HEALTH MINISTRY OF THE REPUBLIC OF MOLDOVA
THE UNIVERSITY OF MEDICINE AND PHARMACY
NICOLAE TESTEMITANU

Elizaveta REABOVA, Constantin EŢCO,
Ludmila GOMA

PUBLIC HEALTH ECONOMICS

(courses for medical students)

CHIŞINĂU
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The medical Public Health Economics course is designed to students from medical institutions especially. The main goal of this course is to provide actual knowledges about economic relationship, business, market activity in medicine, prices and costs.

By knowing the main economic rules on business activity and market communication in the PH system, students will learn to construct positive social-economic relationship with medical stuff, with patiens and with persons around, they may build good carrier.

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2. Functions, methods, instruments of economic analysis. Economic laws. A model of the economy.
3. Fundamental problem of Economics. The alternative price.
4. Economic Activity and its phases, general participants of economic activity- economic agents.
5. Organizational forms of Economic Activity. Market Economy. Value theories.
6. Money System Development. Economic Systems.

Key terms:

Economics, economy, Public Health Economics, economic categories, economic law, the system of economic sciences, microeconomics, macroeconomics, economic activity, human needs, production, distribution, Exchange, Consumption, economic resources, material, natural, financial and human resources, factors of production: traditional and neo-factors, land, labour, capital, amortization, moral and physical ageing, economic goods, non-economic goods, economic agents, the curve of production possibilities or opportunity frontier, rational choice, alternative cost (price), commodity or goods, market economy, use value, money, planned economy, mixed economy.

1. The forming and development of economics. Public Health Economics.

What is Economics? No brief description can offer clear guidance to the content and character of economics but especially less, though once popular, example is: "Economics is what economists do". A notable economist of the last century Alfred Marshall called economics "A study of mankind in the ordinary business of life"

Lionel Robbins described Economics are "**The science of choice among scarce means to accomplish unlimited ends" (needs).**

So, Economics is the study of haw wealth (goods and services) is created and distributed. It is the subject of Economic Theory.

Economics answers 3 main questions:

- What goods (services and have much of each will be produced?
- How will they be produced? (Resources, methods, technologies, factors of production)
- For whom will these goods be produced? (Who are consumers or byres?)

There are 4 types of Economics:

- Microeconomics studies individual producers and firms, separate markets;
- Macroeconomics studies the economy of a chantry (National Economy)
- Mega economics studies branches of Economy, separate economic complexes, fact. – Agriculture, or Public Health System.
- Mega economics studies the World Economy, International Economic Relationship p.

The forming and development of Economics

The history of Economics consists of 3 main periods:

1 Period – accumulation of Economic Information (it was in the ancient ages, the mast famous names are: Aristotel, Plato. The history of the word economics:"oikos"=house; "nomos"=law, standard, study. So, at first, economics was the study about home regulation.

2 Period – The development of Economics in the middle Ages. The main idea was: to find the sautés of wealth .There were severe scientific shook.

Physiocrats – the source of wealth is Nature, agricultural labor and the land. (F.Kene)

Mercantilists (A.Moncretien) – the source of wealth is sale with other countries, money.

English classical political economy (Adam Smith, David Ricardo) – The source of wealth is any lab our process.

Revolutionary (proletarian) school (K.Marx, F. Engels)-the source of wealth is labor. They suggested the way of revolution, expropriation the private property and establishment of public property and the workers' authority.

3 Period – The modern period of concrete practical issues on economic. The founder is **Paul Samuelson**.

Scientific schools are:

- The Theory of marginal Cost (Gossen, Vizer, Valras, Bem-Baverk)
- Microeconomics (A. Marshall)
- The macroeconomic regulation theory (John M.Keynes)
- Neoclassic theories (Menger, Valras)
- Monetarism (Fridmen)

In 1776the Scottish moral philosopher Adam Smith published the first edition of his monumental "**Inquiry into the Nature and economics**" soon economics became an independent science.

<u>Public Health Economy</u> studies the influence of economic laws on PH System (Public Health System). PH economics also studies production, distribution and consumption of medical goods, social- economic conditions, costs of production, laws and quality of medical services. PHE studies the "pyramid of relationships in the PH System".

Theory of Health Care Economics (Public Health Economics = P.H.E.) studies the influence of economic laws on P.H. System, also it studies production, distribution and consumption of medical goods/services, economic conditions, costs of production, laws, quality of medical services.

<u>P.H.E.</u> studies the pyramid of relations:

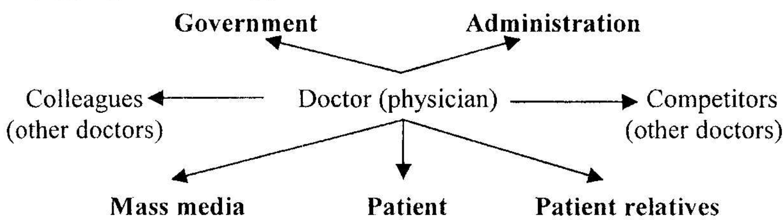

Figure1. Pyramid of relations

The doctor is connected with the following economic agents: government, administration, colleagues, competitors, mass media agents, advertising, and patients. Besides of it economics studies different economic conditions of economic activity. The general base of it is Economic Theory. It also studies relations in the field of effective utilization of resources, medical personnel, standardization of medical services and quality, labor in PHS, wages and salaries, rights, social protection etc.

