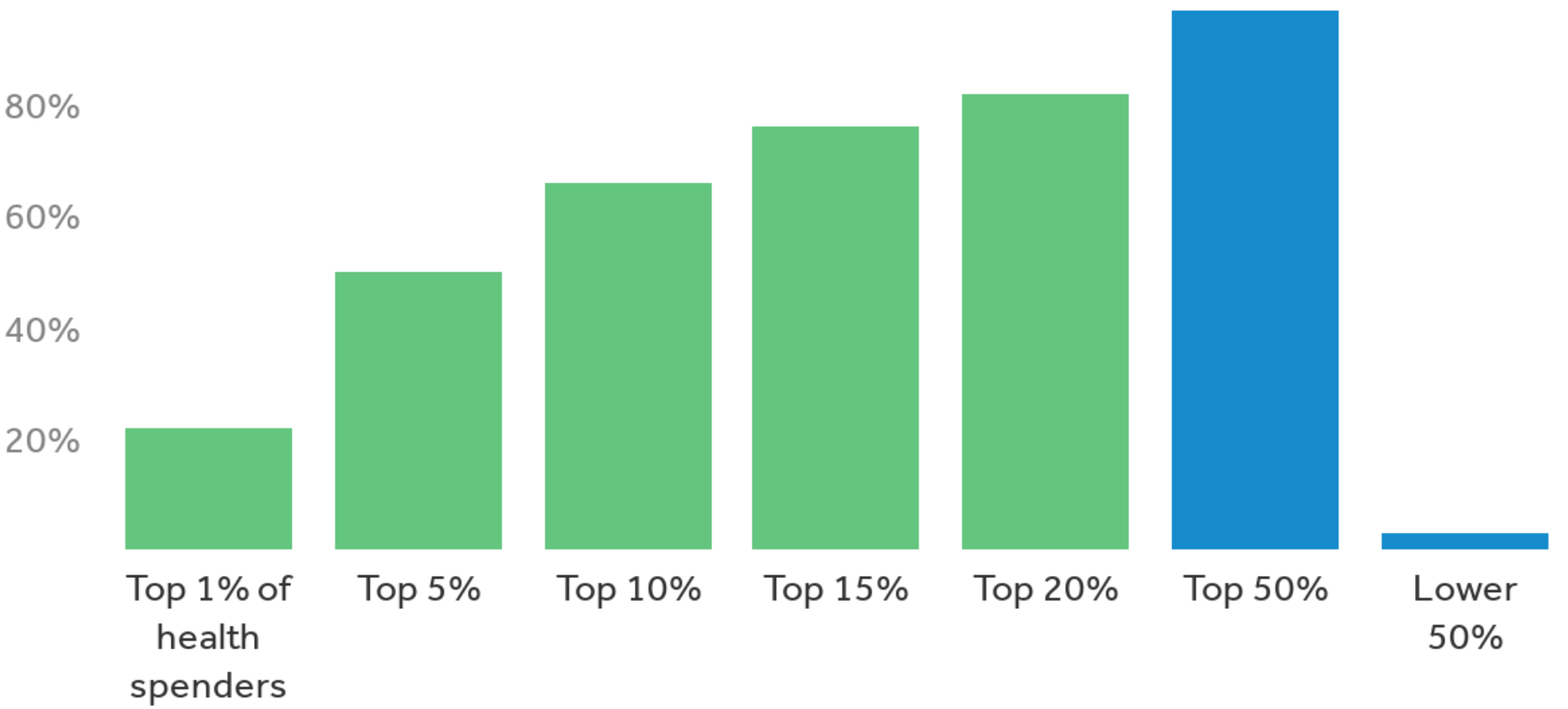
# Financial dimensions of health insurance quality

- Deductible: The amount of money you have to pay for your own services before the insurance kicks in. This starts over every year.
- Co-payment: A percentage of the doctor/hospital bill that you have to pay.
- Coverage limit: The maximum medical charges covered under an insurance plan.
- Catastrophic threshold: The amount of medical charges above which your case is considered catastrophic. If you have catastrophic coverage, insurance kicks in to pay (often 100% of) bills beyond this amount.
- Donut hole: The difference between your coverage limit and catastrophic threshold. This applies to Medicare part D (drug coverage for the elderly) and people sometimes buy insurance to cover the donut hole.
- Negotiated prices: The prices your insurance company has negotiated with providers and hospitals.

