The Economic Benefits of Health: Concepts, terms and methods

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WHO

Health Systems Governance and Financing

World Health Organization

Costs to Benefits: the journey

- 2000: MDGs – included some health goals for 2015
- 2012: RIO+20 Conference on Sustainable Development
  - Officialised the concept of 'Sustainable Development'
  - Gave rise to the movement 'Beyond GDP' (new metrics)
- Post 2015: Sustainable Development Goals
- What is Sustainable Development?
  - Development that does not deplete the 'wealth of the nation'

A new (old) policy objective:
'the Wealth of the Nation'

- The Wealth of the Nation includes: manufactured, natural resources, ecosystems, human and **health** capital (etc.)
- The **investment case** for _(*fill in the blank*)_ in health means **increasing the stock of health capital**.
  - Essential point: investment is an action intended to increase the stock of capital: □ *health investment increases health capital*.
- What is health capital?
  - The stock (i.e. quantity) of health. It has an individual meaning, and, by aggregating, a population meaning.

Health capital

- Health capital has three dimensions of benefit:
  1. *Quality of life* (you feel better)
  2. *Productivity* (you do more)
  3. *Life expectancy* (you live longer).

- Intrinsic vs instrumental benefits:
  1. You feel better (intrinsic) □ wellbeing
  2. You do more (instrumental) □ activity
  3. You live longer (intrinsic) □ longevity

Impacts	Market	Non-market
Health	(null)	Intrinsic health: longevity and health-related QoL
Non-health	National income: activity	Social participation: activity

$$\text{Expected Lifetime Utility} = U\left(H, c_1\right) + \pi\left(H\right)\ U\left(H, c_2\right)$$

$$c_1 + pc_2 + h \leq W(H)$$

$$\text{Expected Lifetime Utility} = U\left(H(h), c\right) + \pi\left(H(h)\right)U\left(H(h), c\right.$$

$$\text{Expected Lifetime Utility} = U\left(H(h), \mathrm{c}\right) + \pi\left(H(h)\right)U\left(H(h), \mathrm{c}\right)$$

$$c_1 + pc_2 + h \leq W(H)$$

$$\underbrace{(1+\pi)\frac{\partial U\left(H, \mathrm{c}\right)}{\partial H}\frac{\partial H}{\partial h}}_{\text{Direct Wellbeing}} + \underbrace{\frac{\partial U(H, \mathrm{c})}{\partial C}\frac{\partial W}{\partial H}\frac{\partial H}{\partial h}}_{\text{Productivity}} + \underbrace{U(H, \mathrm{c})\frac{\partial \pi}{\partial H}\frac{\partial H}{\partial h}}_{\text{Longevity}} = \frac{\partial U(H, \mathrm{c})}{\partial c}$$

Benefit vs Value

- The ***quantity*** of a good is a direct measure of benefit.
- Benefit is not the same as Value *value represents a **common measurement unit** for different benefits.*
- Health capital is a benefit: when we compare a quantity of health capital to other benefits, we need to assign a value to it.
- But when we work exclusively in the health context, it is usually enough to speak of benefit (*quantity of health*).

Valuing health

- **Price** is the term for a measure of value (not necessarily the same as $$$).

1. You feel better wellbeing ('utility'):
   - A common measure of value is the 'util' – *a non-market value.*

2. You do more activity:
   - A common measure of value is income (e.g. GDP/GNP) – *a market value* that *includes production*, does not measure consumption. Does not measure important non-market activities (e.g. parenting).

3. You live longer longevity:
   - A common measure of value is the VSLY – *a non-market value*.

Investment case in health considers:

1. Wellbeing:
   - **Almost never:** ***measurement problems…***
2. Activity:
   - ***Traditional approach (Gallup & Sachs, Bloom et al.)***
3. Longevity:
   - ***Novel approach: 'full income', 'beyond GDP', 'health capital' etc. (Arrow, Dasgupta, Jamison, Mumford et al.)***

- The three not mutually exclusive, and involve:
  - ***No double counting.***

Examples

- Lancet Commission on Investing in Health:
  - Full-income approach (VSL): includes 3 (longevity) but not 1 or 2.
- Global Economic Burden of NCDs (Harvard, WEF):
  - GDP: includes 2 but not 1 or 3.
- A new Global Investment Framework for RMNCH (Stenberg et al.):
  - GDP and wider social Benefits, VSL: includes 2 and 3 but not 1.