Besides pyramid of relations P.H.E. Economics studies different economic conditions of production, distribution, exchange and consumption of medical services. The general base of it is Economic theory. It also studies relations:

- In the field of effective utilization of resources
- In the field of effective utilization of medical staff
- In the field of effective utilization of standardization of medical services and quality
- In the field of effective utilization of labor, wages and salaries (remuneration and motivation).
- In the field of effective utilization of consumers' incomes, rights, protection.
- In the field of effective utilization of labor conditions, ecology.

Special functions of economics are as follows.

- If determines the place of P.H.S. in the society.
- It analyses conditions and resources for P.H.S.
- It studies economic laws for the P.H.S.
- It helps in the economic reforms in the P.H.S.; medical insurance.
- It studies economic aspects of medical marketing and management.

The main question of P.H.E.: how to produce and promote qualitative medical product in the conditions of the minimized quantity of them; and in many cases how to obtain the good income (profit).

2. Functions, methods, instruments of economic analysis. Economic lows. A model of the economy.

The **general method** of economic research is the method of Dialectical materialism. It consists of the following features:

1. Scientific abstraction or analysis
2. Synthesis or the movement from abstract categories to specific concrete things.
3. Induction and deduction
4. The unity of logics and history
5. The unity of theory and practice

The **instruments** of Economic Analysis are used in economic research in order to solve economic problems:

1. Statistics
2. Programming
3. Planning
4. Economic models
5. Mathematics and logics
6. System approach
7. Economic tests and practice

Economic categories are the main economic terms and definitions. They describe the general concepts of economic at the abstract level. For example, capital, land, labor, value, profit

Economic laws (rules) are represented by objective causal relationship between economic categories and events. They are necessary for economic activity and they describe economic activity.

Classification of Economic laws.

1) **General economic laws** describe the activity during the all human history – for example the law of producing forces and production relations.
2) **Particular laws** describe economic relations in a concrete number of economic systems – for example the market laws – the law of supply and Demand.
3) **Specific laws** describe economic relations in one economic system – the Philips law, for example.

<u>Functions of Economic Theory</u>

- The function of knowledge – to know about economic phenomena.
- Methodological or theoretical function – it means that economics is the base of other economic sciences (of financing, of marketing and management, for instance)
- Practical functions is used for real economic activity
- Political and ideological functions mean that economics is the basis of policy and ideology of state and organization.

So, there are 3 groups of Economic Sciences:

a) Theoretico-methodological sciences (Political economy and Economic Theory, Economics)
b) Branch Economics (The Public Health Economy, Industrial economy…)

c) Functional (applied) economics (Financing, Banking, Credit, Economic statistics...)

Economics is necessary to every person, (including P.H.S.) in order to know the ways and methods of economic Activity, of profit, rent, revenue, income, cost, goods and medical services.

A model of the Economy

Economists spend a lot of time trying you develop models of the working of the economy. The London Business School, like many universities has a model of the economy. It suggests that there are ways of measuring the amount of economic activity in the economy.

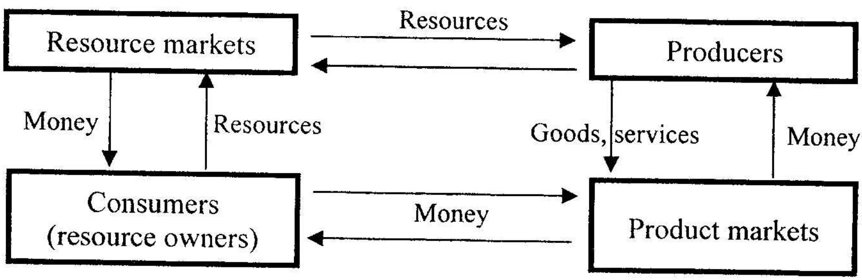

Figure 2. Model of the Economy

3. *Fundamental problem of Economics. The alternative price.*

One of the things that people discover as they grow older is that you can't have everything; everyone goes through life having to make choices.

Since there is not enough of everything, everyone: individuals, business and government – needs to make choices from among the things they want. In the process they will try to economize, to get the most from what they have. With this in mind, we define economics (and its fundamental problem!) **as the social science that describes and analyzes how society chooses from among scarce resources to satisfy its wants (needs). Therefore, economics is a science about alternative choice.**

To organize a business, an entrepreneur must **combine four main kinds of resources; material, human financial, and informational.**

There is an economic law: ***Human needs are constantly increasing during the history of mankind.*** They are, so, unlimited.(Scientific and Technological Progress is the main reason)

Economic Resources (ER) are all things, which may be used in EA to satisfy economic needs.

Classification of ER:

1) Human R.
2) Material R.
3) Financial R.
4) Informational

Business

Resources are limited.
Human needs are unlimited.
So, there is contradiction between limited ER and unlimited HN.

As Resources are limited, the possibilities of production are limited too. So, the Economy is full of limited possibilities.

Material resources include the raw materials, building and machinery.

Human resources are the people who furnish there labor to the business in return for wages.

The financial resource is the money register to pay employees purchase materials, and generally keep the business operating.

Information is the resource that tells the managers of the business how effectively the other resources are being combined and utilized.

Satisfying needs. People generally don't buy goods and services; they buy products to satisfy particular needs.

Classification of human needs:

All human requirements in all fields of life are called human needs (h.n.)

