



## **Health Economics**

# SBS - MSC

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Answer all the Questions. (Indicative word Limit-2000-2500 words)

1. Explain in your own words the concept of economic incentives and provide an example (for each) of positive and negative direct incentives. (15 Marks)

#### **Answer:**

Generally, an incentive is the factor that motivates a person to do something or to engage in certain behaviour. In economics, the incentive definition becomes more specific to money: Economic incentives are financial motivations for people to take certain actions, because they are the path towards achieving preferences, such as wealth or social status. Economic incentives can be strictly defined as "cash or near-cash" assistance provided on a discretionary basis to attract or retain business operations. In practice, however, it is a broadly used term denoting a group of benefits designed to promote new business activity or to encourage job retention and achieve positive outcomes.

Incentives can be direct positive or direct negative and the followings are examples:

**Direct positive incentive** is an incentive that encourages or rewards a particular activity, or a financial reward for making specific choices or actions. It is where an individual receives something in return to their actions. **Examples**:

- 1. Your boss tells you that if you continue to do good work, you will get promoted to a manager, which comes along with a pay raise.
- 2. The mother will give her son a gift if he does his homework successfully.

**Direct negative incentive** is a technique used by managers to motivate employees to perform productivity to avoid negative repercussion. It is a kind of punishment or corrective action designed to be given for somebody who shows failure to perform activities related to his job description. **Examples:** 

- 1. The nurse who shows negligence in the patient care will be exposed to a corrective action such as suspension from work with salary deduction.
- 2. A new seatbelt law is passed that punishes people who don't wear their seatbelts while driving. If a person is caught doing this, they must pay a \$100 fine.
- 2. Suppose that, in starting a new business, you leave your current job at a healthcare company that pays you \$5,000 per month (including all benefits). After one year, the start-up starts making a profit of \$6,000 per month. How long will it take you to be economically profitable, explain using the concept of opportunity cost in this context. (15 Marks)

#### **Answer:**

Opportunity cost means the loss of one alternative when one or another alternative is chosen. The following example gives a clear explanation for losing a job in order to start a new job with more benefits after a specific period.

After one year of leaving the job at the healthcare company, which was paying \$5,000 per month, the total losses or total costs developed during the whole year are \$5000 over 12 (months) which is equal to \$60,000.

After the start-up of the new business with a profit of \$6000 per month, an amount \$60,000 is needed to compensate the costs which was lost during the year after leaving the previous job, which can be  $$60,000 ext{ divided } $6000 = 10 ext{ months period.}$ 

Based on the above analysis being economically profitable: will take you 1 year and 10 months (22 months) from leaving the old job at the healthcare company, or after 10 months from beginning the new job.

## Note: Profit=Revenues minus total costs

Revenues are equal to the amount of money earned in the new job over the 10 months (\$6000 over 10 months=\$60,000)

Total costs are equal to the amount of money lost during one year after leaving the first job (\$5000 over 12 months=\$60,000)

3. Explain the link between globalization and health global opening through the GATS agreement. Would the latest Covid-19 crisis reinforce international agreements in your view? (20 Marks)

#### **Answer:**

In its general definition, globalization is defined as the process by which people together with goods move easily across borders. Principally, the integration of markets, trade and investments with some barriers to control the flow of products and services between nations.

The General Agreement on Trade Services (GATS) is a World Trade Organization agreement that is the first multilateral agreement that provides legally enforceable rules covering all international trade services and investment in the service sector. According to the main aim of GATS in relation to globalization, this trade contributes to globalization in removing barriers and pushing liberalization ahead in more and more sectors of the economy, which facilitated transnational production and distribution.

Unfortunately, when it comes to the distinctive features of the market for the potential economic benefits of trade in health services is limited, while its potential effects and the stronger domestic

regulation needed in open health service markets is beyond the capacity of most developing countries. Proposed GATS-consistent regulations to offset adverse effects of trade in health services are untested, unrealistic, impracticable, ineffectual, and/or have serious limitations or adverse side-effects.

We conclude that national autonomy over health policy is not preserved under GATS, and that accordingly, there is a role for international standards that protect public services from the adverse effect of trade and market forces.

Covid 19 crisis can reinforce international agreements by making all nations share resources and health care professionals having one aim to fight for the virus with very minimal economical losses of all aspects, international agreements have modified laws to facilitate the flow of resources between countries in time effective ways so that all can access the needed supplies.

