Economics of Education and Health

DEECO542

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Unit 01: Micro Economic Foundation of Health care

CONTENTS

Objectives

After studying this unit, you will be able to:

- Analyze the key issues in health and educational economics
- Grasp theoretical and conceptual understanding of health and education as an economic dimension
- Appreciate and analyze the key issues in health sector and educational sector in Indian context.
- Analyze microeconomic framework in the demand for health and education

Introduction

It is discernible that the relationship between health and development is a two-wayoperation. Sound healthy individuals of any nation can build the nation in healthy manner. Health is one of the key indicators of Human Development Index (HDI), and reveals the status of individuals' health of the economy. Thus, it is absolutely veracious to state that healthy people in a country promote the development of the economyby contributing productively. Further, economic development promotes better income earningavenues, which, in turn, generate demand for better services (counting healthservices). Therefore, the micro economic foundation of health care and system existed in any economy and its continuous development is pertinent for the all-inclusive growth of the economy. Thebenefits of a healthy population are enjoyed by the society at large just as the ill effects of diseases left unattended/cured permeate across the affected-unaffectedpopulation divide. Issues of health planning, its economic dimensions in terms ofdemand and supply factors, interaction of the insurance sector with medical market,principles underlying the public-private co-existence, etc., are some of the aspectsto which the present unit relates.

1.1 Introduction to the Demand for Health

Medicine and health care have a long history of being treated as special. There are some obvious ways in which the way we interact with the health sector is different from our dealings with other providers of goods and services. Doctors advise us on what services we need and often also provide them. Some health services are used when we are veryill and may not be able to make sensible decisions. Some health care decisions are literally about life and death. In many cases interventions have very uncertain effects for any individual. Another problem is timing. In general, we are healthier when relatively young and relatively rich. These are times when we are least likely to need health care,but most likely to be able to afford it. Perhaps the most important feature of our need for health care is that we seldom know in advance what we will need, when we will need it or how much we will need. Another interesting feature is that few of us actually want to use health services – we do so because we hope it will improve our health. Indeed,use of health services is often unpleasant. Most things we buy are more enjoyable to consume. On the other hand not all health interventions are uncertain, few are really about life and death, and in many cases the intervention is well understood by the patient.

 For example, you have myopia, and need optometry services. You can calculate with almost perfect accuracy how often you need eye tests and, unless you sit on them, how many pairs of spectacles you will need for the rest of your life. For many people dental care is almost as predictable. There is no significant uncertainty in the need for many childhood vaccinations – the content and timing of immunization are predictable.

Many health services are about comfort, mobility, feeling healthy and having good quality of life. Relatively little of what is done extends life to a significant degree. In an absolute sense health care is less necessary than many other necessities, such as food and clothing. This chapter introduces the economic theory of demand and applies it to health and health care. The features of health that are special are explored.There are several reasons why we should be interested in demand for health and health care. The first is to help us to predict likely reactions and behaviour. For example, if we charge people a fee for eyesight tests, what will be the effect on the number of people using the service? How will such a charge affect the frequency of use of optometry services?

Second, knowing something about people's demand for health caremay tell us something about how much they value services. This point will be explored in greater depth below.

Preference and Indifference

The theory of demand is normally constructed in two stages. First, we look at the patterns of preference or indifference between different goods or services. For example, do I prefer a twenty-minute telephonic call to my mother or twenty minutes of free internet access? Do I prefer one laptop set to one bicycle? Do I prefer a 20 per cent reduction in the size of classes at school or twenty-five sets of textbooks? Of course, our choices and preferences are complicated, and normally we want both the products or services offered. The best way to think about preference is 'Which would I choose?' The most reliable information comes from actual choices people have made, but at times we know only what they say they would choose. It is obvious that what people say may be affected by other factors, such as concern about what others will think or what others follow.

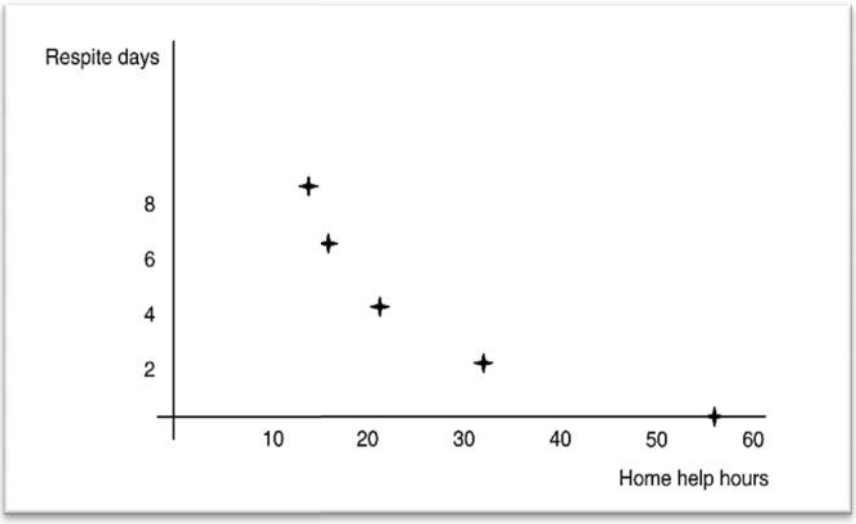
 **Example:**In order to understand more clearly the process of making choices it is useful toconsider a very simple example. You are caring at home for a relative with significant needs. With the help of family and friends you are able to provide all the care she needs, but it seriously limits your ability to leave the house, and for much of the time you cannot focus on other tasks and responsibilities. In order to encourage families to care for their own relatives a new government scheme provides families with funds that can be spent on buying extra help at home or on paying for short periods in residential care to provide respite for carers. At current prices you can afford to buy any of the combinations of home help time or respite care as shown in Table 1 Your preferences between these

different combinations are given in the third column. What is clear is that you prefer combinations that have a bit of each to ones that concentrate more on one or other type of support.

Table 1: Preference for combinations of home help hours and respite care

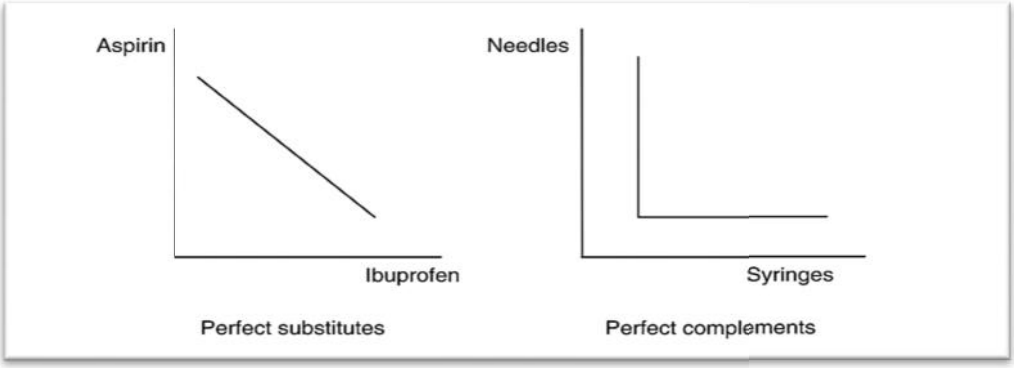
Home help	Respite Care	Order of preference
40	0	5
30	2	2
20	4	1
10	6	3
0	8	4

Fig1: Indifference Curve



Further, if two goods are If two goods are perfect substitutes for each other under the health care and for its associated services, the indifference curve will be a straight line. If they are perfect complements, that is to say, they can be used only in fixed combinations, the indifference curves are L-shaped, as illustrated in Figure 2. For example, syringes and needles are needed in fixed combinations, and neither is useful without the other. For most people an effective treatment for a headache can be either ASA (aspirin) or ibuprofen, so they are near substitutes.

Fig2: Perfect substitutes and complements



1.2 Empirical Analysis of Demand for Health Care

The analysis of the demand usually comprises of several determinants in general. First, individual tastes and preferences are important in determining the shape of individual indifference curves. These may be more or less stable – some things change with fashion, and others are more predictable. Second, the price of the good will influence the amount chosen. Third, demand will be affected by the price of other goods, both substitutes and complements. In general, a fall in the price of substitutes leads demand for the service to fall, and a fall in the price of complements for it to rise. Fourth, the income of individuals is a determinant of demand. More formally we can express this as

$$D = f(P, Ps, Pc, Y, T)$$

where P is price, Ps is the price of substitute goods, Pc is the price of complement goods, Y is income and T is tastes. We know that, in general, demand falls with price, increases with the price of substitutes, decreases with the price of complements, increases with income and increases as tastes and preferences increase.

From demand to demand for health and health care

Demand for health care depends in part on how much we value health – it is sometimes therefore described as a derived demand, since the real demand is for health, and the demand for health care is to help achieve the desired health. Of course, many goods and services have this feature. The demand for cars might be described as the demand for hours of happy family motoring, or even the demand for access to different places. In our behaviour we can observe trade-offs between health and other goods and services. When someone smokes, they (presumably) enjoy the taste and the ending of the craving for an addictive substance. The decision to drive to near-by shops is a decision not to get the health benefits of some exercise.

Demand for health care is also affected by this uncertainty. In essence what we want to buy is access to care should we need it. This means that for some people the demand for health care is a demand for insurance offering guaranteed access to care should the need arise. Of course, many other goods have this characteristic. A house being damaged by an earthquake or a freak hailstorm cannot be predicted, but we can insureagainst such eventualities. It is often claimed that health care is different from othergoods because it is a necessity. These are not mutually exclusive but help to clarify the different dimensions of demand such as-

Need-based- demand is demand for health care that is appropriate and hence is related to a health care need (areas 2 and 5). These are equivalent to unchosen unmet need and met need respectively. Observed utilisation of health care services includes the latter type of need but, by definition, does not include the former.

Unnecessary- This is demand that, by definition, is not based on need and for which care is either supplied or not supplied. It is demand that is observable in some way but that is not based on need and that does not lead to (further) health care utilization. An example is a request for a GP visit

motivated by a need for social interaction rather than a health need. Further in most of cases it is not based on need, for example, inappropriate follow-up dental or outpatient appointments.

Avoidable demand can arise for several reasons:

(a)Initially unperceived need is subsequently detected and results in demand later on in the disease pathway,

 e.g. an individual presents with late stage cancer.

(b)Some demand for health care is potentially avoidable if it arises because of behavioral risk factors,  e.g. smoking, physical inactivity or substance misuse.

(c)Some displaced demand (given below) may also be avoidable.

Displaced demand is demand that is displaced in time – perhaps through the lack of early intervention – or space (place). Spatial displacement refers to care in inappropriate settings, such as avoidable accident and emergency attendances or delayed discharges. In general, demand that is temporally displaced is usually avoidable, whereas spatially displaced demand can be either avoidable (e.g. patient is sent to the wrong ward by mistake) or unavoidable (e.g. patient is sent to the wrong ward because of a lack of beds on the right ward).

Supplier-distorted demand. Suboptimal utilization may arise if the agent (doctor) does not convey demand on behalf of the principal (patient), such as by refusing to refer the patient for a procedure they need and request (area 2) (supplier-refused demand). The agency relationship can also lead to supplier-induced demand such as over-diagnosis or overtreatment, e.g. clinically unnecessary investigations or treatment that can result from screening programmes.

The Grossman model of the Demand for Health

Grossman (1972b) developed a 'human capital' model of the demand for healthin which individuals invest in their health on the basis of perfect knowledge of therelationship between their investment and its outcome. The Grossman model assumes that health is produced using household inputs (suchas tooth brushing) as well as by purchasing inputs (such as health care and the toothbrushes andtoothpaste required for tooth brushing) from outside thehousehold. With perfect knowledge, households will choose to combine inputs such thatthe marginal productivity of each is equal. Marginal productivity of each input isdiminishing so that each extra unit of health produced requires more inputs.These assumptions can be used to generate a number of predictions. Forexample, with education, the household production function is assumed to bemore efficient, predicting that more educated households will produce higherlevels of health. With age, the rate of depreciation of health increases, making itincreasingly costly to maintain a given level of health – predicting that health willdecline continuously with age. Cullis and West (1979) note that this constitutesthe individual 'choosing' the moment of death.

1.3 Income & Price Effect on Health Care

Income Effect

Healthcare is different from other services because it is not clearly defined. In most industries, the product or service can be standardized to improve efficiency and quality. In healthcare, every consumer is structurally, chemically, and emotionally different. What works for one person may not necessarily work for another. Healthcare also differs in terms of choosing consumers. In other services, there is a choice in selecting which person or industry business can be conducted with. It is not so in healthcare as treatment has to be provided to patients in places like the emergency room regardless of patients' ability to pay or not.

In general sense, the income effect in the area of economics is the change in demand for a good or service caused by a change in a consumer's purchasing power resulting from a change in real income. Income can influence demand for healthcare and other subsidiary health care services. If a consumer is a low-income earner, the consumer may not seek healthcare for common sickness. Likewise, a consumer who earns more may be more willing to spend on healthcare. The higher a

person's income, education or occupation level, the healthier they tend to be—a phenomenon often termed the 'social gradient of health'.

These factors are influenced by choices consumers make. For instance, obesity is on the rise in the India. Obesity is preventable and can increase the risk of diabetes, stroke, and heart disease. Some patients do not take appropriate control of their health and seek treatment only when conditions become chronic. The lack of initiate to live a healthy life and prevent chronic illness such as obesity has led to misuse of the healthcare system, hence, escalate the cost.

Price Effect

The price schedule for health care services is quite complex. Theprice that a consumer pays for health care services depends on thepresence of a cost-sharing plan (coinsurance rates or co-payments), adeductible, an upper limit on out-of-pocket expenditures, and premiums. As such, the price of health services can vary according tothe quantity ofservices used. This makes the estimation of the priceelasticity of demand for health care services somewhat difficult. Toestimate the true effect of price changes the researcher must be ableto determine the effective price that the consumer would pay for anadditional unit of health services. As an example, it seems likely thatan individual who has reached his or her out-of-pocket expenditurecap for the year and thus faces a price of zero will make differentchoices about health care use than someone who has not yet reachedhis or her deductible and thus faces the full price of health care services. The complexity of the price schedule highlights the importance of understanding the context in which an elasticity is estimated when trying to generalize results from the literature.

1.4 Supply of Health Care

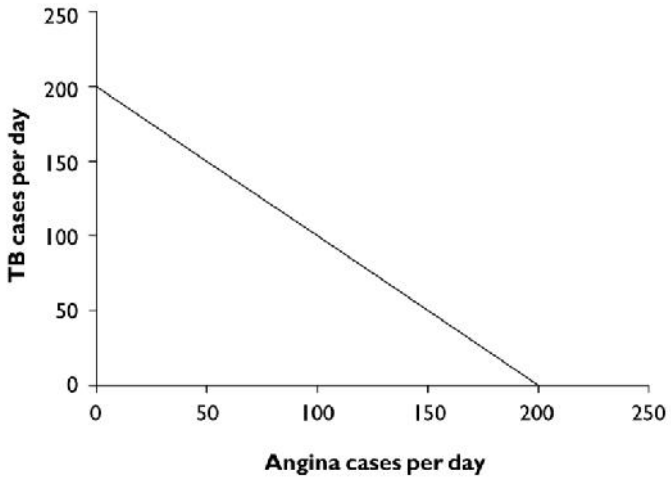
The analysis of supply examines the behaviour of firms (or producers) ranging from large corporations to the sole provider in either the public or private sectors. Supply is the willingness and ability to sell a good at each and every price over a given period of time. It depends on a number of factors influencing the relationship between inputs and outputs (the production function) and cost of producing those outputs.

The Production Possibilities Frontier

Outputs are defined as the goods produced in a production process. Whereas theultimate goal of health care might be good health, this is difficult to defi ne and measure.The mix of outputs and outcomes expected from health care means the relationshipbetween inputs and outcome is complex. Traditionally, intermediate outputs have beenused to explore production and supply in health care (e.g. vaccinations carried out, hipsreplaced or kidney transplants performed). Although these measures do not providehealth outcomes, nor can they capture outputs such as support provided by the medical staff, they are still important in helping understand the issue of efficiency in relationto the provision of health services. The production possibilities frontier (PPF) is a tool that economistsuse to illustrate the different combinations of outputs that are achievable with a limited setofresources.

Consider a clinic that provides ambulatory care for patients with tuberculosis (TB)or angina. Let's suppose that- the only input is nurse time;TB and angina consultations are of the same duration;given current staffing the maximum number of consultations per day is 200. Figure shows what the PPF might look like for our clinic. In this example, a straightline represents the PPF – we can produce a maximum of 200 consultations per dayregardless of how we prioritize the two conditions. The straight-line relationshipimplies that transferring a nurse from one disease to another has no impact on theoverall number of consultations. At the extremes, the graph shows that either 200 TBcases can be cared for, or 200 cases of angina.

Fig3: Production possibilities frontier for a clinic (straight line)



1.5 Factors Affecting Supply and Demand for Health

Effective policymaking and adequate delivery in health care systems begins with a clear typology of the terminology – need, demand, supply and access to care – and their interrelationships. However, influential factor for the advancement and better access to health care and health care system are its existing demand and existing supply. Thus, it is very important find out the correct factor that affect the supply and demand for health and health care.

Factors that influence the supply of healthcare

1. **Socio-demographic profile of patient:** Sociodemographic profile of any patient such as age, gender, ethnicity directly influence the supply of health care and its further subsidiary services. If in an particular area or region of the country is concentrated by old aged people, thus in the particular area the supply of health care will be high and vice- versa.
2. **Type of patient illness**: The supply of the health care is highly affected by type of the illness from which the patient has been suffering. If any particular disease associated number of patients increase in the country, thus the supply of that particular health care will also increase. For example, during the COVID-19, as the specific type of illness (high Fever, cough and severe fatigue) among the patients were increasing, thus accordingly supply also increased. Thus, accordingly Remdesivir a remedial injection was imported to meet the target supply for the domestic people of any nation.
3. **Competence for knowledge and skills:** If in the economy competence level between the different pharmaceutical producers of medicines are of high standard, then supply will also be adequately high and manageable as well. We can observe this phenomenon from U.S, Australia and Western Europe in the world.
4. **Healthcare system**: Health care system of any economy clearly explains the availability and supply of health care and associated services. Usually, the developed nations maintain the supply of health care as they possess the good health care system, on the contrary, developing or underdeveloped nations have not been adequate health care and subsidiary services. Thus, healthcare system influences the supply of healthcare care services.

Factors that influence the Demand of Healthcare

Healthy human beings are the centre of sustainable development, and human beings have long sought to maintain and improve their health by increasing their health services. In general, the use of services or the demand for medical services has a vital role in raising the level of health of each person. The demand for healthcare is a demand derived from the demand for health and is influenced by several factors, discussed below-

1. **Income:** Income is one of the most health influential factor to the demand of health care. High-income families tend to have greater use of health key services and subsidiary services because they are able to bear the cost. But they can also bear the protective and precautionary care, they are able to curb their real requirement of health services. This is known as double effect of income.
2. **Price:** Price has an inverse effect on the demand for health care. Although total demand for health care was found in various studies to be not so perceptive and sensitive to price changes, selection of the source of health care services was perceived to be affected by price factor.
3. **Health Insurance:**Aside from reducing the net price of health care, insurance may be viewed as a method of financing the demand for health care. It not only decreases the cost of car, is also raises the family's ability to secure health services. Thus, health insurance is expected to incline the usage and expenditure on health care.
4. **Life cycle of Age:**The incidence of illness varies with age, so does the need for health care. If in a family, number of children and elderly persons are high, that raise the frequency of illness, which in turn increase the use of health services.
5. **Family size:** the effect of family size on the use of health services is unpredictable. A large family size has a higher frequency of illness since it has more potential patients. However, it has less income per capita than a small family belonging to the same income level. This may reduce a large family's actual use of health services because of lower purchasing ability. Moreover, a large family may have enough people at home to care for a sick member. This compensates for additional days of hospital care.
6. **Education:** good access to education that leads to the reasonable level of education enables a person to recognize pre-symptoms of illness, resulting in the patient's greater willingness to seek treatment timely, patients spend more for preventive services and less for curative services.
7. **Health Knowledge and beliefs:**An Individual's health knowledge ad beliefs affect his efficiency in maintaining personal health through dietary, hygiene and preventive measures. It also affects the choice of health facilities.
8. **Health Need:**Demand for health care is based upon felt needs. Doctors assess whether fet needs are actual needs. Some turn out to be so. Self-perceived need determines whether or not an individual is in the market for health care. It is the immediate cause of decision to seek medical care.

Demand for health care in medical insurance

Health insurance is important to the demand and supply considerations of healthcare as well as in determining the government's role in allocating resources. Healthinsurance is a type of 'cost sharing' whereby the insurer pays the medical costsif the insured becomes sick due to causes covered. The insurer may be a privateorganization or a government agency. Market-based health care systems such asthat in the United States rely on private medical insurance.The concept of health insurance is more applicable in developed economies. Indeveloped countries majority of the persons do not pay directly for their health care.Rather the insurance companies pay for much of the medical care with the consumerpaying a small portion of the total health care expenditure. Insurance coverage isprovided through the payment of the premiums (in privately financed systems) ortaxes (when the insurance is provided publicly). The premiums are often, althoughnot always, paid through the consumer's participation in the labour force.The concept of health insurance involves the theory of expected utility with theunderlying concepts of marginal benefit and cost. The consumers' demand forhealth insurance represents the amount of insurance coverage a person is willingto buy at suitable premiums. Additional insurance coverage will be purchased if the premium (price) declines. Thus,when the marginal benefit of the consumer to theadditional coverage equals the cost of buying that insurance, then other things beingequal, the optimal amount of insurance will be purchased.The demand for health insurance is related to the considerations underlying thepurchase of insurance. It is assumed that an individual wishes to

maximize his orher utility which is the usual assumption made in demand analysis. Since a persondoes not know how he will be affected by an illness requiring a loss of wealth topay for it, the individual seeks to maximize his or her expected utility by choosingfrom the two or three alternatives:

(i) he can purchase insurance and thereby incur a small loss in the form of the insurance premium

or

(ii) he can self-insure, which means either facing the small possibility of a large loss in the event of illness

or

(iii) the large possibility that the medical loss will not occur.

Given the above two choices, one can select one's choice by ranking the choicesaccording to how much of one choice is preferred over the other. Though there isno unique point of origin for measuring the utility function, subject to a certain pointof origin being accepted, the utility function of an individual can be described forvarying levels of wealth. Such an utility function, following the rule of the diminishingmarginal utility, can be graphically shown below in theFigure-4(A). Now, to determine whetheror not to purchase health insurance, let us assume that if sickness occurs it willcost Rs. 8000.

Consider the individual to be currently at wealth level W3 signifyinga income level of Rs.10000. If the illness occurs, Rs. 8000 will be paid out as aresult of which his wealth will shrink to the level W1.

The corresponding levels ofutility for wealth levels W3 and W1 are U3 and U1 (upper panel in Figure 1). Notethat in the lower panel, the graph incorporates the expected utility in addition to the total utility. Now, assuming that the probability of occurring illness is 0.025 (i.e. 2.5percent) and the cost of the treatment is Rs. 8000, the premium to cover this riskwould be 0.025XRs.8000 = Rs. 200.Given the above situation, if the person were to buy insurance at the actuarial valueof the loss, then he would pay Rs. 200, whereupon his wealth reduces to the levelof W2 (representing Rs. 9800) with a corresponding utility level of U2.

Thus, thechoices facing the individual between purchasing the insurance and taking the riskof self-spending for the illness becomes: (a) purchase insurance for Rs. 200 andmove to a marginally lower level of utility (i.e. U2) or; (b) not purchase insuranceand face a 2.5 per cent chance that he will incur Rs. 8000 loss and thereby moveto a much lower utility level of U1 associated with a reduced wealth position of Rs.2000 or alternatively face a high probability of 97.5 per cent that a loss will not beincurred and thereby remain at a wealth position of Rs. 10000 with an associatedutility level of U3 (say, equal to 100). In order to compare the relative positions ofchoices at 'a' and 'b', we can calculate the expected utility levels (which is theweighted sum of the utilities of outcomes with weights being the probabilities ofeach outcome).

Thus, the expected utility of choice 'b' is: P(U1) + (1-P)(U3) =0.025 (20) + 97.5 (100) = 98.To determine whether a person should buy health insurance, we compare the utilityof choice 'a' which represents purchasing insurance thereby leaving the person atutility level U2. Since the utility level of choice 'a' is evidently greater than that ofchoice 'b', it is more advantageous to purchase the insurance. Note that in panelA of the diagram (i.e.Figure 4 (B)), the curve represents the expected utility fordifferent probabilities that the illness will occur. The lower the probability that theevent will occur the closer the expected utility will be to the point farthest to theright on the utility curve. Thus, the factors of demand for health insurance can beidentified as:

(i) how risk averse the individual is
(ii) the probability of occurringthe event of illness
(iii) the magnitude of the loss associated with the event ofillness for a person
(iv) the price of insurance

(v) the income of the individualwho will take the health insurance (i.e., question of affordability and capability ofthe cost of health care associated with the level ofincome).

The demand for healthinsurance is therefore affected by variables like: (a) the cost or price of health care, (b) income level of the individual, (c) tastes towards risk aversion and there by preference for buying insurance and (d) the size of the probable loss.

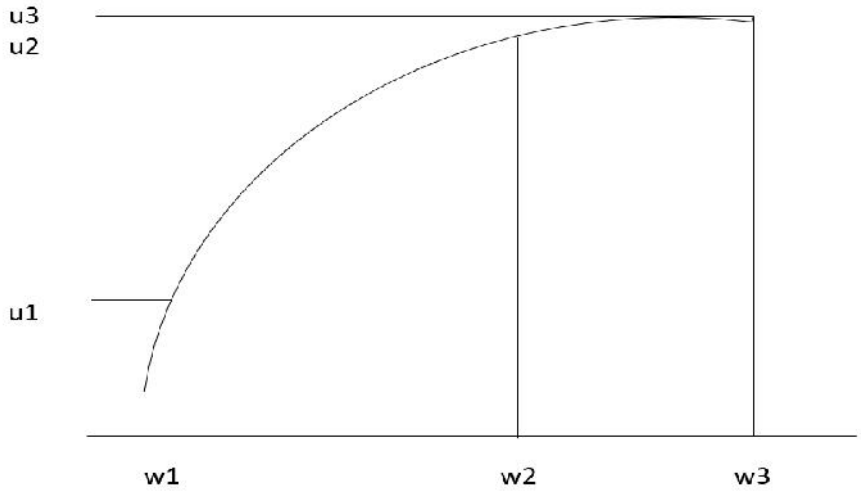


Fig4(A): Utility Function at Varying level of income (Case A)

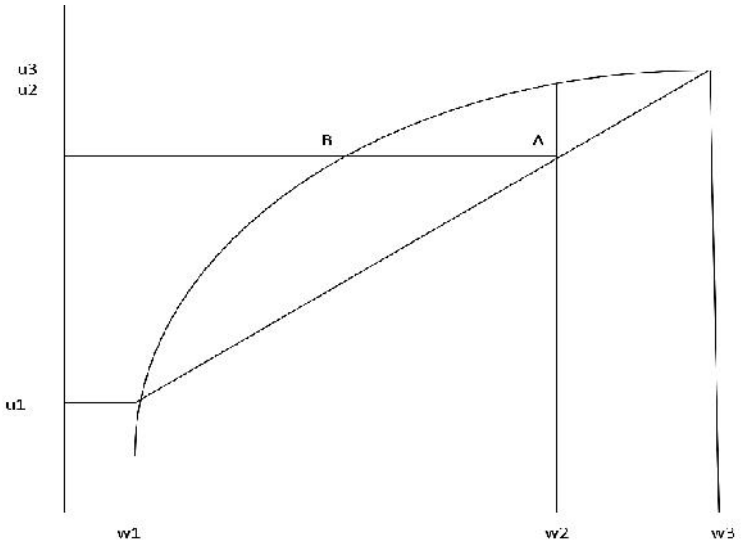


Fig4 (B): Utility Function at Varying level of income (Case:B)

Summary

- The micro economic foundation of health care and system existed in any economy and its continuous development is pertinent for the all-inclusive growth of the economy.
- Thebenefits of a healthy population are enjoyed by the society at large just as the ill effects of diseases left unattended/cured permeate across the affected-unaffectedpopulation divide.

- The demand and supply analysis for health care and health care services leads to the optimum provision of health care services in an economy.
- Health insurance is important to the demand and supply considerations of healthcare as well as in determining the government's role in allocating resources. Healthinsurance is a type of 'cost sharing' whereby the insurer pays the medical costsif the insured becomes sick due to causes covered.
- Grossman (1972b) developed a 'human capital' model of the demand for healthin which individuals invest in their health on the basis of perfect knowledge of therelationship between their investment and its outcome.

Keywords

- Health care demand
- Health Care Supply
- Medical Insurance
- Preferences and Choices
- Grossman Model
- Type of Patient Illness
- Health Knowledge and Belief

SelfAssessment

1. Demand for health care is determined by the savings of the Individuals

A. True
B. False

2. Among the problem of health care system associated with India is that significant number uninsured people lack access to health care system

A. True
B. False

3. The major goal of health care system is to provide the services via private regime for the betterment of poor

A. True
B. False

4. The development of product market contributes to decreasing the expected productivity returns from health investment.

A. True
B. False

5. The demand and supply analysis for health care and health care services leads to the ……. provision of health care services in an economy.

6. A person who is mentally healthy is one who

A. is free from unsolvable internal conflicts
B. is able to arrive at decisions
C. is confident about her own abilities but recognizes her faults has high self-esteem
D. All the above

7. This concept of health was found inadequate to explain some of the major problems of mankind, such as

A. malnutrition,
B. mental illness
C. Sound Mind
D. Only A and B

8. Factors influence the Demand of healthcare are

A. Income
B. Price
C. Both A and B
D. Only A

9. The Grossman model related with the

A. Demand for health care
B. Supply of health care
C. Insurance of health care
D. All the above

10. Demand for health care in an economy for every individual is also affected by……

Answers for Self Assessment

l.	A	2.	A	3.	B	4.	B	5.	Optimum
6.	D	7.	D	8.	C	9.	A	10.	Uncertainty
11.		12.		13.		14.		15.	

Review Questions

1. What do you understand by demand for health care? Describe the specific Model of the same?

2. What are the various influential factor of demand for healthcare, Explain with suitable example.

3. Explain the demand for health care in case of perfect substitute and complimentary products?

4. What do you understand by health insurance. How does it important for reducing the uncertainty that lies in the demand for health care.

5. What do you understand by income and price effect of health care in the area health economics.

Further Readings

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Unit 02: Economic Dimension of Health Care

CONTENTS

Objectives

- Learn the need of healthcare in economic development,
- Know the status of healthcare in developing and developed countries,
- Identify why healthcare is to be essentially developed for economic development of a country.
- Learn how health is related to income,
- Understand the empirical evidence of health-income linkages
- Conclude the importance of in come on health.

Introduction

It is widely acknowledged that a nation's population's health is just as vital as its economic standing. It is crucial that the government play a part in providing all facets of its population with adequate healthcare that is both attainable and cheap. However, the government's comparative advantages in completing the task wholly on its own are limited, as are the resources at its disposal. This highlights the requirement for an appropriate policy framework to enable effective operation of both the public and commercial sectors of the healthcare industry. Additionally, the need for health services is dual in nature, just like in the realm of education. Large portions of the population in emerging nations need special care since they are underprivileged and reside in rural areas with severe infrastructure deficiencies. Their lack of access to safe drinking water is linked to many of the illnesses they experience. Therefore, providing basic primary health services to the less fortunate segments of the population is the government's primary duty. While this is a basic requirement, there is also a need for facilities for specialized health care to be built in convenient places with public support, with the government taking the lead. Different types of health services are required for the wealthier segments of the community. They can budget for all the uncertainty of their future health because their affordability is higher. This aspect of greater affordability for a growing number of high income earners in cities is related to the rise of the health insurance industry under market economic systems. It is clear that there is a reciprocal relationship between development and health. While productive contributions from healthy citizens of a nation help the economy grow, economic growth also encourages improved ways to make money, which in turn spurs demand for better services (including health services). A different analysis is required to determine the crucial connection between the two sets of processes (and the impact that they have

on one another). This crucial aspect of the dichotomy between health and development is the subject of the current section.

2.1 Health and Development

Health plays the following roles in the development of human capital: The only way to work effectively and to your best capacity is to be healthy. A healthy individual can work more productively. A healthy person is able to work productively, which can better contribute to the growth of the nation's economy. During history, one of the key advantages of development has been increased health. This benefit is a product of both income growth and the advancement of science in the fight against illness and incapacity. "Health Care" implies more than "Medical care". It embraces a multitude of "Services provided to individuals or communities by agents of promoting, maintaining, monitoring, or restoring health". Medical care is a subset of health care system.

Health Expenditure

The US spends $700 (around $2,000) more per person than other high-income nations. High-income nations spend 26 times more than middle-income nations and 103 times more than low-income nations. Pay attention to the fact that even higher middle-income nations spend 10 times less than high-income nations. Significantly less money overall is spent on health per person. Low and medium income nations spend roughly the same amount of GDP on health. Therefore, they all give health care spending in the economy a same level of importance. 10% more of the GDP or 4 percentage points more, is spent on health in higher income countries. This demonstrates that priorities are not out of line; rather, because the economies of the poorer nations are smaller, they spend less money overall.

In contrast to high-income countries, people in low-income countries must make more out-of-pocket payments.

Low income: 1% government, 4% private

Middle income: 3% government, 3% private

High Income: 6% government, 4% private

Richer nations are better able and more eager to spend tax dollars on healthcare.

Health care spend in India is considerably lower than that in other countries

2004	US	UK	Mexico	Brazil	China	India
Life expectancy (avg. # of years)	77.4	78.3	72.6	71.4	72.5	64.0
# of Physicians per 1,000 people	2.7	1.9	1.7	1.2	1.7	0.4
Healthcare spend (USD per capita)	5,365	3,036	336	236	62	32
Healthcare spend (% of GDP)	13.2	8.4	5.5	7.5	5.0	5.3

Health Indicators

Health indicators are metrics created to compress data on important issues pertaining to population health or the effectiveness of the healthcare system. They offer comparable and useful data that can be applied across various administrative, institutional, and geographic borders and/or can monitor development over time. There are some health indicators as follows:

Infant mortality rate (IMR):The number of newborn deaths for every 1,000 live births is known as the infant mortality rate. The infant mortality rate is a significant indicator of the general health of a society in addition to providing us with valuable information on maternal and baby health. IMR, or infant mortality rate, is the term. It calculates the infant mortality rate per 1,000 live births. Infants are defined as children younger than one year of age. It is a crucial indicator of the general well-being of society. Infant Mortality Rate is calculated by dividing the number of resident live

births in the same geographic area (for a given time period, often a calendar year) by the number of resident newborns who die before the age of one.

Nutrition: Nutrition is a good measure of general susceptibility to health since it is the underlying cause of many diseases. The process through which an organism consumes food and uses the nutrients in it is known as nutrition. The process of consuming food and transforming it into energy and other essential elements is known as nutrition. Organisms make use of nutrients during the feeding process. Malnourished have a weaker immune system.

Health indicators in developing countries fall short of developed countries:

e.g., life expectancy at birth for females is:

- Low-income countries: 59
- Middle-income countries: 72
- High-income countries: 81

The gap between the rich and poor has decreased over the years.

e.g. In 2000, life expectancy at birth for women is 22 years less in low income as compared to high-income countries. In 1960 the difference was 28 years.

Great improvements in access to water but still very high IMR in developing countries.

Nutrition indicators

	Undernourishment (% Pop)	Malnutrition (% under 5)	
		Height/age	Weight/age
Low Income	24.63	43.12	43.72
Middle Income	9.51	27.06	11.11

Height/age: Long-term measure of nutrition

Weight/age: Short-term measure of nutrition

In lower-income countries:

- Higher prevalence of malnutrition
- Much higher incidence of preventable diseases

(e.g. TB)

- Every year more than 10 million children die from preventable diseases (World Bank, 2003)

Types of health problems different in developed and developing countries

(e.g. obestity)

High incidence of malnutrition very important because it is often an underlying factor that causes death from other aliments such as infections diseases.

Difference in health outcomes between developed and developing is important.

In Developing Countries:

- Age distribution of ill health tilted toward infants and pre-school children – policy tilt as well
- More communicable than non-communicable diseases.
- Adults more likely to be afflicted with health problems
- Result of poor health when a child
- New health problems in adulthood
- Less likely to receive government help to solve health issues – high health exp. can lead to poverty.
- Low income tends to cause poor health and poor health in turn causes low income.
- Policy must therefore address both health and poverty simultaneously.
- This is what conditional cash transfers are trying to do.

Poor cannot buy healthcare:

- Cannot afford to prevent a disease before it occurs (vaccinations)
- Doctor visit for diagnosis
- Drugs to treat the problem

Poor more likely to be malnourished:

- Can't afford food or fertilizer to grow food
- Lack of food and variety
- Immune system weak
- Susceptible to diseases

Poor are more likely to live far away from doctors and hospitals

- Transportation costs are large
- Poor more likely to go untreated
- Certainly holds for rural poor, may not hold for urban poor in all countries
- Use mobile health clinics and foot doctors to reach the poor in rural areas

2.2 Income-Health Linkages

Fitness is wealth. Having good health makes people wealthier. Low-income individuals are more likely to describe their health as "poor" or "very bad." Empirical proof: Adults under the age of 55 who rate their own health and employment according to home income: UK, 2019/20. 31 per cent of those with the lowest earnings say their health is "less than good." This percentage ranges from 22 per cent for those in the centre (the fifth income decile) to 12 per cent for those in the highest income brackets. Increasing one's income is related to bettering one's health across the income spectrum.

Resources and money can have a variety of effects on health.

- To be able to afford the necessities for a healthy living, such as food and decent housing, people must have a particular level of income.
- People with higher incomes are able to obtain healthier solutions since they have more selections at their disposal.
- Beyond a minimal amount of income, however, stressors continue to exist and eventually jeopardise physical health. This suggests that having a high salary does not ensure having excellent health.

Let's examine this using a graph that depicts self-rated health among UK people 55 and younger, which is then divided into 10 equally-sized deciles based on 2019–20 household income. More than 10 per cent of adults with the lowest incomes report having "poor" or "very bad" health. 31per cent of those with the lowest incomes report having less-than-excellent health, compared to 22 per cent of those in the middle two deciles (5th and 6th), and 12% of those with the greatest incomes when data for "fair" health (the group below "good" health) is included. Higher income is linked to improved health throughout the whole socioeconomic spectrum. This shows that the connection between income and health that we observe extends beyond people's ability to meet their basic requirements. More income is positively correlated with health at all income levels. Health plays the following roles in the development of human capital: The only way to work effectively and to your best capacity is to be healthy. A healthy individual can work more productively. A healthy person is able to work productively, which can better contribute to the growth of the nation's economy.

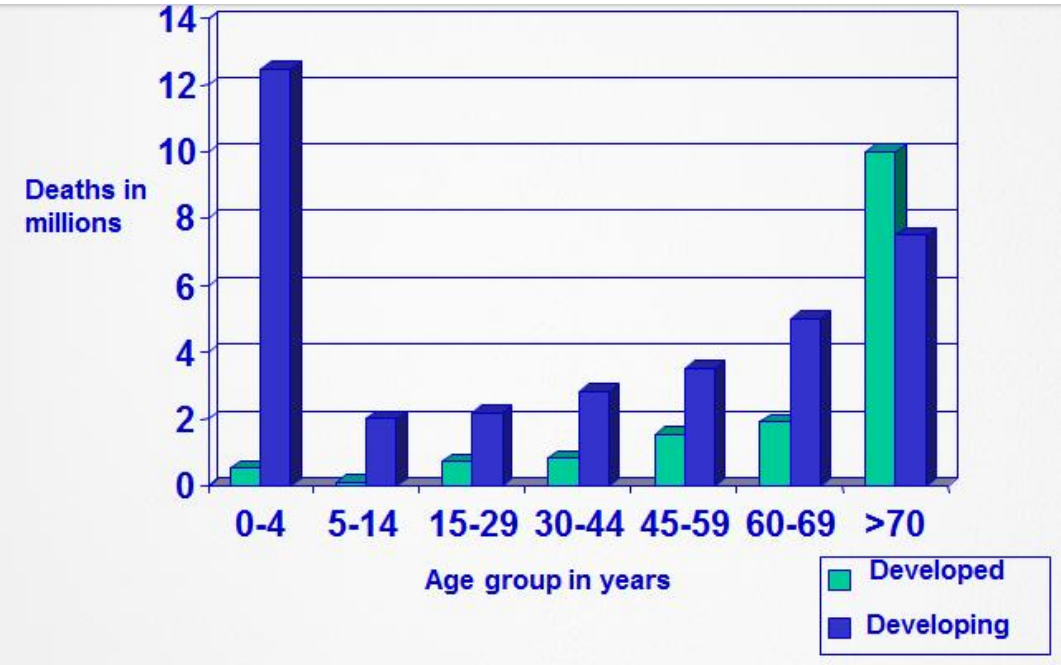
2.3 Health Care as a Factor of Economic Development

At present, healthcare is one of the fastest-growing sectors showing a sustained pace despite the slowdown affecting the economy. Growth of healthcare is spurred by the rising number of hospitals, medical device manufacturers, clinical trials, outsourcing companies, telemedicine providers, medical tourists, health insurance companies, and medical equipment manufacturers. This growth has been ensured by the efforts of public and private players to increase investments and improve networks, services, and coverage. A good healthcare system is important to reduce the burden on families and contribute to national growth. According to OCED Observer, a mere 10% increase in life expectancy ensures an economic growth of around 0.4% per year. In many societies, out-of-the-pocket hospitalization has exposed whole populations to huge cost burdens, giving rise to poverty.

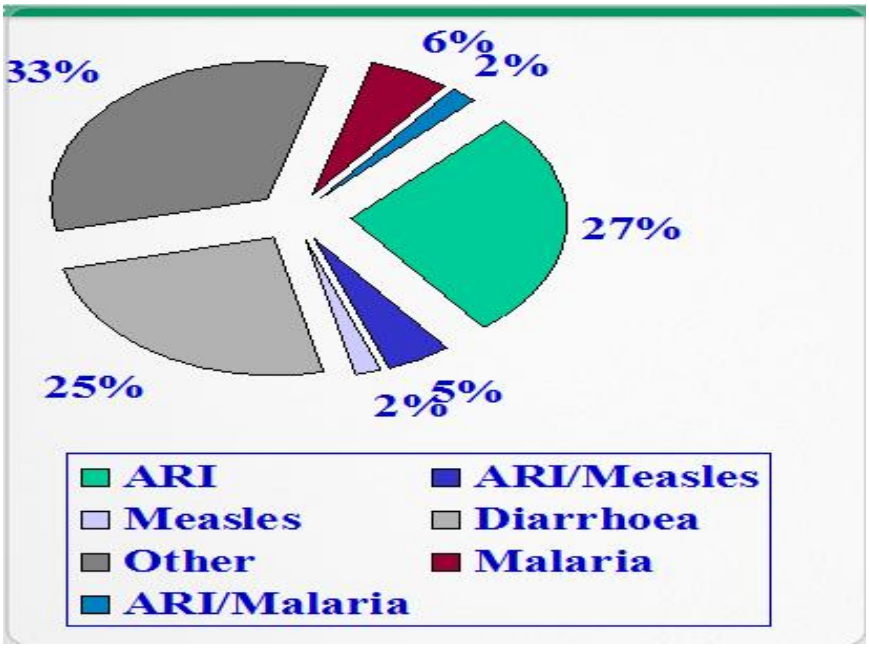
On the other hand, subsidization has made many private players cry foul, leading to decreased performance, corruption, and lack of competitiveness. Policymakers have to strike a very delicate balance in handling these issues. In most developing countries, a majority of people live in rural areas with little access to healthcare, yet they contribute to more than half their country's GDP. The abysmal doctor-to-patient ratio in the rural areas of most developing countries remains a cause for concern. Technology, governmental initiatives, and community participation play an important role in giving perspective to healthcare organizations. In India, the government's Aspirational District Program (ADP) works in empowering communities to rebuild their lives. The program reaches out to over 200 million people—about 15% of India's population—engaging with communities to take responsibility for their own health and welfare. ADP plays a major role in reducing maternal mortality rate and controlling other contagious diseases in the country. Due to ADP, the increased rate of economic development occurring in many regions of the country. Healthcare sector to consider investing in people as the primary goal in measuring their success.

Technology has opened up and many pharmaceutical companies are successful in reaching out to the rural population, improving their healthcare, and contributing to the economic growth of the region. Other healthcare companies can take a leaf out from such pharma companies and begin their out-reach programmes to contribute to the economic growth of the nation.

Deaths by Age Groups in Developed and Developing World



Distribution of 12 Million Deaths in Under 5 in Developing Countries, 1993



- 10% disease burden could be avoided by access to safe water.
- 20% disease burden could be avoided by eliminating malnutrition.

Health Care in Developing Countries

- Existing infrastructure for health care needs to be strengthened. Health should be perceived as an investment and receive greater budgetary allocation
- Education, safe water and sanitation need priority
- Vaccination coverage to be improved
- Better implementation of national health programs
- Judicious use of the scant resources by promoting most cost-effective strategies for disease prevention
- Inclusion of all level of stakeholders in planning and policy making using tremendous human resource available in the country

Health Care in India

- Expenditure on health by the Government continues to be low. It is not viewed as an investment but rather as a dead loss!
- States under financial constraints cut expenditure on health
- Growth in national income by itself is not enough, if the benefits do not manifest themselves in the form of more food, better access to health and education: Amartyo K Sen
- Human health has probably improved more over the past half century then over the previous three millennia.
- This is a stunning achievement - never to be repeated and, it is to be hoped, irreversible.
- In late nineties, India had 48 doctors per 100,000 persons which is fewer than in developed nations (India's doctor-population ratio now at 1:854 is better than the World Health Organisation's standard of 1:1000)
- Wide urban-rural gap in the availability of medical services: Inequity
- Poor facilities even in large Government institutions compared to corporate hospitals (Lack of funds, poor management, political and bureaucratic interference, lack of leadership in medical community).
- Increasing cost of curative medical services
- High tech curative services not free even in government hospitals
- Limited health benefits to employees
- Health insurance expensive
- Curative health services not accessible to rural populations
- Private practitioners and hospitals major providers of health care in India
- Practitioners of alternate systems of medicine also play a major role
- Concerns regarding ethics, medical negligence, commercialization of medicine, and incompetence
- Increasing cost of medical care and threat to healthy doctor patient relationship.
- Prevention, and early diagnosis and treatment, if feasible, are the most cost-effective strategies for most diseases
- Promoting healthy life style from early life is a ‘no cost’ intervention which needs to be incorporated in school curricula.
- There is need for increasing public awareness of the benefits of healthy life style

Inequity in Health Care

- Almost everywhere, the poor suffer poor health and the very poor suffer appallingly.
- Addressing problem of inequality, both between countries and within countries, constitutes one of the greatest challenges of the new century.
- Failure to do so properly will have dire consequences for the global economy, for social order and justice, and for the civilization as a whole.

Summary

Some of the significant health-related aspects of development were covered in the unit. The connectivity and impact of the relationship between health and development are influenced in both directions. Similar to the need for education, the desire for health care is a good for both consumption and investment. Even if it would be ideal to provide the private sector a proper role, the government's role in delivering health care services is still necessary. Both the lack of resources and the concerns about equity call for such a stance. The level of economic development affects how much and where the private sector can participate in the delivery of healthcare services.

In the early stages of development, basic health needs should receive more government funding. Higher incomes that result from an expanding economy give people more ability to self-finance many of their essential health requirements. The focus of health funding goals may change at this point. The level of economic development a nation has attained affects when medical insurance enters the market. The insurance market's interaction with the health care industry has both advantages and disadvantages. To attain the necessary balance in this regard for it to work effectively, developed market structures and institutional procedures are needed. Even while the government still needs to play a regulatory role, the benefits of selectively utilising the private sector to deliver health care have to be acknowledged. This is essential since the government's resources alone would not be sufficient to meet the demands of the health sector. Competition, local needs and choices, and contracting are mentioned as key factors in striking the right balance in this regard. The steadily improving state of humanity's health is a result of the sector's ongoing advancements in medicine, where technical advancements have a significant impact. However, each victory has always been followed by a fresh obstacle, making the dynamics of the health industry ever-challenging.

Keywords:

Health Care,

Infant Mortality Rate,

Nutrition,

Health Insurance,

Development,

Developing Countries

Self-Assessment

1. Human Development Index compares countries based on which of the following levels of people?

A. Health status.

B. Per Capita Income.

C. Educational level.

D. All of the options are correct.

2. The World Health Day is celebrated on

A. 1st March

B. 7th April

C. 6th October

D. 10th December

3. Which one of the following is an unhealthy habit?

A Sharing food

BBathing twice a day

CDrinking boiled water

DEating without washing one's hand

4. Which one of the following is not a bacterial disease?

A. AIDS

B. Dengue

C. Measles

D. All of the above

5. Number of live births per 1000 live male births defined as:

A. sex ratio

B. maternal mortality rate

C. birth rate

D. death rate

6. AYUSH stands for:

A.all youth and usual status health status

B. Ayurveda, Yoga& naturopathy, Unani, Siddha and Homeopathy

C. accredited youth and usual special health care

D. none of these

7. Which state is accounted for first place in human development in India:

A. Tamilnadu

B. Punjab

C. Bihar

D. Kerala

8. What comes under the characteristic of the poor people?

A. Poor Health

B. Gender Inequality

C. Debt Trap

D. All of the Above

9. Economists generally identify poor people based on their-

A. Living Standard

B. Expenditure

C. Income

D. Occupation

10. Which of the following are the two categories of poverty identified by the United Nations Development Programme?

A. Income and human poverty

B. Income and relative poverty.

C. Rural and absolute poverty

D. Rural and relative poverty

11. Which of the following is the main reason for the decline in the per capita availability of land for the purpose of cultivation?

A. Rapid growth of population and lack of employment

B. Pollution in land and water bodies because of excessive usage of agrochemicals

C. Frequent droughts

D. All of the above

12. The deficiency of protein alone is a symptom of

A. Protemia

B. Indigestion

C. Kwashiorkor

D. Marasmus

13. Which is not a vitamin deficiency disease

A. Cheilosis

B. Scurvy

C. Rickets

D. Marasmus

14. Pick the incorrect statement about Marasmus

A. pregnancy in lactation period

B. protein rich diet replaces mother's milk

C. less than one year old infants are affected

D. simultaneously deficiency of calories and proteins

15. _____ is a disorder or bad functioning (malfunction of mind or body) which leads to departure of good health

A. Physical disease

B. Health

C. Disease

D. Infectious disease

Answer for Self Assessment

1.	A	2.	B	3.	D	4.	D	5.	A
6.	B	7.	D	8.	D	9.	D	10.	A
11.	D	12.	C	13.	D	14.	B	15.	C

Review Questions

Q 1. Define the indicators of Health Economics?

Q 2. What do you mean by Infant Mortality Rate?

Q 3. What is the meaning of Malnourished?

Q 4. What is the scenario of Health Care in developing countries?

Q 5. Write a note on the scenario of Health in India?

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Unit 03: Determinations of Health-Poverty

CONTENTS

Objectives

- Learn the concept of malnutrition,
- Identify the factors behind malnutrition
- Understand how environmental issues are impacting malnutrition
- Learn the concept of risk pooling and risk sharing
- Understand the different types and mechanism of risk sharing,
- Learn about different types of developmental assistance
- Identify the countries receiving the developmental assistance

Introduction

What is health, exactly? It has not been simple to respond to this query. Everyone in a society, even different professions like doctors, health administrators, and social scientists, perceives health differently, which causes uncertainty regarding the concept of health.Health has traditionally been defined as the "absence of sickness." In other words, a person was seen as healthy if she did not have any diseases. The "germ theory of disease," which predominated medical thought from the end of the 19th century onward, served as the foundation for this idea, also known as the biomedical notion.The medical community viewed sickness as the result of the human body's mechanical breakdown, which was mostly brought on by microorganisms. Due to its disregard for the importance of environmental, social, cultural, and psychological factors of health, the biological notion of health has been deemed inadequate.This idea of health was shown to be insufficient to explain some of the most significant issues facing humanity, including chronic disease, drug abuse, mental illness, and undernourishment. Other concepts of health, such the ecological and psychosocial models, emerged as a result of shortcomings in the biological notion. According to the ecological idea, disease is a state of the human being's improper adjustment to the environment, whereas health is a state of harmonic equilibrium between the human being and their environment.