Classification of h.n.:

1) material
2) social
3) spiritual
4) cultural
5) industrial
6) physical
7) public
8) personal
9) economic
10) production

Material, social, spiritual, industrial, physical, economic, private, public. There is an economic law: Human needs are constantly increasing during the history of mankind. And resources are decreasing. So, there is a contradiction between limited HR and limited human needs. It is the main problem of each economy. One way to illustrate the effect of scarcity and opportunity cost is with a production possibilities curve. The choice of producer is limited and if he uses one limited resource for example, material resources or money and he produces 2 alternative goods A and B, then in order to diminish 1 product he must increase the other. The difference (The volume of decreasing one product or increasing another one) – (b2-b1) or (a2-a1) is called Alternative cost It is payment for increasing of one result. At the expense of other result. Alternative cost is measured through other thing which is necessary to give in exchange.

The outside of The PRODUCTION POSSIBILITIES FRONTIER describes the future of the business firm and the future combinations of resources. The inside of the graphic describes the previous situations with resource combinations.

The criteria of efficiency of the choice is the relation between result and expenses.

Result = Product, profit;
Expenses = Resources
E = efficiency.

So, there is a *Curve of production possibilities.* The choice of producer is limited, if he uses 1 limited resource and produces 2 goods (A and B), then in order to increase 1 product he must decrease the production of another one, and vice versa.

(b2-b1) or (a2-a1) – *Alternative Cost (AC)*

– it is a payment for increasing of one result at the expense of other result.

AC is measured through other thing, which is necessary to give in exchange.

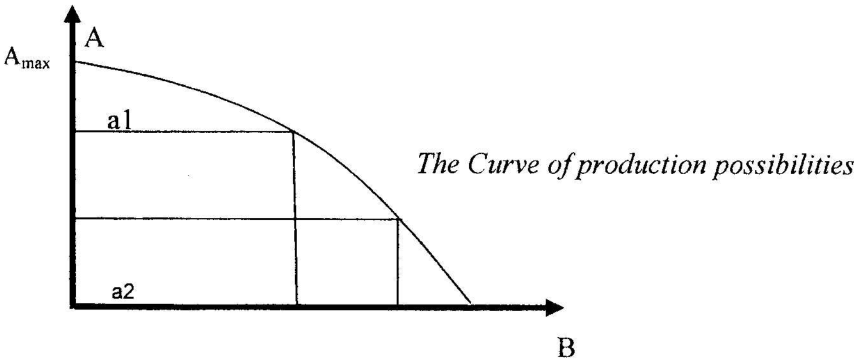

Figure 3. The Curve of production possibilities

In any case, efficiency of production:

$$E = \frac{\text{Result (Max)}}{\text{Cost of Resources (Min)}} \times 100\%$$

Result may be: Outcome (output), i.e. Profit or Income, Production quantity (Q).

4. Economic activity its phases, general participants of economic activity-economic agents.

We were speaking about Economic Resources which represent the economic potential of producer and of production. Factors of production are resources, really involved in Economic Activity. Every owner of factor of production obtains his income. Factors of production correspond to resources.

Table 1

	Resources	**Factors of production**	**Income**
1	Material and Financial recurs	Capital	Interest
2	Natural resources	land	rent
3	Human resources	Labor	Salary
4	Informational resources	information	Surplus values
5	Entrepreneur Ship resources	Business	Profit
6	Scientific and technological Progress	Innovations	Additional profit

*Resources, factors, incomes

Capital, land and labor are **traditional** factors of production they are used in economic activity from ancient time. Information, business, innovation – **new factors**, or **neofactors**.

Factors of production (FP)

FP are resources, really involved in EA. Every owner of Factor of production has his type of income:

	Incomes: F.P.	Incomes:
a. Land	Traditional FP	→ Rent
b. Capital		→ Interest
c. Labor		→ Wages/salaries
d. Information	**Neofactors**	→ Surplus values
e. Entrepreneurship (business)		→ Profit

Characteristics of Capital

1. *Technical Capital* – consists of machinery, buildings, instruments, which is used actually in the production

Technical Capital = Fixed Capital + Circulating Capital

2. *Fixed Capital* = buildings, heavy equipment real estate
3. *Circulating capital* = raw materials , energy, water- it is working capital , is used during 1 product ional circle.
4. *Financial Capital* = money, used in Production
5. *Fictitious Capital* = Valued Papers - securities, shares

Technical (real) Capital = Fixed Capital + Circulating Capital

Fixed Capital = =Constant Capital } buildings, equipment, machinery, real estate property (which is used for many years)

Circulating Cap.= = Variable Capital } working Cap., raw materials, energy water, gas

Fixed capital loses its value by 2 main reasons:

1. **Moral ageing** – it is process of loosing of technical characteristics as the consequence of scientific progress.
2. **Physical ageing** – it is the loss of technical and physical power and productivity. As the result of ageing the process of **amortization** is

used by producers. It is the process of reconstruction reanimation of Fixed Capital – buying of new equipment, repair of new building etc.

Economic Activity is an expedient human activity of production goods and services. Economic factors of production are involved in Economic Activity. The result of Economic Activity is satisfying of human needs and creating of Economic Wealth - goods and services - and for commercial organizations - obtaining the profit. There are 4 phases of Economic Activity, its stages or periods.

1. **Production** – the process of creating goods, services by the way of using economic factors.
2. **Distribution** – the process of resources allocation.
3. **Exchange** – the process of changing factors of production and money (sales, exchange).
4. **Consumption** – The process of using products and resources

Economic Act. = Economy.

