

# ECONOMICS, HEALTH ECONOMICS AND IMPLEMENTATION RESEARCH

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# Session 1 Outline

- What is economics?
  - ▣ Core principles
- What is health economics?
  - ▣ How is health different?
- Using health economics in research
  - ▣ Economic evaluation
  - ▣ Preferences
  - ▣ Evaluation of policy
  - ▣ Workforce

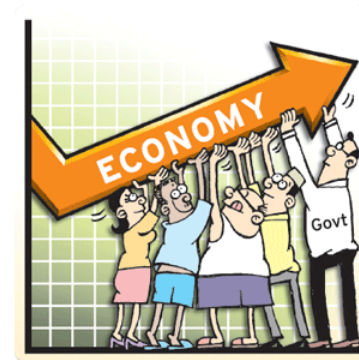
# In this presentation.....

- Behind every health economist there are:
  - Ideas
  - Theories
  - Concepts
- These originate in ECONOMICS
  - (Yes, the dismal science)
- **Applied to the topic of health care**



# Applied Economics

- HE is one of a number of branches of Applied Economics
  - ▣ Public economics
  - ▣ Labour economics
  - ▣ Environmental economics
  - ▣ Agricultural economics
- Applied MICROeconomics
  - ▣ Not Macroeconomics
  - ▣ The ECONOMY (growth, inflation, unemployment, imports, exports)
- **Don't worry about the labels: Economics is a useful way of thinking about the world**



# What are we thinking?

1. The behaviour of individuals (*consumers, patients, providers*) and firms (*groups, organisations, hospitals, government*) in making **DECISIONS** about resource allocation (*buying and providing/selling goods & services*).
2. How these decisions affect the **SUPPLY** of and **DEMAND** for goods and services- which in turn affects prices.
3. How **PRICES** affect the quantities of goods and services demanded and supplied.

# How are we thinking?



## □ Assumptions

- Individuals are **rational** and make decisions which **maximise their utility**- their **preferences are stable**
- Their decisions are subject to a **budget constraint**
- A **competitive market** exists in which there are many buyers and sellers and a **balance is reached between supply** (availability of a product at a price) and **demand** (desires of those with purchasing power)

# Does this apply to Health Care?

- An economics way of thinking can apply to any market: **insurance market**, energy supply market, labour market, real estate market, flea market, fitness services market, taxi market, **health care services market**.
- Three important concepts:
  - **Limited resources** (constrained budget)
  - **Opportunity cost** (doing one thing means you cannot do another)
  - **The margin** (assessing the next (or additional) action in terms of costs and benefits)

# Does this apply to Health Care?

- These are easy to think about in an individual sense
  - ▣ **Not so easy when who faces them is not (only) an individual**
- Three other important concepts:
  - ▣ Market Failure
    - **All markets fail**
  - ▣ Incentives
    - **Not only financial**
  - ▣ Moral Hazard
    - **A bit of a furphy**





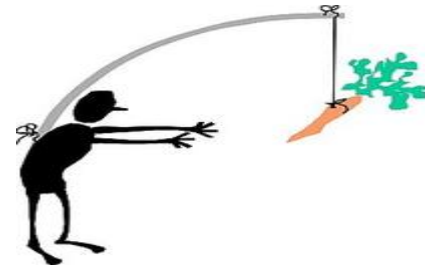
# 1: Market Failure

- **Many reasons why (health) markets fail**
  - ▣ Competition failure
  - ▣ Public good
  - ▣ Merit good
  - ▣ Externalities
  - ▣ Information asymmetry
- **Rationale for regulation/government intervention**
- **Other ways needed to make collective choices**
  - ▣ Collective funding via public and private insurance



## 2: Incentives

- **Motivation for an individual to perform an action**
  - ▣ **People expect to benefit from own decisions and actions**
    - Financial: most common
    - Moral: right and wrong
    - Natural: consequences
    - Coercive: negative
- ▣ Study of **incentive** structures is central to the study of both **individual decision-making** and **co-operation and competition** within a larger institutional structure.