For instance, widespread forest loss has altered the environment, causing hunger, floods, and starvation as well as disease issues. It is suggested that improved human adaptability to natural surroundings results in a longer life expectancy and a higher standard of living.

The psychosocial perspective of health is a result of the development of social sciences. This idea is founded on the idea that health is a social as well as a biological reality. Health is also influenced by

psychological, sociocultural, and economic factors. Social conventions and practises, such as those pertaining to a pregnant or breastfeeding woman's diet, raising a child, and inter-family marriage, play a significant effect in how healthy an individual.

Definition of Health

The World Health Organization's (WHO) (1948) definition of health is as follows and incorporates the ideas of health mentioned previous section:

"*Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infvmity.*"

Injustices in politics, society, and the economy are the core causes of poor health for millions of people worldwide. Poor health has poverty as both a cause and a result. Poor health is more likely in poverty.When a person or family is unable to afford basic essentials like food, clean water, housing, and clothing, they are said to be living in poverty. Lack of access to amenities like healthcare, education, and transportation are also included.Adults living in poverty are more likely to experience negative health outcomes from obesity, smoking, substance use, and chronic stress, in addition to the long-lasting effects of childhood poverty. Finally, mortality and disability rates are higher among older persons with lower earnings.

3.1 Malnutrition and Environmental Issues

By lowering food absorption, malnutrition increases the risk of infectious diseases, which in turn are influenced by water security and can worsen infectious diseases. Various studies have suggested that access to services for water, sanitation, and hygiene contributes to malnutrition. The aforementioned findings emphasize the value of safe drinking water, hand washing techniques, and other sanitation measures to address the issue of child malnutrition.Malnutrition's underlying causes include a lack of clean water to drink. Water and life go hand in hand. Acute malnutrition is a direct result of infectious and water-borne diseases, which are made more vulnerable by the lack of access to drinkable water, inadequate sanitation, and risky hygiene habits. Susceptibility to chemical exposures may change according to nutritional state. However, there are many toxicants present, and malnutrition can manifest itself in both excess and deficiency. Consequently, there is a complex relationship between environmental exposures and nutritional status.Risk to industrial chemicals may change according to nutritional state. However, there are many toxicants present, and malnutrition can manifest itself in both excess and deficiency. Consequently, there is a complex relationship between environmental exposures and nutritional status. Malnutrition is the condition that develops when the body is deprived of vitamins, minerals and other nutrients it needs to maintain healthy tissues and organ function. Malnutrition occurs in people who are either undernourished or over nourished.

Protein Energy Malnutrition

- The term protein energy malnutrition has been adopted by WHO in 1976

- Highly prevalent in developing countries among <5 children; severe forms 1-10% & underweight 20-40%
- All children with PEM have micronutrient deficiency.
- Chronic pathological condition
- Absolute or relative lack of protein and energy in the diet over an extended period of time
- Commonly associated with infection albeit infestation in young children

Malnutrition and Environmental Issues

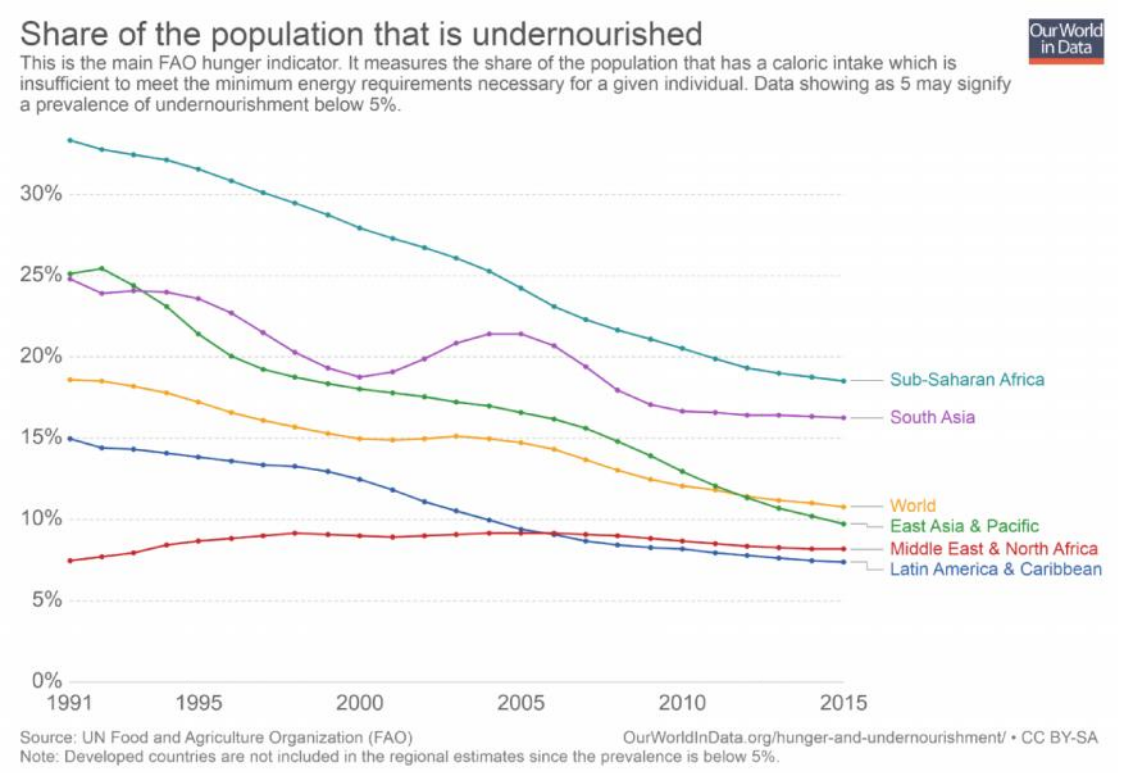
Under Nutrition

- Intrauterine growth restriction resulting in low birth weight
- Underweight: low body weight for age in children, and low Body Mass Index (BMI) and adults
- Stunting (shortness): linear growth deficits
- Wasting (thinness): reflecting low weight for height
- Protein deficiency malnutrition
- Micronutrient deficiencies – most importantly: Vitamin A, Vitamin D, zinc, iodine, iron and folate, calcium

MALNUTRITION= UNDERNUTRITION and OVERNUTRITION

The Burden of Maternal and Child Underutrition

"More than 3.1 million children under 5 die unnecessarily each year due to the underlying cause of under nutrition (2/3rds of deaths are in 1st year) and 165 million more are permanently disabled by the physical and mental effects of a poor dietary intake in the earliest months of life making yet another generation less productive than they otherwise would be" - Source: Lancet Child Survival Series 2013. The consequences of child under nutrition affect immediate as well as future health and well-being.



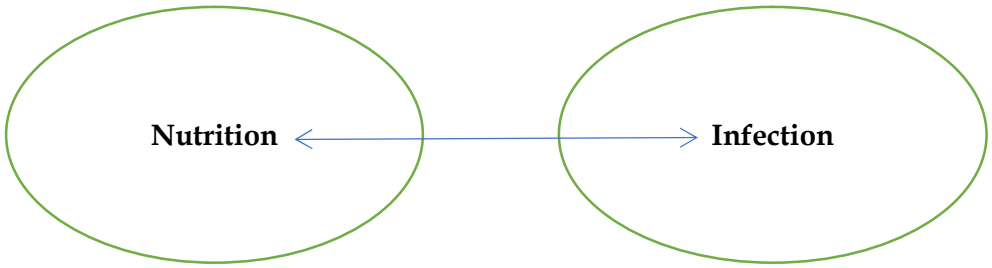
- Undernourishment is still very common in sub-Saharan Africa: about 18% of the population in this region do not consume sufficient calories.
- This is the region with the highest rates of undernourishment; but this is also the region where we have seen the largest progress in recent decades.
- In the MENA region rates are lower, but there has been no progress.
- On the whole, the world average has almost halved since 1991.

Nutritional Disorders	Attributable deaths with UN prevalences*	Proportion of total deaths of children younger than 5 years
Fetal growth restriction (<1 month)	817,000	11.8%
Stunting (1-59 months)	1,017,000*	14.7%
Underweight (1-59 months)	999,000*	14.4%
Wasting (1-59 months) Severe Wasting (1-59 months)	875,000* 516,000*	12.6% 7.4%
Zinc deficiency (12-59 months)	116,000	1.7%
Vitamin A deficiency (6-59 months)	157,000	2.3%
Suboptimum breastfeeding (0-23 months)	804,000	11.6%
Joint effects of fetal growth restriction and suboptimum breastfeeding in neonates	1,348,000	19.4%
Joint effects of fetal growth restriction, suboptimum breastfeeding, stunting, wasting, and vitamin A and zinc deficiencies (<5 years)	3,097,000	44.7%

Source: UNICEF, 2015.

Determinants of Malnutrition: The 6 "P's"

- Production - About half of people in developing countries do not have an adequate food supply - issues of food production and local availability of food.
- Preservation - 25% of grains are lost to bad post-harvest handling, spoilage and pest infestation; up to 50% of easily perishable fruits and vegetables are not consumed.
- Population - density, distribution, urban migration.
- Pathology - nutrition-infection synergism.
- Poverty - root cause of malnutrition income inequality, household food distribution.
- Politics - government policies can foster malnutrition directly by how food is subsidized. and distributed; indirectly civil unrest and natural disasters affect market availability and costs of foods.
- Malnutrition depresses immune function and increases susceptibility to infection
- Anorexia (lack of appetite) results in decreased intake and increased challenge with feeding



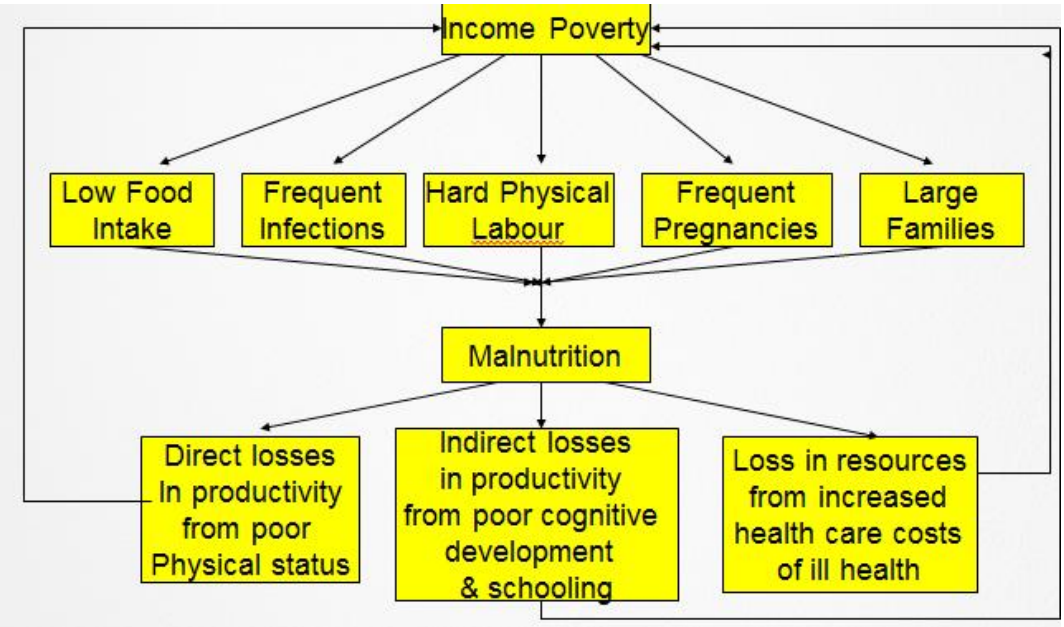
- Diarrhea & vomiting speed up nutrient losses
- Fever increases metabolic needs
- Chronic infection increases protein needs – breaks down muscles, deplete fat stores
- Infection and fever result in anorexia

Climate Change Impact on Nutrition

- Since the 1990s, climate shocks have more than doubled in developing countries, already vulnerable to food insecurity and malnutrition.
- This is alarming for the one billion children who live in the 33 countries classified as 'extremely high-risk' to the impacts of climate change.
- Climate variability and extremes lead to shortfalls in food availability by reducing and destroying crop yields and stocks.
- A combination of spikes in food prices, reduced incomes, disruption of trade and transport, and damage to market infrastructures hinder vulnerable people's access to food, leading to poor quality, and diversity of diets.
- This combined with water insecurity and disease outbreaks arising as a result of climate change creates a perfect storm for unprecedented global nutrition crises.

- Climate shocks increase workloads with negative impacts on the care of children.
- Droughts and desertification mean that women and girls walk further each day to search for water and firewood – exposing them to violence and with negative impacts to their mental health and wellbeing.
- Where conflict and climate shocks coincide, the impact on nutrition is even more significant, derailing the growth and development of children with severe and lasting impacts throughout their lives.
- All diets around the world impact global warming.
- Food systems are responsible for a third of global greenhouse gas emissions (GHG), highlighting how the food we produce and eat affects the environment.
- By 2030, the diet – related social cost of greenhouse gases is estimated to increase by US$1.7 trillion per year.
- A shift towards sustainable, healthy diets would help reduce health and climate change costs by up to US$ 1.3 trillion.
- Sustainable food systems, anticipatory action and shock responsive systems to avert the negative impacts of climate crises are critical for achieving SDG2.
- With its large operational footprint and expertise, WFP is well-positioned to tackle this challenge.
- By transforming food systems to enable healthy and sustainable diets to be available to all, and by helping countries be better prepared to protect their populations from malnutrition in the face of acute crises, WFP can help avert a nutrition catastrophe that will fundamentally undermine efforts to eradicate poverty and minimize the impacts of the climate crisis.

Malnutrition, Poverty & Economic Growth



3.2 Risk Pooling in Health Care Delivery

Risk Pooling

A "Risk pool" is a form of risk management that is mostly practiced by insurance companies, which come together to form a pool to provide protection to insurance companies against unforeseen and sudden happenings or catastrophic risks such as floods or earthquakes.The concept of insurance is based on the sharing of risk. A group of people whose medical expenses are pooled in order to determine premiums constitutes a health insurance risk pool.

	A number of inventory control choices can involve risk pooling. By thinking of the issue in terms of risk pooling, for instance, it is simple to decide between different warehouses that each separately serve their local areas and one that is centralized and serves all areas.

Considered one at a time, there are basically four different types of approaches to risk pooling: no risk pool, unitary risk pool, fragmented risk pool, and integrated risk pools.Pooling is the health system function whereby collected health revenues are transferred to purchasing organizations. Pooling ensures that the risk related to financing health interventions is borne by all the members of the pool and not by each contributor individually.Its main purpose is to share the financial risk associated with health interventions for which there is uncertain need.

Definition of Risk Pooling

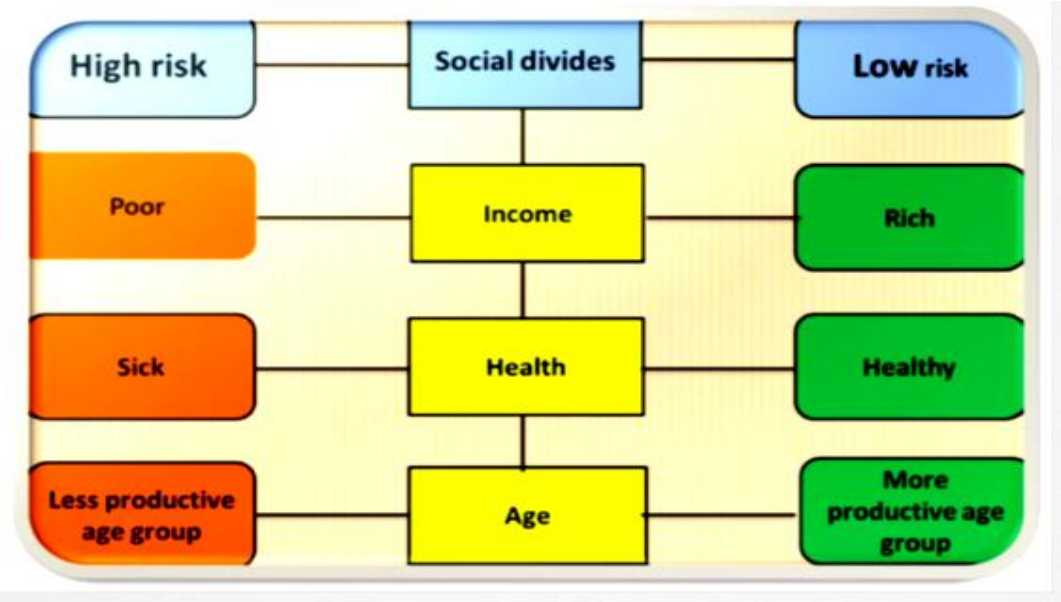
Pooling is the health system function whereby collected health revenues are transferred to purchasing organizations.

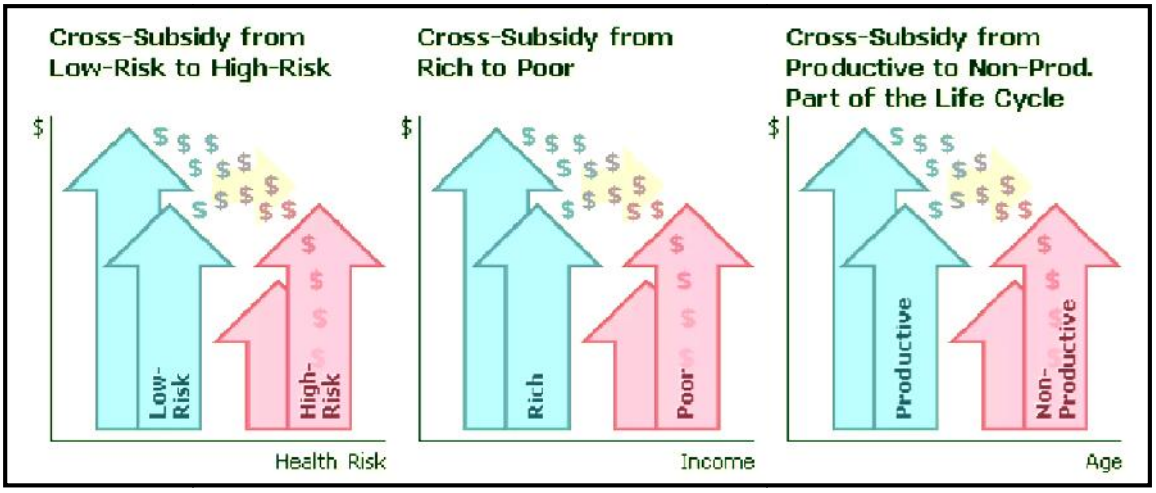
Risk Sharing

Risk Sharing – also known as "risk distribution". Risk sharing means that the premiums and losses of each member of a group of policyholders are allocated within the group based on a predetermined formula. Risk sharing occurs when organizations shift the risk to a third party.A typical example of this occurs in the domain of financial loss. The vulnerable organization can transfer its risk of financial loss to an insurance company for a small premium.When an organisation shifts the risk to a third party, it is referred to as risk transfer or risk sharing. The area of financial loss serves as a common illustration of this. For a nominal payment, the exposed organisation can assign an insurance firm the risk of suffering financial loss.

	Settlement terms in contracts and insurance policies are the two most typical types of risk sharing. The most popular method of risk sharing is insurance. The insurance provider will sell a policy to a business or a person that guarantees coverage for unforeseen losses.

Pooling Across Social Divides





Implications of Pooling on Equity and Efficiency

Equity:

- Society does not consider it to be fair that individuals should assume all the risk associated with their health care expenditure needs.
- Cross-subsidy may pose political challenges.

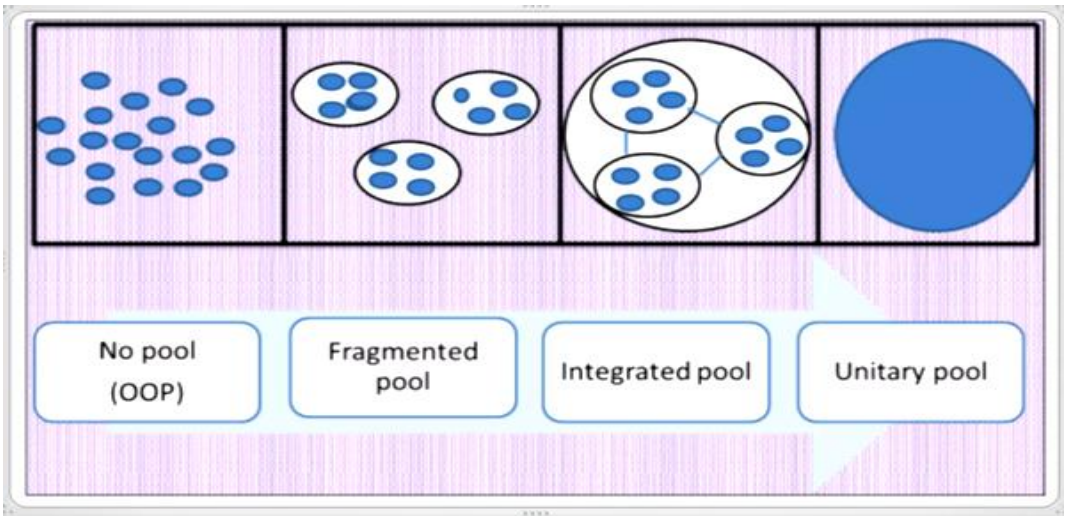
Efficiency:

- Depending on structure, risk pooling can reduce administrative costs or increase administrative burden.
- Can lead to major improvements in population health, can increase productivity, and reduces uncertainty associated with health care expenditure.

Risk Pooling Mechanisms

- Government revenues
- National insurance systems
- Social health insurance systems
- Community based insurance systems
- Private health insurance

Levels of Pooling



No Risk Pooling

- When there is no risk pooling, individuals are responsible for meeting their own health care costs as they arise.
- In its purest form, this entails patients' meeting user charges as they are incurred, with no subsidy of prices for poorer people and denial of treatment when the patient lacks the financial means to pay.

Fragmentation

Fragmentation refers to the existence of a large number of separate funding mechanisms (e.g. many small insurance schemes) and a wide range of health-care providers paid from different funding pools.

- Inefficiencies lead to greater costs.
- Hinders redistribution of prepaid funds.

Integrated Risk Pools

Under this arrangement, the individual risk pools can remain in place, but financial transfers are arranged between pools so that some or all of the variation caused by pure fragmentation is eliminated.

Unitary Risk Pool

Under the unitary model, risk pooling must be mandatory, in the sense that rich or healthy citizens cannot opt out of contributing. The mandatory risk pool is one possible policy response to counter the manifest inefficiencies and inequities associated with adverse selection, cream-skimming, and transaction costs.As risk pooling becomes progressively more integrated, the uncertainty associated with health care expenditure can be reduced. A system of out-of-pocket payments exposes individuals to the greatest level of uncertainty, and on the other hands, Integration risk pooling seeks to reduce these variations, which are eliminated under a truly unitary system.

The Institutional Framework for Risk Pooling

- The institutional basis for risk pools (geography, employment sector, employment status, and so on).
- The criteria for membership in a risk pool.
- The size of risk pools.
- Whether or not the risk pools are competitive.
- Whether or not contributions are mandatory.
- Whether financial contributions are community rated or risk rated.
- The extent to which health care users retain some expenditure risk (in the form of user charges).
- The extent to which there are financial transfers between risk pools.
- The extent to which the risk pools are protected from unpredicted variations in expenditure needs by some higher level pooling
- The freedom given to risk pools to choose variations in packages of care, membership entitlement, and financial contributions.

Risk Pooling in Low- And Middle-income Countries

Region	Year introduced	Coverage	Per capita income (US $)
Africa			
Key feature:	Gradual introduction for civil servants and formal sector		
Burundi	1984	10-15 %	150
Kenya	1960s	25 %	260
Namibia	1980s	10 %	2,030

Risk Pooling in Low- And Middle-income Countries

Eastern Europe & FSU	Year introduced	Coverage	Per capita income (US $)
Key feature:	Transition from tax funded to social insurance		
Estonia	1992	94 %	2,820
Hungary	1992	High[a]	3,840
Russia	1991	High[a]	1,910
Slovenia	1993	High[a]	7,140

Risk Pooling in Low- And Middle-income Countries

Asia	Year introduced	Coverage	Per capita income (US $)
Key feature (transitional):	Response to declining level of state funding		
Kazakhstan	1995	70-80%	1,110
Vietnam	1993	10 %	200
Key feature (other):	Expansion a response to the growth of the economy		
Indonesia	1968	13 %	790
Thailand	1990	13 %	2,210
South Korea	1977	94 %	8,220

Risk Pooling in Low- And Middle-income Countries

Latin America & Caribbean	Year introduced	Coverage	Per capita income (US $)
Key feature:	Introduced from 1920s as part of wider package of pensions, unemployment and other benefits		
El Salvador	1960s	11 %	1,480
Argentina	1920s	90 %	8,060
Mexico	1930s	42 %	4,010
Bolivia	1930s	18 %	770
Paraguay	1930s	14 %	1,570

Risk Pooling in Low- And Middle-income Countries

- Risk pooling in low- and middle-income countries has usually been partial and fragmented.
- In some Latin American countries such as Argentina (before its reforms in the late 1990s), coverage by health insurance was organized through professional associations.
- Many in the informal sector—often poorer and with higher health risks are not covered by the risk-pooling arrangements.
- In other countries, like Indonesia, social insurance coverage is a perk offered to public sector workers.
- While this arrangement reflects practical factors—it is harder to collect contributions from small-scale and informal enterprises—it can have a regressive effect, with the relatively better-off receiving higher quality services with some degree of public subsidy.
- Industrial countries, like South Korea, which started a scheme for civil servants in 1977, have now managed to extend coverage to 94 percent of the population.
- Countries like the Philippines, have lower coverage rates of around 40 percent for payroll insurance, probably reflecting the different employment structure and level of development of the country.
- A number of African countries, like Burundi and Namibia, that introduced insurance for public sector workers in the 1980s, continue to have very low coverage, around 10 to 15 percent.
- There is some correlation though by no means perfect between levels of coverage and per capita income.

Some Facts of Risk Pooling

According to World Bank Report (2004), that's estimated only 11% of Global Health Spending for 90% of the World's Population in developing countries such as Asia 3.5%, Americas 3.2%, Europe 2.4%, Middle East and N. Africa 1.5%, Africa 0.4%, and 89% of Global Health Spending for 10% World's Population in developed countries.In 2007 with respect to the distribution of the global disease burden in low- and middle-income countries 87.5%, but only 12.5 percent of global health spending was in this group of countries.Conversely, in developed and highly developed countries, with a very low distribution of global disease burden (13%), the share of total health expenditures is much higher at 87%.

The World Health Report (2013) stated that inefficiency of the health department financing system has led to a waste of about 20% to 40% of the total health expenditures.Therefore, it counts the need to adopt proper and efficient financing policies based on risk pooling and risk sharing in the health sector as an evident issue.

Facts of Risk Sharing

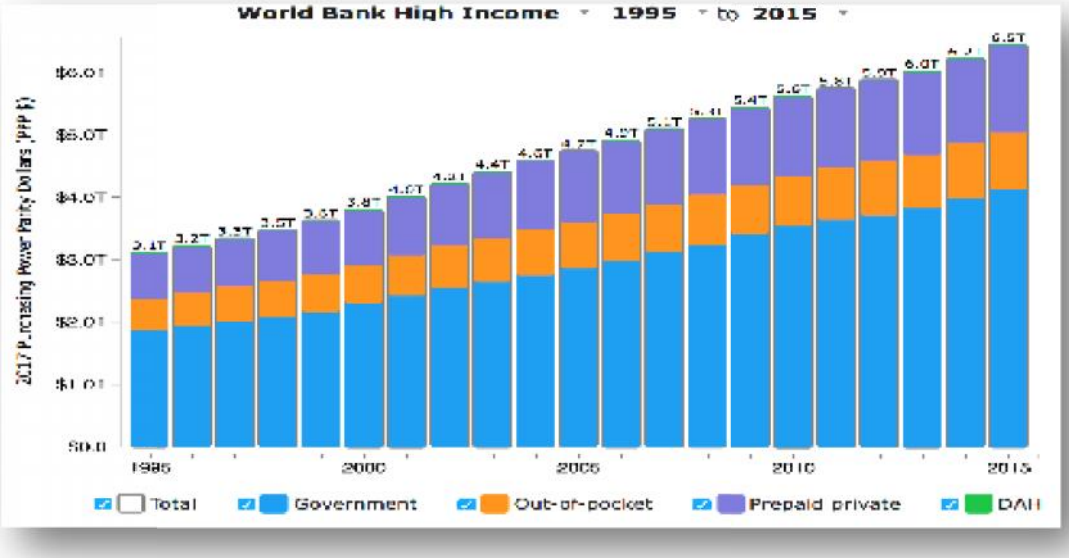
In 2018, according WHO's method for the classification of risk-sharing in health care financing, WHO's data showed that between 2000-2014 the degree of risk-sharing in low-income countries (from 1.58 to 2.08; of the total 6 points Likert) is low risk-sharing and in lower middle-income countries (from 2.47 to 2.86) is medium risk-sharing.This rapidly shift in these income countries groups was coincided (1995-2014) with increasing general government expenditure on health (GGHE) as a share of total health expenditure (THE) in low-income countries(from 33.6% to 41.2%) and lower middle-income countries (from 34.9% to 36.2%), reducing in Private expenditure on health as a percentage of total expenditure on health in low-income countries (from 66.4% to 58.8%) and lower middle-income countries (from 65.1% to 63.8%), reducing Out-of-pocket expenditure as a percentage of private expenditure in low-income countries (from 80.8% to 65.5%) and lower middle-income countries (from 89.4% to 87.5%).In addition, in time period 1995-2014, share of External resources for health as a percentage of total expenditure on health in low-income countries (from 13.1% to 28.3%) and lower middle-income countries (from 1.8% to 3.3%) had been high increased.

3.3 Development Assistance in Health Care

Total DAH is the total amount of external health funding received from all sources, including intergovernmental institutions like the United Nations (UN) system, particularly the World Health Organization (WHO), and bilateral organizations as reported through the OECD's creditor reporting system.According to the Universal Declaration of Human Rights, the right to health is also an unalienable human right since it enables people to live up to their full potential, children to learn more effectively, workers to be more productive, and parents to provide for their children.

- Development Assistance in Health is related to financial assistance to health.
- At the domestic level within the country, it is the transfer of funds/ cross-subsidy from high-income people to low-income people, low risk to high risk, or unproductive age group to productive age group.

At the international level, Development Assistance in Health is defined as the financial and in-kind contributions transferred through major development agencies to low- and middle-income countries for maintaining or improving health.



Data Source: Institute for Health Metrics and Evaluation (IHME). Financing Global Health Visualization. Seattle, WA: IHME, University of Washington, 2017. Available from: http://vizhub.healthdata.org/fgh/

According to the Institute for Health Metrics and Evaluation's (IHME), Financing Global Health 2018 report, DAH has experienced a 0.3% drop in the annual growth rate over the recent 5 years in between 2013–2018.Political uncertainties, changing commitment from traditional donors like the United States and the United Kingdom and the large financial gap needed to achieve the Sustainable Development Goals, suggests that other sources may be critical to growing funding in the future.Besides the traditional donor countries, who are usually members of the Organization for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC) and usually high-income countries, several other middle-income countries have gradually emerged in the global health financing arena.Brazil, Russia, India, China and South Africa, commonly referred to as the BRICS countries, are making a number of important commitments towards global health through providing development aid under the "South-south cooperation" regime.BRICS have also emphasized international cooperation including technology transfer to developing countries in the BRICS health ministers' meetings QUAD countries, JAI are new addition in this line.

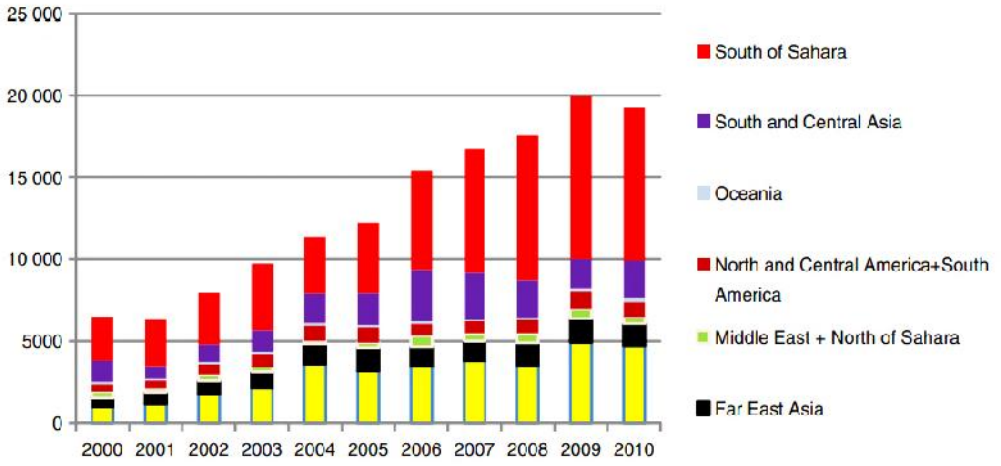
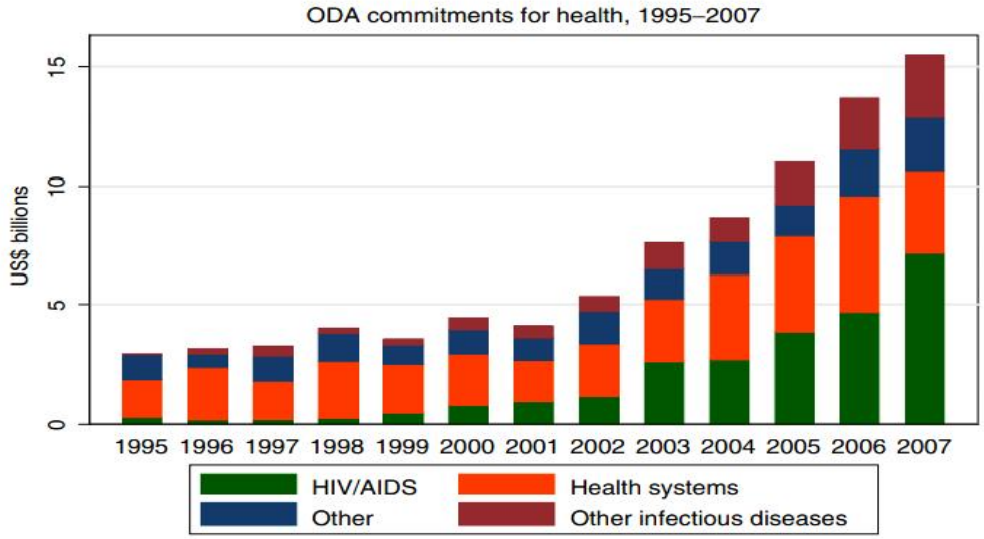
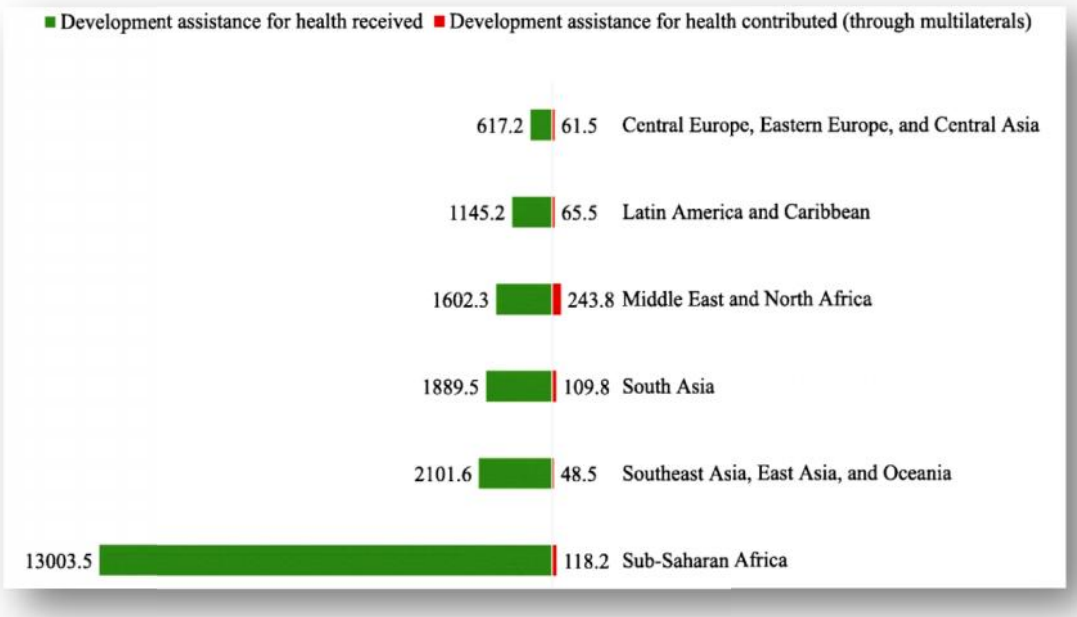


Figure 1 Total and regional patterns in DAH (in millions of 2009 US$). Reproduced with permission from OECD (2013). Available at: http://www.oecd.org/dac/stats/ (accessed 15.07.13).





The Middle East and North Africa (MENA) is a diverse region that has been in turmoil since the Arab spring, with Syria, Libya, Yemen and other countries experiencing ongoing civil war, and Jordan, Lebanon among others in the midst of the biggest refugee crisis since World War II.In 2016, countries in MENA received over a third of total OECD DAC's humanitarian flows, and specifically for health, an annual average of $1602.3 million from 2015 to 2017. But, Saudi Arabia, Kuwait and United Arab Emirates have been among the most substantial donors in the world relative to national economy. These three countries also have established a number of specialized financial institutions to provide development aid for Arab and Muslim countries and other developing countries. According to OECD 2015 estimates, Saudi Arabia and United Arab Emirates are among the top ten providers of net official development assistance. The World Health Organization (WHO) is a specialized agency of the United Nations responsible for international public health. The WHO was established on 7 April 1948. Its work began in earnest in 1951 after a significant infusion of financial and technical resources. Headquartered in Geneva, Switzerland, it has six regional offices and 150 field offices worldwide. WHO advocates for universal health care, monitoring public health risks, coordinating responses to health emergencies, and promoting health and well-being. It provides technical assistance to countries, sets international health standards, and collects data on global health issues. The WHO also serves as a forum for discussions of health issues and provides funds to solve them.

- International Bank for Reconstruction and Development (IBRD; part of the World Bank Group)
- International Monetary Fund (IMF)
- International Red Cross (ICRC AND IFRC)
- United Nations Children's Fund (UNICEF)

Summary

All around world, poor health and poverty are intricately intertwined. People's health is at risk because of inadequate diet, overcrowding, a lack of clean water, and other harsh realities. As a result of making it impossible to work or driving families into financial hardship to pay for care, bad health also makes poverty worse.When the body lacks the vitamins, minerals, and other nutrients necessary to maintain healthy tissues and organ function, malnutrition sets in. People who are either undernourished or overnourished can develop malnutrition.Global public health is negatively impacted by climate change in a number of ways, including decreased crop quality and quantity, increasing food insecurity, and diet-related non-communicable diseases like diabetes mellitus and cardiovascular disease.Children born to malnourished, anaemic, and hungry mothers

are likely to be stunted, underweight, and unable to reach their full potential as human beings. Childhood malnutrition can stunt a child's physical and mental development and doom them to a life on the periphery of society.Housing, sanitation, and water supply are of poor condition. These aggravate illnesses and infections, which exacerbate starvation.A group of people whose medical expenses are pooled in order to determine premiums constitutes a health insurance risk pool. When risks are pooled, either across the board or within a premium rating group, the higher costs of the less healthy can be mitigated by the relatively lower costs of the healthy.By pooling resources, it is made sure that the risk associated with funding health interventions is shared by all pool participants rather than just by each individual contributor. Due to the high degree of unpredictability surrounding the scope and timing of a person's medical expense requirements, risk pooling is necessary.Rural and urban towns in economically struggling areas might get funds for economic development assistance (EDA) to help them execute regional economic development. The objective is to increase private capital investments, create jobs, and improve America's capacity to compete internationally.

Keywords:

Health-Poverty: Poor health has poverty as both a cause and a result. Poor health is more likely in poverty.

Malnutrition: When the body lacks the vitamins, minerals, and other nutrients necessary to maintain healthy tissues and organ function, malnutrition sets in. People who are either undernourished or over nourished can develop malnutrition.

Risk pooling: The concept of insurance is based on the sharing of risk. A group of people whose medical expenses are pooled in order to determine premiums constitutes a health insurance risk pool.

Risk sharing: When businesses assign the risk to a third party, the process is known as risk transfer or risk sharing. This can be seen frequently in the area of financial loss. For a nominal payment, the exposed organization can transfer its risk of financial loss to an insurance provider.

Developmental Assistance: Government assistance that encourages and focuses primarily on the welfare and economic development of emerging nations. In 1969, the DAC designated ODA as the "gold standard" of international aid, and it is still the primary funding source for development assistance.

WHO: It is in charge of taking the lead on issues pertaining to global health, establishing norms and standards, defining evidence-based policy alternatives, giving governments technical assistance, and monitoring and analyzing health trends.

Under Nutrition: Under nutrition is defined as not consuming enough nutrients and energy to meet one's needs for maintaining good health. Under nutrition and malnutrition are often used interchangeably in literary works. Malnutrition technically refers to both under nutrition and over nutrition.

Self-Assessment

1. More than _____ of the world’s poor live in India

A. half

B. One-third

C. One-fourth

D. One-fifth

2. What was the percentage of the population below the poverty line in India in 2011-12?

A. 26.1%

B. 19.3%

C. 22%

D. 32%

3. Which of the following is the poverty determination measure?

A Head Count Ratio

BSen Index

CPoverty Gap Index

DAll of these

4. The Minimum requirements of a person, include

A. Food

B. Education

C. Car

D. Both a and b

5. Which of the following is a characteristic of people below the poverty line?

A. Debt trap

B. Gender Inequality

C. Poor Health

D. All of the above

6. Which of the following is a basic characteristic of insurance?

A. pooling of losses

B. avoidance of risk

C. payment of intentional losses

D. certainty about specific losses that will occur

7. Which of the following types of risks best meets the requirements for being insurable by private insurers?

A. most market risks

B. property risks

C. financial risks

D. political risks

8. Which of the following types of risks is normally uninsurable by private insurers?

A. personal risks

B. property risks

C. liability risks

D. political risks

9. Which of the following is a result of adverse selection?

A. The insurer's financial results will be substantially improved.

B. Persons most likely to have losses are also most likely to seek insurance at standard rates.

C. It is unnecessary for the insurance company to use underwriting.

D. Insurance can be written only by the federal government.

10. The term 'Risk' includes:

A. Damage to machinery and property

B. Impact on the health or life of a person

C. Leakage of toxic products into the atmosphere

D. All of the above

11. Which of the following types of insurances is mandatory?

A. Motor Own Damage

B. Motor Third Party Legal Liability

C. Personal Accident Insurance

D. Product Liability

12. Any contaminated components that seep into the soil, filtration, and are transferred into the underground reservoir are referred to as

A. Water Pollution

B. Noise Pollution

C. Land Contamination

D. Air pollution.

13. World Health Organization (WHO) recently urged South-East Asian countries to take urgent measures against which disease?

A. Polio

B. Measles

C. Tuberculosis

D. Pneumonia

14. Who was appointed as the new Chief scientist of the World Health Organization in 2022?

A. Jeremy Farrar

B. Preeti Sudan

C. Soumya Swaminathan

D. Zaliha Mustafa

15. World Health Organization (W.H.O.) falls under which body of UNO?

A. The Social and Economic Council

B. The Trusteeship Council

C. The Social Security Council

D. The Secretariat

Answer for Self-Assessment

1.	D	2.	C	3.	D	4.	D	5.	D
6.	A	7.	B	8.	D	9.	B	10.	D
11.	B	12.	C	13.	B	14.	A	15.	A

Review Questions

Q 1. What is risk pooling?

Q 2. What is the difference between malnutrition and hunger?

Q 3. Define the term nutrition security and list any four initiatives to improve nutritional status.

Q 4. What are the facts of Risk Sharing?

Q 5. What is overall focus of World Health Organization?

Q 6. Write a note on Development assistance is Health Care?

Further Readings

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Unit 04: Financing of Health Care

CONTENTS

Objectives

- Know the concept and evolution of health care financing
- Learn about the mechanism of healthcare financing
- Understand the empirical existence of healthcare financing
- Know about the principles of healthcare finance
- analyze the different areas where the implication of healthcare resources mobilization is realized
- Learn the implication of health care resource mobilization due to the affecting factors.

Introduction

The creation, distribution, and utilization of financial resources within the healthcare system are all covered under health care financing. In order to achieve universal health coverage, it has gained more and more attention on a global scale (UHC). In recent years, the definition of good health has evolved from its conventional meaning of "not being unwell" to include a "state of total physical, mental, and social well-being and not just absence of disease." The dictionary defines the word "insurance" as "to indemnify against." It can also imply "to transfer the risk" or "to monetize the risk," i.e., to assign a monetary value to it. About 80% of the public funding for healthcare comes from state government budgets, with the remaining 20% coming from the federal government and municipal governments (8 per cent). The goal of health finance is to provide resources and the appropriate financial incentives to service providers in order to guarantee that everyone has access to high-quality personal and public health care (WHO 2000). There are 'Dependency' periods in a person's life, which are located at the two ends of the life span. An individual is most dependent on others during infancy and old age. Since the beginning of time, children have always received the right care, and the senior members of the family have also been valued members of the community. The elderly's wealth of knowledge in coping with natural and other calamities was particularly helpful to the younger generation in managing the fields and harvests because of the society's agrarian foundation. The joint family system has broken down as a result of industrialization, worker movement from rural to urban areas, and harmful effects on elderly care. There are times when one cannot work and support oneself between the two extremes of life and during their working lifetime. There are several reasons why these times happen, but illness, injury, and pregnancy are among the most common. These result in a state of deprivation. Between the two extremes of life and during one's working lifespan, there are times when one cannot work and

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support oneself. These situations can arise for a number of causes, but the most frequent ones include sickness, accident, and pregnancy. These lead to a feeling of deprivation. The Workmen's Compensation Act's passage in 1923 marked the beginning of Social Insurance in our nation. The workers were financially protected from accidents and fatalities brought on by their jobs. After that, the "Maternity Benefit Act" was passed. Both instances required the payments to be made by the company. In the years that followed, efforts were made over and over again to put the ILO Convention on "Health Insurance" for Workers in Industry, Commerce, and Agriculture into effect. Numerous meetings between different interest groups (i.e., representatives of employers, workers, and the state) were organized between 1927 and 1943, but no fundamental agreement could be reached. At this point, the central government tasked professor Adarkar, a social scientist, with writing a background report. Finally, the report by Professor Adarkar served as the foundation for subsequent talks and advances. The "Employees State Insurance Act" was ultimately passed in 1948 by the Lok Sabha in independent India after a "Bill" was first presented to the legislative assembly in 1946.

4.1 Financing of Health Care

- Late 1970s Voluntary community based health insurance attracted considerable attention.
- 1980's financing of health care moved high on the agenda of the discussions on health policy
- Recurring theme in
- Executive Board Meeting of the WHO in 1986,
- World Health Assembly and the Commonwealth Health Ministers Conference in 1986
- User charges dominating the policy debates of 1970s and 1990s.
- Attention back on community based health insurance
- In developed countries the problem is containing the cost of health care
- In some developing countries the problem presents itself as how to maintain health spending and how to achieve "health for all" initiative

A crucial component of health systems, health funding can advance the goal of universal health coverage by enhancing efficient service delivery and financial security. Millions of individuals today avoid using services because they are too expensive. Even those who pay out of pocket frequently receive subpar services. Health funding regulations that are carefully crafted and put into place can aid in resolving these problems.

Contracting and payment arrangements, for instance, can encourage care coordination and improve the standard of treatment; timely and proper payments to providers can help to guarantee that there is enough staffing and medication to treat patients.

The WHO's strategy for health financing focuses on these fundamental tasks:

- revenue generation (sources of funds, including government budgets, compulsory or voluntary prepaid insurance schemes, direct out-of-pocket payments by users, and external aid)
- pooling of resources (the accumulation of prepaid funds on behalf of some or all of the population)
- the acquisition of services (the payment or allocation of resources to health service providers)

Definition of Health Care Financing

- Mobilization of funds for health care
- Allocation of funds to the regions and population groups and for specific types of health care
- Mechanisms for paying health care.

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Health Service Financing Source

- Health services financed broadly through private expenditure or public expenditure or external aid
- Public expenditure includes all expenditure on health services by
- central and local government funds spent by state owned and parastatal enterprises as well as government and social insurance contributions
- Where services are paid for by taxes, or compulsory health insurance contributions either by employers or insured persons or both this counts as public expenditure.
- Voluntary payments by individuals or employers are private expenditure.
- External sources refer to the external aid which comes through bilateral aid programme or international non-governmental organizations.
- The ownership of the facilities used whether government by government, social insurance agencies, nonprofit organizations private companies or individuals is not relevant.

Annual Health Care Expenditure for Selected Asian Countries 1991 Data

Country	GDP per capita 1991 (US$)	Expenditure as % of GDP	Public Expenditure as % of total
Nepal	188	4.5	48.9
Bangladesh	204	3.2	43.8
China	311	3.5	60.0
India	353	6.0	21.7
Pakistan	354	12	52.9
Sri Lanka	473	18	48.6
Indonesia	596	2.0	35.0
Thailand	1558	5.0	22.0
Singapore	13653	4.0	57.9

Mechanisms of Health Financing

- General revenue or earmarked taxes
- Social insurance contributions
- Private insurance premiums
- Community financing
- Direct out of pocket payments

Each method

- Distributes the financial burdens and benefits differently
- Affects who will have access to health care
- Financial protection

General Revenue or Earmarked Taxes

- The most traditional way of financing health care
- Finance a major portion of the health care (especially in low income countries).

Social insurance

It is compulsory. Everyone in the eligible group must enroll and pay a specific premium contribution in exchange for a set of benefits. Social insurance premiums and benefits are described in social compacts established through legislation. Premiums or benefits can be altered only through a formal political process.

Private Insurance

- Private contract offered by an insurer to exchange a set of benefits for a payment of a specified premium.

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- Marketed either by nonprofit or for profit insurance companies
- Consumers voluntarily choose to purchase an insurance package that best matches their preference.
- Offered on individual and group basis. Under individual insurance the premium is based on that individuals risk characteristics.
- Major concern in private insurance is buyer's adverse selection
- Under group insurance, the premium is calculated on a group basis; risk is pooled across age, gender and health status.

Community Based Financing

- Refers to schemes are based on three principles: community cooperation, local self-reliance and pre-payment.
- Factors for success of community financing.
- Technical strength and institutional capacity of the local group.
- Financial control as part of the broader strategy in local management and control of health care services.
- Support received from outside organizations and individuals
- Links with other local organizations
- Diversity of funding
- Responding to other (non health) development needs of the community
- Ability to adapt to a changing environment

Direct Out of Pocket

- Made by patients to private providers at the time a service is rendered
- User fees refer to fees the patients have to pay to public hospitals, clinics, and health posts not to private sector providers.
- Proponents of user fees believe that the fee can increase revenue to improve the quality of public health services and expand coverage.
- Major objection raised against user fees had been on equity grounds.

Changing Government Role in Health Care

- Ability to adapt to a changing environment
- Health is considered a public good
- Government needs to actively participate to avoid market failures.

Health Financing in India: Characteristics

The government's fiscal effort measured as the proportion of total government expenditure spent on health again identifies India as a low performer.In a global ranking of the shares of total public expenditure earmarked for health only 12 countries in the world had lower proportions spent on health. The out of pocket private spending dominates with 82 percent spending of all health spending from private sources. This is one of the highest in the world. Globally only five countries have a higher dependence on private financing in the health sector (WHR 2000). About 10 percent of Indians have some form of health insurance mostly formal sector and government employees.

National Health Account for India, 1991 (% of total Expenditure)

Use of Funds (Expenditures)	Source of Funds			
	Public Subsidies	Insurance	Out of Pocket	All sources
Primary Care	9.9	0.8	48.0	58.7
Curative	3.3	0.8	45.6	49.7
Preventive Public Health	6.6	NA	2.4	9.0

Inpatient Care	9.3	2.5	27.0	38.8
Non-Services Provision	2.5	NA	NA	2.5
All Uses	21.7	3.3	75.0	100.0

Insurance Schemes in India

- Categorized into: Mandatory, voluntary, employer based, and NGO based
- Mandatory insurance ESIS and CGHS
- Principally financed by the contributions of the beneficiaries and their employers and from taxes.
- ESIS receives contributions from state governments whereas the latter is mainly financed from central government revenues.
- ESIS covered 35.4 million beneficiaries in 1998 and CGHS covered only 4.4 million beneficiaries in 1996. Providers mainly work on salaries and hospitals work under global budgets.