There are 4 phases (stages, periods) of EA:	
I. Production	*II. Distribution*
III. Exchange	*IV. Consumption*

Property is a center (heart) of EA, because it determines the character of each period.

Economic agents.

They are people, firms, institutions, organizations, state, government-all, who participate in Economic Activity. They are juridical(firms, state, organizations) and physical (individuals, people). They must take decisions and use economic resources. (to buy, to sell, to produce, to manage, to organize).Their *functions* are: production, distribution, exchange, consumption, ownership. The model of EA includes the 2 main participants of EA. They are Consumer and Producer. Look at it:

5. The organizational forms of Economic Activity. Market economy. Value theories

1. The origin of Competitive Economy – the Economy of Exchange.

Natural Economy was the first economic form. It was the economic system without trade, exchange with the help of money and market system. One of its minus was Traditional Patriarchal Economy. Its aim was *production of different products* for the use of people, first of all for owners of factors of production not for the market. But then this system transformed into Commodity Economy, or Trade Economy and later on –into the Market Economy. The aim of Trade and Market Economics is production of goods for exchange, for sale (for trade), for market, for other people so then money appeared. The base of this transformation was the Public Division of Labor and private property, and then new forms of Market Economy have developed:

a) The Free Market Economy (XVII-XVIII cent.) (The Market of Perfect Competition)

b) The Market of Imperfect Competition:
   - Mixed Economy
   - Corporational Economy (Japan)
   - Market Economy of Developing Countries (South Korea)

c) The Social Market Economy (Germany, Sweden

d) False Market (former USSR, Cuba, Albania)
   - State Centralized Planning and Economic Governmental Control of Pricing, Waste of Competition and Market Systems.

2. The goods (commodity): Use value (Utility) and Value (Cost). The theory of Cost.

Definition: *The commodity (Goods) is a specific economic Wealth (goods) which was produced for sale, but not for producers use.*

Utility = Use value – the ability of goods to satisfy human needs.

Cost (exchange cost)= Value – the ability of thing to be exchanged to other goods in certain proportions (or to money)

Commodity is a dialectal unity of use value and value (cost)

Value is a category of exchange, but it takes its beginning in Production, in Labor Process. There are 2 main Cost (Value) Theories:

1) **Labor Cost Theory** – Value is a quantity of Labor in goods (Adam Smith)

2) **Use Value Theory** – goods have the value, if the consumers need them (Marginalist's Theory).

Use Value = Value (Menger, Vizer, Gosen, Bem-Baverk)

The main Economic Theories nowadays *combine* marginalist's theory (№2) and market theory (of Demand and Supply), the elements of Labor Theory (N1), and the Theory(of Demand and Supply), the elements of Labor theory (№1), and the theory of Expenses of productions (theory of Costs) – Mc Culloh, James Mill.

Labor Cost Theory was founded by Adam Smith. In general, "laissez-faire capitalism" stems from the theories of Adam Smith. Smith believed that each person should be allowed to work toward his or her own economic gain, without interference from government. People include their labor goods and services and thus form the value of products. So, the product's value depends on the number of labor hours or labor costs (expenses). This theory doesn't take into consideration the quality of goods for consumers (i.e. "use value"). The French term "laissez-faire" implies that there shall be no interference in the economy.

Money System Development. Economic Systems

Money: essence, functions. The law (rule) of money circulation.

Money appeared as a result of development of Commodity Economy, it is a universal equivalent of Exchange, the means of payment, an artificial device for exchange.

Functions:

1) standard of value (cost)
2) Q medium of exchange
3) The means of payment (IOY = I owe you)= "Credit" money
4) Q store of value (means of accumulation)
5) world money (universal, as euro and dollar)

The medium of exchange.

Workers exchange labor service for money. People buy and sell goods in exchange for money. Money is the medium through which people exchange goods and services. The use of money makes the trading process simpler and more efficient. (Imagine the difficulties of a barter economy).

A standard of value Society considers it convenient it use a monetary unit to determine relative costs of different goods and services. In this function money appears as the unit of account, is the unit in which prices are quoted and accounts are kept.

A store of value. Money is a store of value because it can be used to make purchases in the future. But money is neither the only, nor necessarily the best store of value. Houses stamp collections, interest-bearing bank accounts all serve as store of value. Since money pays no interest (%) and its real purchasing power is eroded by inflation, there are almost certainly better ways to store value.

The means of payment, or IOU money. An IOY money is a medium of exchange based on the debt of a private firm or individual. A bank deposit is IOY money because it is a debt of the bank. When you have a bank deposit the bank owes you money. Credit-cards are also IOY money.

The law of money Circulation:

$$\text{Amount of money} = \frac{S - C + P - MP}{V} = \frac{\sum \text{Prices}}{V}$$

S – sale;
C – credit;
P – paid credit;
MP – mutual payments;
V – speed of Exchange (of money Circulation)

The Rule of money Aggregates;

$$\boxed{M_2 = M_1 + \text{Quazi Money}}$$

M_2 – the total sum of money;
M_1 – cash, money in circulation;
Quazi money – are "time deposits " – they may be withdrawn after a period of time . They are "certificates" of Deposit.

Liquidity of goods – ability of assets to be converted into money. Money themselves (Cash) is the most liquid asset of all. (Gold, precious metals, real estate, the values of art, jewelry, diamonds – they are also liquid goods).

Economic System.

Definition: *Economic system is the Sum of social economic, politic and other relations in human society, which form the method of production, distribution, exchange, consumption and property.* Each economic system has its own way of answers to three basic economic questions – what, how and for whom to produce in the economy.