# Concepts

- Death spiral: A situation where insurance prices rise rapidly because of a change in the population covered.
- Race-you-to-the-bottom: A situation where insurers compete against one another to keep out the sickest patients by competing to offer the worst quality for those patients.
- The adverse selection does NOT require profit maximization.
- How do large employers get around the adverse selection problem?

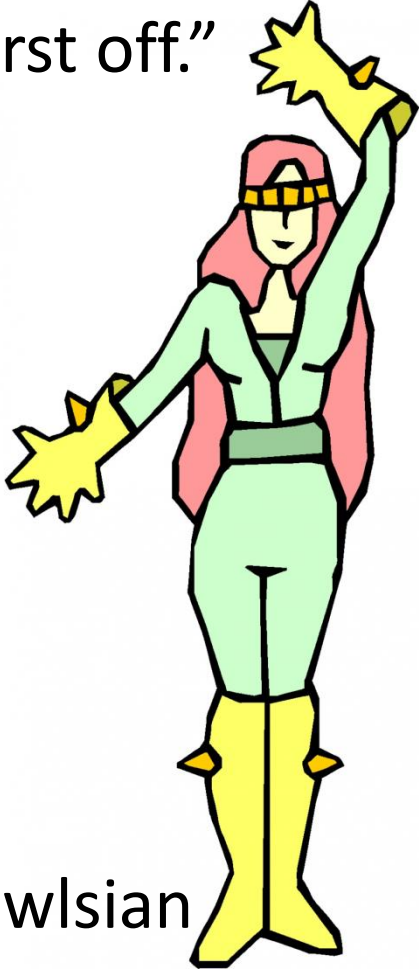
# Contribution to total health expenditures by individuals, 2016



Source: Kaiser Family Foundation analysis of Medical Expenditure Panel Survey, Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services

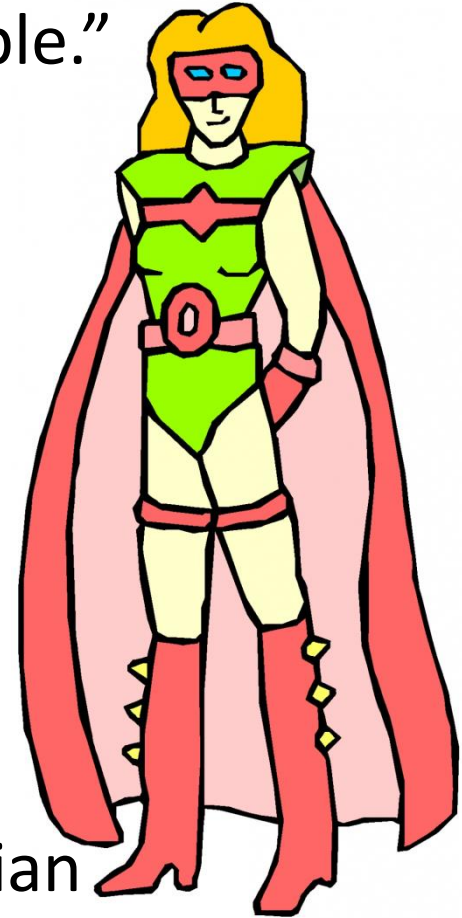
# A Tale of Two Heroes

“Do the greatest good  
for the person who is  
worst off.”



Rawlsian

“Do the greatest good  
for the greatest number  
of people.”