4. The economists of the American Hospital have produced a cost benefit analysis of lung transplantations. TC and TB being total cost and total benefit respectively, fill in for average cost (AC), average benefit (AB), marginal cost (MC) and marginal benefit (MB), round at one decimal place. (15 Marks)

#### **Answer:**

Qty	TC	TB	AC	AB	MC	MB
1	200	1000	200	1000	200	1000
2	380	1500	190	750	180	500
3	530	1800	177	600	150	300
4	650	2000	162	500	120	200
5	750	2100	150	420	100	100
6	950	2160	158	360	200	60
7	1300	2200	186	314	350	40

According to the marginal analysis, determine the optimal quantity of transplants and briefly explain. (5 Marks)

#### **Answer:**

According to the above marginal analysis, the optimal quantity of transplants is at level of quantity 5, where the marginal cost is equal to the marginal benefit (100). At the levels (1 until 4), the marginal cost is still less than the marginal benefits, which means that there is still a financial benefit from doing the transplant. While after the level of quantity 5 (6 until 7), the marginal cost is more than the marginal

benefit, which means that the transplant is costing more money than that of the benefits or money earned from it, which is not financially beneficial or useful at these levels.

# 5. Explain why a negative externality creates a cost for the society and how it can be reduced, give an example. No graphs required. (10 Marks)

#### **Answer:**

Consumption and production decisions of individuals often affect people not directly involved in the transactions. Sometimes these indirect effects are tiny. But when they are large, they can become problematic—what economists call externalities. Negative externalities occur when the consumption or production of a good causes a harmful effect to a third party. Examples of negative externalities are: Loud music, pollution and congestion. The personal costs of driving to work are buying car, petrol, and your time, while the negative externalities are pollution and possible accident to other people, and time other people sit in traffic jams.

Social cost is the total cost to society; it includes both private and external costs. With a negative externality the social cost is more than the private cost, and this happens when producing a harmful effect to a third party and considered as negative production externality like burning coal for energy creates pollution and consuming alcohol leads to an increase in drunkenness, increased risk of car accidents. In this case, the social benefit is less than the private benefit.

In the case of pollution, the example of a negative externality, a polluter makes decisions based only on the direct cost of and profit opportunity from production and does not consider the indirect costs to those harmed by the pollution. The indirect costs include decreased quality of life, since they are not borne by the producer, and therefore not passed on to the end user of the goods produced by the polluter, the social or total costs of production are larger than the private costs. If goods or services have negative externalities, then we will get market failure. This is because individuals fail to consider the costs to other people.

To achieve a more socially efficient outcomes, the government could try to tax the good with negative externalities. The taxes can be imposed to reduce the harmful effects of such externalities as air pollution, smoking, and drinking alcohol. This means that consumers pay close to the full social cost in the form of tax. So, such taxation attempts to make the producer pay for the full cost of production. As a result of the higher cost of production, the firm will reduce its products thus reducing the level of pollution resulting from smoking.

### 6. Critically evaluate the following statement: Health is a public good. (10 marks)

#### **Answer:**

The classic understanding of a public good in economics, is a good that is non-excludable and non-rivalrous, where no one can be excluded from its use and where the use by one does not diminish the availability of the good to others. It is provided without profit to all members of a society, either by the government or by a private individual or organization. Typically, these services are administered by governments and paid for collectively through taxation. Examples of public goods include law enforcement, national defence, and the rule of law. Public goods also refer to more basic goods, such as access to clean air and drinking water.

When it comes to **HEALTH**, generally it is not considered as a public good, because non-paying individuals (for health insurance, healthy food, etc.) may not be able to achieve good health. Most health insurance plans and services can be considered "private goods," something that a person has to themselves and is not available to another individual. A child who receives regular medical care for her asthma, for example, is better able to manage an episode and less likely to need an expensive visit to the emergency room. A person receiving the regular care, and medication to manage his diabetes has a better chance of avoiding serious complications like a heart attack, cataracts, or kidney disease. Uninsured patients receive health care in its least efficient and most expensive form, while insured patients can receive health care easily and most effectively. But in both scenarios, it is not guaranteed that if you pay for health care insurance, you can get the same positive result on your health. On the contrary of the public goods that everybody will pay and benefit from it, healthcare insurance systems are not affordable to many, and good health cannot be achieved by all people. In conclusion, all the above ensure the idea of **NOT** considering health as a public good.