- There are 2 classificational approaches:
  – Classical approach (Traditional Economic Systems)
  – Feudal system, Capitalism, Socialism

2. **Civilization** Approach

a) **Industrial** method:

- Under-Industrial society
- Industrial society
- Post-Industrial society(developed countries).

b) **Market** Method:

- The Traditional Patriarchal Peasant Economy
- Command (planned) Economy (Socialism)
- Free Market Economy, pure market (Laissez Fair Capitalism, perfect competition)
- Social Market Economy=European developed countries.
- Mixed Market Economy (USA).

Main features of Market Economy:

- Private Ownership of Property and Production
- Economic Freedom
- Competition and Competitive Markets
- The Economic role of government

Planned Economy answers on 3 economic questions by the means Government

Market Economy answers on 3 economic questions by the means of market

(Consumers, first of all, Producers, Supply and Demand).

Review questions

1. What are the three basic economic questions? How are they answered in a capitalist (market) economy? In a planned economy?
2. Describe 4 basic types of Economics.
3. Compare the periods of forming and development of Economics. Who were phyzioerates (unfamiliar with this term)? Mercantilists? English classical political economy represents?
4. Describe the main function of Public Health Economics.
5. Give some examples of Economic laws.
6. Describe the model of the Economy.
7. Human needs and limited resource: is there a contradiction? What are alternative costs and the production possibilities frontier?
8. Resources factors of production and incomes: give the examples of relations among these terms.
9. Describe the periods of economic activity.
10. What is money? Describe the basic functions of money.

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№ 2. The basic characteristics of market competetional economy. The market and its mechanism of activity. Medical marketing.

Questions:

1. The market economy genesis. Market as a basic element of market economic system. The preconditions of medical services market forming.
2. The medical service as a specific form of goods.
3. The basic elements of medical services market mechanism.
4. The competition and monopoly.
5. The medical marketing.

Key terms

Market, market economy, market mechanism, demand, supply, price, competition, functions of market, structure of market, infrastructure of market, medical or Public Health market, competition, perfect and imperfect competition, monopoly, oligopoly, false market, free-market economy, social-market economy, medical service, price of equilibrium, price elasticity, non-price determinants, price and non-price competition, marketing, market internal and external environment, market segmentation, marketing research.

1. The market economy genesis. Market as a basic element of market economic system. The preconditions of medical services market forming.

Types of economic systems the origin of competitive economy and market system.

Every society has worked out a way to answer the questions of **What, How, and for Whom**. This economic systems, as they are called, generally fall into one of there categories: **traditional, command and market economies.**

The **traditional economy**. As the name implies, the answers to the What, How, and for Whom? – questions are decided by tradition in this economies. Traditional or natural economic systems are usually found in the more remote areas of the world. Such systems may characterize isolated tribes or groups, or even entire countries. They are less common today, than they were earlier decades. Typically, in traditional economy, most of the people live in rural areas and engage in agriculture or other basic activities such as fishing or hunting. The goods and services produced in such a system tend to be those that have been produced for many years or even generation. Most individuals live near a subsistence level. **Natural (traditional) economy** was the first economic form. It was the economic system without exchange, trade relations, money and market system. The aim of such system is to produce goods for the inside utilization(inside their society).They have rather low productivity and very small surplus product, so there were no products for exchange. Afterwards this system transformed into **trade economy**(or economy of exchange) and later –into the market economy.

A **market, or free – enterprises, economy** is one in which the decisions of many individual buyers and sellers interact to determine the answers to the questions of What, How, and for Whom.

Market: Characteristics.

Definition: *Market – it is simply a mechanism, which allows seller and buyer to meet each other, to make exchange. Economy answers the question "what? How? And for whom to produce?" It is the place of meeting between the consumer and producer, buyer and seller.*

Conditions of Market development.

1. Public Division of Labor (professions, types of labor)
2. Economic freedom of choice for producers and consumers

Market Development

1. Private property → Plurality of property form
2. Free Competition → Imperfect competition monopolies (perfect) and ant monopolistic activity
3. State policy of economic → Public (State, Governmental) management non-intervention control, and regulation
4. Private interest → Plurality of interests and social protection (max. profit, min. costs) of people
5. Freedom of choice → Civilized economy, customer's needs what, how, for whom

Table 1

DEMAND	**PRICE**
SUPPLY	**COMPETITION**

*Attributes of market mechanism.

Functions of market:

- Function of intermediary
- Function of regulation
- Function of stimulation
- Function of price formation
- Function of sanitation (differentiation)

There are advantages and drawbacks of market

Structure of Market

1. Market of factors of production (Land, labor, capital, information)
2. Market of consumer goods/services
3. Local, national, world market
4. Market may be competitive and uncompetitive (without any competition) – false market

Infrastructure of Market – it is organizations and firms, which served the market (shops, advertizing, transport firms…, banks, insurance companies…)

Laissez-fair capitalism was the first step or model of market. Smith believed that each person should be allowed to work towards his economic gain without interference from government, in the conditions of private ownership of property. Private ownership gives people the initiative to use their property to produce things that will sell and earn them a profit.