Voluntary Health Insurance Schemes

- There are for individuals and corporations
- Available mainly through the General Insurance Corporation (GIC) of India and its four subsidiaries- a government owned monopoly.
- Financed from household and corporate funds.
- GIC offers MEDICLAIM policy for groups and individuals and the JAN Arogya Bima scheme to individuals and families, mainly to cover poor people.
- Policies have had only limited success in India covering only 1.7 million people in 1996.
- With Insurance Regulatory and Development Act 1999 and the liberalization of insurance more private voluntary health schemes are expected to be introduced soon.

Employer Based Schemes

- Offered both by public and private sector companies through their own employer managed facilities
- Mode lump sum payments, reimbursements of employee's health expenditure or covering them under the group health insurance policy with one of the subsidiaries of GIC.
- Workers buy health insurance through their employers taking insurance in lieu of wages
- Ellis (1997) estimates roughly 30 million are covered under the employer based scheme

Community Based Insurance Schemes

- Primarily for informal sector
- Tends to cover all insured members of the community for all available services but have emphasis on primary health.
- Most financed from patient collections, government grant, donations, and such miscellaneous items as interest earnings or employment schemes
- Most NGOs have their own facilities or mobile clinics to provide health care.
- Total coverage is estimated to be about 30 million people (Ellis 1997).

Some Healthcare Schemes in India

- Ayushman Bharat Yojana:
- Pradhan Mantri Suraksha Bima Yojana:
- Aam Aadmi Bima Yojana (AABY):
- Central Government Health Scheme (CGHS):

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- Employment State Insurance Scheme:
- JanshreeBima Yojana:
- Chief Minister's Comprehensive Insurance Scheme:
- Universal Health Insurance Scheme (UHIS):
- West Bengal Health Scheme:
- Yeshasvini Health Insurance Scheme:
- Mahatma Jyotiba Phule Jan Arogya Yojana
- MukhyamantriAmrutam Yojana
- Karunya Health Scheme:
- Telangana State Government Employees and Journalists Health Scheme:
- Dr YSR Aarogyasri Health Care Trust:

Features and Benefits of Government Health Insurance Schemes

- Government health insurance schemes are offered at a low price
- With this policy, BPL families can also avail of insurance benefits
- The policy ensures coverage for the poor people
- The policy includes treatment in both private and government hospitals for better healthcare.

Challenges with Insurance

India linking health insurance with employment is difficult because most people are self-employed, have agricultural work, or do not have a formal employer or steady employment. Many of the poor are excluded from access to high quality health care and health insurance because of inability to pay, lack of knowledge, or other factors, related to geography or discrimination. Too much of cream skimming too in India i.e. selection of less risky groups by insurance companies.

4.2 Principles and Constraints

Healthcare financing is a topic that involves how society pays for the healthcare services it consumes. The manner of financing healthcare affects how hospitals and physicians are reimbursed for services and hence has a significant influence on healthcare finance. In health services organizations, healthcare finance consists of both the accounting and financial management functions. Accounting, as its name implies, concerns the recording, in financial terms, of economic events that reflect the operations, assets, and financing of an organization. Financial management (often called corporate finance) provides the theory, concepts, and tools necessary to help managers make better financial decisions. Of course, the boundary between accounting and financial management is blurred; certain aspects of accounting involve decision-making, and much of the application of financial management concepts requires accounting data.

Role of Financial Management in Healthcare

In general, the financial management function includes the following activities:

Evaluation and planning- First and foremost, financial management involves evaluating the financial effectiveness of current operations and planning for the future.

Long-term investment decisions- The managers at all levels must be concerned with the capital investment decision process. Such decisions focus on the acquisition of new facilities and equipment (fixed assets) and are the primary means by which businesses implement strategic plans; hence, they play a key role in a business's financial future.

Financing decisions-All organizations must raise funds to buy the assets necessary to support operations. Such decisions involve the choice between the use of internal versus external funds, the use of debt versus equity capital, and the use of long-term versus short-term debt.

Working capital management- An organization's current, or short-term, assets—such as cash, marketable securities, receivables, and inventories—must be properly managed to ensure operational effectiveness and reduce costs. Contract management- Health services organizations must negotiate, sign, and monitor contracts with managed care organizations and third-party payers.

The financial staff typically has primary responsibility for these tasks, but managers at all levels are involved in these activities and must be aware of their effect on operating decisions. Financial risk management- Many financial transactions that take place to support the operations of a business can increase a business's risk.

Thus, an important financial management activity is to control financial risk.

Controlling-The financial manager makes sure that each area of the organization is following the plans that have been established.

One way to do this is to study current reports and compare them with reports from earlier periods.

This comparison often shows where the organization may need attention because that area is not effective. The reports that the manager uses for this purpose are often called feedback. The purpose of controlling is to ensure that plans are being followed. Organizing and directing-When organizing, the financial manager decides how to use the resources of the organization to most effectively carry out the plans that have been established. When directing, the manager works on a day-to-day basis to keep the results of the organizing running efficiently. The purpose is to ensure effective resource use and provide daily supervision.

Principles of Financial Management in Healthcare

- The Four Cs
- The finance activities at health services organizations may be summarized by the four Cs: costs, cash, capital, and control.

Costs-

The measurement and minimization of costs are vital activities to the financial success of all healthcare organizations. Rampant costs, compared to revenues, usually spell doom for any business.

Cash-

A business might be profitable but still face a crisis because of a shortage of cash.

Cash is the lubricant that makes the wheels of a business run smoothly; without it, the business grinds to a halt.

- In essence, businesses must have sufficient cash on hand to meet cash obligations as they occur.
- In healthcare, a critical part of managing cash is collecting money from insurers for patient services provided

Capital

- Capital represents the funds (money) used to acquire land, buildings, and equipment.
- Without capital, healthcare businesses would not have the physical resources needed to provide patient services.
- Thus, capital allows healthcare organizations to meet the healthcare needs of their communities.

Control-

- Finally, a business must control its financial and physical resources to ensure that they are being wisely employed and protected for future use.
- In addition to meeting current mission requirements, healthcare organizations must plan to meet society's future healthcare needs.

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Constraints or the Challenges

- Financial challenges
- Governmental mandates
- Patient safety and quality
- Personnel shortages
- Behavioral health and addiction issues
- Increasing costs for staff, supplies, and so on
- Reducing operating costs
- Bad debt
- Competition from other providers
- Managed care and other commercial insurance payments
- Medicare reimbursement
- Government funding cuts
- Transition from volume to value
- Revenue cycle management (converting charges to cash)
- Inadequate funding for capital improvements

Constraints or the Challenges in Developing Countries

The International Flow of Development Resources

1. Private foreign investment

• Foreign direct investment

• Foreign portfolio investment (stocks, bonds, and notes)

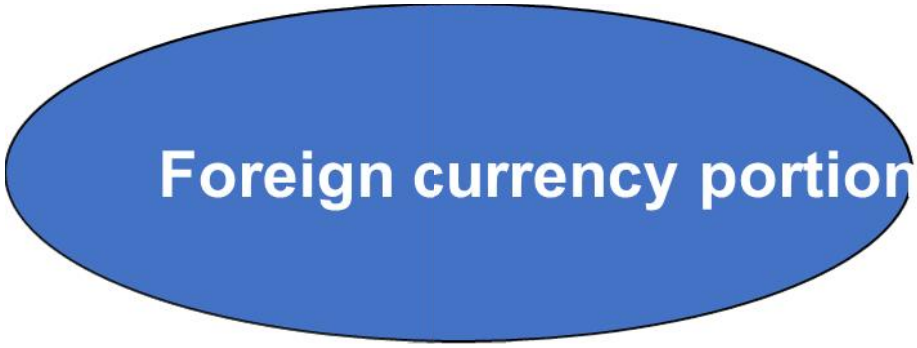
2. Public and private development assistance

• Bilateral and multilateral donor agencies (grants and loans)

• Nongovernmental organizations (NGOs)

Government Budget

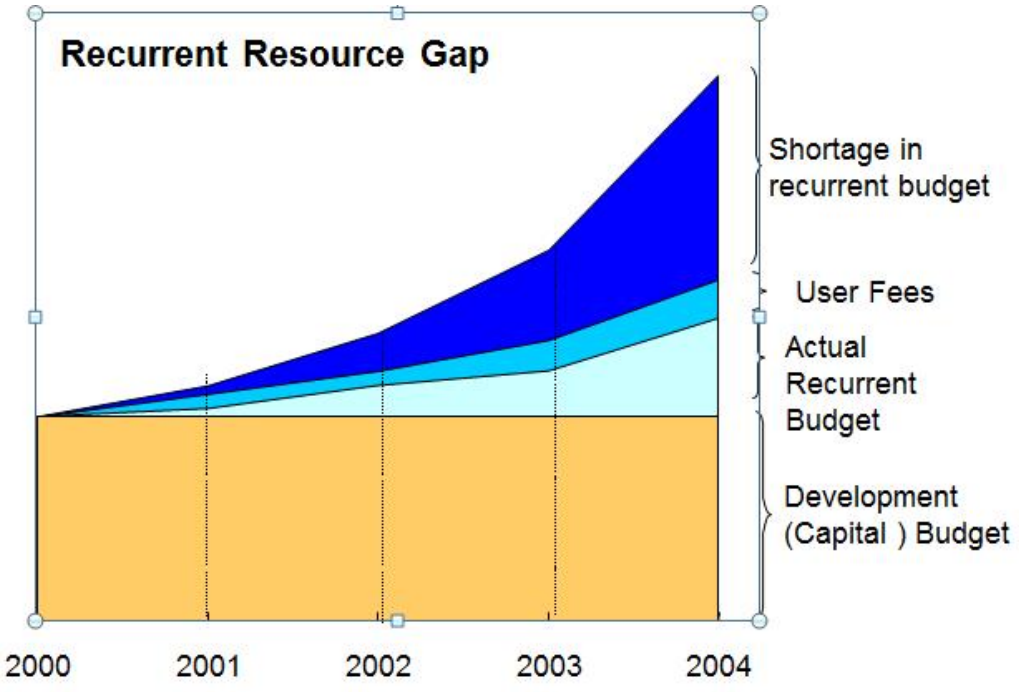
1. Development (Capital) Budget
    - Domestic Financing
    - External Financing (development assistance, etc.)



2. Recurrent Budget

- Domestic resources (tax, user fees)

Absorptive capacity



Recurrent cost constraints threaten the productivity of past investment

- A mismatch between capital investment and recurrent financial capacity
- "R" co-efficient: the ratio of recurrent expenditure to total investment outlay
    - District hospitals 0.33 every $1000 spent on the initial capital development of a district hospital results in $333 of expenditure per year

External assistance

- Development (capital) budget + recurrent budget
- Foreign currency portion + local currency portion

A mismatch between capital investment and recurrent financial capacity

4.3 Implications of health care resource mobilization

Trend of Health Care Resource mobilization

- International comparisons show that countries use different ways of paying for health services. For example, France and Sweden have developed distinctly different practices to fund hospitals and to pay for doctors. Latin American countries have social insurance systems whereas in many African countries government funding is common. Health finance mobilization today has been shaped by cultural and political factors from the past and health finance differs between countries.From private to social health insurance to universal coverage
- Prior to the development of modern health care systems, governments or charities financed services for groups of the population for whom they perceived a duty of care.
- For example, hospitals for the poor existed in India, China, Arabia and medieval Europe.
- For the more affluent, private (or voluntary) health insurance was pioneered in Europe as early as the eighteenth century.
- In the nineteenth century, private insurance was developed throughout Europe and spread to North and South America.
- Social (or compulsory) insurance was introduced in Germany for industrial workers in 1883 by Otto von Bismarck (1815–98), building on the existing voluntary precedents.
- Payroll-based social insurance systems developed steadily in Europe, later in Latin America and Asia and now Africa.
- Achieving universal health care coverage
- Countries have used different means of making health care available to all: universal coverage is achieved either through the extension of social insurance or government provision to the whole population.
- The Soviet Union extended coverage through government provision in 1938, and that example was followed by the countries of the Soviet bloc after World War II.
- The UK extended coverage to all in 1948. The British NHS was established as a major part of the social reforms recommended by William Beveridge with the aim of providing health services for the whole population.
- In the USA, private insurance has assumed a larger role than in Europe.
- But, even in the USA, publicly funded health care plays a large role for the elderly (Medicare), the poor (Medicaid), and armed services personnel, and the 2010 health care reforms aim to move the USA to universal coverage.
- The health finance systems of low-income countries have been strongly influenced by their colonial past.
- In British colonies, government funded services for the armed forces and civil services provided the basis for further extension of health care, whereas in French colonies the model was provided by larger firms, which were required to provide services for their employees.
- To a variable extent, charitable organizations and missions also played a role in financing hospitals.
- In the post-colonial era these countries made efforts to extend services 'as far as economic growth and available resources allowed.
- Increasing health care costs

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- As health systems have evolved and larger proportions of national populations are covered by health insurance, there has been rising concern about the increasing costs of health care.
- There are a number of interrelated reasons that answer this question.

Demographic factors

- As well as absolute population growth, relative changes within a population affect health care costs. Relative changes can mean that the distribution of the population shifts towards groups with higher health care needs.

Economic factors

- Economic trends influence the health sector and the costs of delivering health services. In general, economic growth is associated with rising costs of health services.
- Economic recession has the opposite effect. Unemployment and poverty are related to ill health and put additional strain on health services.
- When assessing cost escalation, the general price or the rate of inflation also impacts on healthcare expenses.
- Supply factors also exert important pressures – for example, increasing numbers of doctors and hospitals or payment increases for health workers.

Health technology advances

- At the beginning of the twentieth century, health services had only a few effective treatments. Between one quarter and one half of health expenditure growth between 1960 and 2007 can be attributed to technological advances.
- Most recently, the use of expensive diagnostic tools, such as MRI and CT scanners have been driving up health care costs with an increase of over 100 per cent Health technology advances for MRI units per capita across OECD member countries between 2000 and 2008.

Disease patterns

- New diseases like HIV/AIDS increase the level of ill health in the population.
- The relative increase in chronic diseases and long-term illness is related to higher treatment costs.
- With economic development, countries are likely to experience higher health care costs, as deaths among infants from communicable diseases decrease relative to adult deaths from chronic diseases.

Evolution of the health system

- Some authors (Relman 1988; Hurst 1992) have put forward a three-stage model to explain how health systems have changed during the last 60 years resulting in changing costs:
    - During the first stage, policies removed the existing financial barriers to health care. New funding arrangements increased population coverage and triggered the expansion of health services.
    - The subsequent increase in demand led to a rapid growth of health care expenditure. Often spending grew faster than the gross domestic product (GDP) and policy efforts were focused on cost control.
    - From the experience of ever-rising costs, it was realized that cost control alone is not effective. Policies of the third stage aim to improve efficiency of service delivery and use.

Political factors

- Health budgets are inevitably based on political judgment.
- There may be additional 'cash injections' before elections or deviations from planned growth rates because of other priorities.
- Health funds may be diverted officially to support other purposes.

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- Concerns about equity may improve access to services and increase costs.
- On the other hand, corruption of politicians, civil servants or health care providers may lead to substantial economic losses.
- Public–private mix in finance and provision
- The organization of financial intermediaries may be on a monopolistic, oligopolistic or competitive basis.
- In a monopolistic system, the financial intermediary is usually a public agency such as a government, or a health corporation.
- In an oligopolistic system (i.e. one in which there are a small number of large intermediaries) finance can be controlled by public agencies or private agencies, such as insurance companies, or a combination of these.
- In a competitive system, a large number of small private intermediaries would exist...
- The provision of services, however, does not necessarily have to match the financial organization. For instance, hospital care in many European countries represents a large, vertically integrated health system, in which finance and provision are combined within one organization.
- Governments can organize finance, act as purchaser, provide services and regulate health services.
- In many low income countries, governments have historically had the major role in the provision of health care.
- Governments see it as the most efficient and equitable method of providing services.
- Though the private sector may play an increasing role, socioeconomic conditions are such that private care will not totally replace public services.
- In particular, primary health care in low income countries is reliant on the public sector.

Summary

The creation, distribution, and utilisation of financial resources within the healthcare system are all covered under health care financing. In order to achieve universal health coverage, it has gained more and more attention on a global scale (UHC). Understanding the nation's healthcare financing system enables one to identify the present health funding sources and strategies for raising additional funds and allocating them in a way that ensures equitable and high-quality healthcare for everyone. In order to increase access to health treatments and decrease out-of-pocket expenses that result in disaster and poverty, it also helps to understand processes for efficiently and fairly allocating, purchasing, and spending money. The National Health Policy 2017 also encourages the government to spend more money on health, use its resources more effectively to improve health outcomes, strengthen financial security, and make wise purchases from the for-profit and nonprofit sectors. The development and institutionalisation of a strong Health Accounts system was also highlighted in order to assist decision-makers in allocating monies in the best possible ways. The Health Care Funding (HCF) Division supports the Union and State Governments in the area of healthcare financing and supports evidence-based decisions under this domain. The National Health Accounts Technical Secretariat (NHATS), a branch of NHSRC, has the responsibility of institutionalising health accounts in India. Based on SHA-2011 criteria, the division has been creating the National Health Account for the nation from 2013–2014, making the estimates from India comparable to those from the rest of the globe. The World Health Organization (WHO) also uses the NHA estimates for India in its Global Health Expenditure Database (GHED). Important government papers like the Economic Survey published by the Ministry of Finance and the Survey of State Finances published by the Reserve Bank of India also make use of the estimates. Indicators for health financing are reported and tracked by the HCF division in accordance with the National Health Policy of 2017, Sustainable Development Goals, and Universal Health Coverage. The HCF team conducts research on matters pertaining to national health financing.

Keywords:

Healthcare: The organized provision of medical care to individuals or a community.

Health Insurance: Insurance taken out to cover the cost of medical care.

Health Care Financing: Health Care financing deals with the generation, allocation and use of financial resources in the health system.

Risk sharing: When businesses assign the risk to a third party, the process is known as risk transfer or risk sharing. This can be seen frequently in the area of financial loss. For a nominal payment, the exposed organization can transfer its risk of financial loss to an insurance provider.

WHO: It is in charge of taking the lead on issues pertaining to global health, establishing norms and standards, defining evidence-based policy alternatives, giving governments technical assistance, and monitoring and analyzing health trends.

Self-Assessment

1. Which of the following is not a reason for increased health spending?

A. People spend more on their health as their income increases

B. People are living longer

C. The average age of the population is rising

D. People are dying earlier

2. The rectangularisation of life curve refers to:

A. Fewer deaths at every age

B. A lower life expectancy

C. More deaths at every age

D. A higher birth rate

3. The number of people who die per 100,000 population in a given year is called the:

A.Rectangularisation of life curve

B.Life expectancy

C.Mortality rate

D.Morbidity rate

4. Life expectancy does not vary with:

A. Birth rate

B. Occupation

C. Social class

D. Gender

5. Which of the following occupations accounts for the highest percentage of workers in the National Health Service?

A. Nurses

B. Doctors

C. Ambulance staff

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D. Scientific and technical staff

6. Total utility will be a maximum when:

A. Marginal utility is negative

B. Marginal utility equals price

C. The ratio of the respective marginal utilities is equal to the ratio of prices

D. Marginal utility is positive

7. Which of the following seeks to measure the benefits to individuals of additional life years following a medical intervention?

A.Cost minimization

B. Cost-utility analysis

C. Quality adjusted life years

D. Profit maximization

8. Increased life expectancy is closely correlated with which of the following?

A. Reduction in exercise

B. Reduced spending on pharmaceutical research

C. Fall in educational achievement

D. Increased health spending per capita

9. An increase in demand within the National Health Service i.e. for healthcare which remains free at the point of use but where medical resources are limited will result in:

A. Reduction in price of healthcare

B. Longer waiting lists

C. Rises in price of healthcare

D. Unemployment in healthcare service

10. Doctors earn more than nurses because:

A. There is an excess supply of doctors

B. There is an excess demand for doctors

C. There is a National Minimum Wage

D. There is an excess demand for nurses

11. The benefits associated with the best alternative use of resources is called:

A. Health economics

B. Health resources

C. Opportunity cost

D. Alternative activities

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12. The following is a list of the types of statistical data most often required in health economics. Which letter listed below does not belong in the list?

A. financing health care

B. epidemiological

C. cost of care

D. demographic

13. Select the specialist health economics journal/s within the economics discipline.

A. BMJ

B. Health Economics

C. B and D

D. Journal of Health Economics

14. The site with substantial content on cost-QALY ratios is called

A. The CEA Registry

B. The Health Economic Evaluations Database (HEED)

C. Evidence Based Health Care

D. The NHS Economic Evaluation Database (NHS EED)

15. The following is a list of disciplines, some of which relate to health economics. Which discipline does not belong in this list?

A. Health Education

B. Anthropology

C. Health Services Research

D. Statistical Methods

Answer for Self-Assessment

1.	D	2.	A	3.	C	4.	A	5.	A
6.	C	7.	C	8.	D	9.	B	10.	D
11.	D	12.	D	13.	B	14.	D	15.	A

Review Questions

Q1. What are the Trend of Health Care Resource mobilization?

Q2. Definition of Health Care Financing?

Q3. What does mean by Social insurance?

Q4. Define the term Voluntary Health Insurance Schemes?

Q5. What are the challenges for developing countries?

Further Readings

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Unit 05: Resources Allocation of Health Care Purchasing

CONTENTS

Objectives

- Learn the magnitude of healthcare in terms of service providers' point of view,
- Know the magnitude of healthcare from a global perspective,
- Understand the magnitude of healthcare from India's point of view.
- Learn about the eligibility, feature, and benefit under RSBY,
- Understand the coverage and implementation under RSBY,
- Analyse the challenges under RSBY.

Introduction

Financial resources (health spending) and human resources are both considered health resources. Spending on healthcare includes outpatient treatment, inpatient care, long-term care, medications and other medical supplies, administration, public health and prevention services, and long-term care.The process of locating and controlling resources is known as resource allocation. The demographics, programmes, and people who will use them are divided up. Both the macro and micro levels of society are affected by this process. The fundamental guiding premise is that people's health should be improved through the distribution of healthcare resources. In other words, health care resources should be put to good use by treating illness, easing suffering, promoting public health, and/or funding studies that could lead to health improvements.The healthcare system provides four main service categories: rehabilitation, disease prevention, diagnosis and treatment, and promotion of good health. The Government of India's Ministry of Labour and Employment has introduced RSBY to offer Below Poverty Line (BPL) families access to health insurance. The purpose of RSBY is to shield BPL households from the financial obligations caused by medical emergencies that necessitate hospitalization.

5.1 Magnitude of Health Care

Healthcare services are the medical services provided to people who are in need by healthcare professionals, organizations, and healthcare workers.

These services are provided to patients, families, and communities.

- The main types of healthcare services are medical and diagnostic laboratory services, dental services, home health care and residential nursing care services, residential substance abuse and mental health facilities, hospitals and outpatient care centres, physicians and other health practitioners, all other ambulatory health care services, and ambulance services.
- The hospitals and outpatient care centers are engaged in providing diagnostic and medical treatment to patients with a wide range of medical conditions.
- The different expenditure types include public and private which are used by male and female.
- The Business Research Company that provides healthcare services market statistics, including healthcare services industry global market size, regional shares, competitors with a healthcare services market share, detailed healthcare services market segments, market trends and opportunities, and any further data you may need to thrive in the healthcare services industry.
- This healthcare services market research report delivers a complete perspective of everything you need, with an in-depth analysis of the current and future scenario of the industry.
- The global healthcare services market grew from $7,499.75 billion in 2022 to $7,975.87 billion in 2023 at a compound annual growth rate (CAGR) of 6.3%.
- The Russia-Ukraine war disrupted the chances of global economic recovery from the COVID-19 pandemic, at least in the short term.
- Survival rates and quality of life have improved tremendously over the past decade.
- Medical and technological advances have played an important role in their progress.
- High technology diagnostics and therapeutic equipment integrating doctors' practice patterns have improved healthcare services delivery.
- According to a report by Trend Watch, medical advances are responsible for a 70% improvement in survival rates for heart attack patients and a two-thirds reduction in mortality rates for those suffering from cancer.
- These factors contribute to the potential growth of the market.
- The healthcare services market includes revenues earned by entities by providing human healthcare services such as medical and diagnostic laboratory services, dental services, nursing care, residential substance abuse, and mental health facilities, and other healthcare services.
- The market value includes the value of related goods sold by the service provider or included within the service offering.
- Only goods and services traded between entities or sold to end consumers are included.
- The global healthcare services market is segmented -
- 1) By Type: Medical And Diagnostic Laboratory Services, Dental Services, Home Health Care And Residential Nursing Care Services, Residential Substance Abuse And Mental Health Facilities, Hospitals And Outpatient Care Centers,

Physicians And Other Health Practitioners, All Other Ambulatory Health Care Services, Ambulance Services

- 2) By End User Gender: Male, Female
- 3) By Type of Expenditure: Public, Private
- Subsegments Covered: Medical Laboratory Services, Diagnostic Imaging Centers, General Dentistry, Oral Surgery, Orthodontics And Prosthodontics, Other Dental Services, Home Health Care Providers, Nursing Care Facilities, Orphanages & Group Homes, Retirement Communities,
- Residential Mental Health & Intellectual Disability Facilities, Substance Abuse Centers, Hospitals, Outpatient Care Centers, Specialist Doctors, Primary Care Doctors, Physical

Therapists, Optometrists, Chiropractors, Podiatrists, Ground Ambulance Services, Air Ambulance Services, Water Ambulance Services

Indian Scenario

Healthcare industry in India is projected to reach $372 bn by 2022

- Healthcare industry in India comprises of hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance, and medical equipment.
- The healthcare sector is growing at a tremendous pace owing to its strengthening coverage, services, and increasing expenditure by public as well private players.

- The hospital industry in India, accounting for 80% of the total healthcare market, is witnessing a huge investor demand from both global as well as domestic investors. The hospital industry is expected to reach $132 bn by 2023 from $61.8 bn in 2017; growing at a CAGR of 16-17%.
- In 2020, India's Medical Tourism market was estimated to be worth $5-6 Bn and is expected to grow to $13 Bn by 2026.
- Healthcare sector in India is expected to grow to reach a size of $50 bn by 2025.
- The diagnostics industry in India is currently valued at $4 bn. The share of the organized sector is almost 25% in this segment (15% in labs and 10% in radiology).

The primary care industry is currently valued at $13 bn. The share of the organized sector is practically negligible in this case.

1,50,000 Ayushman Bharat centers, which aim at providing primary health care services to communities closer to their homes, are operational in India

The market size of AYUSH has grown by 17% in 2014-20 to reach $18.1 bn and the industry is projected to reach $23.3 bn in 2022.

- Health insurance contributes 20% to the non-life insurance business, making it the 2nd largest portfolio. The gross direct premium income underwritten by health insurance grew 17.16% year-on-year to reach $6.87 bn in FY20
- Over 4 cr health records of citizens digitized and linked with their Ayushman Bharat Health Account (ABHA) numbers under Ayushman Bharat Digital Mission (ABDM)
- India is a preferred destination for Medical Value Travel (MVT) where patients from all over the globe come to "Heal in India" and is growing as huge opportunity area in the Healthcare market.

5.2 RashtriyaSwasthyaBimaYojna: Challenges and Implementation

RSBY has been launched in 2008 by Ministry of Labour and Employment, Government of India to provide health insurance coverage for Below Poverty Line (BPL) families. The objective of RSBY is to protect BPL households from financial liabilities arising from health shocks involving hospitalization.

Eligibility

- Unorganized sector workers belonging to BPL category and their family members (a family unit of five) shall be the beneficiaries under the scheme.
- It will be the responsibility of the implementing agencies to verify the eligibility of the unorganized sector workers and his family members who are proposed to be benefited under the scheme.
- The beneficiaries will be issued smart cards for the purpose of identification.

Benefits

- The beneficiary shall be eligible for such in - patient health care insurance benefits as would be designed by the respective State Governments based on the requirement of the people/ geographical area.

- However, the State Governments are advised to incorporate at least the following minimum benefits in the package / scheme:
- The unroganised sector worker and his family (unit of five) will be covered.
- Total sum insured would be Rs. 30,000/- per family per annum on a family floater basis.
- Cashless attendance to all covered ailments
- Hospitalization expenses, taking care of most common illnesses with as few exclusions as possible
- All pre-existing diseases to be covered
- Transportation costs (actual with maximum limit of Rs. 100 per visit) within an overall limit of Rs. 1000.

Funding Pattern

- Contribution by Government of India: 75% of the estimated annual premium of Rs. 750, subject to a maximum of Rs. 565 per family per annum. The cost of smart card will be borne by the Central Government.
- Contribution by respective State Governments: 25% of the annual premium, as well as any additional premium.
- The beneficiary would pay Rs. 30 per annum as registration/renewal fee.
- The administrative and other related cost of administering the scheme would be borne by the respective State Governments

SMART CARD

- Smart card is used for a variety of activities like identification of the beneficiary through photograph and fingerprints, information regarding the patient.
- The most important function of the smart card is that it enables cashless transactions at the empanelled hospital and portability of benefits across the country.
- The authenticated smart card shall be handed over to the beneficiary at the enrollment station itself.
- The photograph of the head of the family on the smart card can be used for identification purpose in case biometric information fails.

UNIQUE FEATURES OF RSBY

- The RSBY scheme is not the first attempt to provide health insurance to low income workers by the Government in India.
- The RSBY scheme, however, differs from these schemes in several important ways.

A. Empowering the Beneficiary

- RSBY provides the participating BPL household with freedom of choice between public and private hospitals and makes him a potential client worth attracting on account of the significant revenues that hospitals stand to earn through the scheme.

B. Business Model for all Stakeholders

- The scheme has been designed as a business model for a social sector scheme with incentives built for each stakeholder.
- This business model design is conducive both in terms of expansion of the scheme as well as for its long run sustainability.

C. Insurers

- The insurer is paid premium for each household enrolled for RSBY.
- Therefore, the insurer has the motivation to enroll as many households as possible from the BPL list.
- This will result in better coverage of targeted beneficiaries.

D. Hospitals

- A hospital has the incentive to provide treatment to large number of beneficiaries as it is paid per beneficiary treated.
- Even public hospitals have the incentive to treat beneficiaries under RSBY as the money from the insurer will flow directly to the concerned public hospital which they can use for their own purposes.
- Insurers, in contrast, will monitor participating hospitals in order to prevent unnecessary procedures or fraud resulting in excessive claims.

E. Intermediaries

- The inclusion of intermediaries such as NGOs and MFIs which have a greater stake in assisting BPL households.
- The intermediaries will be paid for the services they render in reaching out to the beneficiaries.

F. Government

- By paying only a maximum sum up to Rs. 750/- per family per year, the Government is able to provide access to quality health care to the below poverty line population.
- It will also lead to a healthy competition between public and private providers which in turn will improve the functioning of the public health care providers.

G. Information Technology (IT) Intensive

- Every beneficiary family is issued a biometric enabled smart card containing their fingerprints and photographs.
- All the hospitals empanelled under RSBY are IT enabled and connected to the server at the district level.
- This will ensure a smooth data flow regarding service utilization periodically.

H. Safe and foolproof

- The use of biometric enabled smart card and a key management system makes this scheme safe and foolproof.
- The key management system of RSBY ensures that the card reaches the correct beneficiary and there remains accountability in terms of issuance of the smart card and its usage. The biometric enabled smart card ensures that only the real beneficiary can use the smart card.

I. Portability

- The key feature of RSBY is that a beneficiary who has been enrolled in a particular district will be able to use his/ her smart card in any RSBY empanelled hospital across India. This makes the scheme truly unique and beneficial to the poor families that migrate from one place to the other.
- Cards can also be split for migrant workers to carry a share of the coverage with them separately.

J. Cash less and Paperless transactions

- A beneficiary of RSBY gets cashless benefit in any of the empanelled hospitals. He/ she only needs to carry his/ her smart card and provide verification through his/ her finger print. For participating providers it is a paperless scheme as they do not need to send all the papers related to treatment to the insurer. They send online claims to the insurer and get paid electronically.

K. Robust Monitoring and Evaluation

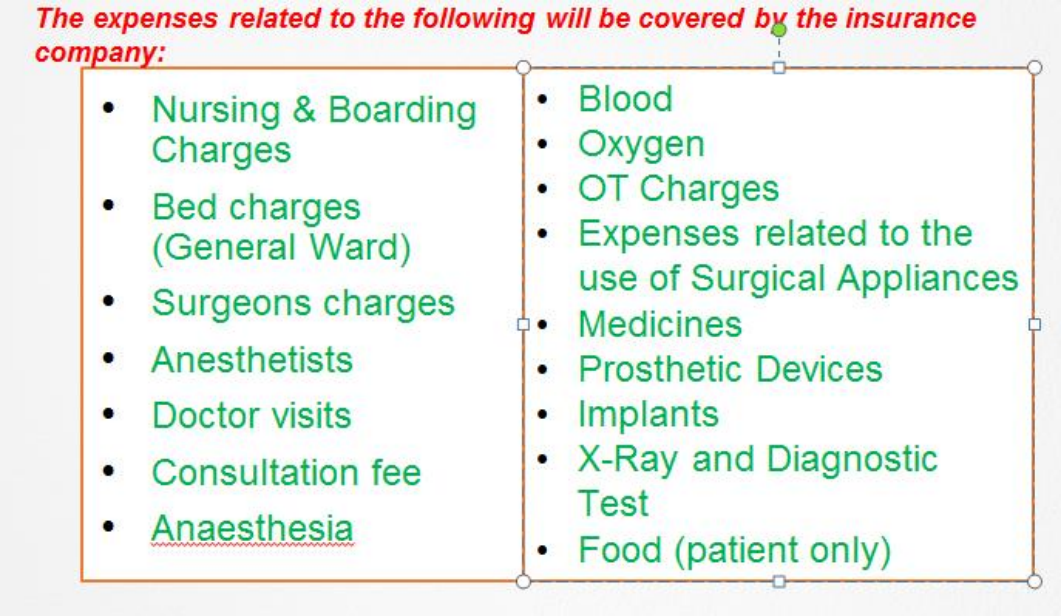
- RSBY is evolving a robust monitoring and evaluation system.
- An elaborate backend data management system is being put in place which can track any transaction across India and provide periodic analytical reports.

- The basic information gathered by government and reported publicly should allow for mid-course improvements in the scheme. It may also contribute to competition during subsequent tender processes with the insurers by disseminating the data and reports.

5.3 Implementation of RSBY-Coverages

1. Hospitalization Expenses:

Expenses related to hospitalization for the treatment for a disease, illness, or an accident will be covered under the RSBY. This coverage will be extended to the policyholder's family as well. However, the treatment and hospitalization shall be taken at a Nursing Home/Hospital by a qualified Physician/Medical Specialist/Medical Practitioner.



2. Pre Hospitalization:

- The scheme will cover the cost of diagnostic tests and medicines up to one day before a patient gets admitted to the hospital.

3. Post Hospitalization:

- The expenses related to an ailment/surgery for which the patient was admitted will be covered for five days after the date of discharge.

4. Transportation Expenses:

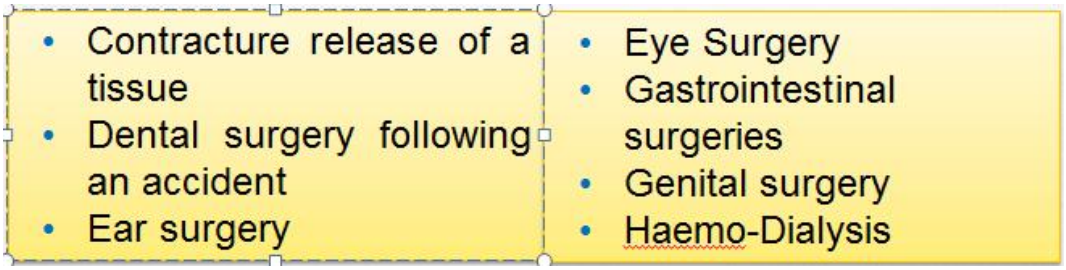
- The policyholder can claim a maximum of Rs.100/- per visit under transportation. The annual cap for this cost is one thousand rupees.

5. Dental Treatment:

- The cost of dental treatments required as a result of an accident will be covered under the RashtriyaSwasthyaBima Yojana.

6. Daycare Treatments:

- A daycare treatment is a surgical procedure that does not require prolonged hospitalization. These are also referred to as out-patient treatments.
- The following list of daycare treatments is covered under RSBY.



- Hydrocele surgery
- Identified surgeries under general anaesthesia
- Laparoscopic therapeutic surgeries allowed under daycare
- Lithotripsy
- Minor reconstructive procedures of limbs
- Nose surgery
- Parenteral Chemotherapy
- Prostate surgery
- Radiotherapy
- Surgery of urinary system
- Throat surgery
- Tonsillectomy
- Treatment of fractures/dislocation
- Screening and follow up care including medicine cost with and without diagnostic tests
- Any procedure covered by the insurance company

. Maternity Benefit:

Both – natural and caesarean type of deliveries are covered under this scheme. A claim for Rs. 2500 for natural and 4500 for caesarean delivery can be made by the policyholder. Any complications before delivery are also covered.The cost of involuntary termination of pregnancy that was caused due to an accident or in a situation where saving the life of the mother is necessary, will be covered.

. Newborn Coverage:

- The new-born baby will be added automatically to the RSBY policy even if the number of beneficiaries has exceeded. This coverage will be valid until the end of the policy period.
- The decision of including the baby in the policy at the time of renewal, lies with the policyholder.

5.4 Challenges of RSBY

The way beneficiaries of RSBY (Below Poverty Line households) perceived the scheme was not as a health right but in terms of the value it imparted, which was measured along multiple dimensions.

Already the beneficiaries of RSBY had little value for the scheme as officials who distributed the RSBY smart card did not provide information on how to use the card.

- At the same time hospitals did not respect patients with the card, believing that they were availing medical care free of cost.
- Sometimes they did not honour the card either due to inaccuracy of fingerprints or lack of money on the card.
- Neighbours and family members did not discuss the utilisation of the card, making households perceive the card as just a showpiece, important to possess but not useful.
- The lack of involvement and endorsement by local leaders further diminished the value of the card for the households.

- The difficulty in understanding the basic facts of the card and using it led households to opt for seeking medical care without the card.

What Is Not Covered Under RSBY?

- The RashtriyaSwasthyaBima Yojana facilitates underprivileged people to avail necessary treatment during a medical emergency. Thus, the following conditions are not covered under the plan:
- Any claim for hospitalization that is not covered under the scheme will not be honoured.
- Cost of vitamins or tonics unless prescribed as a part of treatment by a certified medical practitioner
- Dental treatments that are cosmetic or corrective in nature will not be covered. Also, root canal, filling of cavity, or procedures related to wear and tear are not covered.
- Congenital external diseases
- Substance abuse: Any illness arising out of excessive use of alcohol, drugs, or any intoxicating substance is not covered.
- Fertility, sub-fertility or assisted conception procedures
- Physical changes for resembling the opposite sex
- Hormone replacement therapy
- Plastic/cosmetic surgery unless required due to an accident or as a part of a disease
- Vaccinations
- HIV/AIDS
- Suicide
- War, an act of a foreign enemy, invasion, or warlike operations by nuclear materials
- AYUSH
- Treatments availed at a convalescent hospital, health hydro, convalescent home, nature care clinic, etc as described in the policy documents.

Exclusions Related to Maternity Benefit:

- Prenatal expenses
- The cost of voluntary termination of pregnancy
- Hospitalization ended 48 hours after delivery and related operations

Summary

Countries around the world are still feeling the effects of the pandemic more than two and a half years later. The most major public health disaster in more than a century, COVID-19 resulted in a financial crisis on a global scale, and had long-lasting effects on society. Many people are still experiencing COVID19's longer-term (physical and/or mental) impacts, and health systems are still working to recover from the severe disruption. COVID19 is still taking lives. These negative consequences highlight the need for wise investments to increase the resilience of health systems, safeguard population health at the root, strengthen the framework of health systems, and support frontline health workers. This will give nations the flexibility to respond not only to evolving pandemics but also to other shocks, whether natural or man-made. Such investments yield benefits that go much beyond just improved health. Stronger, more resilient economies are built on more robust health systems, which in turn enable significant economic and societal gains by preventing the need for expensive and restrictive containment measures in the event of future crises.RSBY is a special cashless method that enables unorganised workers and their families who are below the poverty line to receive medical care. The beneficiaries might use the coverage offered under the family floater plan to handle urgent medical needs.The RashtriyaSwasthyaBima Yojana health insurance program's primary goal is to protect families living below the poverty line from financial obligations resulting from medically linked hospitalisation costs by offering them cheap health insurance coverage.

Keywords:

Healthcare: The organized provision of medical care to individuals or a community.

Smart cards provide ways to securely identify and authenticate the holder and third parties who want access to the card.

Health Care Financing: Health Care financing deals with the generation, allocation and use of financial resources in the health system.

RashtriyaSwasthyaBima Yojana: To offer Below Poverty Line (BPL) families access to health insurance, the Ministry of Labour and Employment, Government of India, has introduced RSBY. The goal of RSBY is to shield BPL households from financial obligations resulting from health shocks that require hospitalization.

Hospitalization: bringing someone to the hospital and keeping them there while they receive treatment the patient needed to be admitted to the hospital because of how serious the accident was.

Self-Assessment

1. Which of the following statements is untrue and does not belong in this list? Grey literature is characterized as material:

A. Not published through regular book-publishing channels

B. Not subject to formal bibliographic control

C. That can be difficult to identify and obtain

D. That is generally available only in print (not electronic format)

2. The National Health Accounts are associated with which agency?

A. Agency for Health Care Policy and Research

B. Centers for Medicare and Medicaid Services (CMS)

C. NICHSR

D. Centers for Disease Control and Prevention

3. Children with no insurance receive health care through a program called what?

A.Medicare

B.Social Security Program

C.Maternal and Child Health Bureau

D.State Children's Health Insurance Program (SCHIP)

4. When referring users to the NHA/NHE there are a number of limitations we should remember to tell them. Which item listed below is not a limitation?

A. limitations of the data

B. use of Website

C. data definitions

D.source materials

5. Medicare covers what percentage of which population?

A. 49% of children

B. 20% of mothers and children

C. 95% of the elderly

D. 87% of adolescents

6. The National Health Accounts series has many important characteristics and aims to be comprehensive because it contains some | most | all of the main components of the health care system.

A. Some

B. Most

C.All

D. None

7. Federal expenditures have decreased | increased between 1960 and 2000?

A.decreased

B. increased

C. All

D. None

8. In the year 2000, spending on health care services and products represented what percentage of the U.S. Gross Domestic Product?

A. 13.2 percent

B. 6.9 percent

C. 10.3 percent

D. 7.9 percent

9. When we look at the various categories of expenditures (health care dollars) and the percentages of total dollars spent for each in the year 2000, program Administration and Net Cost consumes which percentage of the spending on health care?

A. 22%

B. 9%

C. 32%

D. 6%

10. The year with the most number of uninsured Americans (in millions) was:

A. 1995

B. 1996

C. 1997

D. 1998

11. The aim of economic evaluation is to ensure that the benefits from health care programs implemented are greater than the opportunity cost of such programs by addressing questions of _____ or _____. Select the correct answer from the list below.

A. Interpretive efficiency or Inclusive efficiency

B. Economic efficiency or Evaluative efficiency

C. Allocative efficiency or Technical efficiency

D. Informational efficiency or Requirements efficiency

12. Which of these statements about a FULL economic evaluation does not belong with the others?

A. FULL health economic evaluations are easily identified because they consider costs.

B. A FULL economic evaluation is the ONLY type of economic analysis that provides valid information on efficiency.

C. A FULL economic evaluation requires the identification, measurement and valuation of BOTH costs and consequences.

D. A FULL economic evaluation compares BOTH the costs and consequences (effectiveness; benefits) of TWO or moreinterventions.

13. This variability in the quality of published health economic evaluation studies has _____ implications for the identification and subsequent utilization of information on _____ in the health care decision-making process.

A. insignificant | economics

B. significant | systematic reviews

C. no significant | retrieval

D. significant | efficiency

14. The following are a list of keywords. Which terms are correct MeSH terms used in retrieving economic evaluation studies?

A. Cost-benefit analysis

B. Expansion costs

C. Costs and cost analysis

D. A and C

15. The market value of a resource may not be an adequate reflection of opportunity cost. An example is voluntary care - the market price is zero but there is an opportunity cost in terms of the alternative ways in which the carer could have utilized the time. A value would have to be imputed, perhaps based on the salary of a paid caregiver. This concept is called _____?

A. cost efficiency

B. un-thinking acceptance of market values

C. opportunity cost

D. market price

Answer for Self-Assessment

1.	D	2.	B	3.	B	4.	C	5.	A
6.	B	7.	B	8.	A	9.	B	10.	B
11.	D	12.	D	13.	D	14.	A	15.	D

Review Questions

Q1. What is the meaning of magnitude of health care?

Q2. What are the challenges of RSBY?

Q3. What is the unique feature of RSBY?

Q4. Write the implementation of RSBY?

Q5. What does mean by Maternity benefit?

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Unit 06: Demand and supply considerations of education

CONTENTS

Objectives

- Learn the need of healthcare in economic development,
- Know the status of healthcare in developing and developed countries,
- Identify why healthcare is to be essentially developed for economic development of a country.
- Learn how health is related to income,
- Understand the empirical evidence of health-income linkages
- Conclude the importance of in come on health.

Introduction

It is widely acknowledged that a nation's population's health is just as vital as its economic standing. It is crucial that the government play a part in providing all facets of its population with adequate healthcare that is both attainable and cheap. However, the government's comparative advantages in completing the task wholly on its own are limited, as are the resources at its disposal. This highlights the requirement for an appropriate policy framework to enable effective operation of both the public and commercial sectors of the healthcare industry. Additionally, the need for health services is dual in nature, just like in the realm of education. Large portions of the population in emerging nations need special care since they are underprivileged and reside in rural areas with severe infrastructure deficiencies. Their lack of access to safe drinking water is linked to many of the illnesses they experience. Therefore, providing basic primary health services to the less fortunate segments of the population is the government's primary duty. While this is a basic requirement, there is also a need for facilities for specialized health care to be built in convenient places with public support, with the government taking the lead. Different types of health services are required for the wealthier segments of the community. They can budget for all the uncertainty of their future health because their affordability is higher. This aspect of greater affordability for a growing number of high income earners in cities is related to the rise of the health insurance industry under market economic systems. It is clear that there is a reciprocal relationship between development and health. While productive contributions from healthy citizens of a nation help the economy grow, economic growth also encourages improved ways to make money, which in turn spurs demand for better services (including health services). A different analysis is required to determine the crucial connection between the two sets of processes (and the impact that they have

on one another). This crucial aspect of the dichotomy between health and development is the subject of the current section.

6.1 Health and Development

Health plays the following roles in the development of human capital: The only way to work effectively and to your best capacity is to be healthy. A healthy individual can work more productively. A healthy person is able to work productively, which can better contribute to the growth of the nation's economy. During history, one of the key advantages of development has been increased health. This benefit is a product of both income growth and the advancement of science in the fight against illness and incapacity. "Health Care" implies more than "Medical care". It embraces a multitude of "Services provided to individuals or communities by agents of promoting, maintaining, monitoring, or restoring health". Medical care is a subset of health care system.

Health Expenditure

The US spends $700 (around $2,000) more per person than other high-income nations. High-income nations spend 26 times more than middle-income nations and 103 times more than low-income nations. Pay attention to the fact that even higher middle-income nations spend 10 times less than high-income nations. Significantly less money overall is spent on health per person. Low and medium income nations spend roughly the same amount of GDP on health. Therefore, they all give health care spending in the economy a same level of importance. 10% more of the GDP or 4 percentage points more, is spent on health in higher income countries. This demonstrates that priorities are not out of line; rather, because the economies of the poorer nations are smaller, they spend less money overall.

In contrast to high-income countries, people in low-income countries must make more out-of-pocket payments.

Low income: 1% government, 4% private

Middle income: 3% government, 3% private

High Income: 6% government, 4% private

Richer nations are better able and more eager to spend tax dollars on healthcare.

Health care spend in India is considerably lower than that in other countries

2004	US	UK	Mexico	Brazil	China	India
Life expectancy (avg. # of years)	77.4	78.3	72.6	71.4	72.5	64.0
# of Physicians per 1,000 people	2.7	1.9	1.7	1.2	1.7	0.4
Healthcare spend (USD per capita)	5,365	3,036	336	236	62	32
Healthcare spend (% of GDP)	13.2	8.4	5.5	7.5	5.0	5.3

Health Indicators

Health indicators are metrics created to compress data on important issues pertaining to population health or the effectiveness of the healthcare system. They offer comparable and useful data that can be applied across various administrative, institutional, and geographic borders and/or can monitor development over time. There are some health indicators as follows:

Infant mortality rate (IMR):The number of newborn deaths for every 1,000 live births is known as the infant mortality rate. The infant mortality rate is a significant indicator of the general health of a society in addition to providing us with valuable information on maternal and baby health. IMR, or infant mortality rate, is the term. It calculates the infant mortality rate per 1,000 live births. Infants are defined as children younger than one year of age. It is a crucial indicator of the general well-being of society. Infant Mortality Rate is calculated by dividing the number of resident live

births in the same geographic area (for a given time period, often a calendar year) by the number of resident newborns who die before the age of one.

Nutrition: Nutrition is a good measure of general susceptibility to health since it is the underlying cause of many diseases. The process through which an organism consumes food and uses the nutrients in it is known as nutrition. The process of consuming food and transforming it into energy and other essential elements is known as nutrition. Organisms make use of nutrients during the feeding process. Malnourished have a weaker immune system.

Health indicators in developing countries fall short of developed countries:

e.g., life expectancy at birth for females is:

- Low-income countries: 59
- Middle-income countries: 72
- High-income countries: 81

The gap between the rich and poor has decreased over the years.

e.g. In 2000, life expectancy at birth for women is 22 years less in low income as compared to high-income countries. In 1960 the difference was 28 years.

Great improvements in access to water but still very high IMR in developing countries.

Nutrition indicators

	Undernourishment (% Pop)	Malnutrition (% under 5)	
		Height/age	Weight/age
Low Income	24.63	43.12	43.72
Middle Income	9.51	27.06	11.11

Height/age: Long-term measure of nutrition

Weight/age: Short-term measure of nutrition

In lower-income countries:

- Higher prevalence of malnutrition
- Much higher incidence of preventable diseases

(e.g. TB)

- Every year more than 10 million children die from preventable diseases (World Bank, 2003)

Types of health problems different in developed and developing countries

(e.g. obestity)

High incidence of malnutrition very important because it is often an underlying factor that causes death from other aliments such as infections diseases.

Difference in health outcomes between developed and developing is important.

In Developing Countries:

- Age distribution of ill health tilted toward infants and pre-school children – policy tilt as well
- More communicable than non-communicable diseases.
- Adults more likely to be afflicted with health problems
- Result of poor health when a child
- New health problems in adulthood
- Less likely to receive government help to solve health issues – high health exp. can lead to poverty.
- Low income tends to cause poor health and poor health in turn causes low income.
- Policy must therefore address both health and poverty simultaneously.
- This is what conditional cash transfers are trying to do.

Poor cannot buy healthcare:

- Cannot afford to prevent a disease before it occurs (vaccinations)
- Doctor visit for diagnosis
- Drugs to treat the problem

Poor more likely to be malnourished:

- Can't afford food or fertilizer to grow food
- Lack of food and variety
- Immune system weak
- Susceptible to diseases

Poor are more likely to live far away from doctors and hospitals

- Transportation costs are large
- Poor more likely to go untreated
- Certainly holds for rural poor, may not hold for urban poor in all countries
- Use mobile health clinics and foot doctors to reach the poor in rural areas

6.2 Income-Health Linkages

Fitness is wealth. Having good health makes people wealthier. Low-income individuals are more likely to describe their health as "poor" or "very bad." Empirical proof: Adults under the age of 55 who rate their own health and employment according to home income: UK, 2019/20. 31 per cent of those with the lowest earnings say their health is "less than good." This percentage ranges from 22 per cent for those in the centre (the fifth income decile) to 12 per cent for those in the highest income brackets. Increasing one's income is related to bettering one's health across the income spectrum.

Resources and money can have a variety of effects on health.

- To be able to afford the necessities for a healthy living, such as food and decent housing, people must have a particular level of income.
- People with higher incomes are able to obtain healthier solutions since they have more selections at their disposal.
- Beyond a minimal amount of income, however, stressors continue to exist and eventually jeopardise physical health. This suggests that having a high salary does not ensure having excellent health.

