NOTTINGHAM
TRENT UNIVERSITY

Health and Healthcare Systems

Lectures 9 and 10

Le Grand, Propper and Smith (2008): Chp 2

Bochel, Bochel, Page and Sykes (2009): Chp 15

Stiglitz (2000): Chp 12

Outline

- Healthcare, efficiency and equity
- Healthcare and the market system
- Forms of Govt intervention
- Govt failures
- Healthcare reforms

Healthcare and Resource Allocation

- Individual’s health
  - diet, working conditions, housing, public health measures, health care
- Healthcare and Efficiency
  - MSB = MSC

Figure 1 **The Efficient Number of Hospital Beds**

Healthcare and Equity

- Fair and Equitable
- Fairness and Equity defined:
  1. Minimum Standard
  2. Full equality
  3. Equality of access

- Measuring the benefits is problematic

The Market System for Healthcare

- Features of a perfectly competitive private market
  - Efficient
  - Choice
- Is the market allocation of healthcare efficient?
  - Uncertainty of demand
  - Imperfect information
  - Externalities
- Small private healthcare sector in UK
- The NHS is mainly publicly funded

The Market System for Healthcare I: Uncertainty of Demand

- Demand for healthcare is unpredictable
  - planning expenditure and savings; healthcare payments tend to be large
- Private insurance market and inefficiency
- 1. Moral hazard (hidden actions)
  - Individual incentives to economise on treatment
  - Doctor incentives to economise on expenditures
    $\Rightarrow$ usage and costs > efficient level
  - Note: publicly funded healthcare also subject to moral hazard
- 2. Adverse selection (hidden information)
  - Premiums reflect average risk
  - P > willingness to pay by good risk individuals (healthy)
    $\Rightarrow$ under-supply of insurance
  - Bad risk individuals and equity

The Market System for Healthcare II: Imperfect Information

- 1. Quality of a good v quality of individual's health
  - Doctor is supplier of information
- 2. Few opportunities for 'learning by doing'
  - lack of information before and after treatment limits informed choice
- Payment method to supplier
  - Reimburse the supplier for treatment? (moral hazard)
  - Payment per person?
    - $\Rightarrow$ need for regulation
- A relationship of trust (monopoly power) v shop around
  - Costly information
  - Complex information
  - Inaccurate information

The Market System for Healthcare III: External Benefits

- Total social benefit = private benefits + external benefits

  ⇒ Market provision is inefficient

- 1. Communicable diseases
  - Eradication v side effects eg MMR vaccination
  - Developed v developing countries
- 2. Caring externalities
  - Concern for treatment of the sick
- Ethics and Equity
  - The act of giving and receiving v commercial purposes
  - Altruism v self-interest
  - Intrinsic rewards v extrinsic (pecuniary) rewards
    eg pay individuals to give blood? to supply organs?

Govt Policy I: Direct Provision

- NHS: Public provision of healthcare to mitigate
  - Asymmetric information $\rightarrow \uparrow$ P for medical care
  - Over-provision
  - Over-emphasis on ‘high-tech’ or ‘interesting’ cases
- NHS-type systems in many OECD countries
- Hospitals
  - Govt ownership through NHS
  - Public sector workers are employed by NHS
- Primary care
  - Services of (self-employed) general practitioners
- Health promotion activities
  - Responsibility of govt

Direct Provision and Govt Failure

- Direct provision and the market allocation of resources
  - Power of providers
- Govt failures: inefficiency and inequity
- 1. The size of the public sector limits competition
  - State as a monopolist: production inefficiencies
- 2. Direct provision limits innovation
  - Political interest (cost of medical technology) v cost-benefit analysis
- Targets to increase service provision?
  - Reduce waiting times?

  …but distorts output activities; fiddling of the figures

Govt Policy II: Regulation

- 1. Acceptable Standards
  - Personnel: education, training and qualifications
  - Drugs: safety standards

- Self-regulation
  - Professional bodies within health service
  - eg British Medical Association, the Royal College of Surgeons

- Public Information

- 2. Price Control
  - Applicable to healthcare systems with fee-paying patients

Regulation and Govt Failure

- Regulation and the market allocation of resources
  - Monopoly power; excess demand due to moral hazard
- Govt failure: inefficiency and inequity
- 1. Self-regulation
  - Self-interest v interests of consumers
    eg length of doctor training to restrict supply of doctors?
- 2. Price regulation
  - Price to limit monopoly power v market signals
  - Incentives for inefficient behaviour
    eg ↓ doctor fees → ↑ nr of patient visits ⇒ longer waiting times
  - Under-treatment of patients
    ⇒ '**cream-skimming**' and '**patient dumping**' and equity

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Govt Policy III: Taxes and Subsidies

- 1. Public funding of healthcare raised from taxation
- NHS: a system of public taxation and public provision
  - Public funding through general taxes
  - Public provision through general practitioners
    $\Rightarrow$ no user charges: subsidised at the point of use
  - Non-core healthcare carry lower levels of subsidies
- 2. Subsidies targeted at specific groups
  - Medicaid: healthcare cheaper for low-income groups
- 3. Subsidies via tax treatment
  - Switzerland: private health insurance is tax deductible

Subsidies and Govt Failure: Inefficiency

- Effect of subsidy: ↓P of medical care
  - efficient way of dealing with externalities
- ↓P and Over-consumption
  - Individual: MPC = MPB: Q_1
  - Society: MSC = MSB: Q*