This desire to earn profits is a second ingredient in a market economy (profit motive). Also we must discuss economic freedom-it extends to all those involved in the economy (the right to buy, to sell, to rent, to produce etc.). The following precondition of the market economy is the existence of **competitive market**, composed of large number of free buyers and sellers. Market is the social-economic mechanism of relationship between buyers and sellers, supply, demand, free prices and competition. **Market is the heart of marketing economy**. In Smith's view, the role of government should be limited to providing defense against foreign enemies, insuring internal order, furnishing public works and education. The modern markets, by the way, are larger. The state authorities are doing regulation of business economic life of the country. In general, what most distinguishes **command (planned) economies** from **market economies** is the role of government and the ownership of the means of production. The answers to the three basic economic questions are determined, at last to some degree, through centralized government planning. The key industries are owned and controlled by the government (in France the major banks are nationalized).Small business may be permitted to varying degrees. Almost the entire economic activity and its functions are controlled by the state. But there are neither real competition, nor real free market prices (prices are determined by the state).Demand and supply are also planned. The example of this system-USSR (former), Cuba, Britain, France, Sweden and India are democratic market countries, but their mixed economies include a very visible degree of socialism. The aim of trade or market economy is the production of goods/services for exchange, for sale, for market, for buyers. The basis of this transformation was the public division of labor and private property, economic freedom of choice, and profit motive. Our real-world economy is not now as "laissez-faire" as Smith would have liked, because government participates as more than umpire and rule maker. Ours is, in fact, a **mixed economy** one that exhibits elements of both capitalism and socialism. Modern business systems are guided by the interplay of buyers and sellers, but, obviously the rule of government must also be taken into account. In today's economy, then, the three basic economic questions are answered by three groups:

1. Households, made up of consumers who seek the best value for their money and the best price for their economic resources they own.
2. Businesses, which seek to maximize their long term profit.

3. Federal, state and local governments, which seek to promote public safety and welfare and to serve the public interest. Commodity or goods is a dialectical unity of use value and value, its destinations is for buyers, for the market sale. According the classic labor theory (A. Smith) – value is a number of labor in goods. According to the use value theory (gossen, vizer), value – use value, and goods are valued, when they are necessary for buyers. Use value is the ability to satisfy human needs.

Classification of market economy.

1. **False market** system-planned or command economy(former USSR, Cuba, East European socialist countries, f.e. Poland etc) – absence of real market mechanism, total government planning and controlling.
2. **Free market economy** - perfect competition, absence of government interference, system of – "laissez-faire" capitalism (XVII–XVIII centuries)
3. The **modern market economy** – imperfect competition, mixed market system with government intervening in economics and social programs.
   - Social market economy(Germany, Sweden and others developed countries)
   - Corporational market economy (Japan, USA)
   - Market economy of developing countries (South Korea)

The preconditions of medical services/goods market.

The preconditions for market development in the PHS are as follows:

1 – Economic freedom	**6 – Free pricing**
2 – Private property	**7 – Interplay of supply**
3 – Division of labor	**8 – Pluralism of property forms**
4 – Profit motive	**9 – Entrepreneurship**
5 – Competition	**10 –State regulation**

2. The medical service as a specific form of goods.

As it was shown in the first question, goods are a specific economic wealth or thing produced for exchange (sale), but not for producers use. **Goods (commodities) are a category of market exchange economy. The ability of goods to satisfy human needs is called utility or use value**. The ability of thing to be exchanged to other goods in certain proportions (using money) is called value, which consists of costs (exchange cost). Goods may be represented by material (tangible). And non-material (intangible) things. Services are also goods, as they are destined for market sale (exchange).

Medical service is a good which is sold by medical institution or personal doctor to consumers of medical services (patients).

Medical service is bought by patient in order to satisfy his or her needs in health increasing and treatment.

Medical service is the major product of economic activity in the public health system. It is the aim of social-economic and medical activity of medical workers (doctors, nurses, other employees) in the medical institutions. It must be done by qualified specialists in field of medicine. All medical services may be classified as follows:

Classification of medical service:

a. Medical services for treatment
b. medical services for diagnosis
c. medical services for prophylaxis
d. medical services for rehabilitation
e. dentist medical services (stomatology)
f. specialized medical services (gynecology, surgery etc.)

2. Private medical services
3. public medical services
4. medical services in the insurance system

Medical service is considered as a specific form of goods because of several peculiarities of them, which appear in the following characteristics:

a. The result of medical intervenes and of medical service is shown in the consumer of medical service, i.e. in the patient, his feelings, and his health.

b. Most of all, we may say, that the majority of medical services have the individual character, some of them are public by their nature (for example, medical services for the population in the immunization programs of the government).

c. Too complicated structure of medical service-the labor of different medical specialists, using of many elements and medicines, medical equipment etc.

d. The health is an economic category it may be measured by economic means. It is profitable for the entire, nation to grow the level of health of population.

e. Medical services may be in goods and non-goods form (commercial and non-commercial)

f. The diversity of medical services (see the classification of medical services)

g. The diversity and pluralism of investment sources. (medical institution profit, state budget, medical insurance system etc.)

h. The diversity of relationship in the public health: doctor or medical institution is in the center of the "pyramid" of relationships, the sides (participants) of this system are patients, their relatives, competitors (other medical institutions, government, advertising firms, pharmaceutics firms, insurance companies)

i. The majority of medical services have not the ability to be "collected"- this means, that if today you have had medical service, tomorrow you are not guaranteed of it again.

j. The result of medical service often is not predetermined, and may be long term expectance of final good result.