Let's examine this using a graph that depicts self-rated health among UK people 55 and younger, which is then divided into 10 equally-sized deciles based on 2019–20 household income. More than 10 per cent of adults with the lowest incomes report having "poor" or "very bad" health. 31per cent of those with the lowest incomes report having less-than-excellent health, compared to 22 per cent of those in the middle two deciles (5th and 6th), and 12% of those with the greatest incomes when data for "fair" health (the group below "good" health) is included. Higher income is linked to improved health throughout the whole socioeconomic spectrum. This shows that the connection between income and health that we observe extends beyond people's ability to meet their basic requirements. More income is positively correlated with health at all income levels. Health plays the following roles in the development of human capital: The only way to work effectively and to your best capacity is to be healthy. A healthy individual can work more productively. A healthy person is able to work productively, which can better contribute to the growth of the nation's economy.

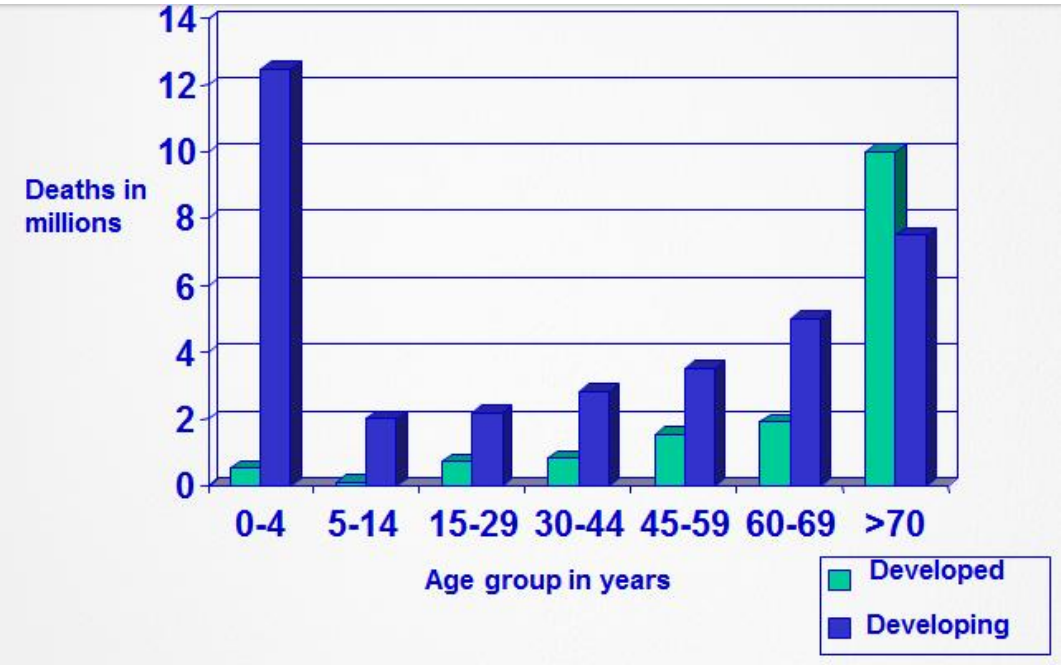
6.3 Health Care as a Factor of Economic Development

At present, healthcare is one of the fastest-growing sectors showing a sustained pace despite the slowdown affecting the economy. Growth of healthcare is spurred by the rising number of hospitals, medical device manufacturers, clinical trials, outsourcing companies, telemedicine providers, medical tourists, health insurance companies, and medical equipment manufacturers. This growth has been ensured by the efforts of public and private players to increase investments and improve networks, services, and coverage. A good healthcare system is important to reduce the burden on families and contribute to national growth. According to OCED Observer, a mere 10% increase in life expectancy ensures an economic growth of around 0.4% per year. In many societies, out-of-the-pocket hospitalization has exposed whole populations to huge cost burdens, giving rise to poverty.

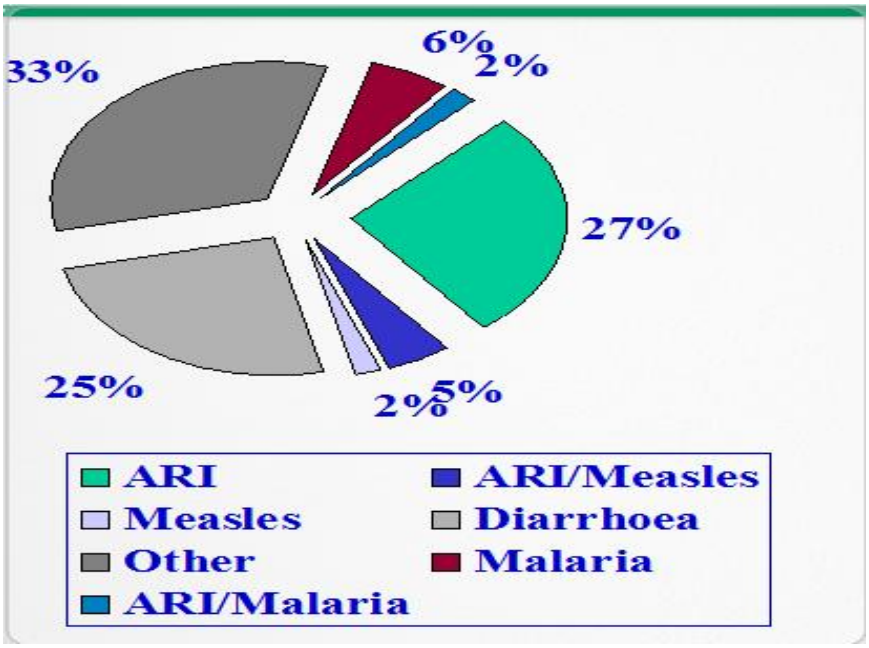
On the other hand, subsidization has made many private players cry foul, leading to decreased performance, corruption, and lack of competitiveness. Policymakers have to strike a very delicate balance in handling these issues. In most developing countries, a majority of people live in rural areas with little access to healthcare, yet they contribute to more than half their country's GDP. The abysmal doctor-to-patient ratio in the rural areas of most developing countries remains a cause for concern. Technology, governmental initiatives, and community participation play an important role in giving perspective to healthcare organizations. In India, the government's Aspirational District Program (ADP) works in empowering communities to rebuild their lives. The program reaches out to over 200 million people—about 15% of India's population—engaging with communities to take responsibility for their own health and welfare. ADP plays a major role in reducing maternal mortality rate and controlling other contagious diseases in the country. Due to ADP, the increased rate of economic development occurring in many regions of the country. Healthcare sector to consider investing in people as the primary goal in measuring their success.

Technology has opened up and many pharmaceutical companies are successful in reaching out to the rural population, improving their healthcare, and contributing to the economic growth of the region. Other healthcare companies can take a leaf out from such pharma companies and begin their out-reach programmes to contribute to the economic growth of the nation.

Deaths by Age Groups in Developed and Developing World



Distribution of 12 Million Deaths in Under 5 in Developing Countries, 1993



- 10% disease burden could be avoided by access to safe water.
- 20% disease burden could be avoided by eliminating malnutrition.

Health Care in Developing Countries

- Existing infrastructure for health care needs to be strengthened. Health should be perceived as an investment and receive greater budgetary allocation
- Education, safe water and sanitation need priority
- Vaccination coverage to be improved
- Better implementation of national health programs
- Judicious use of the scant resources by promoting most cost-effective strategies for disease prevention
- Inclusion of all level of stakeholders in planning and policy making using tremendous human resource available in the country

Health Care in India

- Expenditure on health by the Government continues to be low. It is not viewed as an investment but rather as a dead loss!
- States under financial constraints cut expenditure on health
- Growth in national income by itself is not enough, if the benefits do not manifest themselves in the form of more food, better access to health and education: Amartyo K Sen
- Human health has probably improved more over the past half century then over the previous three millennia.
- This is a stunning achievement - never to be repeated and, it is to be hoped, irreversible.
- In late nineties, India had 48 doctors per 100,000 persons which is fewer than in developed nations (India's doctor-population ratio now at 1:854 is better than the World Health Organisation's standard of 1:1000)
- Wide urban-rural gap in the availability of medical services: Inequity
- Poor facilities even in large Government institutions compared to corporate hospitals (Lack of funds, poor management, political and bureaucratic interference, lack of leadership in medical community).
- Increasing cost of curative medical services
- High tech curative services not free even in government hospitals
- Limited health benefits to employees
- Health insurance expensive
- Curative health services not accessible to rural populations
- Private practitioners and hospitals major providers of health care in India
- Practitioners of alternate systems of medicine also play a major role
- Concerns regarding ethics, medical negligence, commercialization of medicine, and incompetence
- Increasing cost of medical care and threat to healthy doctor patient relationship.
- Prevention, and early diagnosis and treatment, if feasible, are the most cost-effective strategies for most diseases
- Promoting healthy life style from early life is a ‘no cost’ intervention which needs to be incorporated in school curricula.
- There is need for increasing public awareness of the benefits of healthy life style

Inequity in Health Care

- Almost everywhere, the poor suffer poor health and the very poor suffer appallingly.
- Addressing problem of inequality, both between countries and within countries, constitutes one of the greatest challenges of the new century.
- Failure to do so properly will have dire consequences for the global economy, for social order and justice, and for the civilization as a whole.

Summary

Some of the significant health-related aspects of development were covered in the unit. The connectivity and impact of the relationship between health and development are influenced in both directions. Similar to the need for education, the desire for health care is a good for both consumption and investment. Even if it would be ideal to provide the private sector a proper role, the government's role in delivering health care services is still necessary. Both the lack of resources and the concerns about equity call for such a stance. The level of economic development affects how much and where the private sector can participate in the delivery of healthcare services.

In the early stages of development, basic health needs should receive more government funding. Higher incomes that result from an expanding economy give people more ability to self-finance many of their essential health requirements. The focus of health funding goals may change at this point. The level of economic development a nation has attained affects when medical insurance enters the market. The insurance market's interaction with the health care industry has both advantages and disadvantages. To attain the necessary balance in this regard for it to work effectively, developed market structures and institutional procedures are needed. Even while the government still needs to play a regulatory role, the benefits of selectively utilising the private sector to deliver health care have to be acknowledged. This is essential since the government's resources alone would not be sufficient to meet the demands of the health sector. Competition, local needs and choices, and contracting are mentioned as key factors in striking the right balance in this regard. The steadily improving state of humanity's health is a result of the sector's ongoing advancements in medicine, where technical advancements have a significant impact. However, each victory has always been followed by a fresh obstacle, making the dynamics of the health industry ever-challenging.

Keywords:

Health Care,

Infant Mortality Rate,

Nutrition,

Health Insurance,

Development,

Developing Countries

Self-Assessment

1. Human Development Index compares countries based on which of the following levels of people?

A. Health status.

B. Per Capita Income.

C. Educational level.

D. All of the options are correct.

2. The World Health Day is celebrated on

A. 1st March

B. 7th April

C. 6th October

D. 10th December

3. Which one of the following is an unhealthy habit?

A Sharing food

BBathing twice a day

CDrinking boiled water

DEating without washing one's hand

4. Which one of the following is not a bacterial disease?

A. AIDS

B. Dengue

C. Measles

D. All of the above

5. Number of live births per 1000 live male births defined as:

A. sex ratio

B. maternal mortality rate

C. birth rate

D. death rate

6. AYUSH stands for:

A.all youth and usual status health status

B. Ayurveda, Yoga& naturopathy, Unani, Siddha and Homeopathy

C. accredited youth and usual special health care

D. none of these

7. Which state is accounted for first place in human development in India:

A. Tamilnadu

B. Punjab

C. Bihar

D. Kerala

8. What comes under the characteristic of the poor people?

A. Poor Health

B. Gender Inequality

C. Debt Trap

D. All of the Above

9. Economists generally identify poor people based on their-

A. Living Standard

B. Expenditure

C. Income

D. Occupation

10. Which of the following are the two categories of poverty identified by the United Nations Development Programme?

A. Income and human poverty

B. Income and relative poverty.

C. Rural and absolute poverty

D. Rural and relative poverty

11. Which of the following is the main reason for the decline in the per capita availability of land for the purpose of cultivation?

A. Rapid growth of population and lack of employment

B. Pollution in land and water bodies because of excessive usage of agrochemicals

C. Frequent droughts

D. All of the above

12. The deficiency of protein alone is a symptom of

A. Protemia

B. Indigestion

C. Kwashiorkor

D. Marasmus

13. Which is not a vitamin deficiency disease

A. Cheilosis

B. Scurvy

C. Rickets

D. Marasmus

14. Pick the incorrect statement about Marasmus

A. pregnancy in lactation period

B. protein rich diet replaces mother's milk

C. less than one year old infants are affected

D. simultaneously deficiency of calories and proteins

15. _____ is a disorder or bad functioning (malfunction of mind or body) which leads to departure of good health

A. Physical disease

B. Health

C. Disease

D. Infectious disease

Answer for Self Assessment

1.	A	2.	B	3.	D	4.	D	5.	A
6.	B	7.	D	8.	D	9.	D	10.	A
11.	D	12.	C	13.	D	14.	B	15.	C

Review Questions

Q 1. Define the indicators of Health Economics?

Q 2. What do you mean by Infant Mortality Rate?

Q 3. What is the meaning of Malnourished?

Q 4. What is the scenario of Health Care in developing countries?

Q 5. Write a note on the scenario of Health in India?

Further Readings

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Unit 07: Education and Economic Growth

CONTENTS

Objectives

After studying this unit, you will be able to:

- Analyze the key issues in health and educational economics
- Grasp theoretical and conceptual understanding of health and education as an economic dimension
- Appreciate and analyze the key issues in health sector and educational sector in Indian context.
- Analyze microeconomic framework in the demand for health and education

Introduction

It is discernible that the relationship between health and development is a two-wayoperation. Sound healthy individuals of any nation can build the nation in healthy manner. Health is one of the key indicators of Human Development Index (HDI), and reveals the status of individuals' health of the economy. Thus, it is absolutely veracious to state that healthy people in a country promote the development of the economyby contributing productively. Further, economic development promotes better income earningavenues, which, in turn, generate demand for better services (counting healthservices). Therefore, the micro economic foundation of health care and system existed in any economy and its continuous development is pertinent for the all-inclusive growth of the economy. Thebenefits of a healthy population are enjoyed by the society at large just as the ill effects of diseases left unattended/cured permeate across the affected-unaffectedpopulation divide. Issues of health planning, its economic dimensions in terms ofdemand and supply factors, interaction of the insurance sector with medical market,principles underlying the public-private co-existence, etc., are some of the aspectsto which the present unit relates.

7.1 Introduction to the Demand for Health

Medicine and health care have a long history of being treated as special. There are some obvious ways in which the way we interact with the health sector is different from our dealings with other providers of goods and services. Doctors advise us on what services we need and often also provide them. Some health services are used when we are veryill and may not be able to make sensible decisions. Some health care decisions are literally about life and death. In many cases interventions have very uncertain effects for any individual. Another problem is timing. In general, we are healthier when relatively young and relatively rich. These are times when we are least likely to need health care,but most likely to be able to afford it. Perhaps the most important feature of our need for health care is that we seldom know in advance what we will need, when we will need it or how much we will need. Another interesting feature is that few of us actually want to use health services – we do so because we hope it will improve our health. Indeed,use of health services is often unpleasant. Most things we buy are more enjoyable to consume. On the other hand not all health interventions are uncertain, few are really about life and death, and in many cases the intervention is well understood by the patient.

 For example, you have myopia, and need optometry services. You can calculate with almost perfect accuracy how often you need eye tests and, unless you sit on them, how many pairs of spectacles you will need for the rest of your life. For many people dental care is almost as predictable. There is no significant uncertainty in the need for many childhood vaccinations – the content and timing of immunization are predictable.

Many health services are about comfort, mobility, feeling healthy and having good quality of life. Relatively little of what is done extends life to a significant degree. In an absolute sense health care is less necessary than many other necessities, such as food and clothing. This chapter introduces the economic theory of demand and applies it to health and health care. The features of health that are special are explored.There are several reasons why we should be interested in demand for health and health care. The first is to help us to predict likely reactions and behaviour. For example, if we charge people a fee for eyesight tests, what will be the effect on the number of people using the service? How will such a charge affect the frequency of use of optometry services?

Second, knowing something about people's demand for health caremay tell us something about how much they value services. This point will be explored in greater depth below.

Preference and Indifference

The theory of demand is normally constructed in two stages. First, we look at the patterns of preference or indifference between different goods or services. For example, do I prefer a twenty-minute telephonic call to my mother or twenty minutes of free internet access? Do I prefer one laptop set to one bicycle? Do I prefer a 20 per cent reduction in the size of classes at school or twenty-five sets of textbooks? Of course, our choices and preferences are complicated, and normally we want both the products or services offered. The best way to think about preference is 'Which would I choose?' The most reliable information comes from actual choices people have made, but at times we know only what they say they would choose. It is obvious that what people say may be affected by other factors, such as concern about what others will think or what others follow.

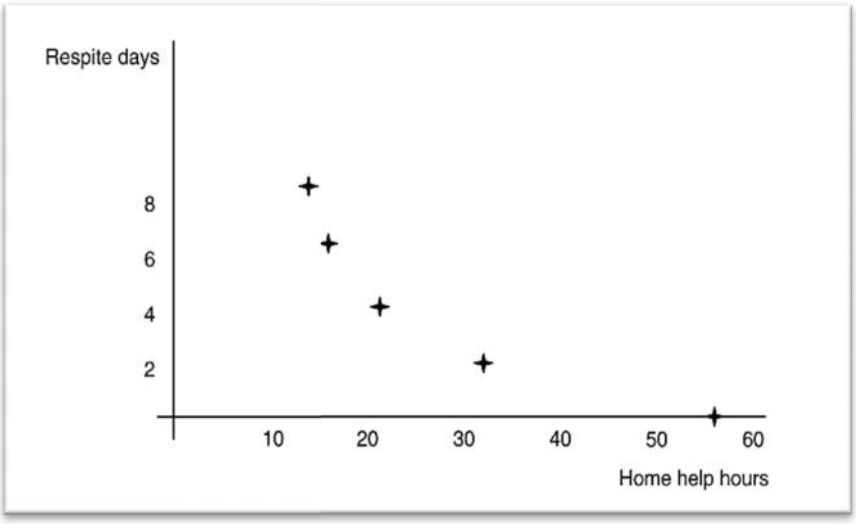
 **Example:**In order to understand more clearly the process of making choices it is useful toconsider a very simple example. You are caring at home for a relative with significant needs. With the help of family and friends you are able to provide all the care she needs, but it seriously limits your ability to leave the house, and for much of the time you cannot focus on other tasks and responsibilities. In order to encourage families to care for their own relatives a new government scheme provides families with funds that can be spent on buying extra help at home or on paying for short periods in residential care to provide respite for carers. At current prices you can afford to buy any of the combinations of home help time or respite care as shown in Table 1 Your preferences between these

different combinations are given in the third column. What is clear is that you prefer combinations that have a bit of each to ones that concentrate more on one or other type of support.

Table 1: Preference for combinations of home help hours and respite care

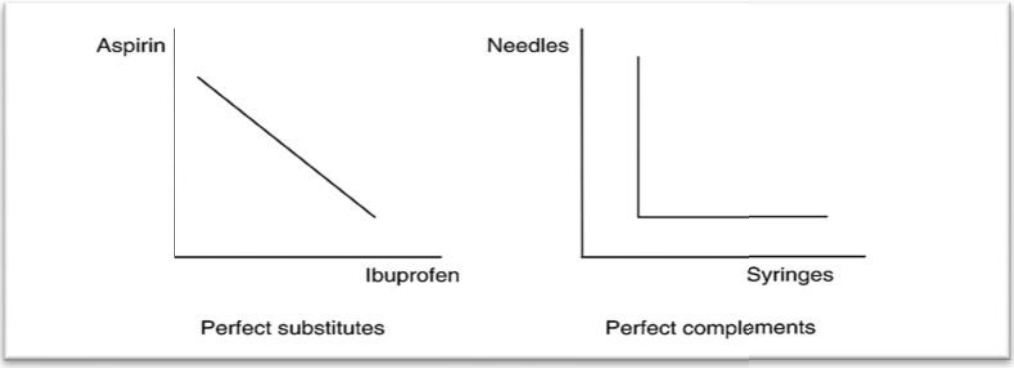
Home help	Respite Care	Order of preference
40	0	5
30	2	2
20	4	1
10	6	3
0	8	4

Fig1: Indifference Curve



Further, if two goods are If two goods are perfect substitutes for each other under the health care and for its associated services, the indifference curve will be a straight line. If they are perfect complements, that is to say, they can be used only in fixed combinations, the indifference curves are L-shaped, as illustrated in Figure 2. For example, syringes and needles are needed in fixed combinations, and neither is useful without the other. For most people an effective treatment for a headache can be either ASA (aspirin) or ibuprofen, so they are near substitutes.

Fig2: Perfect substitutes and complements



7.2 Empirical Analysis of Demand for Health Care

The analysis of the demand usually comprises of several determinants in general. First, individual tastes and preferences are important in determining the shape of individual indifference curves. These may be more or less stable – some things change with fashion, and others are more predictable. Second, the price of the good will influence the amount chosen. Third, demand will be affected by the price of other goods, both substitutes and complements. In general, a fall in the price of substitutes leads demand for the service to fall, and a fall in the price of complements for it to rise. Fourth, the income of individuals is a determinant of demand. More formally we can express this as

$$D = f(P, Ps, Pc, Y, T)$$

where P is price, Ps is the price of substitute goods, Pc is the price of complement goods, Y is income and T is tastes. We know that, in general, demand falls with price, increases with the price of substitutes, decreases with the price of complements, increases with income and increases as tastes and preferences increase.

From demand to demand for health and health care

Demand for health care depends in part on how much we value health – it is sometimes therefore described as a derived demand, since the real demand is for health, and the demand for health care is to help achieve the desired health. Of course, many goods and services have this feature. The demand for cars might be described as the demand for hours of happy family motoring, or even the demand for access to different places. In our behaviour we can observe trade-offs between health and other goods and services. When someone smokes, they (presumably) enjoy the taste and the ending of the craving for an addictive substance. The decision to drive to near-by shops is a decision not to get the health benefits of some exercise.

Demand for health care is also affected by this uncertainty. In essence what we want to buy is access to care should we need it. This means that for some people the demand for health care is a demand for insurance offering guaranteed access to care should the need arise. Of course, many other goods have this characteristic. A house being damaged by an earthquake or a freak hailstorm cannot be predicted, but we can insureagainst such eventualities. It is often claimed that health care is different from othergoods because it is a necessity. These are not mutually exclusive but help to clarify the different dimensions of demand such as-

Need-based- demand is demand for health care that is appropriate and hence is related to a health care need (areas 2 and 5). These are equivalent to unchosen unmet need and met need respectively. Observed utilisation of health care services includes the latter type of need but, by definition, does not include the former.

Unnecessary- This is demand that, by definition, is not based on need and for which care is either supplied or not supplied. It is demand that is observable in some way but that is not based on need and that does not lead to (further) health care utilization. An example is a request for a GP visit

motivated by a need for social interaction rather than a health need. Further in most of cases it is not based on need, for example, inappropriate follow-up dental or outpatient appointments.

Avoidable demand can arise for several reasons:

(a)Initially unperceived need is subsequently detected and results in demand later on in the disease pathway,

 e.g. an individual presents with late stage cancer.

(b)Some demand for health care is potentially avoidable if it arises because of behavioral risk factors,  e.g. smoking, physical inactivity or substance misuse.

(c)Some displaced demand (given below) may also be avoidable.

Displaced demand is demand that is displaced in time – perhaps through the lack of early intervention – or space (place). Spatial displacement refers to care in inappropriate settings, such as avoidable accident and emergency attendances or delayed discharges. In general, demand that is temporally displaced is usually avoidable, whereas spatially displaced demand can be either avoidable (e.g. patient is sent to the wrong ward by mistake) or unavoidable (e.g. patient is sent to the wrong ward because of a lack of beds on the right ward).

Supplier-distorted demand. Suboptimal utilization may arise if the agent (doctor) does not convey demand on behalf of the principal (patient), such as by refusing to refer the patient for a procedure they need and request (area 2) (supplier-refused demand). The agency relationship can also lead to supplier-induced demand such as over-diagnosis or overtreatment, e.g. clinically unnecessary investigations or treatment that can result from screening programmes.

The Grossman model of the Demand for Health

Grossman (1972b) developed a 'human capital' model of the demand for healthin which individuals invest in their health on the basis of perfect knowledge of therelationship between their investment and its outcome. The Grossman model assumes that health is produced using household inputs (suchas tooth brushing) as well as by purchasing inputs (such as health care and the toothbrushes andtoothpaste required for tooth brushing) from outside thehousehold. With perfect knowledge, households will choose to combine inputs such thatthe marginal productivity of each is equal. Marginal productivity of each input isdiminishing so that each extra unit of health produced requires more inputs.These assumptions can be used to generate a number of predictions. Forexample, with education, the household production function is assumed to bemore efficient, predicting that more educated households will produce higherlevels of health. With age, the rate of depreciation of health increases, making itincreasingly costly to maintain a given level of health – predicting that health willdecline continuously with age. Cullis and West (1979) note that this constitutesthe individual 'choosing' the moment of death.

7.3 Income & Price Effect on Health Care

Income Effect

Healthcare is different from other services because it is not clearly defined. In most industries, the product or service can be standardized to improve efficiency and quality. In healthcare, every consumer is structurally, chemically, and emotionally different. What works for one person may not necessarily work for another. Healthcare also differs in terms of choosing consumers. In other services, there is a choice in selecting which person or industry business can be conducted with. It is not so in healthcare as treatment has to be provided to patients in places like the emergency room regardless of patients' ability to pay or not.

In general sense, the income effect in the area of economics is the change in demand for a good or service caused by a change in a consumer's purchasing power resulting from a change in real income. Income can influence demand for healthcare and other subsidiary health care services. If a consumer is a low-income earner, the consumer may not seek healthcare for common sickness. Likewise, a consumer who earns more may be more willing to spend on healthcare. The higher a

person's income, education or occupation level, the healthier they tend to be—a phenomenon often termed the 'social gradient of health'.

These factors are influenced by choices consumers make. For instance, obesity is on the rise in the India. Obesity is preventable and can increase the risk of diabetes, stroke, and heart disease. Some patients do not take appropriate control of their health and seek treatment only when conditions become chronic. The lack of initiate to live a healthy life and prevent chronic illness such as obesity has led to misuse of the healthcare system, hence, escalate the cost.

Price Effect

The price schedule for health care services is quite complex. Theprice that a consumer pays for health care services depends on thepresence of a cost-sharing plan (coinsurance rates or co-payments), adeductible, an upper limit on out-of-pocket expenditures, and premiums. As such, the price of health services can vary according tothe quantity ofservices used. This makes the estimation of the priceelasticity of demand for health care services somewhat difficult. Toestimate the true effect of price changes the researcher must be ableto determine the effective price that the consumer would pay for anadditional unit of health services. As an example, it seems likely thatan individual who has reached his or her out-of-pocket expenditurecap for the year and thus faces a price of zero will make differentchoices about health care use than someone who has not yet reachedhis or her deductible and thus faces the full price of health care services. The complexity of the price schedule highlights the importance of understanding the context in which an elasticity is estimated when trying to generalize results from the literature.

7.4 Supply of Health Care

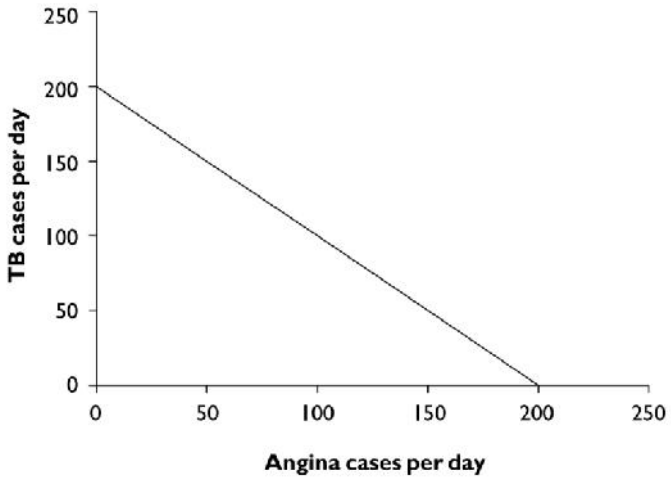
The analysis of supply examines the behaviour of firms (or producers) ranging from large corporations to the sole provider in either the public or private sectors. Supply is the willingness and ability to sell a good at each and every price over a given period of time. It depends on a number of factors influencing the relationship between inputs and outputs (the production function) and cost of producing those outputs.

The Production Possibilities Frontier

Outputs are defined as the goods produced in a production process. Whereas theultimate goal of health care might be good health, this is difficult to defi ne and measure.The mix of outputs and outcomes expected from health care means the relationshipbetween inputs and outcome is complex. Traditionally, intermediate outputs have beenused to explore production and supply in health care (e.g. vaccinations carried out, hipsreplaced or kidney transplants performed). Although these measures do not providehealth outcomes, nor can they capture outputs such as support provided by the medical staff, they are still important in helping understand the issue of efficiency in relationto the provision of health services. The production possibilities frontier (PPF) is a tool that economistsuse to illustrate the different combinations of outputs that are achievable with a limited setofresources.

Consider a clinic that provides ambulatory care for patients with tuberculosis (TB)or angina. Let's suppose that- the only input is nurse time;TB and angina consultations are of the same duration;given current staffing the maximum number of consultations per day is 200. Figure shows what the PPF might look like for our clinic. In this example, a straightline represents the PPF – we can produce a maximum of 200 consultations per dayregardless of how we prioritize the two conditions. The straight-line relationshipimplies that transferring a nurse from one disease to another has no impact on theoverall number of consultations. At the extremes, the graph shows that either 200 TBcases can be cared for, or 200 cases of angina.

Fig3: Production possibilities frontier for a clinic (straight line)



7.5 Factors Affecting Supply and Demand for Health

Effective policymaking and adequate delivery in health care systems begins with a clear typology of the terminology – need, demand, supply and access to care – and their interrelationships. However, influential factor for the advancement and better access to health care and health care system are its existing demand and existing supply. Thus, it is very important find out the correct factor that affect the supply and demand for health and health care.

Factors that influence the supply of healthcare

1. **Socio-demographic profile of patient:** Sociodemographic profile of any patient such as age, gender, ethnicity directly influence the supply of health care and its further subsidiary services. If in an particular area or region of the country is concentrated by old aged people, thus in the particular area the supply of health care will be high and vice- versa.
2. **Type of patient illness**: The supply of the health care is highly affected by type of the illness from which the patient has been suffering. If any particular disease associated number of patients increase in the country, thus the supply of that particular health care will also increase. For example, during the COVID-19, as the specific type of illness (high Fever, cough and severe fatigue) among the patients were increasing, thus accordingly supply also increased. Thus, accordingly Remdesivir a remedial injection was imported to meet the target supply for the domestic people of any nation.
3. **Competence for knowledge and skills:** If in the economy competence level between the different pharmaceutical producers of medicines are of high standard, then supply will also be adequately high and manageable as well. We can observe this phenomenon from U.S, Australia and Western Europe in the world.
4. **Healthcare system**: Health care system of any economy clearly explains the availability and supply of health care and associated services. Usually, the developed nations maintain the supply of health care as they possess the good health care system, on the contrary, developing or underdeveloped nations have not been adequate health care and subsidiary services. Thus, healthcare system influences the supply of healthcare care services.

Factors that influence the Demand of Healthcare

Healthy human beings are the centre of sustainable development, and human beings have long sought to maintain and improve their health by increasing their health services. In general, the use of services or the demand for medical services has a vital role in raising the level of health of each person. The demand for healthcare is a demand derived from the demand for health and is influenced by several factors, discussed below-

1. **Income:** Income is one of the most health influential factor to the demand of health care. High-income families tend to have greater use of health key services and subsidiary services because they are able to bear the cost. But they can also bear the protective and precautionary care, they are able to curb their real requirement of health services. This is known as double effect of income.
2. **Price:** Price has an inverse effect on the demand for health care. Although total demand for health care was found in various studies to be not so perceptive and sensitive to price changes, selection of the source of health care services was perceived to be affected by price factor.
3. **Health Insurance:**Aside from reducing the net price of health care, insurance may be viewed as a method of financing the demand for health care. It not only decreases the cost of car, is also raises the family's ability to secure health services. Thus, health insurance is expected to incline the usage and expenditure on health care.
4. **Life cycle of Age:**The incidence of illness varies with age, so does the need for health care. If in a family, number of children and elderly persons are high, that raise the frequency of illness, which in turn increase the use of health services.
5. **Family size:** the effect of family size on the use of health services is unpredictable. A large family size has a higher frequency of illness since it has more potential patients. However, it has less income per capita than a small family belonging to the same income level. This may reduce a large family's actual use of health services because of lower purchasing ability. Moreover, a large family may have enough people at home to care for a sick member. This compensates for additional days of hospital care.
6. **Education:** good access to education that leads to the reasonable level of education enables a person to recognize pre-symptoms of illness, resulting in the patient's greater willingness to seek treatment timely, patients spend more for preventive services and less for curative services.
7. **Health Knowledge and beliefs:**An Individual's health knowledge ad beliefs affect his efficiency in maintaining personal health through dietary, hygiene and preventive measures. It also affects the choice of health facilities.
8. **Health Need:**Demand for health care is based upon felt needs. Doctors assess whether fet needs are actual needs. Some turn out to be so. Self-perceived need determines whether or not an individual is in the market for health care. It is the immediate cause of decision to seek medical care.

Demand for health care in medical insurance

Health insurance is important to the demand and supply considerations of healthcare as well as in determining the government's role in allocating resources. Healthinsurance is a type of 'cost sharing' whereby the insurer pays the medical costsif the insured becomes sick due to causes covered. The insurer may be a privateorganization or a government agency. Market-based health care systems such asthat in the United States rely on private medical insurance.The concept of health insurance is more applicable in developed economies. Indeveloped countries majority of the persons do not pay directly for their health care.Rather the insurance companies pay for much of the medical care with the consumerpaying a small portion of the total health care expenditure. Insurance coverage isprovided through the payment of the premiums (in privately financed systems) ortaxes (when the insurance is provided publicly). The premiums are often, althoughnot always, paid through the consumer's participation in the labour force.The concept of health insurance involves the theory of expected utility with theunderlying concepts of marginal benefit and cost. The consumers' demand forhealth insurance represents the amount of insurance coverage a person is willingto buy at suitable premiums. Additional insurance coverage will be purchased if the premium (price) declines. Thus,when the marginal benefit of the consumer to theadditional coverage equals the cost of buying that insurance, then other things beingequal, the optimal amount of insurance will be purchased.The demand for health insurance is related to the considerations underlying thepurchase of insurance. It is assumed that an individual wishes to

maximize his orher utility which is the usual assumption made in demand analysis. Since a persondoes not know how he will be affected by an illness requiring a loss of wealth topay for it, the individual seeks to maximize his or her expected utility by choosingfrom the two or three alternatives:

(i) he can purchase insurance and thereby incur a small loss in the form of the insurance premium

or

(ii) he can self-insure, which means either facing the small possibility of a large loss in the event of illness

or

(iii) the large possibility that the medical loss will not occur.

Given the above two choices, one can select one's choice by ranking the choicesaccording to how much of one choice is preferred over the other. Though there isno unique point of origin for measuring the utility function, subject to a certain pointof origin being accepted, the utility function of an individual can be described forvarying levels of wealth. Such an utility function, following the rule of the diminishingmarginal utility, can be graphically shown below in theFigure-4(A). Now, to determine whetheror not to purchase health insurance, let us assume that if sickness occurs it willcost Rs. 8000.

Consider the individual to be currently at wealth level W3 signifyinga income level of Rs.10000. If the illness occurs, Rs. 8000 will be paid out as aresult of which his wealth will shrink to the level W1.

The corresponding levels ofutility for wealth levels W3 and W1 are U3 and U1 (upper panel in Figure 1). Notethat in the lower panel, the graph incorporates the expected utility in addition to the total utility. Now, assuming that the probability of occurring illness is 0.025 (i.e. 2.5percent) and the cost of the treatment is Rs. 8000, the premium to cover this riskwould be 0.025XRs.8000 = Rs. 200.Given the above situation, if the person were to buy insurance at the actuarial valueof the loss, then he would pay Rs. 200, whereupon his wealth reduces to the levelof W2 (representing Rs. 9800) with a corresponding utility level of U2.

Thus, thechoices facing the individual between purchasing the insurance and taking the riskof self-spending for the illness becomes: (a) purchase insurance for Rs. 200 andmove to a marginally lower level of utility (i.e. U2) or; (b) not purchase insuranceand face a 2.5 per cent chance that he will incur Rs. 8000 loss and thereby moveto a much lower utility level of U1 associated with a reduced wealth position of Rs.2000 or alternatively face a high probability of 97.5 per cent that a loss will not beincurred and thereby remain at a wealth position of Rs. 10000 with an associatedutility level of U3 (say, equal to 100). In order to compare the relative positions ofchoices at 'a' and 'b', we can calculate the expected utility levels (which is theweighted sum of the utilities of outcomes with weights being the probabilities ofeach outcome).

Thus, the expected utility of choice 'b' is: P(U1) + (1-P)(U3) =0.025 (20) + 97.5 (100) = 98.To determine whether a person should buy health insurance, we compare the utilityof choice 'a' which represents purchasing insurance thereby leaving the person atutility level U2. Since the utility level of choice 'a' is evidently greater than that ofchoice 'b', it is more advantageous to purchase the insurance. Note that in panelA of the diagram (i.e.Figure 4 (B)), the curve represents the expected utility fordifferent probabilities that the illness will occur. The lower the probability that theevent will occur the closer the expected utility will be to the point farthest to theright on the utility curve. Thus, the factors of demand for health insurance can beidentified as:

(i) how risk averse the individual is
(ii) the probability of occurringthe event of illness
(iii) the magnitude of the loss associated with the event ofillness for a person
(iv) the price of insurance

(v) the income of the individualwho will take the health insurance (i.e., question of affordability and capability ofthe cost of health care associated with the level ofincome).

The demand for healthinsurance is therefore affected by variables like: (a) the cost or price of health care, (b) income level of the individual, (c) tastes towards risk aversion and there by preference for buying insurance and (d) the size of the probable loss.

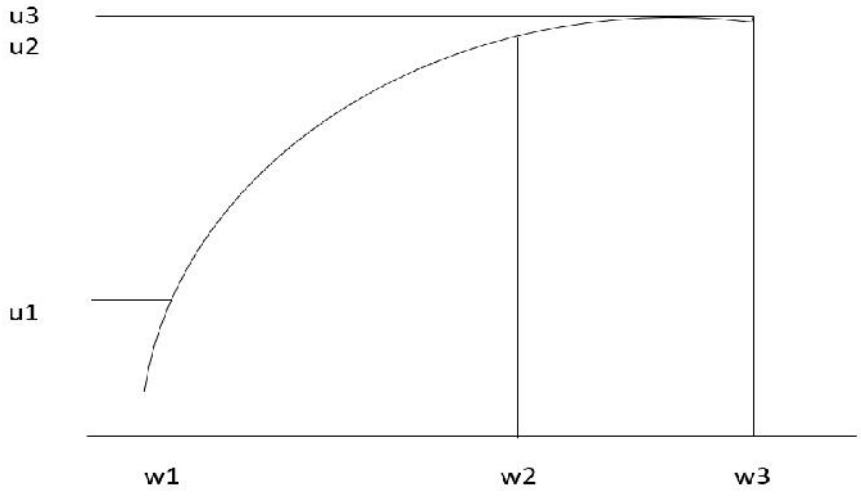


Fig4(A): Utility Function at Varying level of income (Case A)

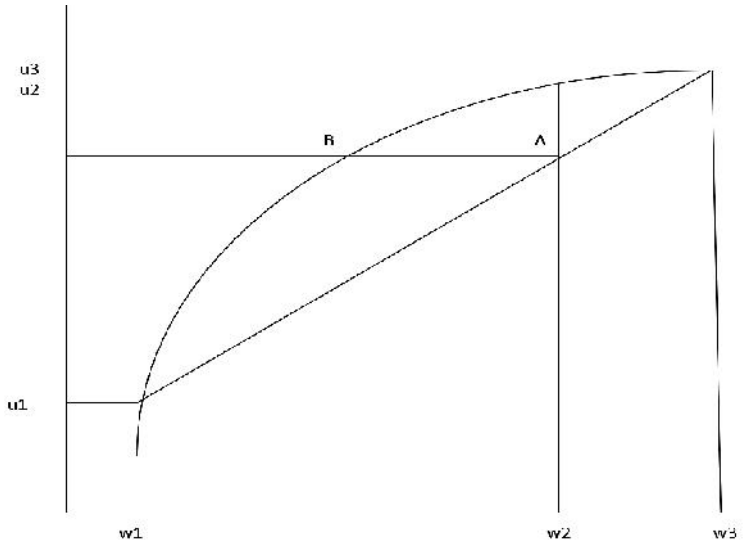


Fig4 (B): Utility Function at Varying level of income (Case:B)

Summary

- The micro economic foundation of health care and system existed in any economy and its continuous development is pertinent for the all-inclusive growth of the economy.
- Thebenefits of a healthy population are enjoyed by the society at large just as the ill effects of diseases left unattended/cured permeate across the affected-unaffectedpopulation divide.

- The demand and supply analysis for health care and health care services leads to the optimum provision of health care services in an economy.
- Health insurance is important to the demand and supply considerations of healthcare as well as in determining the government's role in allocating resources. Healthinsurance is a type of 'cost sharing' whereby the insurer pays the medical costsif the insured becomes sick due to causes covered.
- Grossman (1972b) developed a 'human capital' model of the demand for healthin which individuals invest in their health on the basis of perfect knowledge of therelationship between their investment and its outcome.

Keywords

- Health care demand
- Health Care Supply
- Medical Insurance
- Preferences and Choices
- Grossman Model
- Type of Patient Illness
- Health Knowledge and Belief

SelfAssessment

1. Demand for health care is determined by the savings of the Individuals

A. True
B. False

2. Among the problem of health care system associated with India is that significant number uninsured people lack access to health care system

A. True
B. False

3. The major goal of health care system is to provide the services via private regime for the betterment of poor

A. True
B. False

4. The development of product market contributes to decreasing the expected productivity returns from health investment.

A. True
B. False

5. The demand and supply analysis for health care and health care services leads to the ……. provision of health care services in an economy.

6. A person who is mentally healthy is one who

A. is free from unsolvable internal conflicts
B. is able to arrive at decisions
C. is confident about her own abilities but recognizes her faults has high self-esteem
D. All the above

7. This concept of health was found inadequate to explain some of the major problems of mankind, such as

A. malnutrition,
B. mental illness
C. Sound Mind
D. Only A and B

8. Factors influence the Demand of healthcare are

A. Income
B. Price
C. Both A and B
D. Only A

9. The Grossman model related with the

A. Demand for health care
B. Supply of health care
C. Insurance of health care
D. All the above

10. Demand for health care in an economy for every individual is also affected by……

Answers for Self Assessment

l.	A	2.	A	3.	B	4.	B	5.	Optimum
6.	D	7.	D	8.	C	9.	A	10.	Uncertainty
11.		12.		13.		14.		15.	

Review Questions

1. What do you understand by demand for health care? Describe the specific Model of the same?

2. What are the various influential factor of demand for healthcare, Explain with suitable example.

3. Explain the demand for health care in case of perfect substitute and complimentary products?

4. What do you understand by health insurance. How does it important for reducing the uncertainty that lies in the demand for health care.

5. What do you understand by income and price effect of health care in the area health economics.

Further Readings

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Unit 08: Demand for Education

CONTENTS

Objectives

- Learn the concept of malnutrition,
- Identify the factors behind malnutrition
- Understand how environmental issues are impacting malnutrition
- Learn the concept of risk pooling and risk sharing
- Understand the different types and mechanism of risk sharing,
- Learn about different types of developmental assistance
- Identify the countries receiving the developmental assistance

Introduction

What is health, exactly? It has not been simple to respond to this query. Everyone in a society, even different professions like doctors, health administrators, and social scientists, perceives health differently, which causes uncertainty regarding the concept of health.Health has traditionally been defined as the "absence of sickness." In other words, a person was seen as healthy if she did not have any diseases. The "germ theory of disease," which predominated medical thought from the end of the 19th century onward, served as the foundation for this idea, also known as the biomedical notion.The medical community viewed sickness as the result of the human body's mechanical breakdown, which was mostly brought on by microorganisms. Due to its disregard for the importance of environmental, social, cultural, and psychological factors of health, the biological notion of health has been deemed inadequate.This idea of health was shown to be insufficient to explain some of the most significant issues facing humanity, including chronic disease, drug abuse, mental illness, and undernourishment. Other concepts of health, such the ecological and psychosocial models, emerged as a result of shortcomings in the biological notion. According to the ecological idea, disease is a state of the human being's improper adjustment to the environment, whereas health is a state of harmonic equilibrium between the human being and their environment.

For instance, widespread forest loss has altered the environment, causing hunger, floods, and starvation as well as disease issues. It is suggested that improved human adaptability to natural surroundings results in a longer life expectancy and a higher standard of living.

The psychosocial perspective of health is a result of the development of social sciences. This idea is founded on the idea that health is a social as well as a biological reality. Health is also influenced by

psychological, sociocultural, and economic factors. Social conventions and practises, such as those pertaining to a pregnant or breastfeeding woman's diet, raising a child, and inter-family marriage, play a significant effect in how healthy an individual.

Definition of Health

The World Health Organization's (WHO) (1948) definition of health is as follows and incorporates the ideas of health mentioned previous section:

"*Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infomity.*"

Injustices in politics, society, and the economy are the core causes of poor health for millions of people worldwide. Poor health has poverty as both a cause and a result. Poor health is more likely in poverty.When a person or family is unable to afford basic essentials like food, clean water, housing, and clothing, they are said to be living in poverty. Lack of access to amenities like healthcare, education, and transportation are also included.Adults living in poverty are more likely to experience negative health outcomes from obesity, smoking, substance use, and chronic stress, in addition to the long-lasting effects of childhood poverty. Finally, mortality and disability rates are higher among older persons with lower earnings.

8.1 Malnutrition and Environmental Issues

By lowering food absorption, malnutrition increases the risk of infectious diseases, which in turn are influenced by water security and can worsen infectious diseases. Various studies have suggested that access to services for water, sanitation, and hygiene contributes to malnutrition. The aforementioned findings emphasize the value of safe drinking water, hand washing techniques, and other sanitation measures to address the issue of child malnutrition.Malnutrition's underlying causes include a lack of clean water to drink. Water and life go hand in hand. Acute malnutrition is a direct result of infectious and water-borne diseases, which are made more vulnerable by the lack of access to drinkable water, inadequate sanitation, and risky hygiene habits. Susceptibility to chemical exposures may change according to nutritional state. However, there are many toxicants present, and malnutrition can manifest itself in both excess and deficiency. Consequently, there is a complex relationship between environmental exposures and nutritional status.Risk to industrial chemicals may change according to nutritional state. However, there are many toxicants present, and malnutrition can manifest itself in both excess and deficiency. Consequently, there is a complex relationship between environmental exposures and nutritional status. Malnutrition is the condition that develops when the body is deprived of vitamins, minerals and other nutrients it needs to maintain healthy tissues and organ function. Malnutrition occurs in people who are either undernourished or over nourished.

Protein Energy Malnutrition

- The term protein energy malnutrition has been adopted by WHO in 1976

- Highly prevalent in developing countries among <5 children; severe forms 1-10% & underweight 20-40%
- All children with PEM have micronutrient deficiency.
- Chronic pathological condition
- Absolute or relative lack of protein and energy in the diet over an extended period of time
- Commonly associated with infection albeit infestation in young children

Malnutrition and Environmental Issues

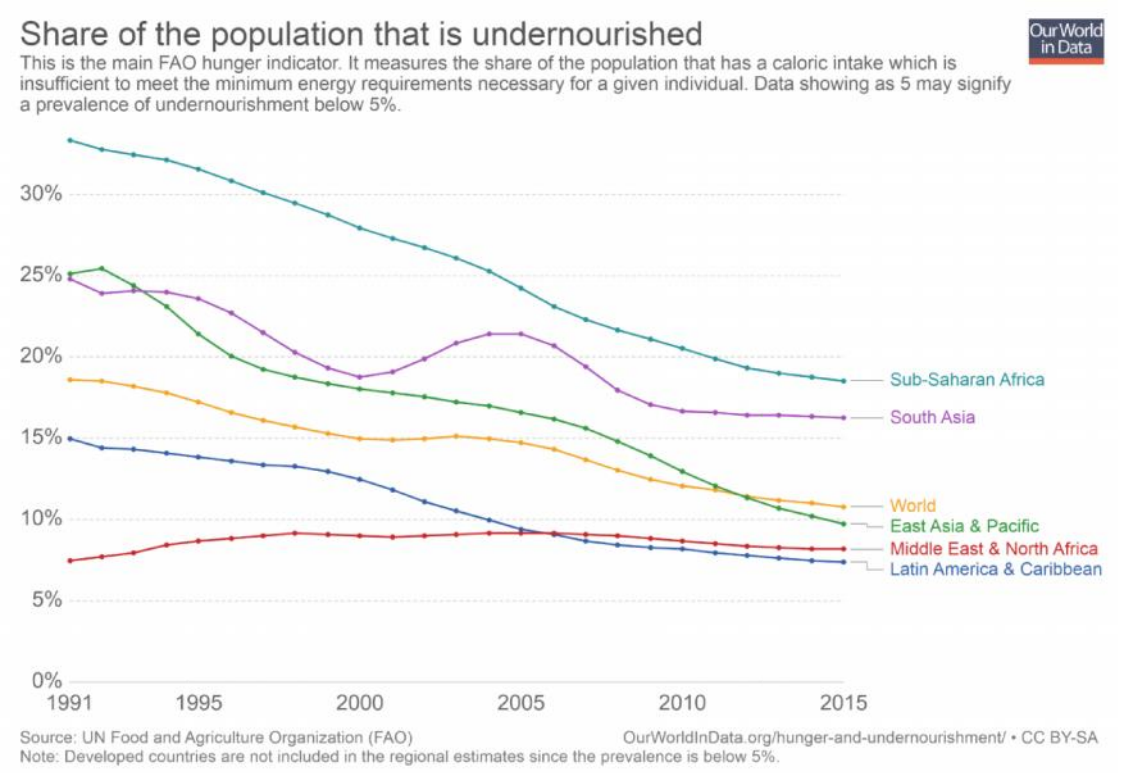
Under Nutrition

- Intrauterine growth restriction resulting in low birth weight
- Underweight: low body weight for age in children, and low Body Mass Index (BMI) and adults
- Stunting (shortness): linear growth deficits
- Wasting (thinness): reflecting low weight for height
- Protein deficiency malnutrition
- Micronutrient deficiencies – most importantly: Vitamin A, Vitamin D, zinc, iodine, iron and folate, calcium

MALNUTRITION= UNDERNUTRITION and OVERNUTRITION

The Burden of Maternal and Child Underutrition

"More than 3.1 million children under 5 die unnecessarily each year due to the underlying cause of under nutrition (2/3rds of deaths are in 1st year) and 165 million more are permanently disabled by the physical and mental effects of a poor dietary intake in the earliest months of life making yet another generation less productive than they otherwise would be" - Source: Lancet Child Survival Series 2013. The consequences of child under nutrition affect immediate as well as future health and well-being.



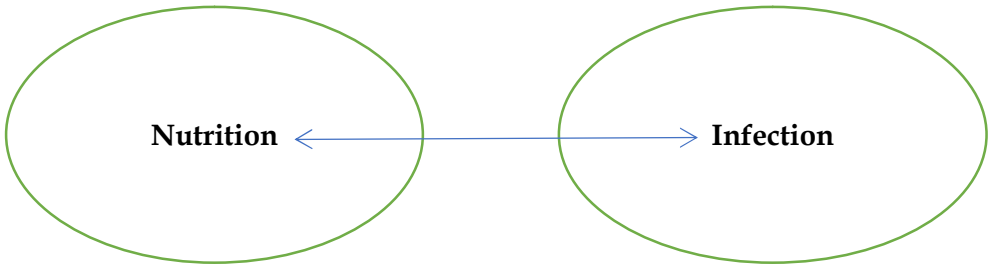
- Undernourishment is still very common in sub-Saharan Africa: about 18% of the population in this region do not consume sufficient calories.
- This is the region with the highest rates of undernourishment; but this is also the region where we have seen the largest progress in recent decades.
- In the MENA region rates are lower, but there has been no progress.
- On the whole, the world average has almost halved since 1991.

