

Econ 103A Spring 2021

Part 1.

1. [11 points] When hospitalizations of covid-patients increased in our province in recent months, hospitals used a larger share of their resources like doctors, nurses, equipments and rooms to provide medical care for covid patients. Because of this, they had to reduce other services like non-emergency surgeries.

(i) How does this scenario illustrate the scarcity we face as a society?

Given the resources available in the health care system, it is not possible to increase covid-care services without reducing other medical services. This is the kind of situation we face under scarcity.

(ii) Focussing on covid-related medical services and other medical services, draw a production possibility frontier for our province's health care system. On your diagram, show how the production point moves as a result of moving more resources available to provide care for covid patients.

See Figure 1 on the last page.

(iii) Economically speaking, what does it imply when a supervisor asks a doctor to work in the covid-patient care unit instead of the surgery unit due to rising hospitalizations of covid-patients?

The supervisor expects the benefits of moving the doctor to the covid-care unit to be higher than the costs (opportunity costs) of doing so. [Put differently, marginal benefits > marginal costs.]

(iv) Suppose hospitalizations of covid-patients are increasing but resources are not being moved from non-emergency surgery units to covid-patient care units. In such scenario, is the health care system likely to be production efficient? In such a scenario, is the health care system likely to be allocatively efficient? Assume the health care system was at a production and an allocatively efficient point before hospitalizations began to increase.

Yes, the health care system would be production efficient because we would still be at a point on the PPF.

No, the health care system would not be allocatively efficient because the society would be better off if we produced more covid-care services than before. An increase in the hospitalizations of covid-patients make covid-care services more desirable/valuable then before.

Part 2.

With a clear explanation, answer the following questions.

(a) Why does specialization require trade?

When people specialize in production, they produce more of a good in which they have a comparative advantage in and less of other goods. To get other valuable/desirable goods, they need to buy them from others using the income earned from what they produce and sell.

(b) In general, how is the production of goods and services determined in a market economy? How is it determined in a command economy?

In a market economy, buyers and sellers determine the production of goods and services through their interactions. In contrast, the government (or a central authority) decides what to produce in a command economy. Unlike in a market economy, resources are generally owned by the government in a command economy.

(c) Why is incentive an important concept in economics? Illustrate its use by providing an example.

An incentive, in the form of a reward or a penalty, influences human decisions/actions. By introducing an appropriate incentive, we can change an individual's behavior. For example, many companies in the US paid some amount of money to the workers who got vaccinated.

(d) Gasoline prices tend to be higher in areas closer to a city centre than in the outer areas of the city. If this is the case for a city, can we say that gasoline users face a lower opportunity cost of purchasing gasoline in the outer areas of the city?

No. Those people who live or work in the outer areas generally face a lower opportunity cost of purchasing gasoline in the outer areas of the city. However, those people who live or work in areas closer to the city centre will have to travel a lot (i.e., use a lot of time) to get gasoline at a lower price. Therefore, their opportunity costs are generally higher if they try to get gasoline in the outer areas of the city.

Part 3.

1. [4 points] The percentage of people who are fully vaccinated against covid-19 has been increasing steadily in Canada?

(i) All else equal, how does it likely affect the demand for face masks in Canada? Explain.

Those people who get vaccinated aren't going to value wearing masks as much as before, so they are likely to use masks less often at a given price. As a result, the demand for masks decreases.

(ii) All else equal, how does it likely affect the supply of masks? Explain.

The factors affecting the supply haven't changed, so the supply of masks isn't affected. A change in demand doesn't necessarily change the supply.

[Note: in this scenario, demand decreases and the market equilibrium price decreases as a result. As the market price decreases, the quantity supplied decreases. This doesn't mean the supply has decreased because we just move along the supply graph.]

2. [3 points] Lately prices of many goods people buy regularly such as butter are increasing. One reason for this appears to be the rising costs of labor and raw materials producers use. Illustrate the impact of rising costs of factors of production on the price of a good using a market diagram, all else equal.

In this case, the supply decreases due to higher marginal costs of production. As a result, the equilibrium market price increases but the equilibrium quantity falls. See Figure 2 on the last page for the diagram.

3. [2 points] In economic terms, what does it mean to say, "I am tired of eating the same thing everyday!"

In economic terms, it means the utility/benefit/value derived from an additional meal consumed is less than that derived from the previous meal consisting of the same food. This experience is consistent with the law of diminishing marginal utility.