3. The basic elements of medical services market mechanism.

The market mechanism consists of 4 main attributes (elements) of market economic system:

- demand
- supply
- price
- competition

The supply of a particular product is the quantity of the product that producers are willing to sell at each of various prices. Supply is thus a relationship between prices and the quantities offered by producers and is represented by a supply curve as shown in figure 1. Producers are rational people, so they offer more of a product for sale at higher price and vice versa. **The demand is the quantity that buyers are willing to purchase at each of various prices. Demand is thus a relationship between prices and the quantities purchased by buyers (patients).** Buyers tend to buy more of a product when its price is low and to buy less of the product when its price is high. Under pure competition, the market price of any product is the price at which the quantity demanded is exactly equal to the quantity supplied. It is the **price of equilibrium, or price of balance**. (the supply and demand curves are crossed in the point of equilibrium). Each price is represented the interpretation of value of product. **Market is free movement of prices. Competition is a struggle between market agents (competitors) for profit, market position, market conditions.**

Functions of the market are the following:

1) intermediary function (market is a link between buyers and sellers, patients and doctors)

2) regulation (market regulates relationship inside market system).

3) stimulation (motivation)function-it stimulates economic agents to spend less resources and get more profit, to find new alternatives for business.

4) pricing function. prices are not planned by government, they steam from market requirements.

5) sanitation function (differentiation of economic agents)

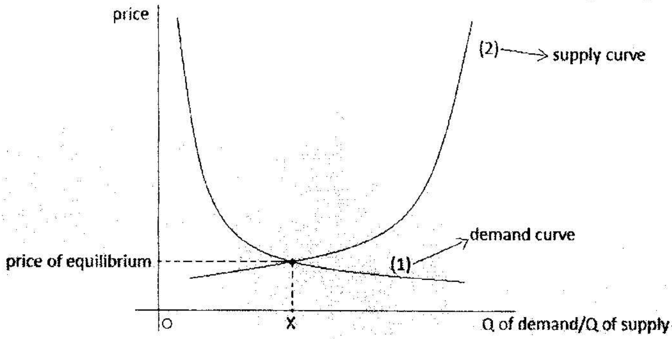


Figure1. Demand and Supply graphic

The structure of market:

1) the market of factors of production
2) the market of goods/services
3) geographical structure (national, local, world market)
4) competitive and uncompetitive markets:
- perfect competitions market;
- non-perfect competition market;
- monopolistic competition;
- oligopolistic competition;
- false market;

The specific structure of medical market:

1) the market of medical services
2) the market of pharmaceutical products (medicines, goods etc)
3) market of medical personnel/staff or medical labor market
4) medical information market
5) medical equipment market
6) securities market

Economic market agents in the PHS market:

- medical institutions.
- polycliniques
- citizens (patients)
- hospitals
- insurance system
- bank (financing system)
- government

All economic agents have their relationships and interact in the market infrastructure-different organizations and firms (medical institutions, first of all) which serve the market. In theory and in the real world demand and supply are affected by different factors. They are called demand-and supply non-price determinants: fashion tendencies, weather (seasons) tastes and number of buyers and sellers (doctors and patients), incomes, salaries, price of **goods-substitutes and prices of goods-supplements**, expectations, taxes, resource prices, government benefits, technologies. substitutes. when two goods satisfy similar needs, they are described as substitutes. a change in the price of one item will result in a shift in1 the demand for a substitute (f.c.-2analogical pharmaceutics medicines or black and brown shoes are close substitutes).

Table 2

Demand non-price determinants:	Supply non-price determinants:
• Fashion • Weather • Tastes of buyers • Incomes of buyers • Prices on other goods (substitutes and complimentary goods) • Expectations	• N of sellers • Other prices • Resource prices • Technologies • Taxes • Benefits

*Non-price determinants

Complementary goods. Goods that are often consumed together, like peanut butter and jelly, are complements. If the price of peanut butter should increase, the quantity of peanut butter consumed will decrease, then the quantity of jelly (its demand) will decrease also.

Elasticity describes how much a change in price affects the quantity demanded (or supplied).

Price elasticity of demand is measured as elasticity coefficient.

$$1)\ \text{El.coef. of demand} = \frac{\text{Rate of QD}}{\text{Rate of price}} \times 100\%$$

QD – quantity of demand may be used also rate of income, and elasticity of supply.

$$2)\ \text{El.coef. of demand} = \frac{\text{Rate of QD}}{\text{Rate of income}} \times 100\%$$

$$3)\ \text{El.coef. of supply} = \frac{\text{Rate of QS}}{\text{Rate of price}} \times 100\%$$

$$4)\ \text{El.coef. of supply} = \frac{\text{Rate of QS}}{\text{Rate of income}} \times 100\%$$

QS – quantity of supply.

When the demand for an item is inelastic, a change in price will have a relatively small effect on the quantity demanded. When the demand for an item is elastic, a small change in price will have a relatively large effect on the quantity demanded.

4. The competition and monopoly.

As we have noted, a market system implies competition among sellers of products and resources.

Competition – **it is fight between producers for sales, for profits, for conditions of business in order to get high profit.** This struggle is cruel enough, but it is useful for economy, because allows to increase the quality of production. Economists recognize several different degrees of competition, ranging from ideal complete competition to no competition at all. These are:

– pure competition (perfect, or free competition)

– imperfect competition

a) monopolistic competition; b) oligopoly ; c) monopoly;

Pure competition or perfect competition is the complete form of competition. It is the market situation in which there are many buyers and sellers of a product, and no single buyer or seller is powerful enough to affect the price of that product. The market is not affected by the actions of monopolies or other forces. All sellers are in equal conditions there are no dictations and control-ling. Imperfect competition-it is a situation, when condition of a perfect competition are not obeyed.