Nutritional Disorders	Attributable deaths with UN prevalences*	Proportion of total deaths of children younger than 5 years
Fetal growth restriction (<1 month)	817,000	11.8%
Stunting (1-59 months)	1,017,000*	14.7%
Underweight (1-59 months)	999,000*	14.4%
Wasting (1-59 months) Severe Wasting (1-59 months)	875,000* 516,000*	12.6% 7.4%
Zinc deficiency (12-59 months)	116,000	1.7%
Vitamin A deficiency (6-59 months)	157,000	2.3%
Suboptimum breastfeeding (0-23 months)	804,000	11.6%
Joint effects of fetal growth restriction and suboptimum breastfeeding in neonates	1,348,000	19.4%
Joint effects of fetal growth restriction, suboptimum breastfeeding, stunting, wasting, and vitamin A and zinc deficiencies (<5 years)	3,097,000	44.7%

Source: UNICEF, 2015.

Determinants of Malnutrition: The 6 "P's"

- Production - About half of people in developing countries do not have an adequate food supply - issues of food production and local availability of food.
- Preservation - 25% of grains are lost to bad post-harvest handling, spoilage and pest infestation; up to 50% of easily perishable fruits and vegetables are not consumed.
- Population - density, distribution, urban migration.
- Pathology - nutrition-infection synergism.
- Poverty - root cause of malnutrition income inequality, household food distribution.
- Politics - government policies can foster malnutrition directly by how food is subsidized. and distributed; indirectly civil unrest and natural disasters affect market availability and costs of foods.
- Malnutrition depresses immune function and increases susceptibility to infection
- Anorexia (lack of appetite) results in decreased intake and increased challenge with feeding



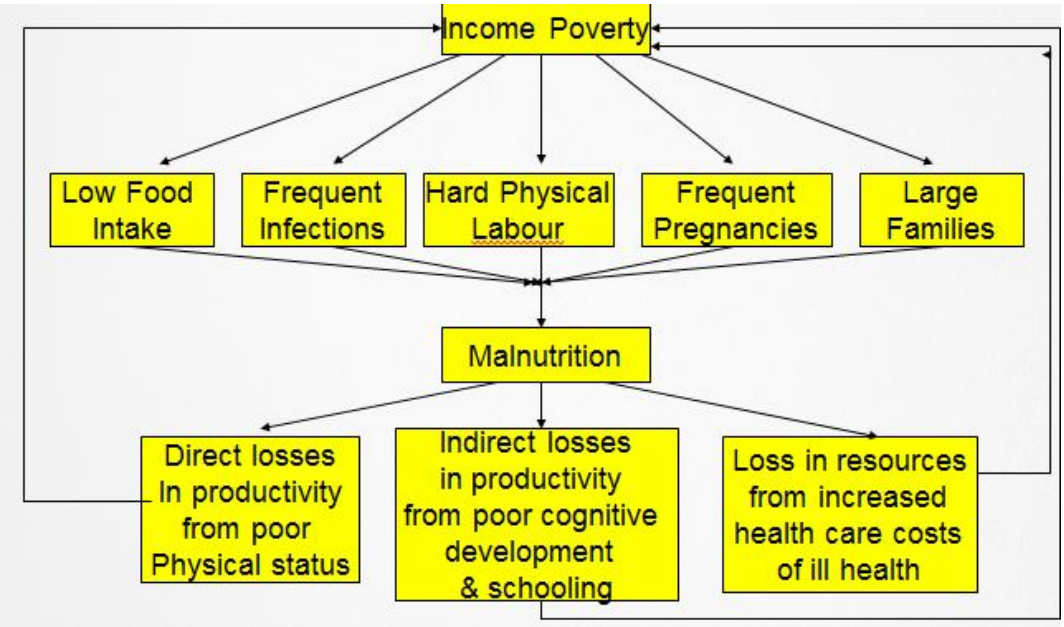
- Diarrhea & vomiting speed up nutrient losses
- Fever increases metabolic needs
- Chronic infection increases protein needs – breaks down muscles, deplete fat stores
- Infection and fever result in anorexia

Climate Change Impact on Nutrition

- Since the 1990s, climate shocks have more than doubled in developing countries, already vulnerable to food insecurity and malnutrition.
- This is alarming for the one billion children who live in the 33 countries classified as 'extremely high-risk' to the impacts of climate change.
- Climate variability and extremes lead to shortfalls in food availability by reducing and destroying crop yields and stocks.
- A combination of spikes in food prices, reduced incomes, disruption of trade and transport, and damage to market infrastructures hinder vulnerable people's access to food, leading to poor quality, and diversity of diets.
- This combined with water insecurity and disease outbreaks arising as a result of climate change creates a perfect storm for unprecedented global nutrition crises.

- Climate shocks increase workloads with negative impacts on the care of children.
- Droughts and desertification mean that women and girls walk further each day to search for water and firewood – exposing them to violence and with negative impacts to their mental health and wellbeing.
- Where conflict and climate shocks coincide, the impact on nutrition is even more significant, derailing the growth and development of children with severe and lasting impacts throughout their lives.
- All diets around the world impact global warming.
- Food systems are responsible for a third of global greenhouse gas emissions (GHG), highlighting how the food we produce and eat affects the environment.
- By 2030, the diet – related social cost of greenhouse gases is estimated to increase by US$1.7 trillion per year.
- A shift towards sustainable, healthy diets would help reduce health and climate change costs by up to US$ 1.3 trillion.
- Sustainable food systems, anticipatory action and shock responsive systems to avert the negative impacts of climate crises are critical for achieving SDG2.
- With its large operational footprint and expertise, WFP is well-positioned to tackle this challenge.
- By transforming food systems to enable healthy and sustainable diets to be available to all, and by helping countries be better prepared to protect their populations from malnutrition in the face of acute crises, WFP can help avert a nutrition catastrophe that will fundamentally undermine efforts to eradicate poverty and minimize the impacts of the climate crisis.

Malnutrition, Poverty & Economic Growth



8.2 Risk Pooling in Health Care Delivery

Risk Pooling

A "Risk pool" is a form of risk management that is mostly practiced by insurance companies, which come together to form a pool to provide protection to insurance companies against unforeseen and sudden happenings or catastrophic risks such as floods or earthquakes.The concept of insurance is based on the sharing of risk. A group of people whose medical expenses are pooled in order to determine premiums constitutes a health insurance risk pool.

	A number of inventory control choices can involve risk pooling. By thinking of the issue in terms of risk pooling, for instance, it is simple to decide between different warehouses that each separately serve their local areas and one that is centralized and serves all areas.

Considered one at a time, there are basically four different types of approaches to risk pooling: no risk pool, unitary risk pool, fragmented risk pool, and integrated risk pools.Pooling is the health system function whereby collected health revenues are transferred to purchasing organizations. Pooling ensures that the risk related to financing health interventions is borne by all the members of the pool and not by each contributor individually.Its main purpose is to share the financial risk associated with health interventions for which there is uncertain need.

Definition of Risk Pooling

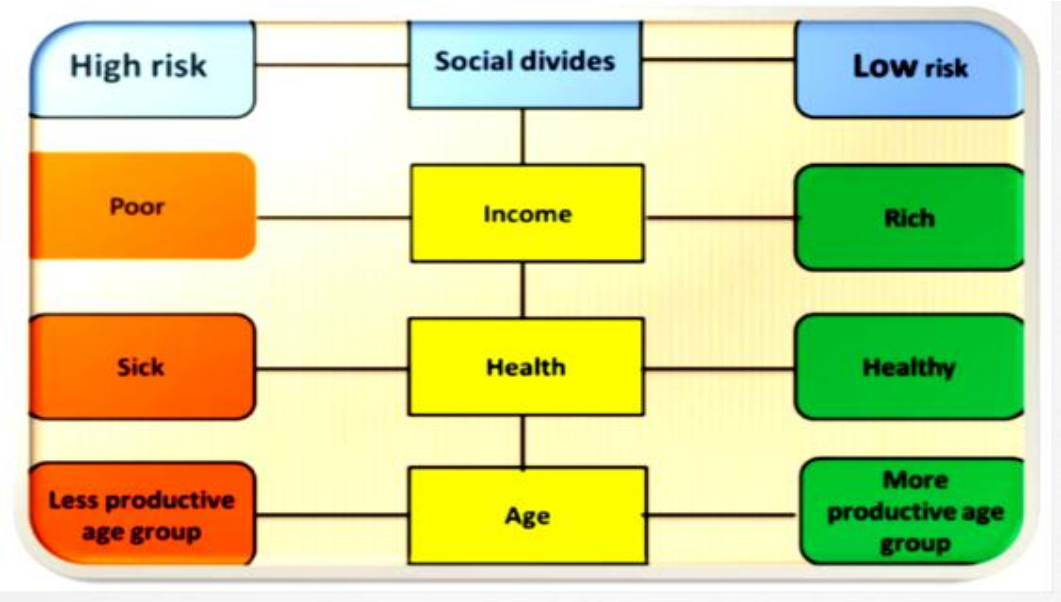
Pooling is the health system function whereby collected health revenues are transferred to purchasing organizations.

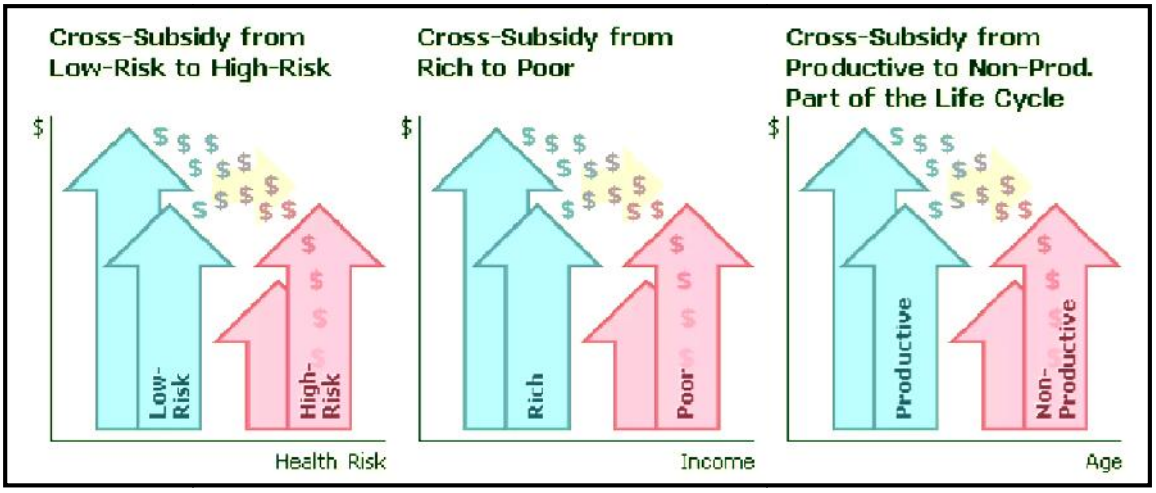
Risk Sharing

Risk Sharing – also known as "risk distribution". Risk sharing means that the premiums and losses of each member of a group of policyholders are allocated within the group based on a predetermined formula. Risk sharing occurs when organizations shift the risk to a third party.A typical example of this occurs in the domain of financial loss. The vulnerable organization can transfer its risk of financial loss to an insurance company for a small premium.When an organisation shifts the risk to a third party, it is referred to as risk transfer or risk sharing. The area of financial loss serves as a common illustration of this. For a nominal payment, the exposed organisation can assign an insurance firm the risk of suffering financial loss.

	Settlement terms in contracts and insurance policies are the two most typical types of risk sharing. The most popular method of risk sharing is insurance. The insurance provider will sell a policy to a business or a person that guarantees coverage for unforeseen losses.

Pooling Across Social Divides





Implications of Pooling on Equity and Efficiency

Equity:

- Society does not consider it to be fair that individuals should assume all the risk associated with their health care expenditure needs.
- Cross-subsidy may pose political challenges.

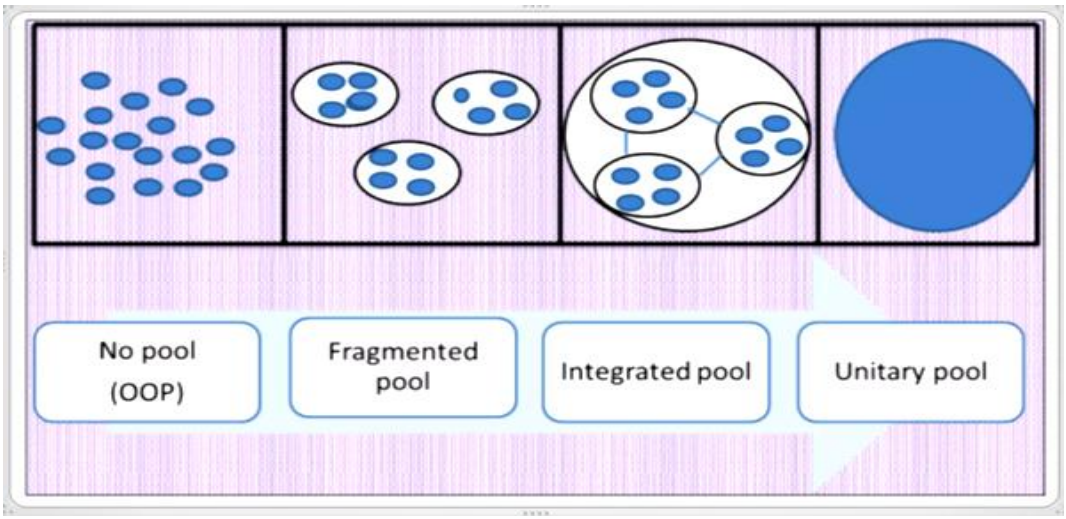
Efficiency:

- Depending on structure, risk pooling can reduce administrative costs or increase administrative burden.
- Can lead to major improvements in population health, can increase productivity, and reduces uncertainty associated with health care expenditure.

Risk Pooling Mechanisms

- Government revenues
- National insurance systems
- Social health insurance systems
- Community based insurance systems
- Private health insurance

Levels of Pooling



No Risk Pooling

- When there is no risk pooling, individuals are responsible for meeting their own health care costs as they arise.
- In its purest form, this entails patients' meeting user charges as they are incurred, with no subsidy of prices for poorer people and denial of treatment when the patient lacks the financial means to pay.

Fragmentation

Fragmentation refers to the existence of a large number of separate funding mechanisms (e.g. many small insurance schemes) and a wide range of health-care providers paid from different funding pools.

- Inefficiencies lead to greater costs.
- Hinders redistribution of prepaid funds.

Integrated Risk Pools

Under this arrangement, the individual risk pools can remain in place, but financial transfers are arranged between pools so that some or all of the variation caused by pure fragmentation is eliminated.

Unitary Risk Pool

Under the unitary model, risk pooling must be mandatory, in the sense that rich or healthy citizens cannot opt out of contributing. The mandatory risk pool is one possible policy response to counter the manifest inefficiencies and inequities associated with adverse selection, cream-skimming, and transaction costs.As risk pooling becomes progressively more integrated, the uncertainty associated with health care expenditure can be reduced. A system of out-of-pocket payments exposes individuals to the greatest level of uncertainty, and on the other hands, Integration risk pooling seeks to reduce these variations, which are eliminated under a truly unitary system.

The Institutional Framework for Risk Pooling

- The institutional basis for risk pools (geography, employment sector, employment status, and so on).
- The criteria for membership in a risk pool.
- The size of risk pools.
- Whether or not the risk pools are competitive.
- Whether or not contributions are mandatory.
- Whether financial contributions are community rated or risk rated.
- The extent to which health care users retain some expenditure risk (in the form of user charges).
- The extent to which there are financial transfers between risk pools.
- The extent to which the risk pools are protected from unpredicted variations in expenditure needs by some higher level pooling
- The freedom given to risk pools to choose variations in packages of care, membership entitlement, and financial contributions.

Risk Pooling in Low- And Middle-income Countries

Region	Year introduced	Coverage	Per capita income (US $)
Africa			
Key feature:	Gradual introduction for civil servants and formal sector		
Burundi	1984	10-15 %	150
Kenya	1960s	25 %	260
Namibia	1980s	10 %	2,030

Risk Pooling in Low- And Middle-income Countries

Eastern Europe & FSU	Year introduced	Coverage	Per capita income (US $)
Key feature:	Transition from tax funded to social insurance		
Estonia	1992	94 %	2,820
Hungary	1992	High[a]	3,840
Russia	1991	High[a]	1,910
Slovenia	1993	High[a]	7,140

Risk Pooling in Low- And Middle-income Countries

Asia	Year introduced	Coverage	Per capita income (US $)
Key feature (transitional):	Response to declining level of state funding		
Kazakhstan	1995	70-80%	1,110
Vietnam	1993	10 %	200
Key feature (other):	Expansion a response to the growth of the economy		
Indonesia	1968	13 %	790
Thailand	1990	13 %	2,210
South Korea	1977	94 %	8,220

Risk Pooling in Low- And Middle-income Countries

Latin America & Caribbean	Year introduced	Coverage	Per capita income (US $)
Key feature:	Introduced from 1920s as part of wider package of pensions, unemployment and other benefits		
El Salvador	1960s	11 %	1,480
Argentina	1920s	90 %	8,060
Mexico	1930s	42 %	4,010
Bolivia	1930s	18 %	770
Paraguay	1930s	14 %	1,570

Risk Pooling in Low- And Middle-income Countries

- Risk pooling in low- and middle-income countries has usually been partial and fragmented.
- In some Latin American countries such as Argentina (before its reforms in the late 1990s), coverage by health insurance was organized through professional associations.
- Many in the informal sector—often poorer and with higher health risks are not covered by the risk-pooling arrangements.
- In other countries, like Indonesia, social insurance coverage is a perk offered to public sector workers.
- While this arrangement reflects practical factors—it is harder to collect contributions from small-scale and informal enterprises—it can have a regressive effect, with the relatively better-off receiving higher quality services with some degree of public subsidy.
- Industrial countries, like South Korea, which started a scheme for civil servants in 1977, have now managed to extend coverage to 94 percent of the population.
- Countries like the Philippines, have lower coverage rates of around 40 percent for payroll insurance, probably reflecting the different employment structure and level of development of the country.
- A number of African countries, like Burundi and Namibia, that introduced insurance for public sector workers in the 1980s, continue to have very low coverage, around 10 to 15 percent.
- There is some correlation though by no means perfect between levels of coverage and per capita income.

Some Facts of Risk Pooling

According to World Bank Report (2004), that's estimated only 11% of Global Health Spending for 90% of the World's Population in developing countries such as Asia 3.5%, Americas 3.2%, Europe 2.4%, Middle East and N. Africa 1.5%, Africa 0.4%, and 89% of Global Health Spending for 10% World's Population in developed countries.In 2007 with respect to the distribution of the global disease burden in low- and middle-income countries 87.5%, but only 12.5 percent of global health spending was in this group of countries.Conversely, in developed and highly developed countries, with a very low distribution of global disease burden (13%), the share of total health expenditures is much higher at 87%.

The World Health Report (2013) stated that inefficiency of the health department financing system has led to a waste of about 20% to 40% of the total health expenditures.Therefore, it counts the need to adopt proper and efficient financing policies based on risk pooling and risk sharing in the health sector as an evident issue.

Facts of Risk Sharing

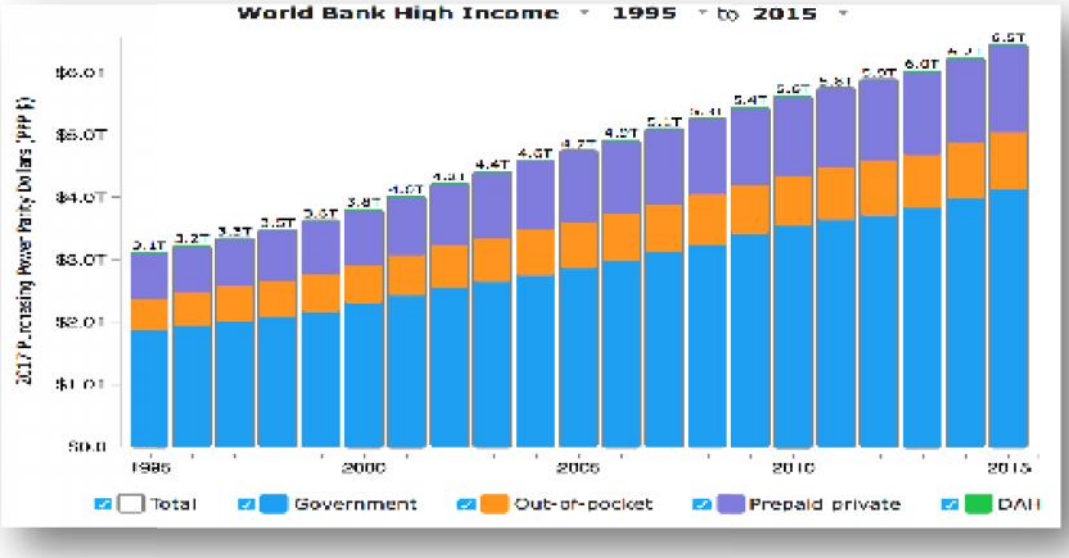
In 2018, according WHO's method for the classification of risk-sharing in health care financing, WHO's data showed that between 2000-2014 the degree of risk-sharing in low-income countries (from 1.58 to 2.08; of the total 6 points Likert) is low risk-sharing and in lower middle-income countries (from 2.47 to 2.86) is medium risk-sharing.This rapidly shift in these income countries groups was coincided (1995-2014) with increasing general government expenditure on health (GGHE) as a share of total health expenditure (THE) in low-income countries(from 33.6% to 41.2%) and lower middle-income countries (from 34.9% to 36.2%), reducing in Private expenditure on health as a percentage of total expenditure on health in low-income countries (from 66.4% to 58.8%) and lower middle-income countries (from 65.1% to 63.8%), reducing Out-of-pocket expenditure as a percentage of private expenditure in low-income countries (from 80.8% to 65.5%) and lower middle-income countries (from 89.4% to 87.5%).In addition, in time period 1995-2014, share of External resources for health as a percentage of total expenditure on health in low-income countries (from 13.1% to 28.3%) and lower middle-income countries (from 1.8% to 3.3%) had been high increased.

8.3 Development Assistance in Health Care

Total DAH is the total amount of external health funding received from all sources, including intergovernmental institutions like the United Nations (UN) system, particularly the World Health Organization (WHO), and bilateral organizations as reported through the OECD's creditor reporting system.According to the Universal Declaration of Human Rights, the right to health is also an unalienable human right since it enables people to live up to their full potential, children to learn more effectively, workers to be more productive, and parents to provide for their children.

- Development Assistance in Health is related to financial assistance to health.
- At the domestic level within the country, it is the transfer of funds/ cross-subsidy from high-income people to low-income people, low risk to high risk, or unproductive age group to productive age group.

At the international level, Development Assistance in Health is defined as the financial and in-kind contributions transferred through major development agencies to low- and middle-income countries for maintaining or improving health.



Data Source: Institute for Health Metrics and Evaluation (IHME). Financing Global Health Visualization. Seattle, WA: IHME, University of Washington, 2017. Available from: http://vizhub.healthdata.org/fgh/

According to the Institute for Health Metrics and Evaluation's (IHME), Financing Global Health 2018 report, DAH has experienced a 0.3% drop in the annual growth rate over the recent 5 years in between 2013–2018.Political uncertainties, changing commitment from traditional donors like the United States and the United Kingdom and the large financial gap needed to achieve the Sustainable Development Goals, suggests that other sources may be critical to growing funding in the future.Besides the traditional donor countries, who are usually members of the Organization for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC) and usually high-income countries, several other middle-income countries have gradually emerged in the global health financing arena.Brazil, Russia, India, China and South Africa, commonly referred to as the BRICS countries, are making a number of important commitments towards global health through providing development aid under the "South-south cooperation" regime.BRICS have also emphasized international cooperation including technology transfer to developing countries in the BRICS health ministers' meetings QUAD countries, JAI are new addition in this line.

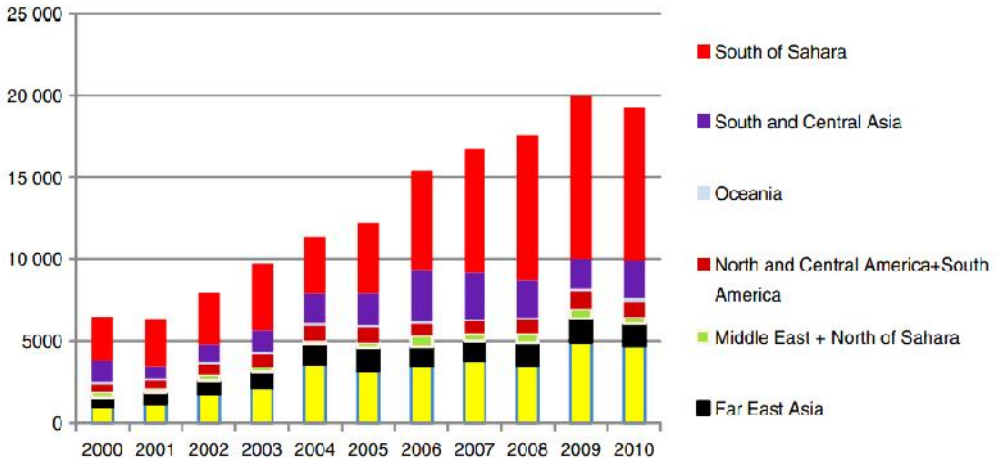
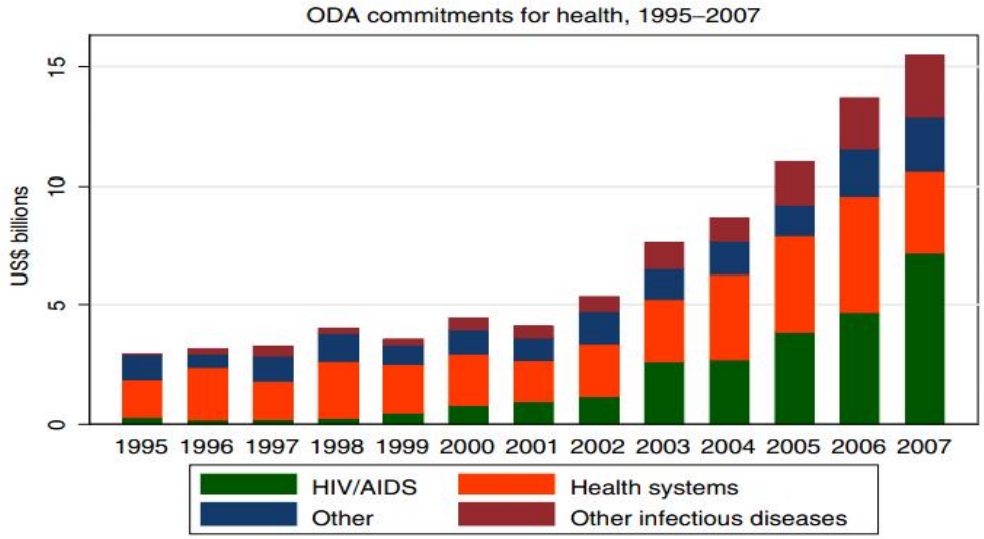
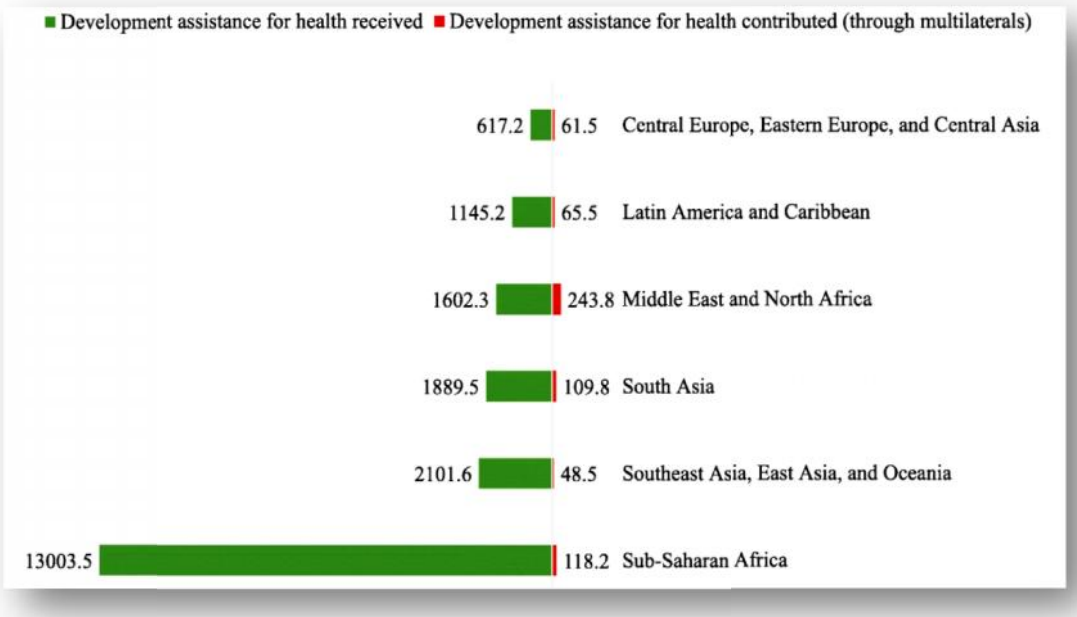


Figure 1 Total and regional patterns in DAH (in millions of 2009 US$). Reproduced with permission from OECD (2013). Available at: http://www.oecd.org/dac/stats/ (accessed 15.07.13).





The Middle East and North Africa (MENA) is a diverse region that has been in turmoil since the Arab spring, with Syria, Libya, Yemen and other countries experiencing ongoing civil war, and Jordan, Lebanon among others in the midst of the biggest refugee crisis since World War II.In 2016, countries in MENA received over a third of total OECD DAC's humanitarian flows, and specifically for health, an annual average of $1602.3 million from 2015 to 2017. But, Saudi Arabia, Kuwait and United Arab Emirates have been among the most substantial donors in the world relative to national economy. These three countries also have established a number of specialized financial institutions to provide development aid for Arab and Muslim countries and other developing countries. According to OECD 2015 estimates, Saudi Arabia and United Arab Emirates are among the top ten providers of net official development assistance. The World Health Organization (WHO) is a specialized agency of the United Nations responsible for international public health. The WHO was established on 7 April 1948. Its work began in earnest in 1951 after a significant infusion of financial and technical resources. Headquartered in Geneva, Switzerland, it has six regional offices and 150 field offices worldwide. WHO advocates for universal health care, monitoring public health risks, coordinating responses to health emergencies, and promoting health and well-being. It provides technical assistance to countries, sets international health standards, and collects data on global health issues. The WHO also serves as a forum for discussions of health issues and provides funds to solve them.

- International Bank for Reconstruction and Development (IBRD; part of the World Bank Group)
- International Monetary Fund (IMF)
- International Red Cross (ICRC AND IFRC)
- United Nations Children's Fund (UNICEF)

Summary

All around world, poor health and poverty are intricately intertwined. People's health is at risk because of inadequate diet, overcrowding, a lack of clean water, and other harsh realities. As a result of making it impossible to work or driving families into financial hardship to pay for care, bad health also makes poverty worse.When the body lacks the vitamins, minerals, and other nutrients necessary to maintain healthy tissues and organ function, malnutrition sets in. People who are either undernourished or overnourished can develop malnutrition.Global public health is negatively impacted by climate change in a number of ways, including decreased crop quality and quantity, increasing food insecurity, and diet-related non-communicable diseases like diabetes mellitus and cardiovascular disease.Children born to malnourished, anaemic, and hungry mothers

are likely to be stunted, underweight, and unable to reach their full potential as human beings. Childhood malnutrition can stunt a child's physical and mental development and doom them to a life on the periphery of society.Housing, sanitation, and water supply are of poor condition. These aggravate illnesses and infections, which exacerbate starvation.A group of people whose medical expenses are pooled in order to determine premiums constitutes a health insurance risk pool. When risks are pooled, either across the board or within a premium rating group, the higher costs of the less healthy can be mitigated by the relatively lower costs of the healthy.By pooling resources, it is made sure that the risk associated with funding health interventions is shared by all pool participants rather than just by each individual contributor. Due to the high degree of unpredictability surrounding the scope and timing of a person's medical expense requirements, risk pooling is necessary.Rural and urban towns in economically struggling areas might get funds for economic development assistance (EDA) to help them execute regional economic development. The objective is to increase private capital investments, create jobs, and improve America's capacity to compete internationally.

Keywords:

Health-Poverty: Poor health has poverty as both a cause and a result. Poor health is more likely in poverty.

Malnutrition: When the body lacks the vitamins, minerals, and other nutrients necessary to maintain healthy tissues and organ function, malnutrition sets in. People who are either undernourished or over nourished can develop malnutrition.

Risk pooling: The concept of insurance is based on the sharing of risk. A group of people whose medical expenses are pooled in order to determine premiums constitutes a health insurance risk pool.

Risk sharing: When businesses assign the risk to a third party, the process is known as risk transfer or risk sharing. This can be seen frequently in the area of financial loss. For a nominal payment, the exposed organization can transfer its risk of financial loss to an insurance provider.

Developmental Assistance: Government assistance that encourages and focuses primarily on the welfare and economic development of emerging nations. In 1969, the DAC designated ODA as the "gold standard" of international aid, and it is still the primary funding source for development assistance.

WHO: It is in charge of taking the lead on issues pertaining to global health, establishing norms and standards, defining evidence-based policy alternatives, giving governments technical assistance, and monitoring and analyzing health trends.

Under Nutrition: Under nutrition is defined as not consuming enough nutrients and energy to meet one's needs for maintaining good health. Under nutrition and malnutrition are often used interchangeably in literary works. Malnutrition technically refers to both under nutrition and over nutrition.

Self-Assessment

1. More than _____ of the world’s poor live in India

A. half

B. One-third

C. One-fourth

D. One-fifth

2. What was the percentage of the population below the poverty line in India in 2011-12?

A. 26.1%

B. 19.3%

C. 22%

D. 32%

3. Which of the following is the poverty determination measure?

A Head Count Ratio

BSen Index

CPoverty Gap Index

DAll of these

4. The Minimum requirements of a person, include

A. Food

B. Education

C. Car

D. Both a and b

5. Which of the following is a characteristic of people below the poverty line?

A. Debt trap

B. Gender Inequality

C. Poor Health

D. All of the above

6. Which of the following is a basic characteristic of insurance?

A. pooling of losses

B. avoidance of risk

C. payment of intentional losses

D. certainty about specific losses that will occur

7. Which of the following types of risks best meets the requirements for being insurable by private insurers?

A. most market risks

B. property risks

C. financial risks

D. political risks

8. Which of the following types of risks is normally uninsurable by private insurers?

A. personal risks

B. property risks

C. liability risks

D. political risks

9. Which of the following is a result of adverse selection?

A. The insurer's financial results will be substantially improved.

B. Persons most likely to have losses are also most likely to seek insurance at standard rates.

C. It is unnecessary for the insurance company to use underwriting.

D. Insurance can be written only by the federal government.

10. The term 'Risk' includes:

A. Damage to machinery and property

B. Impact on the health or life of a person

C. Leakage of toxic products into the atmosphere

D. All of the above

11. Which of the following types of insurances is mandatory?

A. Motor Own Damage

B. Motor Third Party Legal Liability

C. Personal Accident Insurance

D. Product Liability

12. Any contaminated components that seep into the soil, filtration, and are transferred into the underground reservoir are referred to as

A. Water Pollution

B. Noise Pollution

C. Land Contamination

D. Air pollution.

13. World Health Organization (WHO) recently urged South-East Asian countries to take urgent measures against which disease?

A. Polio

B. Measles

C. Tuberculosis

D. Pneumonia

14. Who was appointed as the new Chief scientist of the World Health Organization in 2022?

A. Jeremy Farrar

B. Preeti Sudan

C. Soumya Swaminathan

D. Zaliha Mustafa

15. World Health Organization (W.H.O.) falls under which body of UNO?

A. The Social and Economic Council

B. The Trusteeship Council

C. The Social Security Council

D. The Secretariat

Answer for Self-Assessment

1.	D	2.	C	3.	D	4.	D	5.	D
6.	A	7.	B	8.	D	9.	B	10.	D
11.	B	12.	C	13.	B	14.	A	15.	A

Review Questions

Q 1. What is risk pooling?

Q 2. What is the difference between malnutrition and hunger?

Q 3. Define the term nutrition security and list any four initiatives to improve nutritional status.

Q 4. What are the facts of Risk Sharing?

Q 5. What is overall focus of World Health Organization?

Q 6. Write a note on Development assistance is Health Care?

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Unit 09: Educational Financing

CONTENTS

Objectives

- Know the concept and evolution of health care financing
- Learn about the mechanism of healthcare financing
- Understand the empirical existence of healthcare financing
- Know about the principles of healthcare finance
- analyze the different areas where the implication of healthcare resources mobilization is realized
- Learn the implication of health care resource mobilization due to the affecting factors.

Introduction

The creation, distribution, and utilization of financial resources within the healthcare system are all covered under health care financing. In order to achieve universal health coverage, it has gained more and more attention on a global scale (UHC). In recent years, the definition of good health has evolved from its conventional meaning of "not being unwell" to include a "state of total physical, mental, and social well-being and not just absence of disease." The dictionary defines the word "insurance" as "to indemnify against." It can also imply "to transfer the risk" or "to monetize the risk," i.e., to assign a monetary value to it. About 80% of the public funding for healthcare comes from state government budgets, with the remaining 20% coming from the federal government and municipal governments (8 per cent). The goal of health finance is to provide resources and the appropriate financial incentives to service providers in order to guarantee that everyone has access to high-quality personal and public health care (WHO 2000). There are 'Dependency' periods in a person's life, which are located at the two ends of the life span. An individual is most dependent on others during infancy and old age. Since the beginning of time, children have always received the right care, and the senior members of the family have also been valued members of the community. The elderly's wealth of knowledge in coping with natural and other calamities was particularly helpful to the younger generation in managing the fields and harvests because of the society's agrarian foundation. The joint family system has broken down as a result of industrialization, worker movement from rural to urban areas, and harmful effects on elderly care. There are times when one cannot work and support oneself between the two extremes of life and during their working lifetime. There are several reasons why these times happen, but illness, injury, and pregnancy are among the most common. These result in a state of deprivation. Between the two extremes of life and during one's working lifespan, there are times when one cannot work and

support oneself. These situations can arise for a number of causes, but the most frequent ones include sickness, accident, and pregnancy. These lead to a feeling of deprivation. The Workmen's Compensation Act's passage in 1923 marked the beginning of Social Insurance in our nation. The workers were financially protected from accidents and fatalities brought on by their jobs. After that, the "Maternity Benefit Act" was passed. Both instances required the payments to be made by the company. In the years that followed, efforts were made over and over again to put the ILO Convention on "Health Insurance" for Workers in Industry, Commerce, and Agriculture into effect. Numerous meetings between different interest groups (i.e., representatives of employers, workers, and the state) were organized between 1927 and 1943, but no fundamental agreement could be reached. At this point, the central government tasked professor Adarkar, a social scientist, with writing a background report. Finally, the report by Professor Adarkar served as the foundation for subsequent talks and advances. The "Employees State Insurance Act" was ultimately passed in 1948 by the Lok Sabha in independent India after a "Bill" was first presented to the legislative assembly in 1946.

9.1 Financing of Health Care

- Late 1970s Voluntary community based health insurance attracted considerable attention.
- 1980's financing of health care moved high on the agenda of the discussions on health policy
- Recurring theme in
- Executive Board Meeting of the WHO in 1986,
- World Health Assembly and the Commonwealth Health Ministers Conference in 1986
- User charges dominating the policy debates of 1970s and 1990s.
- Attention back on community based health insurance
- In developed countries the problem is containing the cost of health care
- In some developing countries the problem presents itself as how to maintain health spending and how to achieve "health for all" initiative

A crucial component of health systems, health funding can advance the goal of universal health coverage by enhancing efficient service delivery and financial security. Millions of individuals today avoid using services because they are too expensive. Even those who pay out of pocket frequently receive subpar services. Health funding regulations that are carefully crafted and put into place can aid in resolving these problems.

Contracting and payment arrangements, for instance, can encourage care coordination and improve the standard of treatment; timely and proper payments to providers can help to guarantee that there is enough staffing and medication to treat patients.

The WHO's strategy for health financing focuses on these fundamental tasks:

- revenue generation (sources of funds, including government budgets, compulsory or voluntary prepaid insurance schemes, direct out-of-pocket payments by users, and external aid)
- pooling of resources (the accumulation of prepaid funds on behalf of some or all of the population)
- the acquisition of services (the payment or allocation of resources to health service providers)

Definition of Health Care Financing

- Mobilization of funds for health care
- Allocation of funds to the regions and population groups and for specific types of health care
- Mechanisms for paying health care.

Health Service Financing Source

- Health services financed broadly through private expenditure or public expenditure or external aid
- Public expenditure includes all expenditure on health services by
- central and local government funds spent by state owned and parastatal enterprises as well as government and social insurance contributions
- Where services are paid for by taxes, or compulsory health insurance contributions either by employers or insured persons or both this counts as public expenditure.
- Voluntary payments by individuals or employers are private expenditure.
- External sources refer to the external aid which comes through bilateral aid programme or international non-governmental organizations.
- The ownership of the facilities used whether government by government, social insurance agencies, nonprofit organizations private companies or individuals is not relevant.

Annual Health Care Expenditure for Selected Asian Countries 1991 Data

Country	GDP per capita 1991 (US$)	Expenditure as % of GDP	Public Expenditure as % of total
Nepal	188	4.5	48.9
Bangladesh	204	3.2	43.8
China	311	3.5	60.0
India	353	6.0	21.7
Pakistan	354	12	52.9
Sri Lanka	473	18	48.6
Indonesia	596	2.0	35.0
Thailand	1558	5.0	22.0
Singapore	13653	4.0	57.9

Mechanisms of Health Financing

- General revenue or earmarked taxes
- Social insurance contributions
- Private insurance premiums
- Community financing
- Direct out of pocket payments

Each method

- Distributes the financial burdens and benefits differently
- Affects who will have access to health care
- Financial protection

General Revenue or Earmarked Taxes

- The most traditional way of financing health care
- Finance a major portion of the health care (especially in low income countries).

Social insurance

It is compulsory. Everyone in the eligible group must enroll and pay a specific premium contribution in exchange for a set of benefits. Social insurance premiums and benefits are described in social compacts established through legislation. Premiums or benefits can be altered only through a formal political process.

Private Insurance

- Private contract offered by an insurer to exchange a set of benefits for a payment of a specified premium.

- Marketed either by nonprofit or for profit insurance companies
- Consumers voluntarily choose to purchase an insurance package that best matches their preference.
- Offered on individual and group basis. Under individual insurance the premium is based on that individuals risk characteristics.
- Major concern in private insurance is buyer's adverse selection
- Under group insurance, the premium is calculated on a group basis; risk is pooled across age, gender and health status.

Community Based Financing

- Refers to schemes are based on three principles: community cooperation, local self-reliance and pre-payment.
- Factors for success of community financing.
- Technical strength and institutional capacity of the local group.
- Financial control as part of the broader strategy in local management and control of health care services.
- Support received from outside organizations and individuals
- Links with other local organizations
- Diversity of funding
- Responding to other (non health) development needs of the community
- Ability to adapt to a changing environment

Direct Out of Pocket

- Made by patients to private providers at the time a service is rendered
- User fees refer to fees the patients have to pay to public hospitals, clinics, and health posts not to private sector providers.
- Proponents of user fees believe that the fee can increase revenue to improve the quality of public health services and expand coverage.
- Major objection raised against user fees had been on equity grounds.

Changing Government Role in Health Care

- Ability to adapt to a changing environment
- Health is considered a public good
- Government needs to actively participate to avoid market failures.

Health Financing in India: Characteristics

The government's fiscal effort measured as the proportion of total government expenditure spent on health again identifies India as a low performer.In a global ranking of the shares of total public expenditure earmarked for health only 12 countries in the world had lower proportions spent on health. The out of pocket private spending dominates with 82 percent spending of all health spending from private sources. This is one of the highest in the world. Globally only five countries have a higher dependence on private financing in the health sector (WHR 2000). About 10 percent of Indians have some form of health insurance mostly formal sector and government employees.

National Health Account for India, 1991 (% of total Expenditure)

Use of Funds (Expenditures)	Source of Funds			
	Public Subsidies	Insurance	Out of Pocket	All sources
Primary Care	9.9	0.8	48.0	58.7
Curative	3.3	0.8	45.6	49.7
Preventive Public Health	6.6	NA	2.4	9.0

Inpatient Care	9.3	2.5	27.0	38.8
Non-Services Provision	2.5	NA	NA	2.5
All Uses	21.7	3.3	75.0	100.0

Insurance Schemes in India

- Categorized into: Mandatory, voluntary, employer based, and NGO based
- Mandatory insurance ESIS and CGHS
- Principally financed by the contributions of the beneficiaries and their employers and from taxes.
- ESIS receives contributions from state governments whereas the latter is mainly financed from central government revenues.
- ESIS covered 35.4 million beneficiaries in 1998 and CGHS covered only 4.4 million beneficiaries in 1996. Providers mainly work on salaries and hospitals work under global budgets.

Voluntary Health Insurance Schemes

- There are for individuals and corporations
- Available mainly through the General Insurance Corporation (GIC) of India and its four subsidiaries- a government owned monopoly.
- Financed from household and corporate funds.
- GIC offers MEDICLAIM policy for groups and individuals and the JAN Arogya Bima scheme to individuals and families, mainly to cover poor people.
- Policies have had only limited success in India covering only 1.7 million people in 1996.
- With Insurance Regulatory and Development Act 1999 and the liberalization of insurance more private voluntary health schemes are expected to be introduced soon.

Employer Based Schemes

- Offered both by public and private sector companies through their own employer managed facilities
- Mode lump sum payments, reimbursements of employee's health expenditure or covering them under the group health insurance policy with one of the subsidiaries of GIC.
- Workers buy health insurance through their employers taking insurance in lieu of wages
- Ellis (1997) estimates roughly 30 million are covered under the employer based scheme

Community Based Insurance Schemes

- Primarily for informal sector
- Tends to cover all insured members of the community for all available services but have emphasis on primary health.
- Most financed from patient collections, government grant, donations, and such miscellaneous items as interest earnings or employment schemes
- Most NGOs have their own facilities or mobile clinics to provide health care.
- Total coverage is estimated to be about 30 million people (Ellis 1997).

Some Healthcare Schemes in India

- Ayushman Bharat Yojana:
- Pradhan Mantri Suraksha Bima Yojana:
- Aam Aadmi Bima Yojana (AABY):
- Central Government Health Scheme (CGHS):

- Employment State Insurance Scheme:
- JanshreeBima Yojana:
- Chief Minister's Comprehensive Insurance Scheme:
- Universal Health Insurance Scheme (UHIS):
- West Bengal Health Scheme:
- Yeshasvini Health Insurance Scheme:
- Mahatma Jyotiba Phule Jan Arogya Yojana
- MukhyamantriAmrutam Yojana
- Karunya Health Scheme:
- Telangana State Government Employees and Journalists Health Scheme:
- Dr YSR Aarogyasri Health Care Trust:

Features and Benefits of Government Health Insurance Schemes

- Government health insurance schemes are offered at a low price
- With this policy, BPL families can also avail of insurance benefits
- The policy ensures coverage for the poor people
- The policy includes treatment in both private and government hospitals for better healthcare.

Challenges with Insurance

India linking health insurance with employment is difficult because most people are self-employed, have agricultural work, or do not have a formal employer or steady employment. Many of the poor are excluded from access to high quality health care and health insurance because of inability to pay, lack of knowledge, or other factors, related to geography or discrimination. Too much of cream skimming too in India i.e. selection of less risky groups by insurance companies.

9.2 Principles and Constraints

Healthcare financing is a topic that involves how society pays for the healthcare services it consumes. The manner of financing healthcare affects how hospitals and physicians are reimbursed for services and hence has a significant influence on healthcare finance. In health services organizations, healthcare finance consists of both the accounting and financial management functions. Accounting, as its name implies, concerns the recording, in financial terms, of economic events that reflect the operations, assets, and financing of an organization. Financial management (often called corporate finance) provides the theory, concepts, and tools necessary to help managers make better financial decisions. Of course, the boundary between accounting and financial management is blurred; certain aspects of accounting involve decision-making, and much of the application of financial management concepts requires accounting data.

Role of Financial Management in Healthcare

In general, the financial management function includes the following activities:

Evaluation and planning- First and foremost, financial management involves evaluating the financial effectiveness of current operations and planning for the future.

Long-term investment decisions- The managers at all levels must be concerned with the capital investment decision process. Such decisions focus on the acquisition of new facilities and equipment (fixed assets) and are the primary means by which businesses implement strategic plans; hence, they play a key role in a business's financial future.

Financing decisions-All organizations must raise funds to buy the assets necessary to support operations. Such decisions involve the choice between the use of internal versus external funds, the use of debt versus equity capital, and the use of long-term versus short-term debt.

Working capital management- An organization's current, or short-term, assets—such as cash, marketable securities, receivables, and inventories—must be properly managed to ensure operational effectiveness and reduce costs. Contract management- Health services organizations must negotiate, sign, and monitor contracts with managed care organizations and third-party payers.

The financial staff typically has primary responsibility for these tasks, but managers at all levels are involved in these activities and must be aware of their effect on operating decisions. Financial risk management- Many financial transactions that take place to support the operations of a business can increase a business's risk.

Thus, an important financial management activity is to control financial risk.

Controlling-The financial manager makes sure that each area of the organization is following the plans that have been established.

One way to do this is to study current reports and compare them with reports from earlier periods.

This comparison often shows where the organization may need attention because that area is not effective. The reports that the manager uses for this purpose are often called feedback. The purpose of controlling is to ensure that plans are being followed. Organizing and directing-When organizing, the financial manager decides how to use the resources of the organization to most effectively carry out the plans that have been established. When directing, the manager works on a day-to-day basis to keep the results of the organizing running efficiently. The purpose is to ensure effective resource use and provide daily supervision.

Principles of Financial Management in Healthcare

- The Four Cs
- The finance activities at health services organizations may be summarized by the four Cs: costs, cash, capital, and control.

Costs-

The measurement and minimization of costs are vital activities to the financial success of all healthcare organizations. Rampant costs, compared to revenues, usually spell doom for any business.

Cash-

A business might be profitable but still face a crisis because of a shortage of cash.

Cash is the lubricant that makes the wheels of a business run smoothly; without it, the business grinds to a halt.

- In essence, businesses must have sufficient cash on hand to meet cash obligations as they occur.
- In healthcare, a critical part of managing cash is collecting money from insurers for patient services provided

Capital

- Capital represents the funds (money) used to acquire land, buildings, and equipment.
- Without capital, healthcare businesses would not have the physical resources needed to provide patient services.
- Thus, capital allows healthcare organizations to meet the healthcare needs of their communities.

Control-

- Finally, a business must control its financial and physical resources to ensure that they are being wisely employed and protected for future use.
- In addition to meeting current mission requirements, healthcare organizations must plan to meet society's future healthcare needs.