# 3: Moral Hazard

- **Where an individual takes more risks because s/he doesn't bear the cost of those risks**
  - Conventionally, seen as a bad thing; **people will seek and consume more health care than they need** if they don't bear the costs
  - Other side of the coin is that not bearing costs may **encourage people who otherwise would not seek care to do so.**
- **Think about it:**
  - If surgeons refused to accept payment for appendectomies anymore, would anyone go and get one just for the fun of it?
  - If colonoscopies or chemotherapy were free, how many patients would demand more?
- **What happens when providers know patients won't face costs?**



# How do we manage these issues?

- **Response is to develop an insurance market.**
  - ▣ Insurance: a **means of protection** from (financial)\* loss
    - a form of **risk management** used to hedge against the risk of a contingent, **uncertain loss**.
  - ▣ The insured pays a guaranteed and known relatively small amount - the **premium**\*\*
  - ▣ The insurer promises to compensate the insured in the event of a **covered loss**
  - ▣ The loss must involve something in which the insured has an **insurable interest**\*\*\*

# Health insurance

- Most OECD countries have a form of **universal health insurance**
  - ▣ funded by citizens via tax or social insurance schemes
- Medicare is a **taxpayer-funded universal insurance scheme**
  - ▣ all permanent residents entitled to most necessary health care services
- **Private health insurance** provides cover for:
  - ▣ Services not covered by Medicare
  - ▣ Some medicines not listed on the PBS, or prescribed for a condition other than the PBS indication



# When markets don't work: regulate

- **All insurance needs some rules regarding**
  - How the premiums will be collected, how funds pooled, how risks rated
    - Medicare levy, taxes, PHI premiums
  - What will and won't be covered by public/private insurance:
    - MBS, PBS, in-hospital care, community services, private products/services
    - Co-payments
  - Who will “fix” the **problem (what is the problem??)**
    - Registered health care professionals
    - Accredited facilities

# Health economics as implementation

- Health economics provides evidence about how each part of the system should work:
  - Is it value for money to fund a new drug or health care service?
  - What might happen when the system is changed?
  - How can we affect desired behavioural change in individuals and/or providers through incentives: carrots or sticks?

# HE research (1)

## □ Evaluation of policy

- How well does Australia's unique combination of public and private sources of finance for health care, and public and private sector providers work?
- Administrative, panel, linked, survey data
  - How do individuals respond to changes in personal circumstances?
  - How do past experiences within the health system impact on present choices?
  - How do changes in policy settings shape decisions and impact on outcomes?



# HE research (2)

- **Economic evaluation & health outcomes measurement**
  - **what are the costs and benefits of alternative interventions?**
  - **Trial-based, model-based, combination**
  - Challenge to assess health outcomes which are:
    - Relevant to end-users
    - Sensitive to differences in alternative interventions
    - Valid for cross-service comparisons

# HE research (3)

## □ Preferences and Values

### □ Individuals make choices

- Lifestyles, whether & what health care services to use

### □ These choices determine

- Utilisation, costs, outcomes

### □ Utilisation, costs, outcomes determine

- How health system works
- Whether we can predict impact of changes in policy

## □ Available data usually not adequate

- Stated preference data (from discrete choice experiments)



# HE research (4)

## □ **Workforce**

- ▣ health workforce crucial to productivity, effectiveness, accessibility of health care.
- ▣ Lots of data collected
- ▣ Some predictions made

## □ **But**

- ▣ Little Australian research in this field

# The right tool for the right research question

- Health economics as a way of thinking is very flexible;
- ▣ Recall – scarcity, opportunity cost, margin
  - Given resources are limited, how might I best use what I have given the benefits forgone of using them in an alternative way? AND
  - If we change service parameters or payments, how will it change behaviour and outcomes?

# The right tool for the right research question

- Product or service exists, to be introduced/evaluated:
  - ▣ Are there comparative data eg a clinical trial – consider an economic evaluation (more on this in a moment)!
  - ▣ Are there existing data sets that address the question of interest eg. 45&UP (combining health outcomes and health service use) – for policy evaluation.

# The right tool for the right research question

- A new product/service:
  - ▣ What do we know about existing behaviour?
  - ▣ How might behaviour change in the face of the new product/service?
  - ▣ Can we design an experiment to understand expected changes in behaviour?
- (Can also be applied to understand behaviour and preferences for existing products/services).

# Do I always need health economics?

- Short answer, no! BUT
  - ▣ If there is question about comparative resource use or outcomes, or
  - ▣ You want to affect change to existing service delivery, or
  - ▣ Introduce a new service...
- Then it think about including an economic perspective to your analysis.

# Who can assist?

- Centre for Health Economics Research and Evaluation (CHERE)
  - ▣ TCRN Research Partners
  - ▣ Cancer Research Economics Support Team through Cancer Australia



# CREST Contacts

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