- Good provided free
- MPC = MPB = 0

  ⇒ P no longer a rationing device

  1. Queues
  2. Waiting lists

Figure 2 **The Effect of a Subsidy on the Quantity of Care Demanded**

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Subsidies and Govt Failure: Inequity

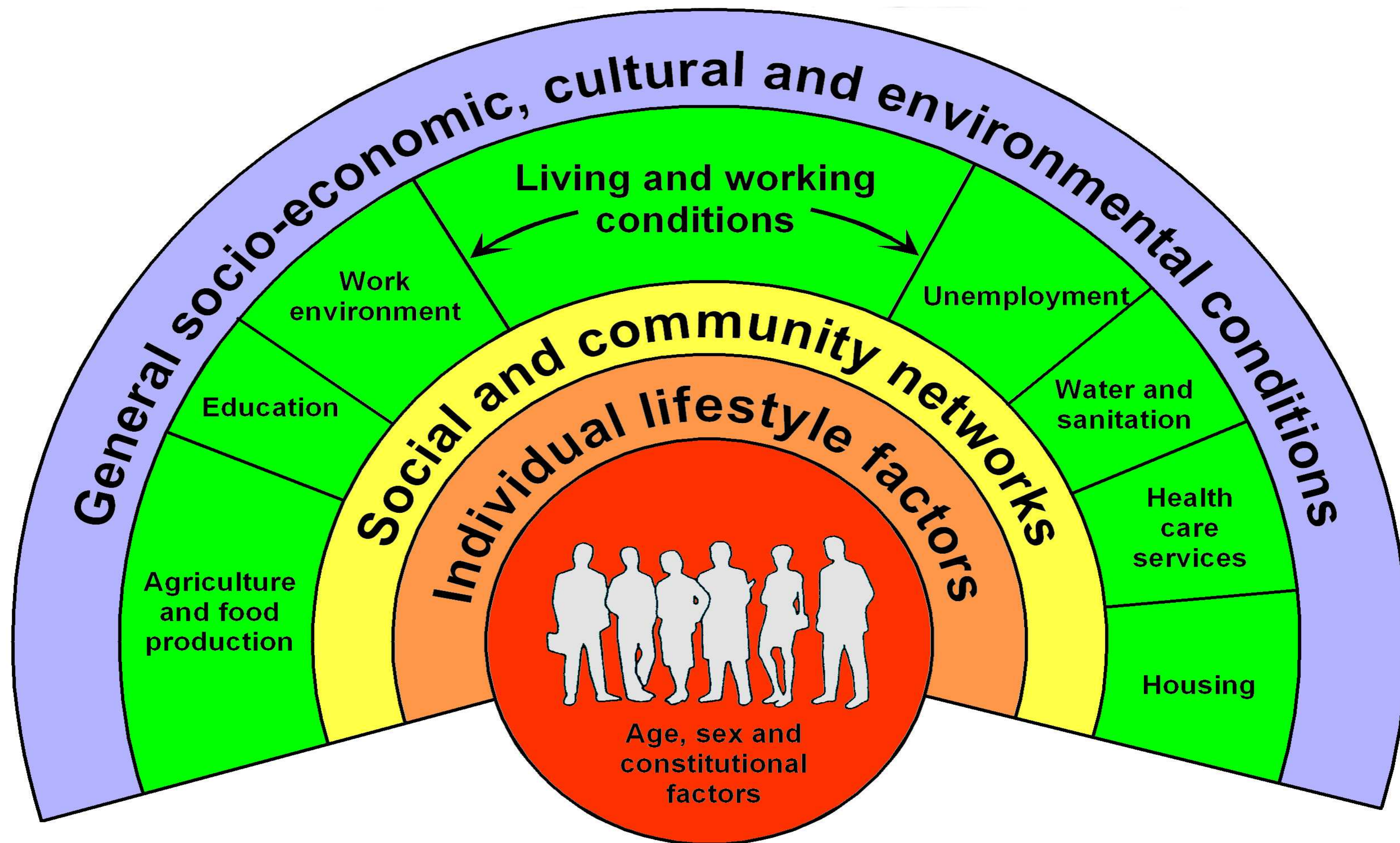
- Effect of subsidy
  - ↑ rewards from provision to achieve equity goals
  - ↓P of medical care → ↑ access to poor
  - Promote geographical equity

- Effectiveness of subsidy

- 1. Type of subsidy
  - Universal eg NHS
  - Means-test eg Medicaid

- 2. Definition of equity
  - Both promote equity in terms of minimum standards
  - Means-test and equality of access and equality of treatment

The Main Determinants of Health



Source: Dahlgren and Whitehead, 1991

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Healthcare Reforms

- Markets and Govt subject to inefficiencies and inequities
- Incentive structures

1. Quasi-market reforms: ↑ market incentives
   - Separate roles for hospital provider and purchaser functions
   - Market created on the supply side
   - Also: regulated prices; encourage entry of non-public providers
2. Cost sharing at the point of demand
   - ↑ patient awareness of costs
   - ↓ govt exp
3. Other measures
   - Low price managed care plans eg HMO
   - Insurance market competition

Summary

- Healthcare and Efficiency: MSC = MSB
- Healthcare and Equity
  - Minimum standard
  - Equal treatment for equal need
  - Equality of access
- Healthcare and Market inefficiency
  - Uncertain demand
  - Asymmetric information
  - Externalities
- Govt health intervention is substantial in OECD countries
- Reforms: ↑ role of market, maintain equity goals

  ⇒ cut costs but equity concerns