Constraints or the Challenges

- Financial challenges
- Governmental mandates
- Patient safety and quality
- Personnel shortages
- Behavioral health and addiction issues
- Increasing costs for staff, supplies, and so on
- Reducing operating costs
- Bad debt
- Competition from other providers
- Managed care and other commercial insurance payments
- Medicare reimbursement
- Government funding cuts
- Transition from volume to value
- Revenue cycle management (converting charges to cash)
- Inadequate funding for capital improvements

Constraints or the Challenges in Developing Countries

The International Flow of Development Resources

1. Private foreign investment

• Foreign direct investment

• Foreign portfolio investment (stocks, bonds, and notes)

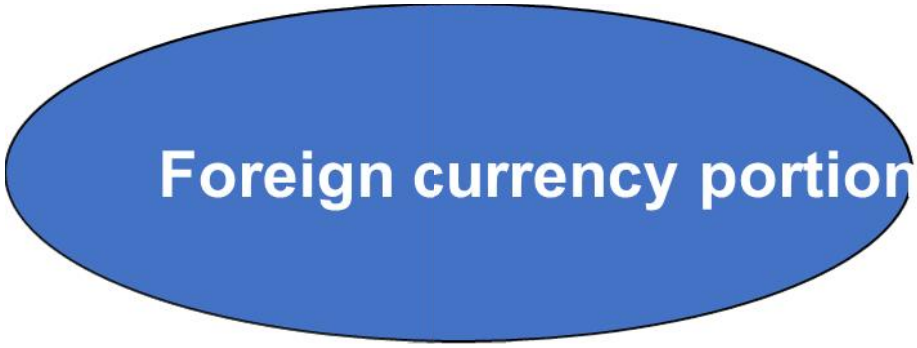
2. Public and private development assistance

• Bilateral and multilateral donor agencies (grants and loans)

• Nongovernmental organizations (NGOs)

Government Budget

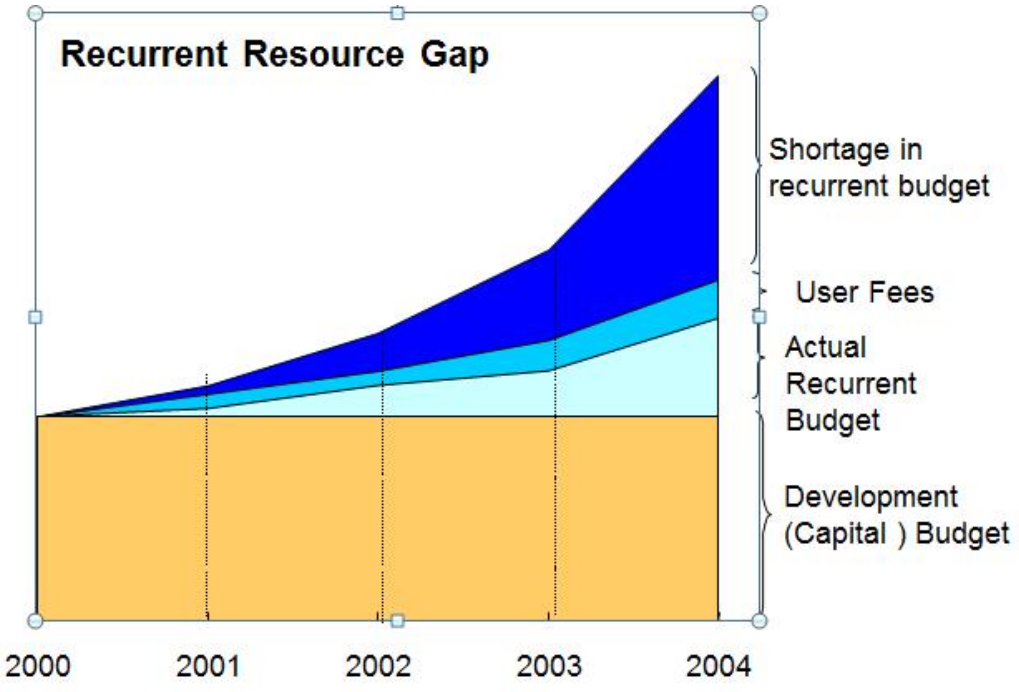
1. Development (Capital) Budget
    - Domestic Financing
    - External Financing (development assistance, etc.)



2. Recurrent Budget

- Domestic resources (tax, user fees)

Absorptive capacity



Recurrent cost constraints threaten the productivity of past investment

- A mismatch between capital investment and recurrent financial capacity
- "R" co-efficient: the ratio of recurrent expenditure to total investment outlay
    - District hospitals 0.33 every $1000 spent on the initial capital development of a district hospital results in $333 of expenditure per year

External assistance

- Development (capital) budget + recurrent budget
- Foreign currency portion + local currency portion

A mismatch between capital investment and recurrent financial capacity

9.3 Implications of health care resource mobilization

Trend of Health Care Resource mobilization

- International comparisons show that countries use different ways of paying for health services. For example, France and Sweden have developed distinctly different practices to fund hospitals and to pay for doctors. Latin American countries have social insurance systems whereas in many African countries government funding is common. Health finance mobilization today has been shaped by cultural and political factors from the past and health finance differs between countries.From private to social health insurance to universal coverage
- Prior to the development of modern health care systems, governments or charities financed services for groups of the population for whom they perceived a duty of care.
- For example, hospitals for the poor existed in India, China, Arabia and medieval Europe.
- For the more affluent, private (or voluntary) health insurance was pioneered in Europe as early as the eighteenth century.
- In the nineteenth century, private insurance was developed throughout Europe and spread to North and South America.
- Social (or compulsory) insurance was introduced in Germany for industrial workers in 1883 by Otto von Bismarck (1815–98), building on the existing voluntary precedents.
- Payroll-based social insurance systems developed steadily in Europe, later in Latin America and Asia and now Africa.
- Achieving universal health care coverage
- Countries have used different means of making health care available to all: universal coverage is achieved either through the extension of social insurance or government provision to the whole population.
- The Soviet Union extended coverage through government provision in 1938, and that example was followed by the countries of the Soviet bloc after World War II.
- The UK extended coverage to all in 1948. The British NHS was established as a major part of the social reforms recommended by William Beveridge with the aim of providing health services for the whole population.
- In the USA, private insurance has assumed a larger role than in Europe.
- But, even in the USA, publicly funded health care plays a large role for the elderly (Medicare), the poor (Medicaid), and armed services personnel, and the 2010 health care reforms aim to move the USA to universal coverage.
- The health finance systems of low-income countries have been strongly influenced by their colonial past.
- In British colonies, government funded services for the armed forces and civil services provided the basis for further extension of health care, whereas in French colonies the model was provided by larger firms, which were required to provide services for their employees.
- To a variable extent, charitable organizations and missions also played a role in financing hospitals.
- In the post-colonial era these countries made efforts to extend services 'as far as economic growth and available resources allowed.
- Increasing health care costs

- As health systems have evolved and larger proportions of national populations are covered by health insurance, there has been rising concern about the increasing costs of health care.
- There are a number of interrelated reasons that answer this question.

Demographic factors

- As well as absolute population growth, relative changes within a population affect health care costs. Relative changes can mean that the distribution of the population shifts towards groups with higher health care needs.

Economic factors

- Economic trends influence the health sector and the costs of delivering health services. In general, economic growth is associated with rising costs of health services.
- Economic recession has the opposite effect. Unemployment and poverty are related to ill health and put additional strain on health services.
- When assessing cost escalation, the general price or the rate of inflation also impacts on healthcare expenses.
- Supply factors also exert important pressures – for example, increasing numbers of doctors and hospitals or payment increases for health workers.

Health technology advances

- At the beginning of the twentieth century, health services had only a few effective treatments. Between one quarter and one half of health expenditure growth between 1960 and 2007 can be attributed to technological advances.
- Most recently, the use of expensive diagnostic tools, such as MRI and CT scanners have been driving up health care costs with an increase of over 100 per cent Health technology advances for MRI units per capita across OECD member countries between 2000 and 2008.

Disease patterns

- New diseases like HIV/AIDS increase the level of ill health in the population.
- The relative increase in chronic diseases and long-term illness is related to higher treatment costs.
- With economic development, countries are likely to experience higher health care costs, as deaths among infants from communicable diseases decrease relative to adult deaths from chronic diseases.

Evolution of the health system

- Some authors (Relman 1988; Hurst 1992) have put forward a three-stage model to explain how health systems have changed during the last 60 years resulting in changing costs:
    - During the first stage, policies removed the existing financial barriers to health care. New funding arrangements increased population coverage and triggered the expansion of health services.
    - The subsequent increase in demand led to a rapid growth of health care expenditure. Often spending grew faster than the gross domestic product (GDP) and policy efforts were focused on cost control.
    - From the experience of ever-rising costs, it was realized that cost control alone is not effective. Policies of the third stage aim to improve efficiency of service delivery and use.

Political factors

- Health budgets are inevitably based on political judgment.
- There may be additional 'cash injections' before elections or deviations from planned growth rates because of other priorities.
- Health funds may be diverted officially to support other purposes.

- Concerns about equity may improve access to services and increase costs.
- On the other hand, corruption of politicians, civil servants or health care providers may lead to substantial economic losses.
- Public–private mix in finance and provision
- The organization of financial intermediaries may be on a monopolistic, oligopolistic or competitive basis.
- In a monopolistic system, the financial intermediary is usually a public agency such as a government, or a health corporation.
- In an oligopolistic system (i.e. one in which there are a small number of large intermediaries) finance can be controlled by public agencies or private agencies, such as insurance companies, or a combination of these.
- In a competitive system, a large number of small private intermediaries would exist...
- The provision of services, however, does not necessarily have to match the financial organization. For instance, hospital care in many European countries represents a large, vertically integrated health system, in which finance and provision are combined within one organization.
- Governments can organize finance, act as purchaser, provide services and regulate health services.
- In many low income countries, governments have historically had the major role in the provision of health care.
- Governments see it as the most efficient and equitable method of providing services.
- Though the private sector may play an increasing role, socioeconomic conditions are such that private care will not totally replace public services.
- In particular, primary health care in low income countries is reliant on the public sector.

Summary

The creation, distribution, and utilisation of financial resources within the healthcare system are all covered under health care financing. In order to achieve universal health coverage, it has gained more and more attention on a global scale (UHC). Understanding the nation's healthcare financing system enables one to identify the present health funding sources and strategies for raising additional funds and allocating them in a way that ensures equitable and high-quality healthcare for everyone. In order to increase access to health treatments and decrease out-of-pocket expenses that result in disaster and poverty, it also helps to understand processes for efficiently and fairly allocating, purchasing, and spending money. The National Health Policy 2017 also encourages the government to spend more money on health, use its resources more effectively to improve health outcomes, strengthen financial security, and make wise purchases from the for-profit and nonprofit sectors. The development and institutionalisation of a strong Health Accounts system was also highlighted in order to assist decision-makers in allocating monies in the best possible ways. The Health Care Funding (HCF) Division supports the Union and State Governments in the area of healthcare financing and supports evidence-based decisions under this domain. The National Health Accounts Technical Secretariat (NHATS), a branch of NHSRC, has the responsibility of institutionalising health accounts in India. Based on SHA-2011 criteria, the division has been creating the National Health Account for the nation from 2013–2014, making the estimates from India comparable to those from the rest of the globe. The World Health Organization (WHO) also uses the NHA estimates for India in its Global Health Expenditure Database (GHED). Important government papers like the Economic Survey published by the Ministry of Finance and the Survey of State Finances published by the Reserve Bank of India also make use of the estimates. Indicators for health financing are reported and tracked by the HCF division in accordance with the National Health Policy of 2017, Sustainable Development Goals, and Universal Health Coverage. The HCF team conducts research on matters pertaining to national health financing.

Keywords:

Healthcare: The organized provision of medical care to individuals or a community.

Health Insurance: Insurance taken out to cover the cost of medical care.

Health Care Financing: Health Care financing deals with the generation, allocation and use of financial resources in the health system.

Risk sharing: When businesses assign the risk to a third party, the process is known as risk transfer or risk sharing. This can be seen frequently in the area of financial loss. For a nominal payment, the exposed organization can transfer its risk of financial loss to an insurance provider.

WHO: It is in charge of taking the lead on issues pertaining to global health, establishing norms and standards, defining evidence-based policy alternatives, giving governments technical assistance, and monitoring and analyzing health trends.

Self-Assessment

1. Which of the following is not a reason for increased health spending?

A. People spend more on their health as their income increases

B. People are living longer

C. The average age of the population is rising

D. People are dying earlier

2. The rectangularisation of life curve refers to:

A. Fewer deaths at every age

B. A lower life expectancy

C. More deaths at every age

D. A higher birth rate

3. The number of people who die per 100,000 population in a given year is called the:

A.Rectangularisation of life curve

B.Life expectancy

C.Mortality rate

D.Morbidity rate

4. Life expectancy does not vary with:

A. Birth rate

B. Occupation

C. Social class

D. Gender

5. Which of the following occupations accounts for the highest percentage of workers in the National Health Service?

A. Nurses

B. Doctors

C. Ambulance staff

D. Scientific and technical staff

6. Total utility will be a maximum when:

A. Marginal utility is negative

B. Marginal utility equals price

C. The ratio of the respective marginal utilities is equal to the ratio of prices

D. Marginal utility is positive

7. Which of the following seeks to measure the benefits to individuals of additional life years following a medical intervention?

A.Cost minimization

B. Cost-utility analysis

C. Quality adjusted life years

D. Profit maximization

8. Increased life expectancy is closely correlated with which of the following?

A. Reduction in exercise

B. Reduced spending on pharmaceutical research

C. Fall in educational achievement

D. Increased health spending per capita

9. An increase in demand within the National Health Service i.e. for healthcare which remains free at the point of use but where medical resources are limited will result in:

A. Reduction in price of healthcare

B. Longer waiting lists

C. Rises in price of healthcare

D. Unemployment in healthcare service

10. Doctors earn more than nurses because:

A. There is an excess supply of doctors

B. There is an excess demand for doctors

C. There is a National Minimum Wage

D. There is an excess demand for nurses

11. The benefits associated with the best alternative use of resources is called:

A. Health economics

B. Health resources

C. Opportunity cost

D. Alternative activities

12. The following is a list of the types of statistical data most often required in health economics. Which letter listed below does not belong in the list?

A. financing health care

B. epidemiological

C. cost of care

D. demographic

13. Select the specialist health economics journal/s within the economics discipline.

A. BMJ

B. Health Economics

C. B and D

D. Journal of Health Economics

14. The site with substantial content on cost-QALY ratios is called

A. The CEA Registry

B. The Health Economic Evaluations Database (HEED)

C. Evidence Based Health Care

D. The NHS Economic Evaluation Database (NHS EED)

15. The following is a list of disciplines, some of which relate to health economics. Which discipline does not belong in this list?

A. Health Education

B. Anthropology

C. Health Services Research

D. Statistical Methods

Answer for Self-Assessment

1.	D	2.	A	3.	C	4.	A	5.	A
6.	C	7.	C	8.	D	9.	B	10.	D
11.	D	12.	D	13.	B	14.	D	15.	A

Review Questions

Q1. What are the Trend of Health Care Resource mobilization?

Q2. Definition of Health Care Financing?

Q3. What does mean by Social insurance?

Q4. Define the term Voluntary Health Insurance Schemes?

Q5. What are the challenges for developing countries?

Further Readings

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Unit 10: Policies of Educational Financing

CONTENTS

Objectives

- Learn the magnitude of healthcare in terms of service providers' point of view,
- Know the magnitude of healthcare from a global perspective,
- Understand the magnitude of healthcare from India's point of view.
- Learn about the eligibility, feature, and benefit under RSBY,
- Understand the coverage and implementation under RSBY,
- Analyse the challenges under RSBY.

Introduction

Financial resources (health spending) and human resources are both considered health resources. Spending on healthcare includes outpatient treatment, inpatient care, long-term care, medications and other medical supplies, administration, public health and prevention services, and long-term care.The process of locating and controlling resources is known as resource allocation. The demographics, programmes, and people who will use them are divided up. Both the macro and micro levels of society are affected by this process. The fundamental guiding premise is that people's health should be improved through the distribution of healthcare resources. In other words, health care resources should be put to good use by treating illness, easing suffering, promoting public health, and/or funding studies that could lead to health improvements.The healthcare system provides four main service categories: rehabilitation, disease prevention, diagnosis and treatment, and promotion of good health. The Government of India's Ministry of Labour and Employment has introduced RSBY to offer Below Poverty Line (BPL) families access to health insurance. The purpose of RSBY is to shield BPL households from the financial obligations caused by medical emergencies that necessitate hospitalization.

10.1 Magnitude of Health Care

Healthcare services are the medical services provided to people who are in need by healthcare professionals, organizations, and healthcare workers.

These services are provided to patients, families, and communities.

- The main types of healthcare services are medical and diagnostic laboratory services, dental services, home health care and residential nursing care services, residential substance abuse and mental health facilities, hospitals and outpatient care centres, physicians and other health practitioners, all other ambulatory health care services, and ambulance services.
- The hospitals and outpatient care centers are engaged in providing diagnostic and medical treatment to patients with a wide range of medical conditions.
- The different expenditure types include public and private which are used by male and female.
- The Business Research Company that provides healthcare services market statistics, including healthcare services industry global market size, regional shares, competitors with a healthcare services market share, detailed healthcare services market segments, market trends and opportunities, and any further data you may need to thrive in the healthcare services industry.
- This healthcare services market research report delivers a complete perspective of everything you need, with an in-depth analysis of the current and future scenario of the industry.
- The global healthcare services market grew from $7,499.75 billion in 2022 to $7,975.87 billion in 2023 at a compound annual growth rate (CAGR) of 6.3%.
- The Russia-Ukraine war disrupted the chances of global economic recovery from the COVID-19 pandemic, at least in the short term.
- Survival rates and quality of life have improved tremendously over the past decade.
- Medical and technological advances have played an important role in their progress.
- High technology diagnostics and therapeutic equipment integrating doctors' practice patterns have improved healthcare services delivery.
- According to a report by Trend Watch, medical advances are responsible for a 70% improvement in survival rates for heart attack patients and a two-thirds reduction in mortality rates for those suffering from cancer.
- These factors contribute to the potential growth of the market.
- The healthcare services market includes revenues earned by entities by providing human healthcare services such as medical and diagnostic laboratory services, dental services, nursing care, residential substance abuse, and mental health facilities, and other healthcare services.
- The market value includes the value of related goods sold by the service provider or included within the service offering.
- Only goods and services traded between entities or sold to end consumers are included.
- The global healthcare services market is segmented -
- 1) By Type: Medical And Diagnostic Laboratory Services, Dental Services, Home Health Care And Residential Nursing Care Services, Residential Substance Abuse And Mental Health Facilities, Hospitals And Outpatient Care Centers,

Physicians And Other Health Practitioners, All Other Ambulatory Health Care Services, Ambulance Services

- 2) By End User Gender: Male, Female
- 3) By Type of Expenditure: Public, Private
- Subsegments Covered: Medical Laboratory Services, Diagnostic Imaging Centers, General Dentistry, Oral Surgery, Orthodontics And Prosthodontics, Other Dental Services, Home Health Care Providers, Nursing Care Facilities, Orphanages & Group Homes, Retirement Communities,
- Residential Mental Health & Intellectual Disability Facilities, Substance Abuse Centers, Hospitals, Outpatient Care Centers, Specialist Doctors, Primary Care Doctors, Physical

Therapists, Optometrists, Chiropractors, Podiatrists, Ground Ambulance Services, Air Ambulance Services, Water Ambulance Services

Indian Scenario

Healthcare industry in India is projected to reach $372 bn by 2022

- Healthcare industry in India comprises of hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance, and medical equipment.
- The healthcare sector is growing at a tremendous pace owing to its strengthening coverage, services, and increasing expenditure by public as well private players.

- The hospital industry in India, accounting for 80% of the total healthcare market, is witnessing a huge investor demand from both global as well as domestic investors. The hospital industry is expected to reach $132 bn by 2023 from $61.8 bn in 2017; growing at a CAGR of 16-17%.
- In 2020, India's Medical Tourism market was estimated to be worth $5-6 Bn and is expected to grow to $13 Bn by 2026.
- Healthcare sector in India is expected to grow to reach a size of $50 bn by 2025.
- The diagnostics industry in India is currently valued at $4 bn. The share of the organized sector is almost 25% in this segment (15% in labs and 10% in radiology).

The primary care industry is currently valued at $13 bn. The share of the organized sector is practically negligible in this case.

1,50,000 Ayushman Bharat centers, which aim at providing primary health care services to communities closer to their homes, are operational in India

The market size of AYUSH has grown by 17% in 2014-20 to reach $18.1 bn and the industry is projected to reach $23.3 bn in 2022.

- Health insurance contributes 20% to the non-life insurance business, making it the 2nd largest portfolio. The gross direct premium income underwritten by health insurance grew 17.16% year-on-year to reach $6.87 bn in FY20
- Over 4 cr health records of citizens digitized and linked with their Ayushman Bharat Health Account (ABHA) numbers under Ayushman Bharat Digital Mission (ABDM)
- India is a preferred destination for Medical Value Travel (MVT) where patients from all over the globe come to "Heal in India" and is growing as huge opportunity area in the Healthcare market.

10.2 RashtriyaSwasthyaBimaYojna: Challenges and Implementation

RSBY has been launched in 2008 by Ministry of Labour and Employment, Government of India to provide health insurance coverage for Below Poverty Line (BPL) families. The objective of RSBY is to protect BPL households from financial liabilities arising from health shocks involving hospitalization.

Eligibility

- Unorganized sector workers belonging to BPL category and their family members (a family unit of five) shall be the beneficiaries under the scheme.
- It will be the responsibility of the implementing agencies to verify the eligibility of the unorganized sector workers and his family members who are proposed to be benefited under the scheme.
- The beneficiaries will be issued smart cards for the purpose of identification.

Benefits

- The beneficiary shall be eligible for such in - patient health care insurance benefits as would be designed by the respective State Governments based on the requirement of the people/ geographical area.

- However, the State Governments are advised to incorporate at least the following minimum benefits in the package / scheme:
- The unroganised sector worker and his family (unit of five) will be covered.
- Total sum insured would be Rs. 30,000/- per family per annum on a family floater basis.
- Cashless attendance to all covered ailments
- Hospitalization expenses, taking care of most common illnesses with as few exclusions as possible
- All pre-existing diseases to be covered
- Transportation costs (actual with maximum limit of Rs. 100 per visit) within an overall limit of Rs. 1000.

Funding Pattern

- Contribution by Government of India: 75% of the estimated annual premium of Rs. 750, subject to a maximum of Rs. 565 per family per annum. The cost of smart card will be borne by the Central Government.
- Contribution by respective State Governments: 25% of the annual premium, as well as any additional premium.
- The beneficiary would pay Rs. 30 per annum as registration/renewal fee.
- The administrative and other related cost of administering the scheme would be borne by the respective State Governments

SMART CARD

- Smart card is used for a variety of activities like identification of the beneficiary through photograph and fingerprints, information regarding the patient.
- The most important function of the smart card is that it enables cashless transactions at the empanelled hospital and portability of benefits across the country.
- The authenticated smart card shall be handed over to the beneficiary at the enrollment station itself.
- The photograph of the head of the family on the smart card can be used for identification purpose in case biometric information fails.

UNIQUE FEATURES OF RSBY

- The RSBY scheme is not the first attempt to provide health insurance to low income workers by the Government in India.
- The RSBY scheme, however, differs from these schemes in several important ways.

A. Empowering the Beneficiary

- RSBY provides the participating BPL household with freedom of choice between public and private hospitals and makes him a potential client worth attracting on account of the significant revenues that hospitals stand to earn through the scheme.

B. Business Model for all Stakeholders

- The scheme has been designed as a business model for a social sector scheme with incentives built for each stakeholder.
- This business model design is conducive both in terms of expansion of the scheme as well as for its long run sustainability.

C. Insurers

- The insurer is paid premium for each household enrolled for RSBY.
- Therefore, the insurer has the motivation to enroll as many households as possible from the BPL list.
- This will result in better coverage of targeted beneficiaries.

D. Hospitals

- A hospital has the incentive to provide treatment to large number of beneficiaries as it is paid per beneficiary treated.
- Even public hospitals have the incentive to treat beneficiaries under RSBY as the money from the insurer will flow directly to the concerned public hospital which they can use for their own purposes.
- Insurers, in contrast, will monitor participating hospitals in order to prevent unnecessary procedures or fraud resulting in excessive claims.

E. Intermediaries

- The inclusion of intermediaries such as NGOs and MFIs which have a greater stake in assisting BPL households.
- The intermediaries will be paid for the services they render in reaching out to the beneficiaries.

F. Government

- By paying only a maximum sum up to Rs. 750/- per family per year, the Government is able to provide access to quality health care to the below poverty line population.
- It will also lead to a healthy competition between public and private providers which in turn will improve the functioning of the public health care providers.

G. Information Technology (IT) Intensive

- Every beneficiary family is issued a biometric enabled smart card containing their fingerprints and photographs.
- All the hospitals empanelled under RSBY are IT enabled and connected to the server at the district level.
- This will ensure a smooth data flow regarding service utilization periodically.

H. Safe and foolproof

- The use of biometric enabled smart card and a key management system makes this scheme safe and foolproof.
- The key management system of RSBY ensures that the card reaches the correct beneficiary and there remains accountability in terms of issuance of the smart card and its usage. The biometric enabled smart card ensures that only the real beneficiary can use the smart card.

I. Portability

- The key feature of RSBY is that a beneficiary who has been enrolled in a particular district will be able to use his/ her smart card in any RSBY empanelled hospital across India. This makes the scheme truly unique and beneficial to the poor families that migrate from one place to the other.
- Cards can also be split for migrant workers to carry a share of the coverage with them separately.

J. Cash less and Paperless transactions

- A beneficiary of RSBY gets cashless benefit in any of the empanelled hospitals. He/ she only needs to carry his/ her smart card and provide verification through his/ her finger print. For participating providers it is a paperless scheme as they do not need to send all the papers related to treatment to the insurer. They send online claims to the insurer and get paid electronically.

K. Robust Monitoring and Evaluation

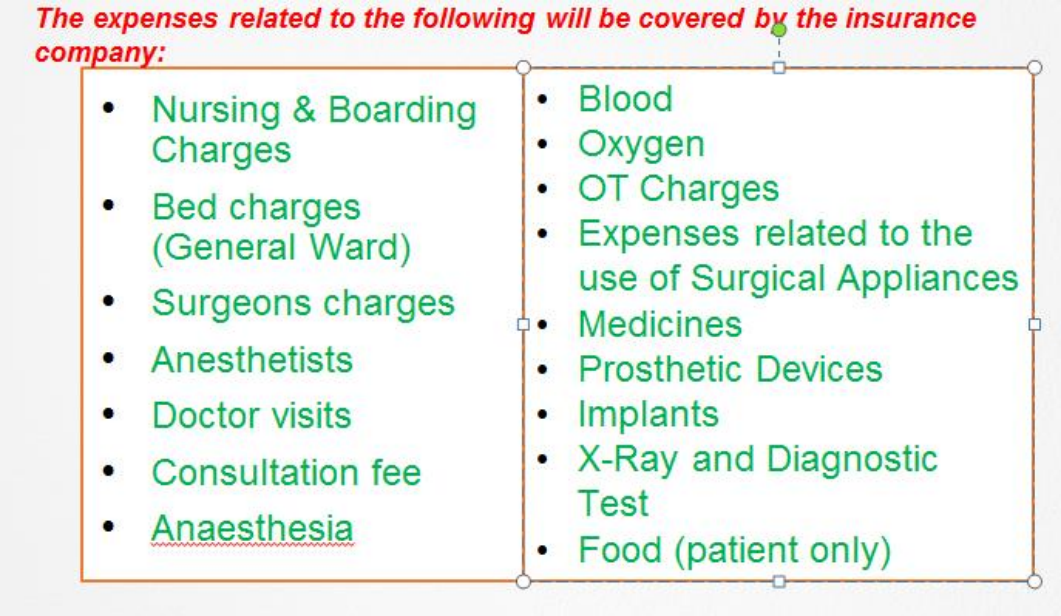
- RSBY is evolving a robust monitoring and evaluation system.
- An elaborate backend data management system is being put in place which can track any transaction across India and provide periodic analytical reports.

- The basic information gathered by government and reported publicly should allow for mid-course improvements in the scheme. It may also contribute to competition during subsequent tender processes with the insurers by disseminating the data and reports.

10.3 Implementation of RSBY-Coverages

1. Hospitalization Expenses:

Expenses related to hospitalization for the treatment for a disease, illness, or an accident will be covered under the RSBY. This coverage will be extended to the policyholder's family as well. However, the treatment and hospitalization shall be taken at a Nursing Home/Hospital by a qualified Physician/Medical Specialist/Medical Practitioner.



2. Pre Hospitalization:

- The scheme will cover the cost of diagnostic tests and medicines up to one day before a patient gets admitted to the hospital.

3. Post Hospitalization:

- The expenses related to an ailment/surgery for which the patient was admitted will be covered for five days after the date of discharge.

4. Transportation Expenses:

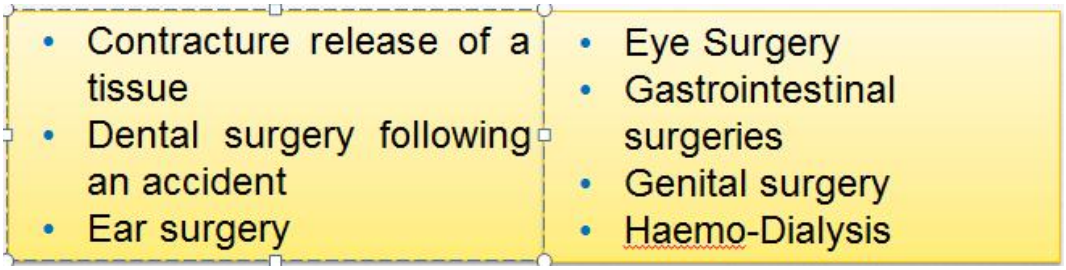
- The policyholder can claim a maximum of Rs.100/- per visit under transportation. The annual cap for this cost is one thousand rupees.

5. Dental Treatment:

- The cost of dental treatments required as a result of an accident will be covered under the RashtriyaSwasthyaBima Yojana.

6. Daycare Treatments:

- A daycare treatment is a surgical procedure that does not require prolonged hospitalization. These are also referred to as out-patient treatments.
- The following list of daycare treatments is covered under RSBY.



- Hydrocele surgery
- Identified surgeries under general anaesthesia
- Laparoscopic therapeutic surgeries allowed under daycare
- Lithotripsy
- Minor reconstructive procedures of limbs
- Nose surgery
- Parenteral Chemotherapy
- Prostate surgery
- Radiotherapy
- Surgery of urinary system
- Throat surgery
- Tonsillectomy
- Treatment of fractures/dislocation
- Screening and follow up care including medicine cost with and without diagnostic tests
- Any procedure covered by the insurance company

. Maternity Benefit:

Both – natural and caesarean type of deliveries are covered under this scheme. A claim for Rs. 2500 for natural and 4500 for caesarean delivery can be made by the policyholder. Any complications before delivery are also covered.The cost of involuntary termination of pregnancy that was caused due to an accident or in a situation where saving the life of the mother is necessary, will be covered.

. Newborn Coverage:

- The new-born baby will be added automatically to the RSBY policy even if the number of beneficiaries has exceeded. This coverage will be valid until the end of the policy period.
- The decision of including the baby in the policy at the time of renewal, lies with the policyholder.

10.4 Challenges of RSBY

The way beneficiaries of RSBY (Below Poverty Line households) perceived the scheme was not as a health right but in terms of the value it imparted, which was measured along multiple dimensions.

Already the beneficiaries of RSBY had little value for the scheme as officials who distributed the RSBY smart card did not provide information on how to use the card.

- At the same time hospitals did not respect patients with the card, believing that they were availing medical care free of cost.
- Sometimes they did not honour the card either due to inaccuracy of fingerprints or lack of money on the card.
- Neighbours and family members did not discuss the utilisation of the card, making households perceive the card as just a showpiece, important to possess but not useful.
- The lack of involvement and endorsement by local leaders further diminished the value of the card for the households.

- The difficulty in understanding the basic facts of the card and using it led households to opt for seeking medical care without the card.

What Is Not Covered Under RSBY?

- The RashtriyaSwasthyaBima Yojana facilitates underprivileged people to avail necessary treatment during a medical emergency. Thus, the following conditions are not covered under the plan:
- Any claim for hospitalization that is not covered under the scheme will not be honoured.
- Cost of vitamins or tonics unless prescribed as a part of treatment by a certified medical practitioner
- Dental treatments that are cosmetic or corrective in nature will not be covered. Also, root canal, filling of cavity, or procedures related to wear and tear are not covered.
- Congenital external diseases
- Substance abuse: Any illness arising out of excessive use of alcohol, drugs, or any intoxicating substance is not covered.
- Fertility, sub-fertility or assisted conception procedures
- Physical changes for resembling the opposite sex
- Hormone replacement therapy
- Plastic/cosmetic surgery unless required due to an accident or as a part of a disease
- Vaccinations
- HIV/AIDS
- Suicide
- War, an act of a foreign enemy, invasion, or warlike operations by nuclear materials
- AYUSH
- Treatments availed at a convalescent hospital, health hydro, convalescent home, nature care clinic, etc as described in the policy documents.

Exclusions Related to Maternity Benefit:

- Prenatal expenses
- The cost of voluntary termination of pregnancy
- Hospitalization ended 48 hours after delivery and related operations

Summary

Countries around the world are still feeling the effects of the pandemic more than two and a half years later. The most major public health disaster in more than a century, COVID-19 resulted in a financial crisis on a global scale, and had long-lasting effects on society. Many people are still experiencing COVID19's longer-term (physical and/or mental) impacts, and health systems are still working to recover from the severe disruption. COVID19 is still taking lives. These negative consequences highlight the need for wise investments to increase the resilience of health systems, safeguard population health at the root, strengthen the framework of health systems, and support frontline health workers. This will give nations the flexibility to respond not only to evolving pandemics but also to other shocks, whether natural or man-made. Such investments yield benefits that go much beyond just improved health. Stronger, more resilient economies are built on more robust health systems, which in turn enable significant economic and societal gains by preventing the need for expensive and restrictive containment measures in the event of future crises.RSBY is a special cashless method that enables unorganised workers and their families who are below the poverty line to receive medical care. The beneficiaries might use the coverage offered under the family floater plan to handle urgent medical needs.The RashtriyaSwasthyaBima Yojana health insurance program's primary goal is to protect families living below the poverty line from financial obligations resulting from medically linked hospitalisation costs by offering them cheap health insurance coverage.

Keywords:

Healthcare: The organized provision of medical care to individuals or a community.

Smart cards provide ways to securely identify and authenticate the holder and third parties who want access to the card.

Health Care Financing: Health Care financing deals with the generation, allocation and use of financial resources in the health system.

RashtriyaSwasthyaBima Yojana: To offer Below Poverty Line (BPL) families access to health insurance, the Ministry of Labour and Employment, Government of India, has introduced RSBY. The goal of RSBY is to shield BPL households from financial obligations resulting from health shocks that require hospitalization.

Hospitalization: bringing someone to the hospital and keeping them there while they receive treatment the patient needed to be admitted to the hospital because of how serious the accident was.

Self-Assessment

1. Which of the following statements is untrue and does not belong in this list? Grey literature is characterized as material:

A. Not published through regular book-publishing channels

B. Not subject to formal bibliographic control

C. That can be difficult to identify and obtain

D. That is generally available only in print (not electronic format)

2. The National Health Accounts are associated with which agency?

A. Agency for Health Care Policy and Research

B. Centers for Medicare and Medicaid Services (CMS)

C. NICHSR

D. Centers for Disease Control and Prevention

3. Children with no insurance receive health care through a program called what?

A.Medicare

B.Social Security Program

C.Maternal and Child Health Bureau

D.State Children's Health Insurance Program (SCHIP)

4. When referring users to the NHA/NHE there are a number of limitations we should remember to tell them. Which item listed below is not a limitation?

A. limitations of the data

B. use of Website

C. data definitions

D.source materials

5. Medicare covers what percentage of which population?

A. 49% of children

B. 20% of mothers and children

C. 95% of the elderly

D. 87% of adolescents

6. The National Health Accounts series has many important characteristics and aims to be comprehensive because it contains some | most | all of the main components of the health care system.

A. Some

B. Most

C.All

D. None

7. Federal expenditures have decreased | increased between 1960 and 2000?

A.decreased

B. increased

C. All

D. None

8. In the year 2000, spending on health care services and products represented what percentage of the U.S. Gross Domestic Product?

A. 13.2 percent

B. 6.9 percent

C. 10.3 percent

D. 7.9 percent

9. When we look at the various categories of expenditures (health care dollars) and the percentages of total dollars spent for each in the year 2000, program Administration and Net Cost consumes which percentage of the spending on health care?

A. 22%

B. 9%

C. 32%

D. 6%

10. The year with the most number of uninsured Americans (in millions) was:

A. 1995

B. 1996

C. 1997

D. 1998

11. The aim of economic evaluation is to ensure that the benefits from health care programs implemented are greater than the opportunity cost of such programs by addressing questions of _____ or _____. Select the correct answer from the list below.

A. Interpretive efficiency or Inclusive efficiency

B. Economic efficiency or Evaluative efficiency

C. Allocative efficiency or Technical efficiency

D. Informational efficiency or Requirements efficiency

12. Which of these statements about a FULL economic evaluation does not belong with the others?

A. FULL health economic evaluations are easily identified because they consider costs.

B. A FULL economic evaluation is the ONLY type of economic analysis that provides valid information on efficiency.

C. A FULL economic evaluation requires the identification, measurement and valuation of BOTH costs and consequences.

D. A FULL economic evaluation compares BOTH the costs and consequences (effectiveness; benefits) of TWO or moreinterventions.

13. This variability in the quality of published health economic evaluation studies has _____ implications for the identification and subsequent utilization of information on _____ in the health care decision-making process.

A. insignificant | economics

B. significant | systematic reviews

C. no significant | retrieval

D. significant | efficiency

14. The following are a list of keywords. Which terms are correct MeSH terms used in retrieving economic evaluation studies?

A. Cost-benefit analysis

B. Expansion costs

C. Costs and cost analysis

D. A and C

15. The market value of a resource may not be an adequate reflection of opportunity cost. An example is voluntary care - the market price is zero but there is an opportunity cost in terms of the alternative ways in which the carer could have utilized the time. A value would have to be imputed, perhaps based on the salary of a paid caregiver. This concept is called _____?

A. cost efficiency

B. un-thinking acceptance of market values

C. opportunity cost

D. market price

Answer for Self-Assessment

1.	D	2.	B	3.	B	4.	C	5.	A
6.	B	7.	B	8.	A	9.	B	10.	B
11.	D	12.	D	13.	D	14.	A	15.	D

Review Questions

Q1. What is the meaning of magnitude of health care?

Q2. What are the challenges of RSBY?

Q3. What is the unique feature of RSBY?

Q4. Write the implementation of RSBY?

Q5. What does mean by Maternity benefit?

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Unit 11: Education Investment in Human Capital

CONTENTS

Objectives

- Learn the need of healthcare in economic development,
- Know the status of healthcare in developing and developed countries,
- Identify why healthcare is to be essentially developed for economic development of a country.
- Learn how health is related to income,
- Understand the empirical evidence of health-income linkages
- Conclude the importance of in come on health.

Introduction

It is widely acknowledged that a nation's population's health is just as vital as its economic standing. It is crucial that the government play a part in providing all facets of its population with adequate healthcare that is both attainable and cheap. However, the government's comparative advantages in completing the task wholly on its own are limited, as are the resources at its disposal. This highlights the requirement for an appropriate policy framework to enable effective operation of both the public and commercial sectors of the healthcare industry. Additionally, the need for health services is dual in nature, just like in the realm of education. Large portions of the population in emerging nations need special care since they are underprivileged and reside in rural areas with severe infrastructure deficiencies. Their lack of access to safe drinking water is linked to many of the illnesses they experience. Therefore, providing basic primary health services to the less fortunate segments of the population is the government's primary duty. While this is a basic requirement, there is also a need for facilities for specialized health care to be built in convenient places with public support, with the government taking the lead. Different types of health services are required for the wealthier segments of the community. They can budget for all the uncertainty of their future health because their affordability is higher. This aspect of greater affordability for a growing number of high income earners in cities is related to the rise of the health insurance industry under market economic systems. It is clear that there is a reciprocal relationship between development and health. While productive contributions from healthy citizens of a nation help the economy grow, economic growth also encourages improved ways to make money, which in turn spurs demand for better services (including health services). A different analysis is required to determine the crucial connection between the two sets of processes (and the impact that they have

on one another). This crucial aspect of the dichotomy between health and development is the subject of the current section.

11.1 Health and Development

Health plays the following roles in the development of human capital: The only way to work effectively and to your best capacity is to be healthy. A healthy individual can work more productively. A healthy person is able to work productively, which can better contribute to the growth of the nation's economy. During history, one of the key advantages of development has been increased health. This benefit is a product of both income growth and the advancement of science in the fight against illness and incapacity. "Health Care" implies more than "Medical care". It embraces a multitude of "Services provided to individuals or communities by agents of promoting, maintaining, monitoring, or restoring health". Medical care is a subset of health care system.

Health Expenditure

The US spends $700 (around $2,000) more per person than other high-income nations. High-income nations spend 26 times more than middle-income nations and 103 times more than low-income nations. Pay attention to the fact that even higher middle-income nations spend 10 times less than high-income nations. Significantly less money overall is spent on health per person. Low and medium income nations spend roughly the same amount of GDP on health. Therefore, they all give health care spending in the economy a same level of importance. 10% more of the GDP or 4 percentage points more, is spent on health in higher income countries. This demonstrates that priorities are not out of line; rather, because the economies of the poorer nations are smaller, they spend less money overall.

In contrast to high-income countries, people in low-income countries must make more out-of-pocket payments.

Low income: 1% government, 4% private

Middle income: 3% government, 3% private

High Income: 6% government, 4% private

Richer nations are better able and more eager to spend tax dollars on healthcare.

Health care spend in India is considerably lower than that in other countries

2004	US	UK	Mexico	Brazil	China	India
Life expectancy (avg. # of years)	77.4	78.3	72.6	71.4	72.5	64.0
# of Physicians per 1,000 people	2.7	1.9	1.7	1.2	1.7	0.4
Healthcare spend (USD per capita)	5,365	3,036	336	236	62	32
Healthcare spend (% of GDP)	13.2	8.4	5.5	7.5	5.0	5.3

Health Indicators

Health indicators are metrics created to compress data on important issues pertaining to population health or the effectiveness of the healthcare system. They offer comparable and useful data that can be applied across various administrative, institutional, and geographic borders and/or can monitor development over time. There are some health indicators as follows:

Infant mortality rate (IMR):The number of newborn deaths for every 1,000 live births is known as the infant mortality rate. The infant mortality rate is a significant indicator of the general health of a society in addition to providing us with valuable information on maternal and baby health. IMR, or infant mortality rate, is the term. It calculates the infant mortality rate per 1,000 live births. Infants are defined as children younger than one year of age. It is a crucial indicator of the general well-being of society. Infant Mortality Rate is calculated by dividing the number of resident live

births in the same geographic area (for a given time period, often a calendar year) by the number of resident newborns who die before the age of one.

Nutrition: Nutrition is a good measure of general susceptibility to health since it is the underlying cause of many diseases. The process through which an organism consumes food and uses the nutrients in it is known as nutrition. The process of consuming food and transforming it into energy and other essential elements is known as nutrition. Organisms make use of nutrients during the feeding process. Malnourished have a weaker immune system.

Health indicators in developing countries fall short of developed countries:

e.g., life expectancy at birth for females is:

- Low-income countries: 59
- Middle-income countries: 72
- High-income countries: 81

The gap between the rich and poor has decreased over the years.

e.g. In 2000, life expectancy at birth for women is 22 years less in low income as compared to high-income countries. In 1960 the difference was 28 years.

Great improvements in access to water but still very high IMR in developing countries.

Nutrition indicators

	Undernourishment (% Pop)	Malnutrition (% under 5)	
		Height/age	Weight/age
Low Income	24.63	43.12	43.72
Middle Income	9.51	27.06	11.11

Height/age: Long-term measure of nutrition

Weight/age: Short-term measure of nutrition

In lower-income countries:

- Higher prevalence of malnutrition
- Much higher incidence of preventable diseases

(e.g. TB)

- Every year more than 10 million children die from preventable diseases (World Bank, 2003)

Types of health problems different in developed and developing countries

(e.g. obestity)

High incidence of malnutrition very important because it is often an underlying factor that causes death from other aliments such as infections diseases.

Difference in health outcomes between developed and developing is important.

In Developing Countries:

- Age distribution of ill health tilted toward infants and pre-school children – policy tilt as well
- More communicable than non-communicable diseases.
- Adults more likely to be afflicted with health problems
- Result of poor health when a child
- New health problems in adulthood
- Less likely to receive government help to solve health issues – high health exp. can lead to poverty.
- Low income tends to cause poor health and poor health in turn causes low income.
- Policy must therefore address both health and poverty simultaneously.
- This is what conditional cash transfers are trying to do.

Poor cannot buy healthcare:

- Cannot afford to prevent a disease before it occurs (vaccinations)
- Doctor visit for diagnosis
- Drugs to treat the problem

Poor more likely to be malnourished:

- Can't afford food or fertilizer to grow food
- Lack of food and variety
- Immune system weak
- Susceptible to diseases

Poor are more likely to live far away from doctors and hospitals

- Transportation costs are large
- Poor more likely to go untreated
- Certainly holds for rural poor, may not hold for urban poor in all countries
- Use mobile health clinics and foot doctors to reach the poor in rural areas

11.2 Income-Health Linkages

Fitness is wealth. Having good health makes people wealthier. Low-income individuals are more likely to describe their health as "poor" or "very bad." Empirical proof: Adults under the age of 55 who rate their own health and employment according to home income: UK, 2019/20. 31 per cent of those with the lowest earnings say their health is "less than good." This percentage ranges from 22 per cent for those in the centre (the fifth income decile) to 12 per cent for those in the highest income brackets. Increasing one's income is related to bettering one's health across the income spectrum.

Resources and money can have a variety of effects on health.

- To be able to afford the necessities for a healthy living, such as food and decent housing, people must have a particular level of income.
- People with higher incomes are able to obtain healthier solutions since they have more selections at their disposal.
- Beyond a minimal amount of income, however, stressors continue to exist and eventually jeopardise physical health. This suggests that having a high salary does not ensure having excellent health.

Let's examine this using a graph that depicts self-rated health among UK people 55 and younger, which is then divided into 10 equally-sized deciles based on 2019–20 household income. More than 10 per cent of adults with the lowest incomes report having "poor" or "very bad" health. 31per cent of those with the lowest incomes report having less-than-excellent health, compared to 22 per cent of those in the middle two deciles (5th and 6th), and 12% of those with the greatest incomes when data for "fair" health (the group below "good" health) is included. Higher income is linked to improved health throughout the whole socioeconomic spectrum. This shows that the connection between income and health that we observe extends beyond people's ability to meet their basic requirements. More income is positively correlated with health at all income levels. Health plays the following roles in the development of human capital: The only way to work effectively and to your best capacity is to be healthy. A healthy individual can work more productively. A healthy person is able to work productively, which can better contribute to the growth of the nation's economy.

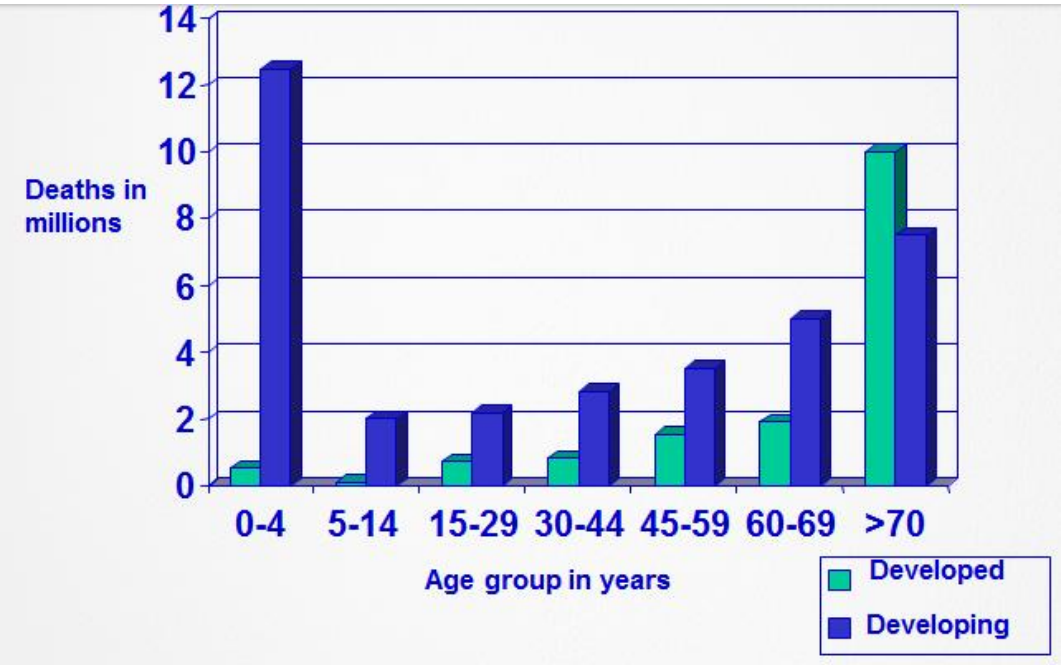
11.3 Health Care as a Factor of Economic Development

At present, healthcare is one of the fastest-growing sectors showing a sustained pace despite the slowdown affecting the economy. Growth of healthcare is spurred by the rising number of hospitals, medical device manufacturers, clinical trials, outsourcing companies, telemedicine providers, medical tourists, health insurance companies, and medical equipment manufacturers. This growth has been ensured by the efforts of public and private players to increase investments and improve networks, services, and coverage. A good healthcare system is important to reduce the burden on families and contribute to national growth. According to OCED Observer, a mere 10% increase in life expectancy ensures an economic growth of around 0.4% per year. In many societies, out-of-the-pocket hospitalization has exposed whole populations to huge cost burdens, giving rise to poverty.

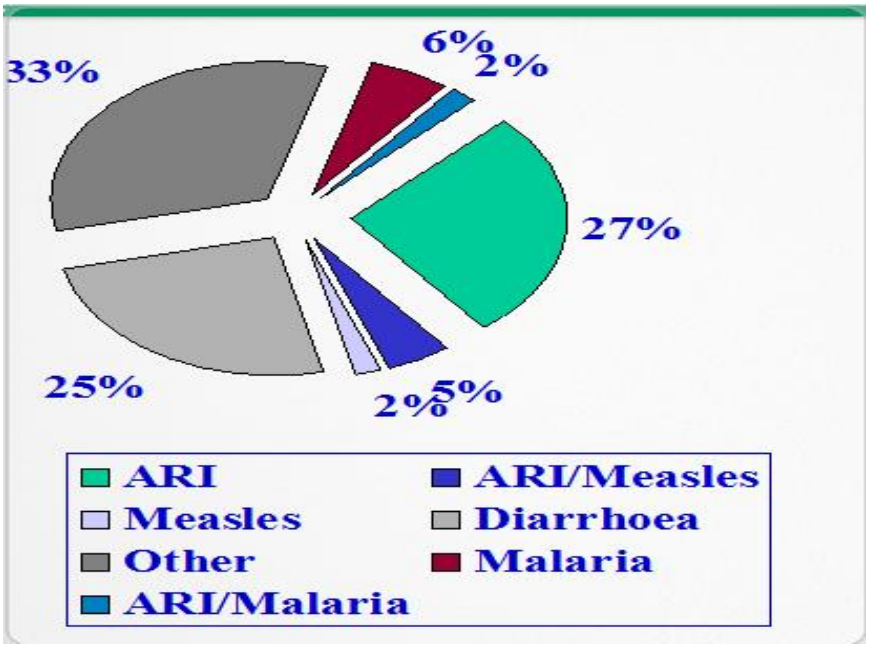
On the other hand, subsidization has made many private players cry foul, leading to decreased performance, corruption, and lack of competitiveness. Policymakers have to strike a very delicate balance in handling these issues. In most developing countries, a majority of people live in rural areas with little access to healthcare, yet they contribute to more than half their country's GDP. The abysmal doctor-to-patient ratio in the rural areas of most developing countries remains a cause for concern. Technology, governmental initiatives, and community participation play an important role in giving perspective to healthcare organizations. In India, the government's Aspirational District Program (ADP) works in empowering communities to rebuild their lives. The program reaches out to over 200 million people—about 15% of India's population—engaging with communities to take responsibility for their own health and welfare. ADP plays a major role in reducing maternal mortality rate and controlling other contagious diseases in the country. Due to ADP, the increased rate of economic development occurring in many regions of the country. Healthcare sector to consider investing in people as the primary goal in measuring their success.

Technology has opened up and many pharmaceutical companies are successful in reaching out to the rural population, improving their healthcare, and contributing to the economic growth of the region. Other healthcare companies can take a leaf out from such pharma companies and begin their out-reach programmes to contribute to the economic growth of the nation.

Deaths by Age Groups in Developed and Developing World



Distribution of 12 Million Deaths in Under 5 in Developing Countries, 1993



- 10% disease burden could be avoided by access to safe water.
- 20% disease burden could be avoided by eliminating malnutrition.