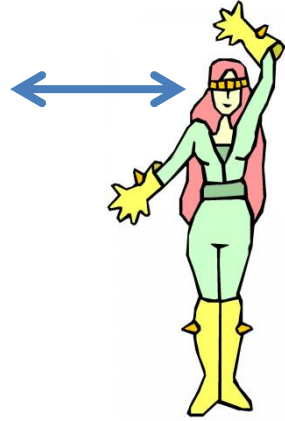
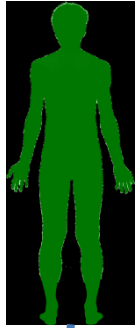
Utilitarian

# Social Welfare Functions

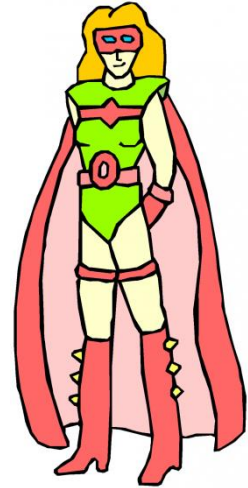
- Utilitarian: Weight everybody equally; maximize the collective utility.
- Rawlsian: Weigh only the person who is worst off.



# What do you care about in health care?



- \*Access to cancer doctors
- \*Diabetes management
- \*Addiction treatment
- \*Long-term care (nursing homes)



- \*Low premium
- \*Copayment & deductible
- \*Access to my primary care doctor
- \*Fancy equipment
- \*Short wait times
- \*"Not sure."
- \*Spa treatments



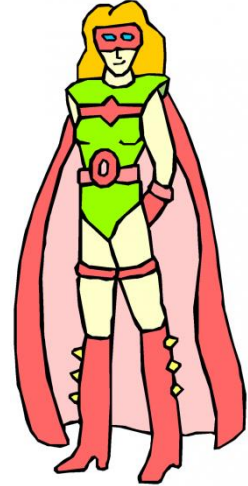
← Spectrum →

Sickest Healthiest

# Because the top 1% spend 22% of \$...



If you accidentally attract twice as many of the top 1% of spenders, then you will have to cut your budget for everyone by 20%.



If you can avoid the top 1% of health care spender, you can increase your budget for everyone else by 20%.



← Spectrum →

Sickest Healthiest

# Three Ways to Handle Adverse Selection

## 1) Eliminate competition:

- Single payer (Medicare, Canada)
- Employer-sponsored insurance

## 2) Risk adjustment:

- German health insurance voucher
- Medicare advantage
- Affordable Care Act Exchanges

## 3) Emergency money to cover leaks

- High risk pools

# Stakeholders

	% of Population	
Employer-sponsored health insurance	57%	Less Impacted
Medicare (65+)	17%	
Medicaid	15%	
Uninsured	5%	
Individual insurance	6%	

# Adverse Selection v. Moral Hazard

Adverse Selection		Moral hazard
	Asymmetric information about one party's	
Type		Behavior
	Causes a bias that occurs	
Before		After
	two or more parties enter into a contract	

# Examples

## Adverse Selection

- Sick people choose higher quality health insurance
- People choosing to sell their used car are more likely to have a defective one.
- Someone selling on e-bay is more likely to have a defective product.
- Someone needing to borrow a loan from the bank is more likely to be bad with money.
- The type of person to rent is more likely to be the type who doesn't like house care.

## Moral Hazard

- Fully insured people choose name brand drugs over generics, raising insurance prices.
- When 10 friends eat out and split the bill, they order more expensive dishes.
- You don't protect your bike very well if you have insurance. This causes more expensive insurance.
- Once you have obtained money from a loan, you don't have as much incentive to pay it back. This causes higher loan interest rates.
- Renters don't take good care of property. Therefore, prices are higher to maintain upkeep.

# Societal solutions

## Adverse Selection

- Credit scores (As in indicator of someone's responsibility level)
- Affordable Care Act
- Large companies with reputations on the line.
- Reviews of online purchases (ebay and otherwise)

## Moral Hazard

- Insurance copayments (you pay 20% of your doctors' bill even after you get insurance).
- Deposit on rented apartments.
- Credit scores (as an incentive for people to pay)