Health Care in Developing Countries

- Existing infrastructure for health care needs to be strengthened. Health should be perceived as an investment and receive greater budgetary allocation
- Education, safe water and sanitation need priority
- Vaccination coverage to be improved
- Better implementation of national health programs
- Judicious use of the scant resources by promoting most cost-effective strategies for disease prevention
- Inclusion of all level of stakeholders in planning and policy making using tremendous human resource available in the country

Health Care in India

- Expenditure on health by the Government continues to be low. It is not viewed as an investment but rather as a dead loss!
- States under financial constraints cut expenditure on health
- Growth in national income by itself is not enough, if the benefits do not manifest themselves in the form of more food, better access to health and education: Amartyo K Sen
- Human health has probably improved more over the past half century then over the previous three millennia.
- This is a stunning achievement - never to be repeated and, it is to be hoped, irreversible.
- In late nineties, India had 48 doctors per 100,000 persons which is fewer than in developed nations (India's doctor-population ratio now at 1:854 is better than the World Health Organisation's standard of 1:1000)
- Wide urban-rural gap in the availability of medical services: Inequity
- Poor facilities even in large Government institutions compared to corporate hospitals (Lack of funds, poor management, political and bureaucratic interference, lack of leadership in medical community).
- Increasing cost of curative medical services
- High tech curative services not free even in government hospitals
- Limited health benefits to employees
- Health insurance expensive
- Curative health services not accessible to rural populations
- Private practitioners and hospitals major providers of health care in India
- Practitioners of alternate systems of medicine also play a major role
- Concerns regarding ethics, medical negligence, commercialization of medicine, and incompetence
- Increasing cost of medical care and threat to healthy doctor patient relationship.
- Prevention, and early diagnosis and treatment, if feasible, are the most cost-effective strategies for most diseases
- Promoting healthy life style from early life is a 'no cost' intervention which needs to be incorporated in school curricula.
- There is need for increasing public awareness of the benefits of healthy life style

Inequity in Health Care

- Almost everywhere, the poor suffer poor health and the very poor suffer appallingly.
- Addressing problem of inequality, both between countries and within countries, constitutes one of the greatest challenges of the new century.
- Failure to do so properly will have dire consequences for the global economy, for social order and justice, and for the civilization as a whole.

Summary

Some of the significant health-related aspects of development were covered in the unit. The connectivity and impact of the relationship between health and development are influenced in both directions. Similar to the need for education, the desire for health care is a good for both consumption and investment. Even if it would be ideal to provide the private sector a proper role, the government's role in delivering health care services is still necessary. Both the lack of resources and the concerns about equity call for such a stance. The level of economic development affects how much and where the private sector can participate in the delivery of healthcare services.

In the early stages of development, basic health needs should receive more government funding. Higher incomes that result from an expanding economy give people more ability to self-finance many of their essential health requirements. The focus of health funding goals may change at this point. The level of economic development a nation has attained affects when medical insurance enters the market. The insurance market's interaction with the health care industry has both advantages and disadvantages. To attain the necessary balance in this regard for it to work effectively, developed market structures and institutional procedures are needed. Even while the government still needs to play a regulatory role, the benefits of selectively utilising the private sector to deliver health care have to be acknowledged. This is essential since the government's resources alone would not be sufficient to meet the demands of the health sector. Competition, local needs and choices, and contracting are mentioned as key factors in striking the right balance in this regard. The steadily improving state of humanity's health is a result of the sector's ongoing advancements in medicine, where technical advancements have a significant impact. However, each victory has always been followed by a fresh obstacle, making the dynamics of the health industry ever-challenging.

Keywords:

Health Care,

Infant Mortality Rate,

Nutrition,

Health Insurance,

Development,

Developing Countries

Self-Assessment

1. Human Development Index compares countries based on which of the following levels of people?

A. Health status.

B. Per Capita Income.

C. Educational level.

D. All of the options are correct.

2. The World Health Day is celebrated on

A. 1st March

B. 7th April

C. 6th October

D. 10th December

3. Which one of the following is an unhealthy habit?

A Sharing food

BBathing twice a day

CDrinking boiled water

DEating without washing one's hand

4. Which one of the following is not a bacterial disease?

A. AIDS

B. Dengue

C. Measles

D. All of the above

5. Number of live births per 1000 live male births defined as:

A. sex ratio

B. maternal mortality rate

C. birth rate

D. death rate

6. AYUSH stands for:

A.all youth and usual status health status

B. Ayurveda, Yoga& naturopathy, Unani, Siddha and Homeopathy

C. accredited youth and usual special health care

D. none of these

7. Which state is accounted for first place in human development in India:

A. Tamilnadu

B. Punjab

C. Bihar

D. Kerala

8. What comes under the characteristic of the poor people?

A. Poor Health

B. Gender Inequality

C. Debt Trap

D. All of the Above

9. Economists generally identify poor people based on their-

A. Living Standard

B. Expenditure

C. Income

D. Occupation

10. Which of the following are the two categories of poverty identified by the United Nations Development Programme?

A. Income and human poverty

B. Income and relative poverty.

C. Rural and absolute poverty

D. Rural and relative poverty

11. Which of the following is the main reason for the decline in the per capita availability of land for the purpose of cultivation?

A. Rapid growth of population and lack of employment

B. Pollution in land and water bodies because of excessive usage of agrochemicals

C. Frequent droughts

D. All of the above

12. The deficiency of protein alone is a symptom of

A. Protemia

B. Indigestion

C. Kwashiorkor

D. Marasmus

13. Which is not a vitamin deficiency disease

A. Cheilosis

B. Scurvy

C. Rickets

D. Marasmus

14. Pick the incorrect statement about Marasmus

A. pregnancy in lactation period

B. protein rich diet replaces mother's milk

C. less than one year old infants are affected

D. simultaneously deficiency of calories and proteins

15. _____ is a disorder or bad functioning (malfunction of mind or body) which leads to departure of good health

A. Physical disease

B. Health

C. Disease

D. Infectious disease

Answer for Self Assessment

1.	A	2.	B	3.	D	4.	D	5.	A
6.	B	7.	D	8.	D	9.	D	10.	A
11.	D	12.	C	13.	D	14.	B	15.	C

Review Questions

Q 1. Define the indicators of Health Economics?

Q 2. What do you mean by Infant Mortality Rate?

Q 3. What is the meaning of Malnourished?

Q 4. What is the scenario of Health Care in developing countries?

Q 5. Write a note on the scenario of Health in India?

Further Readings

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Dr. Parmjeet Kaur, Lovely Professional University

Unit 12:Social Aspects of Health and Education

CONTENTS

Objectives

- Learn the concept of malnutrition,
- Identify the factors behind malnutrition
- Understand how environmental issues are impacting malnutrition
- Learn the concept of risk pooling and risk sharing
- Understand the different types and mechanism of risk sharing,
- Learn about different types of developmental assistance
- Identify the countries receiving the developmental assistance

Introduction

What is health, exactly? It has not been simple to respond to this query. Everyone in a society, even different professions like doctors, health administrators, and social scientists, perceives health differently, which causes uncertainty regarding the concept of health.Health has traditionally been defined as the "absence of sickness." In other words, a person was seen as healthy if she did not have any diseases. The "germ theory of disease," which predominated medical thought from the end of the 19th century onward, served as the foundation for this idea, also known as the biomedical notion.The medical community viewed sickness as the result of the human body's mechanical breakdown, which was mostly brought on by microorganisms. Due to its disregard for the importance of environmental, social, cultural, and psychological factors of health, the biological notion of health has been deemed inadequate.This idea of health was shown to be insufficient to explain some of the most significant issues facing humanity, including chronic disease, drug abuse, mental illness, and undernourishment. Other concepts of health, such the ecological and psychosocial models, emerged as a result of shortcomings in the biological notion. According to the ecological idea, disease is a state of the human being's improper adjustment to the environment, whereas health is a state of harmonic equilibrium between the human being and their environment.

For instance, widespread forest loss has altered the environment, causing hunger, floods, and starvation as well as disease issues. It is suggested that improved human adaptability to natural surroundings results in a longer life expectancy and a higher standard of living.

The psychosocial perspective of health is a result of the development of social sciences. This idea is founded on the idea that health is a social as well as a biological reality. Health is also influenced by

psychological, sociocultural, and economic factors. Social conventions and practises, such as those pertaining to a pregnant or breastfeeding woman's diet, raising a child, and inter-family marriage, play a significant effect in how healthy an individual.

Definition of Health

The World Health Organization's (WHO) (1948) definition of health is as follows and incorporates the ideas of health mentioned previous section:

"*Health is a state of complete physical, mental and social well-being and not merely an absence of disease or infomity.*"

Injustices in politics, society, and the economy are the core causes of poor health for millions of people worldwide. Poor health has poverty as both a cause and a result. Poor health is more likely in poverty.When a person or family is unable to afford basic essentials like food, clean water, housing, and clothing, they are said to be living in poverty. Lack of access to amenities like healthcare, education, and transportation are also included.Adults living in poverty are more likely to experience negative health outcomes from obesity, smoking, substance use, and chronic stress, in addition to the long-lasting effects of childhood poverty. Finally, mortality and disability rates are higher among older persons with lower earnings.

12.1 Malnutrition and Environmental Issues

By lowering food absorption, malnutrition increases the risk of infectious diseases, which in turn are influenced by water security and can worsen infectious diseases. Various studies have suggested that access to services for water, sanitation, and hygiene contributes to malnutrition. The aforementioned findings emphasize the value of safe drinking water, hand washing techniques, and other sanitation measures to address the issue of child malnutrition.Malnutrition's underlying causes include a lack of clean water to drink. Water and life go hand in hand. Acute malnutrition is a direct result of infectious and water-borne diseases, which are made more vulnerable by the lack of access to drinkable water, inadequate sanitation, and risky hygiene habits. Susceptibility to chemical exposures may change according to nutritional state. However, there are many toxicants present, and malnutrition can manifest itself in both excess and deficiency. Consequently, there is a complex relationship between environmental exposures and nutritional status.Risk to industrial chemicals may change according to nutritional state. However, there are many toxicants present, and malnutrition can manifest itself in both excess and deficiency. Consequently, there is a complex relationship between environmental exposures and nutritional status. Malnutrition is the condition that develops when the body is deprived of vitamins, minerals and other nutrients it needs to maintain healthy tissues and organ function. Malnutrition occurs in people who are either undernourished or over nourished.

Protein Energy Malnutrition

- The term protein energy malnutrition has been adopted by WHO in 1976

- Highly prevalent in developing countries among <5 children; severe forms 1-10% & underweight 20-40%
- All children with PEM have micronutrient deficiency.
- Chronic pathological condition
- Absolute or relative lack of protein and energy in the diet over an extended period of time
- Commonly associated with infection albeit infestation in young children

Malnutrition and Environmental Issues

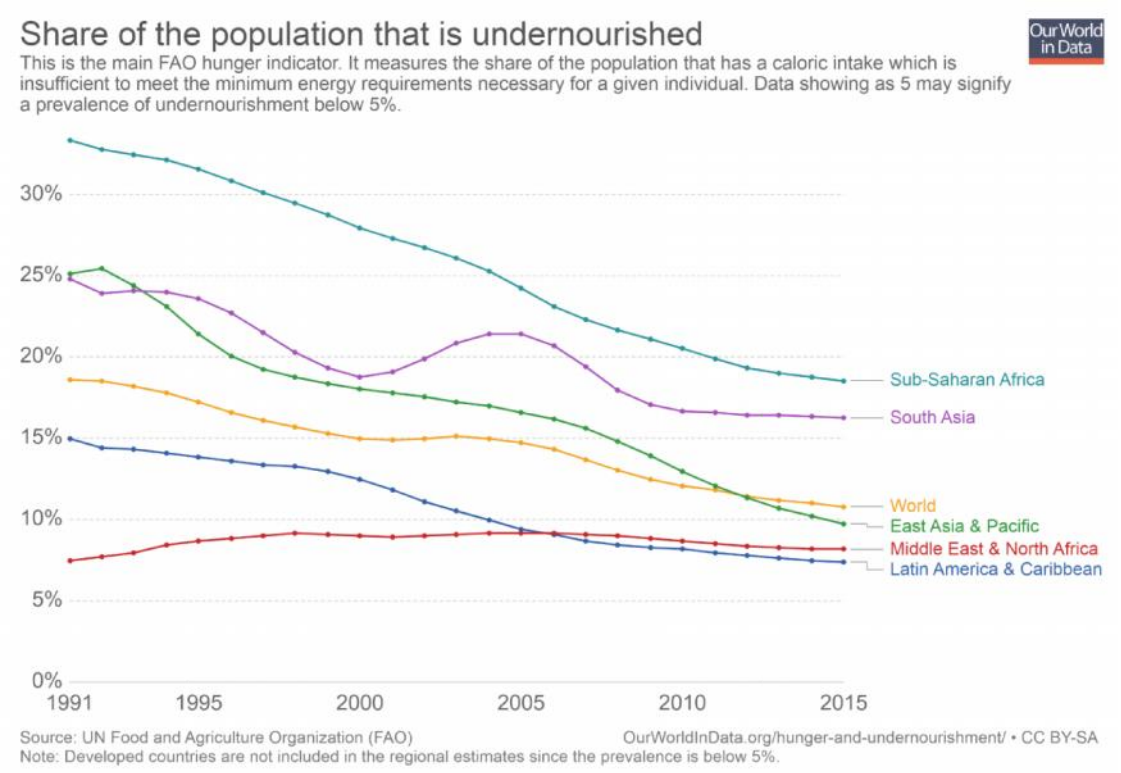
Under Nutrition

- Intrauterine growth restriction resulting in low birth weight
- Underweight: low body weight for age in children, and low Body Mass Index (BMI) and adults
- Stunting (shortness): linear growth deficits
- Wasting (thinness): reflecting low weight for height
- Protein deficiency malnutrition
- Micronutrient deficiencies – most importantly: Vitamin A, Vitamin D, zinc, iodine, iron and folate, calcium

MALNUTRITION= UNDERNUTRITION and OVERNUTRITION

The Burden of Maternal and Child Underutrition

"More than 3.1 million children under 5 die unnecessarily each year due to the underlying cause of under nutrition (2/3rds of deaths are in 1st year) and 165 million more are permanently disabled by the physical and mental effects of a poor dietary intake in the earliest months of life making yet another generation less productive than they otherwise would be" - Source: Lancet Child Survival Series 2013. The consequences of child under nutrition affect immediate as well as future health and well-being.



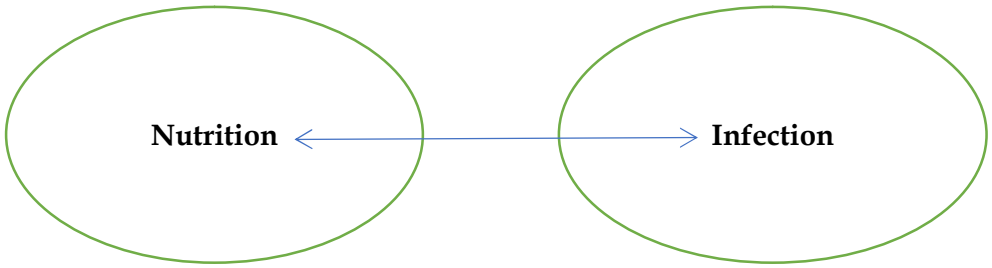
- Undernourishment is still very common in sub-Saharan Africa: about 18% of the population in this region do not consume sufficient calories.
- This is the region with the highest rates of undernourishment; but this is also the region where we have seen the largest progress in recent decades.
- In the MENA region rates are lower, but there has been no progress.
- On the whole, the world average has almost halved since 1991.

Nutritional Disorders	Attributable deaths with UN prevalences*	Proportion of total deaths of children younger than 5 years
Fetal growth restriction (<1 month)	817,000	11.8%
Stunting (1-59 months)	1,017,000*	14.7%
Underweight (1-59 months)	999,000*	14.4%
Wasting (1-59 months) Severe Wasting (1-59 months)	875,000* 516,000*	12.6% 7.4%
Zinc deficiency (12-59 months)	116,000	1.7%
Vitamin A deficiency (6-59 months)	157,000	2.3%
Suboptimum breastfeeding (0-23 months)	804,000	11.6%
Joint effects of fetal growth restriction and suboptimum breastfeeding in neonates	1,348,000	19.4%
Joint effects of fetal growth restriction, suboptimum breastfeeding, stunting, wasting, and vitamin A and zinc deficiencies (<5 years)	3,097,000	44.7%

Source: UNICEF, 2015.

Determinants of Malnutrition: The 6 "P's"

- Production - About half of people in developing countries do not have an adequate food supply - issues of food production and local availability of food.
- Preservation - 25% of grains are lost to bad post-harvest handling, spoilage and pest infestation; up to 50% of easily perishable fruits and vegetables are not consumed.
- Population - density, distribution, urban migration.
- Pathology - nutrition-infection synergism.
- Poverty - root cause of malnutrition income inequality, household food distribution.
- Politics - government policies can foster malnutrition directly by how food is subsidized. and distributed; indirectly civil unrest and natural disasters affect market availability and costs of foods.
- Malnutrition depresses immune function and increases susceptibility to infection
- Anorexia (lack of appetite) results in decreased intake and increased challenge with feeding



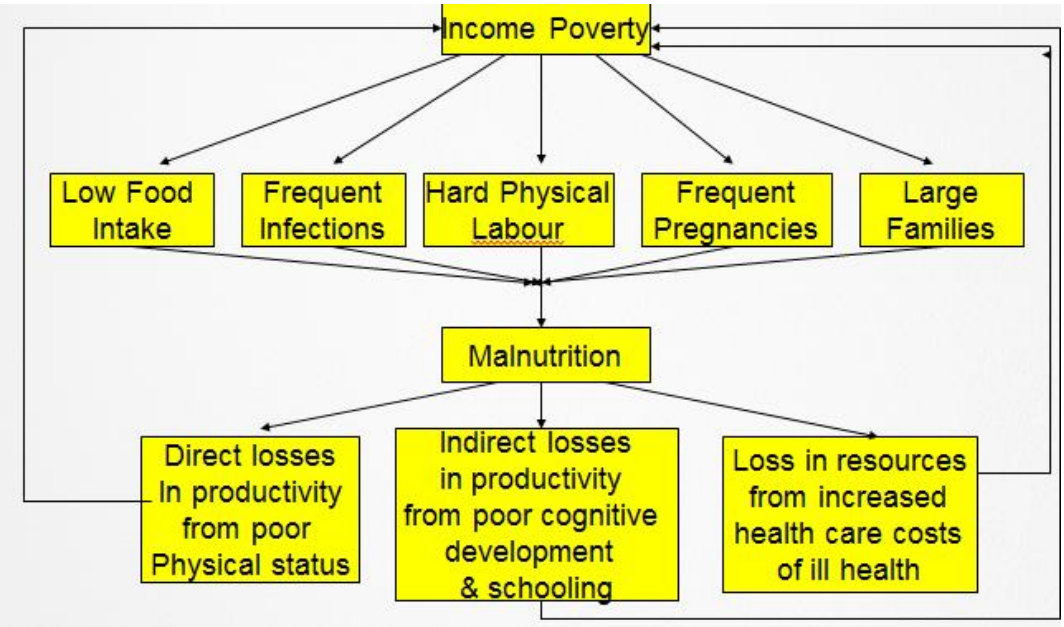
- Diarrhea & vomiting speed up nutrient losses
- Fever increases metabolic needs
- Chronic infection increases protein needs – breaks down muscles, deplete fat stores
- Infection and fever result in anorexia

Climate Change Impact on Nutrition

- Since the 1990s, climate shocks have more than doubled in developing countries, already vulnerable to food insecurity and malnutrition.
- This is alarming for the one billion children who live in the 33 countries classified as 'extremely high-risk' to the impacts of climate change.
- Climate variability and extremes lead to shortfalls in food availability by reducing and destroying crop yields and stocks.
- A combination of spikes in food prices, reduced incomes, disruption of trade and transport, and damage to market infrastructures hinder vulnerable people's access to food, leading to poor quality, and diversity of diets.
- This combined with water insecurity and disease outbreaks arising as a result of climate change creates a perfect storm for unprecedented global nutrition crises.

- Climate shocks increase workloads with negative impacts on the care of children.
- Droughts and desertification mean that women and girls walk further each day to search for water and firewood – exposing them to violence and with negative impacts to their mental health and wellbeing.
- Where conflict and climate shocks coincide, the impact on nutrition is even more significant, derailing the growth and development of children with severe and lasting impacts throughout their lives.
- All diets around the world impact global warming.
- Food systems are responsible for a third of global greenhouse gas emissions (GHG), highlighting how the food we produce and eat affects the environment.
- By 2030, the diet – related social cost of greenhouse gases is estimated to increase by US$1.7 trillion per year.
- A shift towards sustainable, healthy diets would help reduce health and climate change costs by up to US$ 1.3 trillion.
- Sustainable food systems, anticipatory action and shock responsive systems to avert the negative impacts of climate crises are critical for achieving SDG2.
- With its large operational footprint and expertise, WFP is well-positioned to tackle this challenge.
- By transforming food systems to enable healthy and sustainable diets to be available to all, and by helping countries be better prepared to protect their populations from malnutrition in the face of acute crises, WFP can help avert a nutrition catastrophe that will fundamentally undermine efforts to eradicate poverty and minimize the impacts of the climate crisis.

Malnutrition, Poverty & Economic Growth



12.2 Risk Pooling in Health Care Delivery

Risk Pooling

A "Risk pool" is a form of risk management that is mostly practiced by insurance companies, which come together to form a pool to provide protection to insurance companies against unforeseen and sudden happenings or catastrophic risks such as floods or earthquakes.The concept of insurance is based on the sharing of risk. A group of people whose medical expenses are pooled in order to determine premiums constitutes a health insurance risk pool.

A number of inventory control choices can involve risk pooling. By thinking of the issue in terms of risk pooling, for instance, it is simple to decide between different warehouses that each separately serve their local areas and one that is centralized and serves all areas.

Considered one at a time, there are basically four different types of approaches to risk pooling: no risk pool, unitary risk pool, fragmented risk pool, and integrated risk pools.Pooling is the health system function whereby collected health revenues are transferred to purchasing organizations. Pooling ensures that the risk related to financing health interventions is borne by all the members of the pool and not by each contributor individually.Its main purpose is to share the financial risk associated with health interventions for which there is uncertain need.

Definition of Risk Pooling

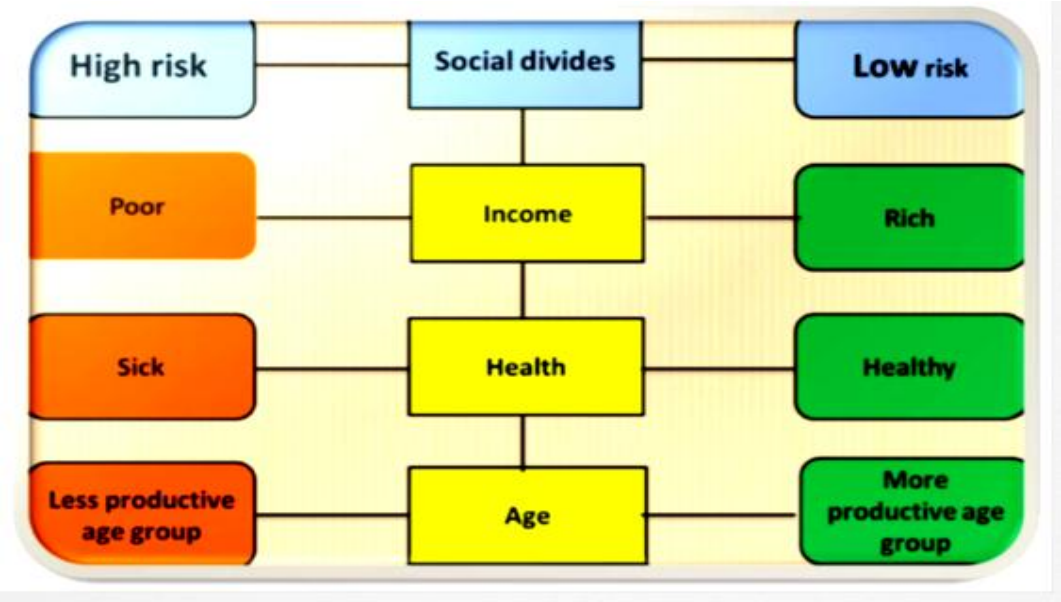
Pooling is the health system function whereby collected health revenues are transferred to purchasing organizations.

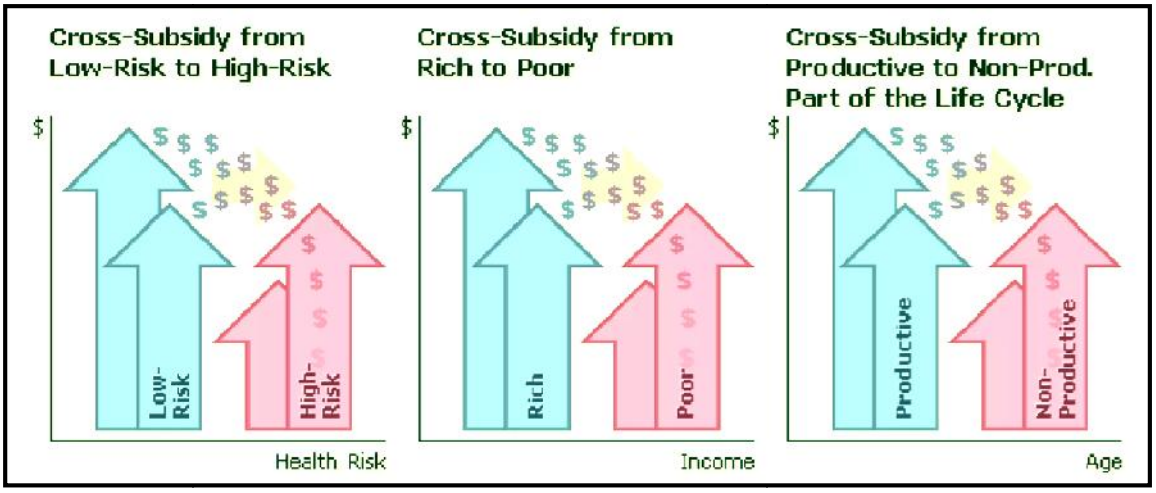
Risk Sharing

Risk Sharing – also known as "risk distribution". Risk sharing means that the premiums and losses of each member of a group of policyholders are allocated within the group based on a predetermined formula. Risk sharing occurs when organizations shift the risk to a third party.A typical example of this occurs in the domain of financial loss. The vulnerable organization can transfer its risk of financial loss to an insurance company for a small premium.When an organisation shifts the risk to a third party, it is referred to as risk transfer or risk sharing. The area of financial loss serves as a common illustration of this. For a nominal payment, the exposed organisation can assign an insurance firm the risk of suffering financial loss.

Settlement terms in contracts and insurance policies are the two most typical types of risk sharing. The most popular method of risk sharing is insurance. The insurance provider will sell a policy to a business or a person that guarantees coverage for unforeseen losses.

Pooling Across Social Divides





Implications of Pooling on Equity and Efficiency

Equity:

- Society does not consider it to be fair that individuals should assume all the risk associated with their health care expenditure needs.
- Cross-subsidy may pose political challenges.

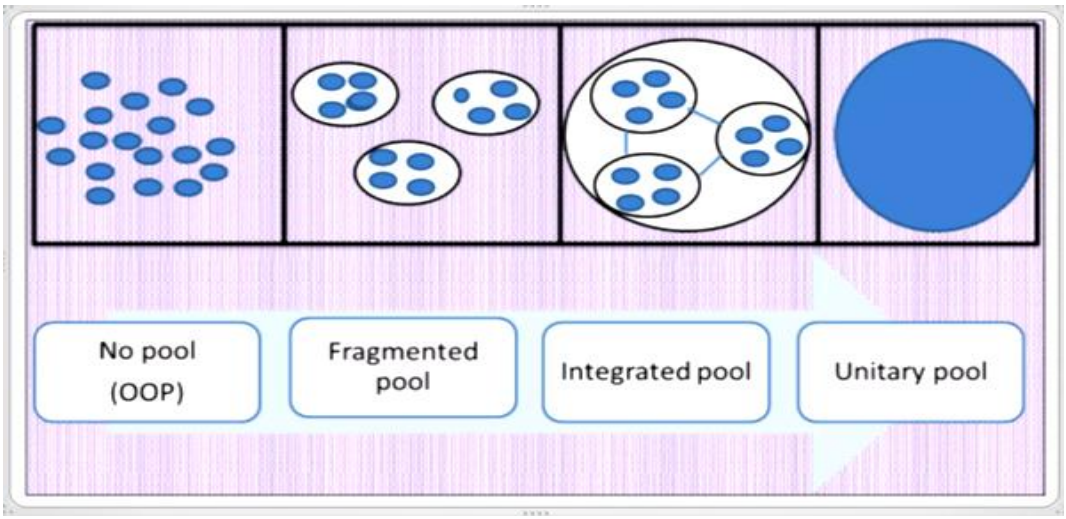
Efficiency:

- Depending on structure, risk pooling can reduce administrative costs or increase administrative burden.
- Can lead to major improvements in population health, can increase productivity, and reduces uncertainty associated with health care expenditure.

Risk Pooling Mechanisms

- Government revenues
- National insurance systems
- Social health insurance systems
- Community based insurance systems
- Private health insurance

Levels of Pooling



No Risk Pooling

- When there is no risk pooling, individuals are responsible for meeting their own health care costs as they arise.
- In its purest form, this entails patients' meeting user charges as they are incurred, with no subsidy of prices for poorer people and denial of treatment when the patient lacks the financial means to pay.

Fragmentation

Fragmentation refers to the existence of a large number of separate funding mechanisms (e.g. many small insurance schemes) and a wide range of health-care providers paid from different funding pools.

- Inefficiencies lead to greater costs.
- Hinders redistribution of prepaid funds.

Integrated Risk Pools

Under this arrangement, the individual risk pools can remain in place, but financial transfers are arranged between pools so that some or all of the variation caused by pure fragmentation is eliminated.

Unitary Risk Pool

Under the unitary model, risk pooling must be mandatory, in the sense that rich or healthy citizens cannot opt out of contributing. The mandatory risk pool is one possible policy response to counter the manifest inefficiencies and inequities associated with adverse selection, cream-skimming, and transaction costs.As risk pooling becomes progressively more integrated, the uncertainty associated with health care expenditure can be reduced. A system of out-of-pocket payments exposes individuals to the greatest level of uncertainty, and on the other hands, Integration risk pooling seeks to reduce these variations, which are eliminated under a truly unitary system.

The Institutional Framework for Risk Pooling

- The institutional basis for risk pools (geography, employment sector, employment status, and so on).
- The criteria for membership in a risk pool.
- The size of risk pools.
- Whether or not the risk pools are competitive.
- Whether or not contributions are mandatory.
- Whether financial contributions are community rated or risk rated.
- The extent to which health care users retain some expenditure risk (in the form of user charges).
- The extent to which there are financial transfers between risk pools.
- The extent to which the risk pools are protected from unpredicted variations in expenditure needs by some higher level pooling
- The freedom given to risk pools to choose variations in packages of care, membership entitlement, and financial contributions.

Risk Pooling in Low- And Middle-income Countries

Region	Year introduced	Coverage	Per capita income (US $)
Africa			
Key feature:	Gradual introduction for civil servants and formal sector		
Burundi	1984	10-15 %	150
Kenya	1960s	25 %	260
Namibia	1980s	10 %	2,030

Risk Pooling in Low- And Middle-income Countries

Eastern Europe & FSU	Year introduced	Coverage	Per capita income (US $)
Key feature:	Transition from tax funded to social insurance		
Estonia	1992	94 %	2,820
Hungary	1992	High[a]	3,840
Russia	1991	High[a]	1,910
Slovenia	1993	High[a]	7,140

Risk Pooling in Low- And Middle-income Countries

Asia	Year introduced	Coverage	Per capita income (US $)
Key feature (transitional):	Response to declining level of state funding		
Kazakhstan	1995	70-80%	1,110
Vietnam	1993	10 %	200
Key feature (other):	Expansion a response to the growth of the economy		
Indonesia	1968	13 %	790
Thailand	1990	13 %	2,210
South Korea	1977	94 %	8,220

Risk Pooling in Low- And Middle-income Countries

Latin America & Caribbean	Year introduced	Coverage	Per capita income (US $)
Key feature:	Introduced from 1920s as part of wider package of pensions, unemployment and other benefits		
El Salvador	1960s	11 %	1,480
Argentina	1920s	90 %	8,060
Mexico	1930s	42 %	4,010
Bolivia	1930s	18 %	770
Paraguay	1930s	14 %	1,570

Risk Pooling in Low- And Middle-income Countries

- Risk pooling in low- and middle-income countries has usually been partial and fragmented.
- In some Latin American countries such as Argentina (before its reforms in the late 1990s), coverage by health insurance was organized through professional associations.
- Many in the informal sector—often poorer and with higher health risks are not covered by the risk-pooling arrangements.
- In other countries, like Indonesia, social insurance coverage is a perk offered to public sector workers.
- While this arrangement reflects practical factors—it is harder to collect contributions from small-scale and informal enterprises—it can have a regressive effect, with the relatively better-off receiving higher quality services with some degree of public subsidy.
- Industrial countries, like South Korea, which started a scheme for civil servants in 1977, have now managed to extend coverage to 94 percent of the population.
- Countries like the Philippines, have lower coverage rates of around 40 percent for payroll insurance, probably reflecting the different employment structure and level of development of the country.
- A number of African countries, like Burundi and Namibia, that introduced insurance for public sector workers in the 1980s, continue to have very low coverage, around 10 to 15 percent.
- There is some correlation though by no means perfect between levels of coverage and per capita income.

Some Facts of Risk Pooling

According to World Bank Report (2004), that's estimated only 11% of Global Health Spending for 90% of the World's Population in developing countries such as Asia 3.5%, Americas 3.2%, Europe 2.4%, Middle East and N. Africa 1.5%, Africa 0.4%, and 89% of Global Health Spending for 10% World's Population in developed countries.In 2007 with respect to the distribution of the global disease burden in low- and middle-income countries 87.5%, but only 12.5 percent of global health spending was in this group of countries.Conversely, in developed and highly developed countries, with a very low distribution of global disease burden (13%), the share of total health expenditures is much higher at 87%.

The World Health Report (2013) stated that inefficiency of the health department financing system has led to a waste of about 20% to 40% of the total health expenditures.Therefore, it counts the need to adopt proper and efficient financing policies based on risk pooling and risk sharing in the health sector as an evident issue.

Facts of Risk Sharing

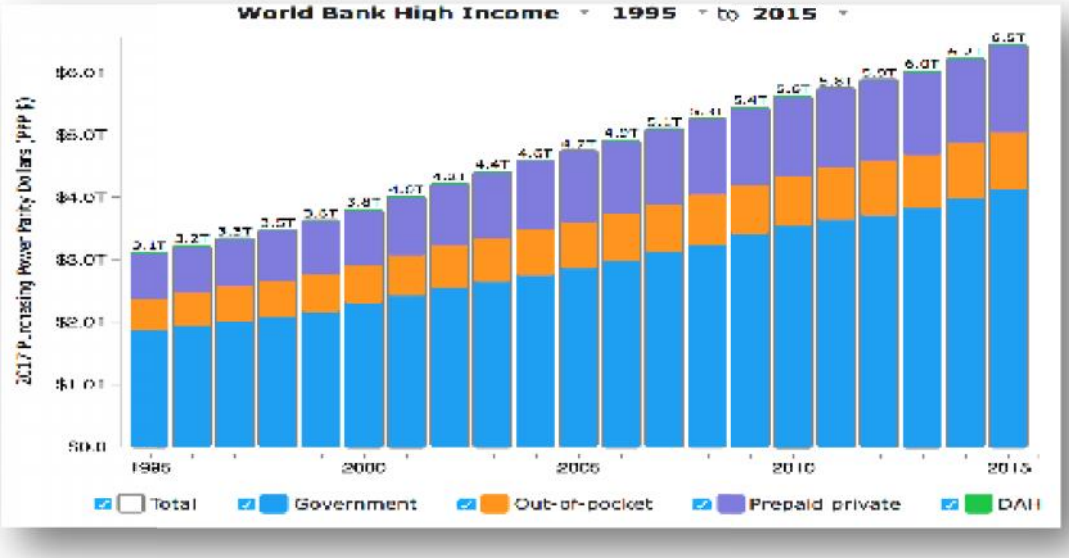
In 2018, according WHO's method for the classification of risk-sharing in health care financing, WHO's data showed that between 2000-2014 the degree of risk-sharing in low-income countries (from 1.58 to 2.08; of the total 6 points Likert) is low risk-sharing and in lower middle-income countries (from 2.47 to 2.86) is medium risk-sharing.This rapidly shift in these income countries groups was coincided (1995-2014) with increasing general government expenditure on health (GGHE) as a share of total health expenditure (THE) in low-income countries(from 33.6% to 41.2%) and lower middle-income countries (from 34.9% to 36.2%), reducing in Private expenditure on health as a percentage of total expenditure on health in low-income countries (from 66.4% to 58.8%) and lower middle-income countries (from 65.1% to 63.8%), reducing Out-of-pocket expenditure as a percentage of private expenditure in low-income countries (from 80.8% to 65.5%) and lower middle-income countries (from 89.4% to 87.5%).In addition, in time period 1995-2014, share of External resources for health as a percentage of total expenditure on health in low-income countries (from 13.1% to 28.3%) and lower middle-income countries (from 1.8% to 3.3%) had been high increased.

12.3 Development Assistance in Health Care

Total DAH is the total amount of external health funding received from all sources, including intergovernmental institutions like the United Nations (UN) system, particularly the World Health Organization (WHO), and bilateral organizations as reported through the OECD's creditor reporting system.According to the Universal Declaration of Human Rights, the right to health is also an unalienable human right since it enables people to live up to their full potential, children to learn more effectively, workers to be more productive, and parents to provide for their children.

- Development Assistance in Health is related to financial assistance to health.
- At the domestic level within the country, it is the transfer of funds/ cross-subsidy from high-income people to low-income people, low risk to high risk, or unproductive age group to productive age group.

At the international level, Development Assistance in Health is defined as the financial and in-kind contributions transferred through major development agencies to low- and middle-income countries for maintaining or improving health.



Data Source: Institute for Health Metrics and Evaluation (IHME). Financing Global Health Visualization. Seattle, WA: IHME, University of Washington, 2017. Available from: http://vizhub.healthdata.org/fgh/

According to the Institute for Health Metrics and Evaluation's (IHME), Financing Global Health 2018 report, DAH has experienced a 0.3% drop in the annual growth rate over the recent 5 years in between 2013–2018.Political uncertainties, changing commitment from traditional donors like the United States and the United Kingdom and the large financial gap needed to achieve the Sustainable Development Goals, suggests that other sources may be critical to growing funding in the future.Besides the traditional donor countries, who are usually members of the Organization for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC) and usually high-income countries, several other middle-income countries have gradually emerged in the global health financing arena.Brazil, Russia, India, China and South Africa, commonly referred to as the BRICS countries, are making a number of important commitments towards global health through providing development aid under the "South-south cooperation" regime.BRICS have also emphasized international cooperation including technology transfer to developing countries in the BRICS health ministers' meetings QUAD countries, JAI are new addition in this line.

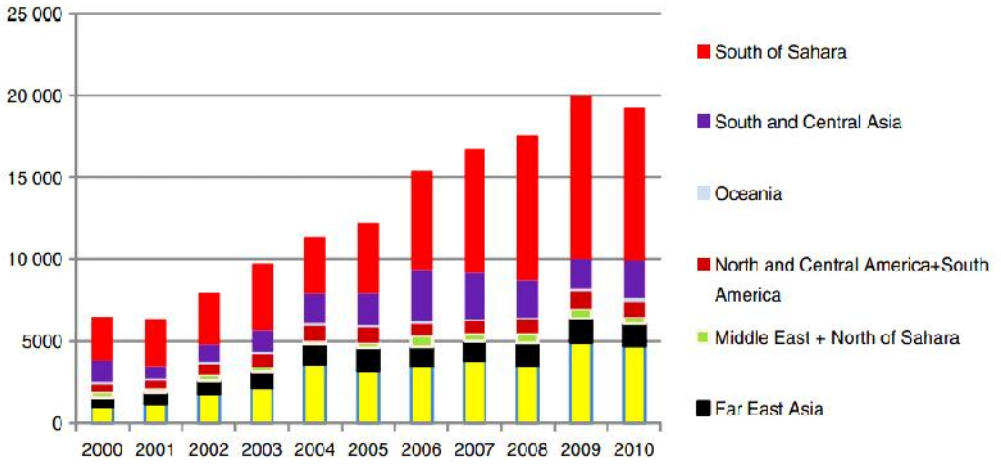
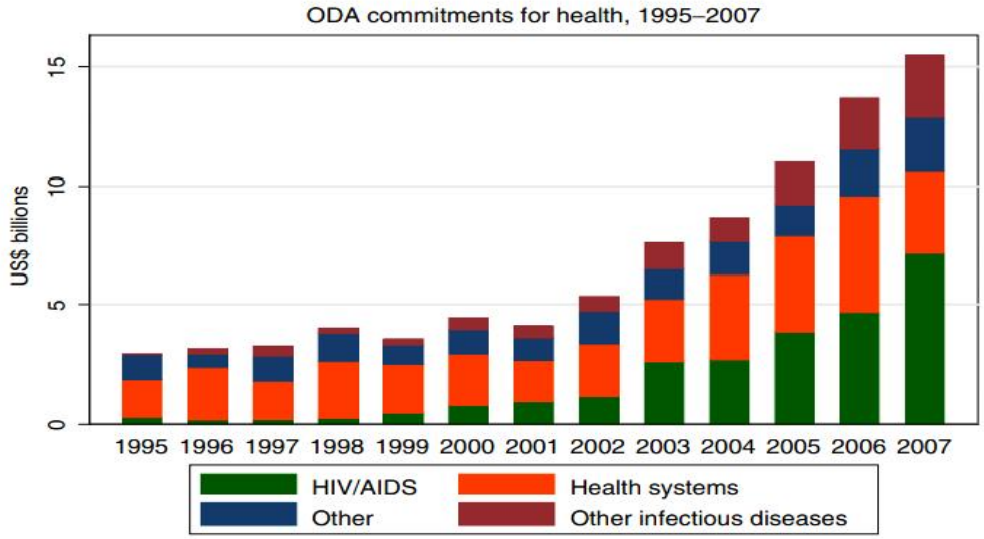
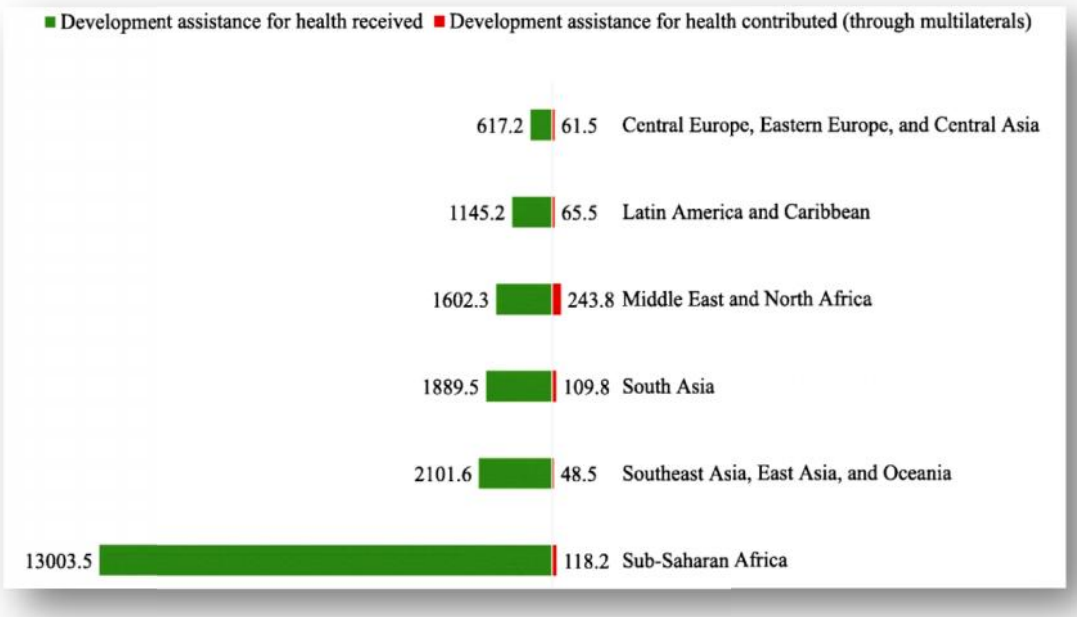


Figure 1 Total and regional patterns in DAH (in millions of 2009 US$). Reproduced with permission from OECD (2013). Available at: http://www.oecd.org/dac/stats/ (accessed 15.07.13).





The Middle East and North Africa (MENA) is a diverse region that has been in turmoil since the Arab spring, with Syria, Libya, Yemen and other countries experiencing ongoing civil war, and Jordan, Lebanon among others in the midst of the biggest refugee crisis since World War II.In 2016, countries in MENA received over a third of total OECD DAC's humanitarian flows, and specifically for health, an annual average of $1602.3 million from 2015 to 2017. But, Saudi Arabia, Kuwait and United Arab Emirates have been among the most substantial donors in the world relative to national economy. These three countries also have established a number of specialized financial institutions to provide development aid for Arab and Muslim countries and other developing countries. According to OECD 2015 estimates, Saudi Arabia and United Arab Emirates are among the top ten providers of net official development assistance. The World Health Organization (WHO) is a specialized agency of the United Nations responsible for international public health. The WHO was established on 7 April 1948. Its work began in earnest in 1951 after a significant infusion of financial and technical resources. Headquartered in Geneva, Switzerland, it has six regional offices and 150 field offices worldwide. WHO advocates for universal health care, monitoring public health risks, coordinating responses to health emergencies, and promoting health and well-being. It provides technical assistance to countries, sets international health standards, and collects data on global health issues. The WHO also serves as a forum for discussions of health issues and provides funds to solve them.

- International Bank for Reconstruction and Development (IBRD; part of the World Bank Group)
- International Monetary Fund (IMF)
- International Red Cross (ICRC AND IFRC)
- United Nations Children's Fund (UNICEF)

Summary

All around world, poor health and poverty are intricately intertwined. People's health is at risk because of inadequate diet, overcrowding, a lack of clean water, and other harsh realities. As a result of making it impossible to work or driving families into financial hardship to pay for care, bad health also makes poverty worse.When the body lacks the vitamins, minerals, and other nutrients necessary to maintain healthy tissues and organ function, malnutrition sets in. People who are either undernourished or overnourished can develop malnutrition.Global public health is negatively impacted by climate change in a number of ways, including decreased crop quality and quantity, increasing food insecurity, and diet-related non-communicable diseases like diabetes mellitus and cardiovascular disease.Children born to malnourished, anaemic, and hungry mothers

are likely to be stunted, underweight, and unable to reach their full potential as human beings. Childhood malnutrition can stunt a child's physical and mental development and doom them to a life on the periphery of society.Housing, sanitation, and water supply are of poor condition. These aggravate illnesses and infections, which exacerbate starvation.A group of people whose medical expenses are pooled in order to determine premiums constitutes a health insurance risk pool. When risks are pooled, either across the board or within a premium rating group, the higher costs of the less healthy can be mitigated by the relatively lower costs of the healthy.By pooling resources, it is made sure that the risk associated with funding health interventions is shared by all pool participants rather than just by each individual contributor. Due to the high degree of unpredictability surrounding the scope and timing of a person's medical expense requirements, risk pooling is necessary.Rural and urban towns in economically struggling areas might get funds for economic development assistance (EDA) to help them execute regional economic development. The objective is to increase private capital investments, create jobs, and improve America's capacity to compete internationally.

Keywords:

Health-Poverty: Poor health has poverty as both a cause and a result. Poor health is more likely in poverty.

Malnutrition: When the body lacks the vitamins, minerals, and other nutrients necessary to maintain healthy tissues and organ function, malnutrition sets in. People who are either undernourished or over nourished can develop malnutrition.

Risk pooling: The concept of insurance is based on the sharing of risk. A group of people whose medical expenses are pooled in order to determine premiums constitutes a health insurance risk pool.

Risk sharing: When businesses assign the risk to a third party, the process is known as risk transfer or risk sharing. This can be seen frequently in the area of financial loss. For a nominal payment, the exposed organization can transfer its risk of financial loss to an insurance provider.

Developmental Assistance: Government assistance that encourages and focuses primarily on the welfare and economic development of emerging nations. In 1969, the DAC designated ODA as the "gold standard" of international aid, and it is still the primary funding source for development assistance.

WHO: It is in charge of taking the lead on issues pertaining to global health, establishing norms and standards, defining evidence-based policy alternatives, giving governments technical assistance, and monitoring and analyzing health trends.

Under Nutrition: Under nutrition is defined as not consuming enough nutrients and energy to meet one's needs for maintaining good health. Under nutrition and malnutrition are often used interchangeably in literary works. Malnutrition technically refers to both under nutrition and over nutrition.

Self-Assessment

1. More than _____ of the world’s poor live in India

A. half

B. One-third

C. One-fourth

D. One-fifth

2. What was the percentage of the population below the poverty line in India in 2011-12?

A. 26.1%

B. 19.3%

C. 22%

D. 32%

3. Which of the following is the poverty determination measure?

A Head Count Ratio

BSen Index

CPoverty Gap Index

DAll of these

4. The Minimum requirements of a person, include

A. Food

B. Education

C. Car

D. Both a and b

5. Which of the following is a characteristic of people below the poverty line?

A. Debt trap

B. Gender Inequality

C. Poor Health

D. All of the above

6. Which of the following is a basic characteristic of insurance?

A. pooling of losses

B. avoidance of risk

C. payment of intentional losses

D. certainty about specific losses that will occur

7. Which of the following types of risks best meets the requirements for being insurable by private insurers?

A. most market risks

B. property risks

C. financial risks

D. political risks

8. Which of the following types of risks is normally uninsurable by private insurers?

A. personal risks

B. property risks

C. liability risks

D. political risks

9. Which of the following is a result of adverse selection?

A. The insurer's financial results will be substantially improved.

B. Persons most likely to have losses are also most likely to seek insurance at standard rates.

C. It is unnecessary for the insurance company to use underwriting.

D. Insurance can be written only by the federal government.

10. The term 'Risk' includes:

A. Damage to machinery and property

B. Impact on the health or life of a person

C. Leakage of toxic products into the atmosphere

D. All of the above

11. Which of the following types of insurances is mandatory?

A. Motor Own Damage

B. Motor Third Party Legal Liability

C. Personal Accident Insurance

D. Product Liability

12. Any contaminated components that seep into the soil, filtration, and are transferred into the underground reservoir are referred to as

A. Water Pollution

B. Noise Pollution

C. Land Contamination

D. Air pollution.

13. World Health Organization (WHO) recently urged South-East Asian countries to take urgent measures against which disease?

A. Polio

B. Measles

C. Tuberculosis

D. Pneumonia

14. Who was appointed as the new Chief scientist of the World Health Organization in 2022?

A. Jeremy Farrar

B. Preeti Sudan

C. Soumya Swaminathan

D. Zaliha Mustafa

15. World Health Organization (W.H.O.) falls under which body of UNO?

A. The Social and Economic Council

B. The Trusteeship Council

C. The Social Security Council

D. The Secretariat

Answer for Self-Assessment

1.	D	2.	C	3.	D	4.	D	5.	D
6.	A	7.	B	8.	D	9.	B	10.	D
11.	B	12.	C	13.	B	14.	A	15.	A

Review Questions

Q 1. What is risk pooling?

Q 2. What is the difference between malnutrition and hunger?

Q 3. Define the term nutrition security and list any four initiatives to improve nutritional status.

Q 4. What are the facts of Risk Sharing?

Q 5. What is overall focus of World Health Organization?

Q 6. Write a note on Development assistance is Health Care?

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Unit 13: Disparities in Health Care Delivery System

CONTENTS

Objectives

- Know the concept and evolution of health care financing
- Learn about the mechanism of healthcare financing
- Understand the empirical existence of healthcare financing
- Know about the principles of healthcare finance
- analyze the different areas where the implication of healthcare resources mobilization is realized
- Learn the implication of health care resource mobilization due to the affecting factors.

Introduction

The creation, distribution, and utilization of financial resources within the healthcare system are all covered under health care financing. In order to achieve universal health coverage, it has gained more and more attention on a global scale (UHC). In recent years, the definition of good health has evolved from its conventional meaning of "not being unwell" to include a "state of total physical, mental, and social well-being and not just absence of disease." The dictionary defines the word "insurance" as "to indemnify against." It can also imply "to transfer the risk" or "to monetize the risk," i.e., to assign a monetary value to it. About 80% of the public funding for healthcare comes from state government budgets, with the remaining 20% coming from the federal government and municipal governments (8 per cent). The goal of health finance is to provide resources and the appropriate financial incentives to service providers in order to guarantee that everyone has access to high-quality personal and public health care (WHO 2000). There are 'Dependency' periods in a person's life, which are located at the two ends of the life span. An individual is most dependent on others during infancy and old age. Since the beginning of time, children have always received the right care, and the senior members of the family have also been valued members of the community. The elderly's wealth of knowledge in coping with natural and other calamities was particularly helpful to the younger generation in managing the fields and harvests because of the society's agrarian foundation. The joint family system has broken down as a result of industrialization, worker movement from rural to urban areas, and harmful effects on elderly care. There are times when one cannot work and support oneself between the two extremes of life and during their working lifetime. There are several reasons why these times happen, but illness, injury, and pregnancy are among the most common. These result in a state of deprivation. Between the two extremes of life and during one's working lifespan, there are times when one cannot work and

support oneself. These situations can arise for a number of causes, but the most frequent ones include sickness, accident, and pregnancy. These lead to a feeling of deprivation. The Workmen's Compensation Act's passage in 1923 marked the beginning of Social Insurance in our nation. The workers were financially protected from accidents and fatalities brought on by their jobs. After that, the "Maternity Benefit Act" was passed. Both instances required the payments to be made by the company. In the years that followed, efforts were made over and over again to put the ILO Convention on "Health Insurance" for Workers in Industry, Commerce, and Agriculture into effect. Numerous meetings between different interest groups (i.e., representatives of employers, workers, and the state) were organized between 1927 and 1943, but no fundamental agreement could be reached. At this point, the central government tasked professor Adarkar, a social scientist, with writing a background report. Finally, the report by Professor Adarkar served as the foundation for subsequent talks and advances. The "Employees State Insurance Act" was ultimately passed in 1948 by the Lok Sabha in independent India after a "Bill" was first presented to the legislative assembly in 1946.

13.1 Financing of Health Care

- Late 1970s Voluntary community based health insurance attracted considerable attention.
- 1980's financing of health care moved high on the agenda of the discussions on health policy
- Recurring theme in
- Executive Board Meeting of the WHO in 1986,
- World Health Assembly and the Commonwealth Health Ministers Conference in 1986
- User charges dominating the policy debates of 1970s and 1990s.
- Attention back on community based health insurance
- In developed countries the problem is containing the cost of health care
- In some developing countries the problem presents itself as how to maintain health spending and how to achieve "health for all" initiative

A crucial component of health systems, health funding can advance the goal of universal health coverage by enhancing efficient service delivery and financial security. Millions of individuals today avoid using services because they are too expensive. Even those who pay out of pocket frequently receive subpar services. Health funding regulations that are carefully crafted and put into place can aid in resolving these problems.

Contracting and payment arrangements, for instance, can encourage care coordination and improve the standard of treatment; timely and proper payments to providers can help to guarantee that there is enough staffing and medication to treat patients.

The WHO's strategy for health financing focuses on these fundamental tasks:

- revenue generation (sources of funds, including government budgets, compulsory or voluntary prepaid insurance schemes, direct out-of-pocket payments by users, and external aid)
- pooling of resources (the accumulation of prepaid funds on behalf of some or all of the population)
- the acquisition of services (the payment or allocation of resources to health service providers)

Definition of Health Care Financing

- Mobilization of funds for health care
- Allocation of funds to the regions and population groups and for specific types of health care
- Mechanisms for paying health care.

Health Service Financing Source

- Health services financed broadly through private expenditure or public expenditure or external aid
- Public expenditure includes all expenditure on health services by
- central and local government funds spent by state owned and parastatal enterprises as well as government and social insurance contributions
- Where services are paid for by taxes, or compulsory health insurance contributions either by employers or insured persons or both this counts as public expenditure.
- Voluntary payments by individuals or employers are private expenditure.
- External sources refer to the external aid which comes through bilateral aid programme or international non-governmental organizations.
- The ownership of the facilities used whether government by government, social insurance agencies, nonprofit organizations private companies or individuals is not relevant.

Annual Health Care Expenditure for Selected Asian Countries 1991 Data

Country	GDP per capita 1991 (US$)	Expenditure as % of GDP	Public Expenditure as % of total
Nepal	188	4.5	48.9
Bangladesh	204	3.2	43.8
China	311	3.5	60.0
India	353	6.0	21.7
Pakistan	354	12	52.9
Sri Lanka	473	18	48.6
Indonesia	596	2.0	35.0
Thailand	1558	5.0	22.0
Singapore	13653	4.0	57.9

Mechanisms of Health Financing

- General revenue or earmarked taxes
- Social insurance contributions
- Private insurance premiums
- Community financing
- Direct out of pocket payments

Each method

- Distributes the financial burdens and benefits differently
- Affects who will have access to health care
- Financial protection

General Revenue or Earmarked Taxes

- The most traditional way of financing health care
- Finance a major portion of the health care (especially in low income countries).

Social insurance

It is compulsory. Everyone in the eligible group must enroll and pay a specific premium contribution in exchange for a set of benefits. Social insurance premiums and benefits are described in social compacts established through legislation. Premiums or benefits can be altered only through a formal political process.

Private Insurance

- Private contract offered by an insurer to exchange a set of benefits for a payment of a specified premium.

- Marketed either by nonprofit or for profit insurance companies
- Consumers voluntarily choose to purchase an insurance package that best matches their preference.
- Offered on individual and group basis. Under individual insurance the premium is based on that individuals risk characteristics.
- Major concern in private insurance is buyer's adverse selection
- Under group insurance, the premium is calculated on a group basis; risk is pooled across age, gender and health status.

Community Based Financing

- Refers to schemes are based on three principles: community cooperation, local self-reliance and pre-payment.
- Factors for success of community financing.
- Technical strength and institutional capacity of the local group.
- Financial control as part of the broader strategy in local management and control of health care services.
- Support received from outside organizations and individuals
- Links with other local organizations
- Diversity of funding
- Responding to other (non health) development needs of the community
- Ability to adapt to a changing environment

Direct Out of Pocket

- Made by patients to private providers at the time a service is rendered
- User fees refer to fees the patients have to pay to public hospitals, clinics, and health posts not to private sector providers.
- Proponents of user fees believe that the fee can increase revenue to improve the quality of public health services and expand coverage.
- Major objection raised against user fees had been on equity grounds.

Changing Government Role in Health Care

- Ability to adapt to a changing environment
- Health is considered a public good
- Government needs to actively participate to avoid market failures.

Health Financing in India: Characteristics

The government's fiscal effort measured as the proportion of total government expenditure spent on health again identifies India as a low performer.In a global ranking of the shares of total public expenditure earmarked for health only 12 countries in the world had lower proportions spent on health. The out of pocket private spending dominates with 82 percent spending of all health spending from private sources. This is one of the highest in the world. Globally only five countries have a higher dependence on private financing in the health sector (WHR 2000). About 10 percent of Indians have some form of health insurance mostly formal sector and government employees.

National Health Account for India, 1991 (% of total Expenditure)

Use of Funds (Expenditures)	Source of Funds			
	Public Subsidies	Insurance	Out of Pocket	All sources
Primary Care	9.9	0.8	48.0	58.7
Curative	3.3	0.8	45.6	49.7
Preventive Public Health	6.6	NA	2.4	9.0

Inpatient Care	9.3	2.5	27.0	38.8
Non-Services Provision	2.5	NA	NA	2.5
All Uses	21.7	3.3	75.0	100.0

Insurance Schemes in India

- Categorized into: Mandatory, voluntary, employer based, and NGO based
- Mandatory insurance ESIS and CGHS
- Principally financed by the contributions of the beneficiaries and their employers and from taxes.
- ESIS receives contributions from state governments whereas the latter is mainly financed from central government revenues.
- ESIS covered 35.4 million beneficiaries in 1998 and CGHS covered only 4.4 million beneficiaries in 1996. Providers mainly work on salaries and hospitals work under global budgets.

Voluntary Health Insurance Schemes

- There are for individuals and corporations
- Available mainly through the General Insurance Corporation (GIC) of India and its four subsidiaries- a government owned monopoly.
- Financed from household and corporate funds.
- GIC offers MEDICLAIM policy for groups and individuals and the JAN Arogya Bima scheme to individuals and families, mainly to cover poor people.
- Policies have had only limited success in India covering only 1.7 million people in 1996.
- With Insurance Regulatory and Development Act 1999 and the liberalization of insurance more private voluntary health schemes are expected to be introduced soon.

Employer Based Schemes

- Offered both by public and private sector companies through their own employer managed facilities
- Mode lump sum payments, reimbursements of employee's health expenditure or covering them under the group health insurance policy with one of the subsidiaries of GIC.
- Workers buy health insurance through their employers taking insurance in lieu of wages
- Ellis (1997) estimates roughly 30 million are covered under the employer based scheme

Community Based Insurance Schemes

- Primarily for informal sector
- Tends to cover all insured members of the community for all available services but have emphasis on primary health.
- Most financed from patient collections, government grant, donations, and such miscellaneous items as interest earnings or employment schemes
- Most NGOs have their own facilities or mobile clinics to provide health care.
- Total coverage is estimated to be about 30 million people (Ellis 1997).

Some Healthcare Schemes in India

- Ayushman Bharat Yojana:
- Pradhan Mantri Suraksha Bima Yojana:
- Aam Aadmi Bima Yojana (AABY):
- Central Government Health Scheme (CGHS):

- Employment State Insurance Scheme:
- JanshreeBima Yojana:
- Chief Minister's Comprehensive Insurance Scheme:
- Universal Health Insurance Scheme (UHIS):
- West Bengal Health Scheme:
- Yeshasvini Health Insurance Scheme:
- Mahatma Jyotiba Phule Jan Arogya Yojana
- MukhyamantriAmrutam Yojana
- Karunya Health Scheme:
- Telangana State Government Employees and Journalists Health Scheme:
- Dr YSR Aarogyasri Health Care Trust:

Features and Benefits of Government Health Insurance Schemes

- Government health insurance schemes are offered at a low price
- With this policy, BPL families can also avail of insurance benefits
- The policy ensures coverage for the poor people
- The policy includes treatment in both private and government hospitals for better healthcare.

Challenges with Insurance

India linking health insurance with employment is difficult because most people are self-employed, have agricultural work, or do not have a formal employer or steady employment. Many of the poor are excluded from access to high quality health care and health insurance because of inability to pay, lack of knowledge, or other factors, related to geography or discrimination. Too much of cream skimming too in India i.e. selection of less risky groups by insurance companies.

13.2 Principles and Constraints

Healthcare financing is a topic that involves how society pays for the healthcare services it consumes. The manner of financing healthcare affects how hospitals and physicians are reimbursed for services and hence has a significant influence on healthcare finance. In health services organizations, healthcare finance consists of both the accounting and financial management functions. Accounting, as its name implies, concerns the recording, in financial terms, of economic events that reflect the operations, assets, and financing of an organization. Financial management (often called corporate finance) provides the theory, concepts, and tools necessary to help managers make better financial decisions. Of course, the boundary between accounting and financial management is blurred; certain aspects of accounting involve decision-making, and much of the application of financial management concepts requires accounting data.

Role of Financial Management in Healthcare

In general, the financial management function includes the following activities:

Evaluation and planning- First and foremost, financial management involves evaluating the financial effectiveness of current operations and planning for the future.

Long-term investment decisions- The managers at all levels must be concerned with the capital investment decision process. Such decisions focus on the acquisition of new facilities and equipment (fixed assets) and are the primary means by which businesses implement strategic plans; hence, they play a key role in a business's financial future.

Financing decisions-All organizations must raise funds to buy the assets necessary to support operations. Such decisions involve the choice between the use of internal versus external funds, the use of debt versus equity capital, and the use of long-term versus short-term debt.

Working capital management- An organization's current, or short-term, assets—such as cash, marketable securities, receivables, and inventories—must be properly managed to ensure operational effectiveness and reduce costs. Contract management- Health services organizations must negotiate, sign, and monitor contracts with managed care organizations and third-party payers.

The financial staff typically has primary responsibility for these tasks, but managers at all levels are involved in these activities and must be aware of their effect on operating decisions. Financial risk management- Many financial transactions that take place to support the operations of a business can increase a business's risk.

Thus, an important financial management activity is to control financial risk.

Controlling-The financial manager makes sure that each area of the organization is following the plans that have been established.

One way to do this is to study current reports and compare them with reports from earlier periods.

This comparison often shows where the organization may need attention because that area is not effective. The reports that the manager uses for this purpose are often called feedback. The purpose of controlling is to ensure that plans are being followed. Organizing and directing-When organizing, the financial manager decides how to use the resources of the organization to most effectively carry out the plans that have been established. When directing, the manager works on a day-to-day basis to keep the results of the organizing running efficiently. The purpose is to ensure effective resource use and provide daily supervision.

Principles of Financial Management in Healthcare

- The Four Cs
- The finance activities at health services organizations may be summarized by the four Cs: costs, cash, capital, and control.

Costs-

The measurement and minimization of costs are vital activities to the financial success of all healthcare organizations. Rampant costs, compared to revenues, usually spell doom for any business.

Cash-

A business might be profitable but still face a crisis because of a shortage of cash.

Cash is the lubricant that makes the wheels of a business run smoothly; without it, the business grinds to a halt.

- In essence, businesses must have sufficient cash on hand to meet cash obligations as they occur.
- In healthcare, a critical part of managing cash is collecting money from insurers for patient services provided

Capital

- Capital represents the funds (money) used to acquire land, buildings, and equipment.
- Without capital, healthcare businesses would not have the physical resources needed to provide patient services.
- Thus, capital allows healthcare organizations to meet the healthcare needs of their communities.

Control-

- Finally, a business must control its financial and physical resources to ensure that they are being wisely employed and protected for future use.
- In addition to meeting current mission requirements, healthcare organizations must plan to meet society's future healthcare needs.

Constraints or the Challenges

- Financial challenges
- Governmental mandates
- Patient safety and quality
- Personnel shortages
- Behavioral health and addiction issues
- Increasing costs for staff, supplies, and so on
- Reducing operating costs
- Bad debt
- Competition from other providers
- Managed care and other commercial insurance payments
- Medicare reimbursement
- Government funding cuts
- Transition from volume to value
- Revenue cycle management (converting charges to cash)
- Inadequate funding for capital improvements

Constraints or the Challenges in Developing Countries

The International Flow of Development Resources

1. Private foreign investment

• Foreign direct investment

• Foreign portfolio investment (stocks, bonds, and notes)

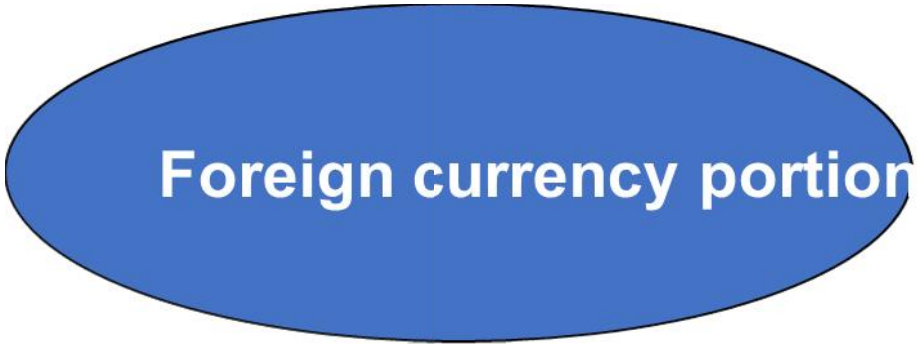
2. Public and private development assistance

• Bilateral and multilateral donor agencies (grants and loans)

• Nongovernmental organizations (NGOs)

Government Budget

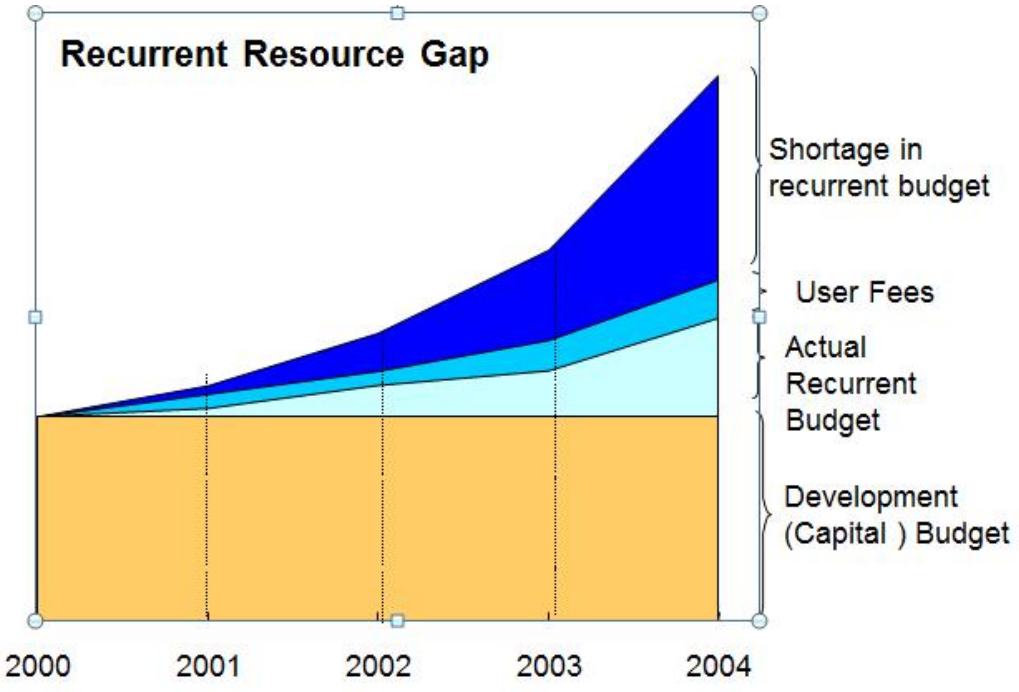
1. Development (Capital) Budget
    - Domestic Financing
    - External Financing (development assistance, etc.)



2. Recurrent Budget

- Domestic resources (tax, user fees)

Absorptive capacity



Recurrent cost constraints threaten the productivity of past investment

- A mismatch between capital investment and recurrent financial capacity
- "R" co-efficient: the ratio of recurrent expenditure to total investment outlay
    - District hospitals 0.33 every $1000 spent on the initial capital development of a district hospital results in $333 of expenditure per year

External assistance

- Development (capital) budget + recurrent budget
- Foreign currency portion + local currency portion

A mismatch between capital investment and recurrent financial capacity

13.3 Implications of health care resource mobilization

Trend of Health Care Resource mobilization

- International comparisons show that countries use different ways of paying for health services. For example, France and Sweden have developed distinctly different practices to fund hospitals and to pay for doctors. Latin American countries have social insurance systems whereas in many African countries government funding is common. Health finance mobilization today has been shaped by cultural and political factors from the past and health finance differs between countries.From private to social health insurance to universal coverage
- Prior to the development of modern health care systems, governments or charities financed services for groups of the population for whom they perceived a duty of care.
- For example, hospitals for the poor existed in India, China, Arabia and medieval Europe.
- For the more affluent, private (or voluntary) health insurance was pioneered in Europe as early as the eighteenth century.
- In the nineteenth century, private insurance was developed throughout Europe and spread to North and South America.
- Social (or compulsory) insurance was introduced in Germany for industrial workers in 1883 by Otto von Bismarck (1815–98), building on the existing voluntary precedents.
- Payroll-based social insurance systems developed steadily in Europe, later in Latin America and Asia and now Africa.
- Achieving universal health care coverage
- Countries have used different means of making health care available to all: universal coverage is achieved either through the extension of social insurance or government provision to the whole population.
- The Soviet Union extended coverage through government provision in 1938, and that example was followed by the countries of the Soviet bloc after World War II.
- The UK extended coverage to all in 1948. The British NHS was established as a major part of the social reforms recommended by William Beveridge with the aim of providing health services for the whole population.
- In the USA, private insurance has assumed a larger role than in Europe.
- But, even in the USA, publicly funded health care plays a large role for the elderly (Medicare), the poor (Medicaid), and armed services personnel, and the 2010 health care reforms aim to move the USA to universal coverage.
- The health finance systems of low-income countries have been strongly influenced by their colonial past.
- In British colonies, government funded services for the armed forces and civil services provided the basis for further extension of health care, whereas in French colonies the model was provided by larger firms, which were required to provide services for their employees.
- To a variable extent, charitable organizations and missions also played a role in financing hospitals.
- In the post-colonial era these countries made efforts to extend services 'as far as economic growth and available resources allowed.
- Increasing health care costs

- As health systems have evolved and larger proportions of national populations are covered by health insurance, there has been rising concern about the increasing costs of health care.
- There are a number of interrelated reasons that answer this question.

Demographic factors

- As well as absolute population growth, relative changes within a population affect health care costs. Relative changes can mean that the distribution of the population shifts towards groups with higher health care needs.

Economic factors

- Economic trends influence the health sector and the costs of delivering health services. In general, economic growth is associated with rising costs of health services.
- Economic recession has the opposite effect. Unemployment and poverty are related to ill health and put additional strain on health services.
- When assessing cost escalation, the general price or the rate of inflation also impacts on healthcare expenses.
- Supply factors also exert important pressures – for example, increasing numbers of doctors and hospitals or payment increases for health workers.

Health technology advances

- At the beginning of the twentieth century, health services had only a few effective treatments. Between one quarter and one half of health expenditure growth between 1960 and 2007 can be attributed to technological advances.
- Most recently, the use of expensive diagnostic tools, such as MRI and CT scanners have been driving up health care costs with an increase of over 100 per cent Health technology advances for MRI units per capita across OECD member countries between 2000 and 2008.

Disease patterns

- New diseases like HIV/AIDS increase the level of ill health in the population.
- The relative increase in chronic diseases and long-term illness is related to higher treatment costs.
- With economic development, countries are likely to experience higher health care costs, as deaths among infants from communicable diseases decrease relative to adult deaths from chronic diseases.

Evolution of the health system

- Some authors (Relman 1988; Hurst 1992) have put forward a three-stage model to explain how health systems have changed during the last 60 years resulting in changing costs:
    - During the first stage, policies removed the existing financial barriers to health care. New funding arrangements increased population coverage and triggered the expansion of health services.
    - The subsequent increase in demand led to a rapid growth of health care expenditure. Often spending grew faster than the gross domestic product (GDP) and policy efforts were focused on cost control.
    - From the experience of ever-rising costs, it was realized that cost control alone is not effective. Policies of the third stage aim to improve efficiency of service delivery and use.

Political factors

- Health budgets are inevitably based on political judgment.
- There may be additional 'cash injections' before elections or deviations from planned growth rates because of other priorities.
- Health funds may be diverted officially to support other purposes.

- Concerns about equity may improve access to services and increase costs.
- On the other hand, corruption of politicians, civil servants or health care providers may lead to substantial economic losses.
- Public–private mix in finance and provision
- The organization of financial intermediaries may be on a monopolistic, oligopolistic or competitive basis.
- In a monopolistic system, the financial intermediary is usually a public agency such as a government, or a health corporation.
- In an oligopolistic system (i.e. one in which there are a small number of large intermediaries) finance can be controlled by public agencies or private agencies, such as insurance companies, or a combination of these.
- In a competitive system, a large number of small private intermediaries would exist...
- The provision of services, however, does not necessarily have to match the financial organization. For instance, hospital care in many European countries represents a large, vertically integrated health system, in which finance and provision are combined within one organization.
- Governments can organize finance, act as purchaser, provide services and regulate health services.
- In many low income countries, governments have historically had the major role in the provision of health care.
- Governments see it as the most efficient and equitable method of providing services.
- Though the private sector may play an increasing role, socioeconomic conditions are such that private care will not totally replace public services.
- In particular, primary health care in low income countries is reliant on the public sector.

Summary

The creation, distribution, and utilisation of financial resources within the healthcare system are all covered under health care financing. In order to achieve universal health coverage, it has gained more and more attention on a global scale (UHC). Understanding the nation's healthcare financing system enables one to identify the present health funding sources and strategies for raising additional funds and allocating them in a way that ensures equitable and high-quality healthcare for everyone. In order to increase access to health treatments and decrease out-of-pocket expenses that result in disaster and poverty, it also helps to understand processes for efficiently and fairly allocating, purchasing, and spending money. The National Health Policy 2017 also encourages the government to spend more money on health, use its resources more effectively to improve health outcomes, strengthen financial security, and make wise purchases from the for-profit and nonprofit sectors. The development and institutionalisation of a strong Health Accounts system was also highlighted in order to assist decision-makers in allocating monies in the best possible ways. The Health Care Funding (HCF) Division supports the Union and State Governments in the area of healthcare financing and supports evidence-based decisions under this domain. The National Health Accounts Technical Secretariat (NHATS), a branch of NHSRC, has the responsibility of institutionalising health accounts in India. Based on SHA-2011 criteria, the division has been creating the National Health Account for the nation from 2013–2014, making the estimates from India comparable to those from the rest of the globe. The World Health Organization (WHO) also uses the NHA estimates for India in its Global Health Expenditure Database (GHED). Important government papers like the Economic Survey published by the Ministry of Finance and the Survey of State Finances published by the Reserve Bank of India also make use of the estimates. Indicators for health financing are reported and tracked by the HCF division in accordance with the National Health Policy of 2017, Sustainable Development Goals, and Universal Health Coverage. The HCF team conducts research on matters pertaining to national health financing.

Keywords:

Healthcare: The organized provision of medical care to individuals or a community.

Health Insurance: Insurance taken out to cover the cost of medical care.

Health Care Financing: Health Care financing deals with the generation, allocation and use of financial resources in the health system.

Risk sharing: When businesses assign the risk to a third party, the process is known as risk transfer or risk sharing. This can be seen frequently in the area of financial loss. For a nominal payment, the exposed organization can transfer its risk of financial loss to an insurance provider.

WHO: It is in charge of taking the lead on issues pertaining to global health, establishing norms and standards, defining evidence-based policy alternatives, giving governments technical assistance, and monitoring and analyzing health trends.

Self-Assessment

1. Which of the following is not a reason for increased health spending?

A. People spend more on their health as their income increases

B. People are living longer

C. The average age of the population is rising

D. People are dying earlier

2. The rectangularisation of life curve refers to:

A. Fewer deaths at every age

B. A lower life expectancy

C. More deaths at every age

D. A higher birth rate

3. The number of people who die per 100,000 population in a given year is called the:

A.Rectangularisation of life curve

B.Life expectancy

C.Mortality rate

D.Morbidity rate

4. Life expectancy does not vary with:

A. Birth rate

B. Occupation

C. Social class

D. Gender

5. Which of the following occupations accounts for the highest percentage of workers in the National Health Service?

A. Nurses

B. Doctors

C. Ambulance staff

D. Scientific and technical staff

6. Total utility will be a maximum when:

A. Marginal utility is negative

B. Marginal utility equals price

C. The ratio of the respective marginal utilities is equal to the ratio of prices

D. Marginal utility is positive

7. Which of the following seeks to measure the benefits to individuals of additional life years following a medical intervention?

A.Cost minimization

B. Cost-utility analysis

C. Quality adjusted life years

D. Profit maximization

8. Increased life expectancy is closely correlated with which of the following?

A. Reduction in exercise

B. Reduced spending on pharmaceutical research

C. Fall in educational achievement

D. Increased health spending per capita

9. An increase in demand within the National Health Service i.e. for healthcare which remains free at the point of use but where medical resources are limited will result in:

A. Reduction in price of healthcare

B. Longer waiting lists

C. Rises in price of healthcare

D. Unemployment in healthcare service

10. Doctors earn more than nurses because:

A. There is an excess supply of doctors

B. There is an excess demand for doctors

C. There is a National Minimum Wage

D. There is an excess demand for nurses

11. The benefits associated with the best alternative use of resources is called:

A. Health economics

B. Health resources

C. Opportunity cost

D. Alternative activities

12. The following is a list of the types of statistical data most often required in health economics. Which letter listed below does not belong in the list?

A. financing health care

B. epidemiological

C. cost of care

D. demographic

13. Select the specialist health economics journal/s within the economics discipline.

A. BMJ

B. Health Economics

C. B and D

D. Journal of Health Economics

14. The site with substantial content on cost-QALY ratios is called

A. The CEA Registry

B. The Health Economic Evaluations Database (HEED)

C. Evidence Based Health Care

D. The NHS Economic Evaluation Database (NHS EED)

15. The following is a list of disciplines, some of which relate to health economics. Which discipline does not belong in this list?

A. Health Education

B. Anthropology

C. Health Services Research

D. Statistical Methods

Answer for Self-Assessment

1.	D	2.	A	3.	C	4.	A	5.	A
6.	C	7.	C	8.	D	9.	B	10.	D
11.	D	12.	D	13.	B	14.	D	15.	A

Review Questions

Q1. What are the Trend of Health Care Resource mobilization?

Q2. Definition of Health Care Financing?

Q3. What does mean by Social insurance?

Q4. Define the term Voluntary Health Insurance Schemes?

Q5. What are the challenges for developing countries?

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Dr. Parmjeet Kaur, Lovely Professional University

Unit 14: Role of Health and Education in Human Development

CONTENTS

Objectives

- Learn the magnitude of healthcare in terms of service providers' point of view,
- Know the magnitude of healthcare from a global perspective,
- Understand the magnitude of healthcare from India's point of view.
- Learn about the eligibility, feature, and benefit under RSBY,
- Understand the coverage and implementation under RSBY,
- Analyse the challenges under RSBY.

Introduction

Financial resources (health spending) and human resources are both considered health resources. Spending on healthcare includes outpatient treatment, inpatient care, long-term care, medications and other medical supplies, administration, public health and prevention services, and long-term care.The process of locating and controlling resources is known as resource allocation. The demographics, programmes, and people who will use them are divided up. Both the macro and micro levels of society are affected by this process. The fundamental guiding premise is that people's health should be improved through the distribution of healthcare resources. In other words, health care resources should be put to good use by treating illness, easing suffering, promoting public health, and/or funding studies that could lead to health improvements.The healthcare system provides four main service categories: rehabilitation, disease prevention, diagnosis and treatment, and promotion of good health. The Government of India's Ministry of Labour and Employment has introduced RSBY to offer Below Poverty Line (BPL) families access to health insurance. The purpose of RSBY is to shield BPL households from the financial obligations caused by medical emergencies that necessitate hospitalization.

14.1 Magnitude of Health Care

Healthcare services are the medical services provided to people who are in need by healthcare professionals, organizations, and healthcare workers.

These services are provided to patients, families, and communities.

- The main types of healthcare services are medical and diagnostic laboratory services, dental services, home health care and residential nursing care services, residential substance abuse and mental health facilities, hospitals and outpatient care centres, physicians and other health practitioners, all other ambulatory health care services, and ambulance services.
- The hospitals and outpatient care centers are engaged in providing diagnostic and medical treatment to patients with a wide range of medical conditions.
- The different expenditure types include public and private which are used by male and female.
- The Business Research Company that provides healthcare services market statistics, including healthcare services industry global market size, regional shares, competitors with a healthcare services market share, detailed healthcare services market segments, market trends and opportunities, and any further data you may need to thrive in the healthcare services industry.
- This healthcare services market research report delivers a complete perspective of everything you need, with an in-depth analysis of the current and future scenario of the industry.
- The global healthcare services market grew from $7,499.75 billion in 2022 to $7,975.87 billion in 2023 at a compound annual growth rate (CAGR) of 6.3%.
- The Russia-Ukraine war disrupted the chances of global economic recovery from the COVID-19 pandemic, at least in the short term.
- Survival rates and quality of life have improved tremendously over the past decade.
- Medical and technological advances have played an important role in their progress.
- High technology diagnostics and therapeutic equipment integrating doctors' practice patterns have improved healthcare services delivery.
- According to a report by Trend Watch, medical advances are responsible for a 70% improvement in survival rates for heart attack patients and a two-thirds reduction in mortality rates for those suffering from cancer.
- These factors contribute to the potential growth of the market.
- The healthcare services market includes revenues earned by entities by providing human healthcare services such as medical and diagnostic laboratory services, dental services, nursing care, residential substance abuse, and mental health facilities, and other healthcare services.
- The market value includes the value of related goods sold by the service provider or included within the service offering.
- Only goods and services traded between entities or sold to end consumers are included.
- The global healthcare services market is segmented -
- 1) By Type: Medical And Diagnostic Laboratory Services, Dental Services, Home Health Care And Residential Nursing Care Services, Residential Substance Abuse And Mental Health Facilities, Hospitals And Outpatient Care Centers,

Physicians And Other Health Practitioners, All Other Ambulatory Health Care Services, Ambulance Services

- 2) By End User Gender: Male, Female
- 3) By Type of Expenditure: Public, Private
- Subsegments Covered: Medical Laboratory Services, Diagnostic Imaging Centers, General Dentistry, Oral Surgery, Orthodontics And Prosthodontics, Other Dental Services, Home Health Care Providers, Nursing Care Facilities, Orphanages & Group Homes, Retirement Communities,
- Residential Mental Health & Intellectual Disability Facilities, Substance Abuse Centers, Hospitals, Outpatient Care Centers, Specialist Doctors, Primary Care Doctors, Physical

Therapists, Optometrists, Chiropractors, Podiatrists, Ground Ambulance Services, Air Ambulance Services, Water Ambulance Services

Indian Scenario

Healthcare industry in India is projected to reach $372 bn by 2022

- Healthcare industry in India comprises of hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance, and medical equipment.
- The healthcare sector is growing at a tremendous pace owing to its strengthening coverage, services, and increasing expenditure by public as well private players.

- The hospital industry in India, accounting for 80% of the total healthcare market, is witnessing a huge investor demand from both global as well as domestic investors. The hospital industry is expected to reach $132 bn by 2023 from $61.8 bn in 2017; growing at a CAGR of 16-17%.
- In 2020, India's Medical Tourism market was estimated to be worth $5-6 Bn and is expected to grow to $13 Bn by 2026.
- Healthcare sector in India is expected to grow to reach a size of $50 bn by 2025.
- The diagnostics industry in India is currently valued at $4 bn. The share of the organized sector is almost 25% in this segment (15% in labs and 10% in radiology).

The primary care industry is currently valued at $13 bn. The share of the organized sector is practically negligible in this case.

1,50,000 Ayushman Bharat centers, which aim at providing primary health care services to communities closer to their homes, are operational in India

The market size of AYUSH has grown by 17% in 2014-20 to reach $18.1 bn and the industry is projected to reach $23.3 bn in 2022.

- Health insurance contributes 20% to the non-life insurance business, making it the 2nd largest portfolio. The gross direct premium income underwritten by health insurance grew 17.16% year-on-year to reach $6.87 bn in FY20
- Over 4 cr health records of citizens digitized and linked with their Ayushman Bharat Health Account (ABHA) numbers under Ayushman Bharat Digital Mission (ABDM)
- India is a preferred destination for Medical Value Travel (MVT) where patients from all over the globe come to "Heal in India" and is growing as huge opportunity area in the Healthcare market.

14.2 RashtriyaSwasthyaBimaYojna: Challenges and Implementation

RSBY has been launched in 2008 by Ministry of Labour and Employment, Government of India to provide health insurance coverage for Below Poverty Line (BPL) families. The objective of RSBY is to protect BPL households from financial liabilities arising from health shocks involving hospitalization.

Eligibility

- Unorganized sector workers belonging to BPL category and their family members (a family unit of five) shall be the beneficiaries under the scheme.
- It will be the responsibility of the implementing agencies to verify the eligibility of the unorganized sector workers and his family members who are proposed to be benefited under the scheme.
- The beneficiaries will be issued smart cards for the purpose of identification.

Benefits

- The beneficiary shall be eligible for such in - patient health care insurance benefits as would be designed by the respective State Governments based on the requirement of the people/ geographical area.

- However, the State Governments are advised to incorporate at least the following minimum benefits in the package / scheme:
- The unroganised sector worker and his family (unit of five) will be covered.
- Total sum insured would be Rs. 30,000/- per family per annum on a family floater basis.
- Cashless attendance to all covered ailments
- Hospitalization expenses, taking care of most common illnesses with as few exclusions as possible
- All pre-existing diseases to be covered
- Transportation costs (actual with maximum limit of Rs. 100 per visit) within an overall limit of Rs. 1000.

Funding Pattern

- Contribution by Government of India: 75% of the estimated annual premium of Rs. 750, subject to a maximum of Rs. 565 per family per annum. The cost of smart card will be borne by the Central Government.
- Contribution by respective State Governments: 25% of the annual premium, as well as any additional premium.
- The beneficiary would pay Rs. 30 per annum as registration/renewal fee.
- The administrative and other related cost of administering the scheme would be borne by the respective State Governments

SMART CARD

- Smart card is used for a variety of activities like identification of the beneficiary through photograph and fingerprints, information regarding the patient.
- The most important function of the smart card is that it enables cashless transactions at the empanelled hospital and portability of benefits across the country.
- The authenticated smart card shall be handed over to the beneficiary at the enrollment station itself.
- The photograph of the head of the family on the smart card can be used for identification purpose in case biometric information fails.

UNIQUE FEATURES OF RSBY

- The RSBY scheme is not the first attempt to provide health insurance to low income workers by the Government in India.
- The RSBY scheme, however, differs from these schemes in several important ways.

A. Empowering the Beneficiary

- RSBY provides the participating BPL household with freedom of choice between public and private hospitals and makes him a potential client worth attracting on account of the significant revenues that hospitals stand to earn through the scheme.

B. Business Model for all Stakeholders

- The scheme has been designed as a business model for a social sector scheme with incentives built for each stakeholder.
- This business model design is conducive both in terms of expansion of the scheme as well as for its long run sustainability.

C. Insurers

- The insurer is paid premium for each household enrolled for RSBY.
- Therefore, the insurer has the motivation to enroll as many households as possible from the BPL list.
- This will result in better coverage of targeted beneficiaries.

D. Hospitals

- A hospital has the incentive to provide treatment to large number of beneficiaries as it is paid per beneficiary treated.
- Even public hospitals have the incentive to treat beneficiaries under RSBY as the money from the insurer will flow directly to the concerned public hospital which they can use for their own purposes.
- Insurers, in contrast, will monitor participating hospitals in order to prevent unnecessary procedures or fraud resulting in excessive claims.

E. Intermediaries

- The inclusion of intermediaries such as NGOs and MFIs which have a greater stake in assisting BPL households.
- The intermediaries will be paid for the services they render in reaching out to the beneficiaries.

F. Government

- By paying only a maximum sum up to Rs. 750/- per family per year, the Government is able to provide access to quality health care to the below poverty line population.
- It will also lead to a healthy competition between public and private providers which in turn will improve the functioning of the public health care providers.

G. Information Technology (IT) Intensive

- Every beneficiary family is issued a biometric enabled smart card containing their fingerprints and photographs.
- All the hospitals empanelled under RSBY are IT enabled and connected to the server at the district level.
- This will ensure a smooth data flow regarding service utilization periodically.

H. Safe and foolproof

- The use of biometric enabled smart card and a key management system makes this scheme safe and foolproof.
- The key management system of RSBY ensures that the card reaches the correct beneficiary and there remains accountability in terms of issuance of the smart card and its usage. The biometric enabled smart card ensures that only the real beneficiary can use the smart card.

I. Portability

- The key feature of RSBY is that a beneficiary who has been enrolled in a particular district will be able to use his/ her smart card in any RSBY empanelled hospital across India. This makes the scheme truly unique and beneficial to the poor families that migrate from one place to the other.
- Cards can also be split for migrant workers to carry a share of the coverage with them separately.

J. Cash less and Paperless transactions

- A beneficiary of RSBY gets cashless benefit in any of the empanelled hospitals. He/ she only needs to carry his/ her smart card and provide verification through his/ her finger print. For participating providers it is a paperless scheme as they do not need to send all the papers related to treatment to the insurer. They send online claims to the insurer and get paid electronically.

K. Robust Monitoring and Evaluation

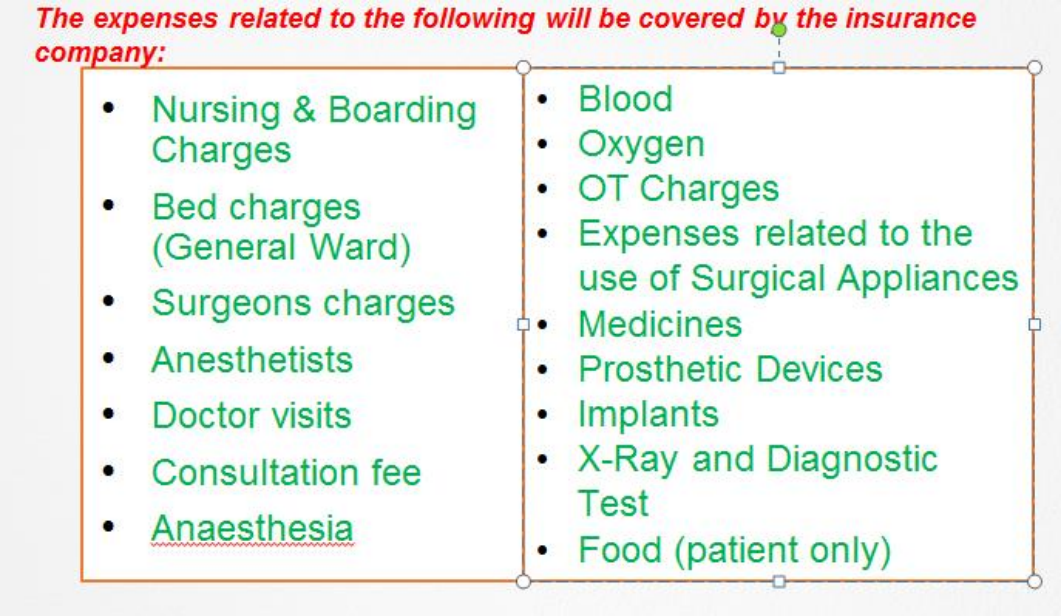
- RSBY is evolving a robust monitoring and evaluation system.
- An elaborate backend data management system is being put in place which can track any transaction across India and provide periodic analytical reports.

- The basic information gathered by government and reported publicly should allow for mid-course improvements in the scheme. It may also contribute to competition during subsequent tender processes with the insurers by disseminating the data and reports.

14.3 Implementation of RSBY-Coverages

1. Hospitalization Expenses:

Expenses related to hospitalization for the treatment for a disease, illness, or an accident will be covered under the RSBY. This coverage will be extended to the policyholder's family as well. However, the treatment and hospitalization shall be taken at a Nursing Home/Hospital by a qualified Physician/Medical Specialist/Medical Practitioner.



2. Pre Hospitalization:

- The scheme will cover the cost of diagnostic tests and medicines up to one day before a patient gets admitted to the hospital.

3. Post Hospitalization:

- The expenses related to an ailment/surgery for which the patient was admitted will be covered for five days after the date of discharge.

4. Transportation Expenses:

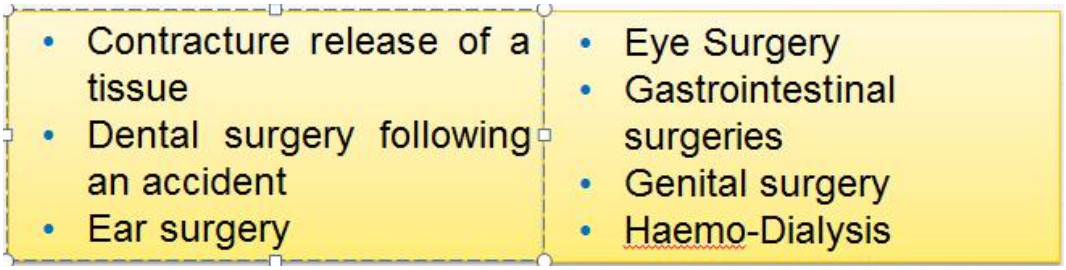
- The policyholder can claim a maximum of Rs.100/- per visit under transportation. The annual cap for this cost is one thousand rupees.

5. Dental Treatment:

- The cost of dental treatments required as a result of an accident will be covered under the RashtriyaSwasthyaBima Yojana.

6. Daycare Treatments:

- A daycare treatment is a surgical procedure that does not require prolonged hospitalization. These are also referred to as out-patient treatments.
- The following list of daycare treatments is covered under RSBY.



- Hydrocele surgery
- Identified surgeries under general anaesthesia
- Laparoscopic therapeutic surgeries allowed under daycare
- Lithotripsy
- Minor reconstructive procedures of limbs
- Nose surgery
- Parenteral Chemotherapy
- Prostate surgery
- Radiotherapy
- Surgery of urinary system
- Throat surgery
- Tonsillectomy
- Treatment of fractures/dislocation
- Screening and follow up care including medicine cost with and without diagnostic tests
- Any procedure covered by the insurance company

. Maternity Benefit:

Both – natural and caesarean type of deliveries are covered under this scheme. A claim for Rs. 2500 for natural and 4500 for caesarean delivery can be made by the policyholder. Any complications before delivery are also covered.The cost of involuntary termination of pregnancy that was caused due to an accident or in a situation where saving the life of the mother is necessary, will be covered.

. Newborn Coverage:

- The new-born baby will be added automatically to the RSBY policy even if the number of beneficiaries has exceeded. This coverage will be valid until the end of the policy period.
- The decision of including the baby in the policy at the time of renewal, lies with the policyholder.

14.4 Challenges of RSBY

The way beneficiaries of RSBY (Below Poverty Line households) perceived the scheme was not as a health right but in terms of the value it imparted, which was measured along multiple dimensions.

Already the beneficiaries of RSBY had little value for the scheme as officials who distributed the RSBY smart card did not provide information on how to use the card.

- At the same time hospitals did not respect patients with the card, believing that they were availing medical care free of cost.
- Sometimes they did not honour the card either due to inaccuracy of fingerprints or lack of money on the card.
- Neighbours and family members did not discuss the utilisation of the card, making households perceive the card as just a showpiece, important to possess but not useful.
- The lack of involvement and endorsement by local leaders further diminished the value of the card for the households.

- The difficulty in understanding the basic facts of the card and using it led households to opt for seeking medical care without the card.

What Is Not Covered Under RSBY?

- The RashtriyaSwasthyaBima Yojana facilitates underprivileged people to avail necessary treatment during a medical emergency. Thus, the following conditions are not covered under the plan:
- Any claim for hospitalization that is not covered under the scheme will not be honoured.
- Cost of vitamins or tonics unless prescribed as a part of treatment by a certified medical practitioner
- Dental treatments that are cosmetic or corrective in nature will not be covered. Also, root canal, filling of cavity, or procedures related to wear and tear are not covered.
- Congenital external diseases
- Substance abuse: Any illness arising out of excessive use of alcohol, drugs, or any intoxicating substance is not covered.
- Fertility, sub-fertility or assisted conception procedures
- Physical changes for resembling the opposite sex
- Hormone replacement therapy
- Plastic/cosmetic surgery unless required due to an accident or as a part of a disease
- Vaccinations
- HIV/AIDS
- Suicide
- War, an act of a foreign enemy, invasion, or warlike operations by nuclear materials
- AYUSH
- Treatments availed at a convalescent hospital, health hydro, convalescent home, nature care clinic, etc as described in the policy documents.

Exclusions Related to Maternity Benefit:

- Prenatal expenses
- The cost of voluntary termination of pregnancy
- Hospitalization ended 48 hours after delivery and related operations

Summary

Countries around the world are still feeling the effects of the pandemic more than two and a half years later. The most major public health disaster in more than a century, COVID-19 resulted in a financial crisis on a global scale, and had long-lasting effects on society. Many people are still experiencing COVID19's longer-term (physical and/or mental) impacts, and health systems are still working to recover from the severe disruption. COVID19 is still taking lives. These negative consequences highlight the need for wise investments to increase the resilience of health systems, safeguard population health at the root, strengthen the framework of health systems, and support frontline health workers. This will give nations the flexibility to respond not only to evolving pandemics but also to other shocks, whether natural or man-made. Such investments yield benefits that go much beyond just improved health. Stronger, more resilient economies are built on more robust health systems, which in turn enable significant economic and societal gains by preventing the need for expensive and restrictive containment measures in the event of future crises.RSBY is a special cashless method that enables unorganised workers and their families who are below the poverty line to receive medical care. The beneficiaries might use the coverage offered under the family floater plan to handle urgent medical needs.The RashtriyaSwasthyaBima Yojana health insurance program's primary goal is to protect families living below the poverty line from financial obligations resulting from medically linked hospitalisation costs by offering them cheap health insurance coverage.

Keywords:

Healthcare: The organized provision of medical care to individuals or a community.

Smart cards provide ways to securely identify and authenticate the holder and third parties who want access to the card.

Health Care Financing: Health Care financing deals with the generation, allocation and use of financial resources in the health system.

RashtriyaSwasthyaBima Yojana: To offer Below Poverty Line (BPL) families access to health insurance, the Ministry of Labour and Employment, Government of India, has introduced RSBY. The goal of RSBY is to shield BPL households from financial obligations resulting from health shocks that require hospitalization.

Hospitalization: bringing someone to the hospital and keeping them there while they receive treatment the patient needed to be admitted to the hospital because of how serious the accident was.

Self-Assessment

1. Which of the following statements is untrue and does not belong in this list? Grey literature is characterized as material:

A. Not published through regular book-publishing channels

B. Not subject to formal bibliographic control

C. That can be difficult to identify and obtain

D. That is generally available only in print (not electronic format)

2. The National Health Accounts are associated with which agency?

A. Agency for Health Care Policy and Research

B. Centers for Medicare and Medicaid Services (CMS)

C. NICHSR

D. Centers for Disease Control and Prevention

3. Children with no insurance receive health care through a program called what?

A.Medicare

B.Social Security Program

C.Maternal and Child Health Bureau

D.State Children's Health Insurance Program (SCHIP)

4. When referring users to the NHA/NHE there are a number of limitations we should remember to tell them. Which item listed below is not a limitation?

A. limitations of the data

B. use of Website

C. data definitions

D.source materials

5. Medicare covers what percentage of which population?

A. 49% of children

B. 20% of mothers and children

C. 95% of the elderly

D. 87% of adolescents

6. The National Health Accounts series has many important characteristics and aims to be comprehensive because it contains some | most | all of the main components of the health care system.

A. Some

B. Most

C.All

D. None

7. Federal expenditures have decreased | increased between 1960 and 2000?

A.decreased

B. increased

C. All

D. None

8. In the year 2000, spending on health care services and products represented what percentage of the U.S. Gross Domestic Product?

A. 13.2 percent

B. 6.9 percent

C. 10.3 percent

D. 7.9 percent

9. When we look at the various categories of expenditures (health care dollars) and the percentages of total dollars spent for each in the year 2000, program Administration and Net Cost consumes which percentage of the spending on health care?

A. 22%

B. 9%

C. 32%

D. 6%

10. The year with the most number of uninsured Americans (in millions) was:

A. 1995

B. 1996

C. 1997

D. 1998

11. The aim of economic evaluation is to ensure that the benefits from health care programs implemented are greater than the opportunity cost of such programs by addressing questions of _____ or _____. Select the correct answer from the list below.

A. Interpretive efficiency or Inclusive efficiency

B. Economic efficiency or Evaluative efficiency

C. Allocative efficiency or Technical efficiency

D. Informational efficiency or Requirements efficiency

12. Which of these statements about a FULL economic evaluation does not belong with the others?

A. FULL health economic evaluations are easily identified because they consider costs.

B. A FULL economic evaluation is the ONLY type of economic analysis that provides valid information on efficiency.

C. A FULL economic evaluation requires the identification, measurement and valuation of BOTH costs and consequences.

D. A FULL economic evaluation compares BOTH the costs and consequences (effectiveness; benefits) of TWO or moreinterventions.

13. This variability in the quality of published health economic evaluation studies has _____ implications for the identification and subsequent utilization of information on _____ in the health care decision-making process.

A. insignificant | economics

B. significant | systematic reviews

C. no significant | retrieval

D. significant | efficiency

14. The following are a list of keywords. Which terms are correct MeSH terms used in retrieving economic evaluation studies?

A. Cost-benefit analysis

B. Expansion costs

C. Costs and cost analysis

D. A and C

15. The market value of a resource may not be an adequate reflection of opportunity cost. An example is voluntary care - the market price is zero but there is an opportunity cost in terms of the alternative ways in which the carer could have utilized the time. A value would have to be imputed, perhaps based on the salary of a paid caregiver. This concept is called _____?

A. cost efficiency

B. un-thinking acceptance of market values

C. opportunity cost

D. market price

Answer for Self-Assessment

1.	D	2.	B	3.	B	4.	C	5.	A
6.	B	7.	B	8.	A	9.	B	10.	B
11.	D	12.	D	13.	D	14.	A	15.	D

Review Questions

Q1. What is the meaning of magnitude of health care?

Q2. What are the challenges of RSBY?

Q3. What is the unique feature of RSBY?

Q4. Write the implementation of RSBY?

Q5. What does mean by Maternity benefit?

Further Readings

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