Monopolistic competition. Pure competition is only a theoretical concept. Many real markets, however, are examples of monopolistic competition it s a market situation in which there are many buyers along with relatively many sellers who differentiate their products from the products of competitors. The products are very similar in nature, n all are intended to satisfy the same need. But they are different by their brand names, unique packages, etc. product differentiation is a fact of life for the producers of many consumer goods. Monopolistic competition is characterized by fewer sellers than pure competition, but there enough sellers to ensure a highly competitive market. by differentiating its product from all similar products, the producer obtains some limited control over the market price of its product.

Oligopoly is a market situation or industry in which there are few sellers. Generally these sellers are quite large, and sizable investtments are required to enter into their market because there are few sellers in an oligopoly, each seller has considerable control over price. If one firm reduces its price, the other firms in the industry usually do the same to retain their market shares. It results in similar prices for similar products. It is the absence of much price competition and product differentiation becomes the major competitive weapon.

Monopoly is a market (or industry) with only one seller, it has complete control over price. However, no firm sets its price at some astronomical figure just because there is no competition: the firm would soon find no sales revenue. The absolute monopoly tends to be false market, because there is no real competition. The government promotes antymonopolistic policy. In same cases the government allows monopoly:

1) natural monopoly(natural resources, intellectual property)

2) expedient (advisable)monopoly(water supply, public utilities, electric power distribution)

Our constitution permits the government to issue copyrights, patents, trade marks-all legal monopolies or legal limited monopolies. May be also **price and non-price competition, intrabranch and interbranch competition.** So, it was noticed, there are market classification models according to competition:

1. Perfect (free, pure)competition market
2. Imperfect competition market
   a) monopolistic competition market
   b) oligopolistic competition market
3. Non-competitive market (false market, absolute monopoly market, may be state monopoly).

5. The Medical Marketing

The process that leads any business to success seems simple. The firm must develop a product or service to satisfy customers' needs. Second, the firm must continue to seek ways to provide customer's satisfaction. This process is a application of the marketing concept, or marketing orientation. This marketing concept is a business philosophy that involves the entire organization in the process of satisfying customers needs while achieving the organizations goals.

Marketing is a system of learning the market life-demand and supply fluctuations, pricing, product promotion. A market is a group of individuals, organizations etc. who have needs for products in a given category and who have the ability and authority to purchase such products. Markets are classified as **consumer** (who do not buy products to make a profit); **industrial** (they buy products for use in day-to-day operations and in making other products for profit), **producer** markets (they intend to make a profit).

Reseller markets consist of intermediaries such as wholesalers and retailers who buy finished products and sell them for a profit.

1- Production orientation
- take orders
- distribute goods

2- sales orientation
- increase advertising
- enlarge sales force
- develop sales technique

3- customer orientation
- determine customer needs
- develop Goods\services to fill needs

Figure 2. The Evolution of Customer Orientation.

Marketers realized that the best approach was to adopt a customer orientation-in other words, organization had to first determine what customers need and then develop goods and services to fill those particular needs.

Developing Marketing Strategies. A marketing strategy is a plan that will enable an organization to make the best use of its resources and advantages to meet its objectives. A marketing strategy consists of:

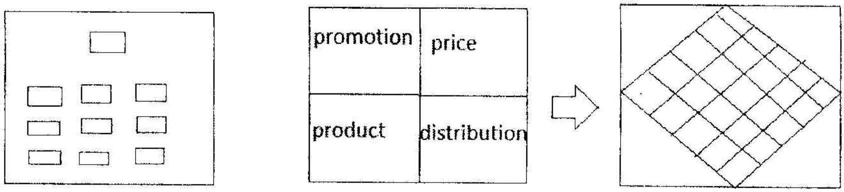
1) the selection and analysis of a target market;

2) the creation and maintenance of an appropriate marketing

*mix, a combination of product, price, distribution, and promotion developed to satisfy a particular target market.

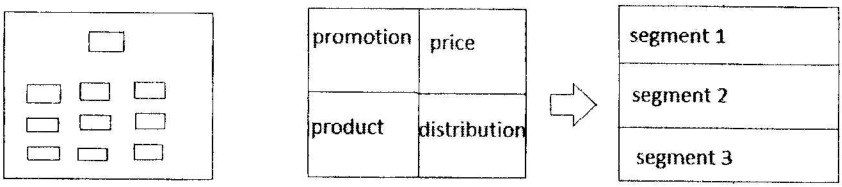
*A Target market is a group of persons for whom a firm develops and maintains a marketing mix suitable for the specific needs and preferences of the group.

The total market approach assumes that individual customers have similar needs and that most customers can be satisfied with a single marketing mix. When customers need wary, the market segmentation approach should be used.



Organization marketing mix target market

Market segmentation approach



Organization marketing mix market

Figure 3. Total market approach

*the process of dividing a market into segments is called market segmentation.

*a market segment is a group of individuals or organizations within a market, which share one or more common characteristics.

Table 3

Product-related	**demograpfic**	**psychographic**	**geographic**
– volume usage – end use – Benefit expectations – brand loyality – price sensitivity	– age – sex – race – nationality – income – educational level – occupation – family size – religion – Homeownership – Social class	– personality attributes – motives – lifestyles	– region – urban, suburban, rural – market density – climate – terrain

* Common basis of market segmentation

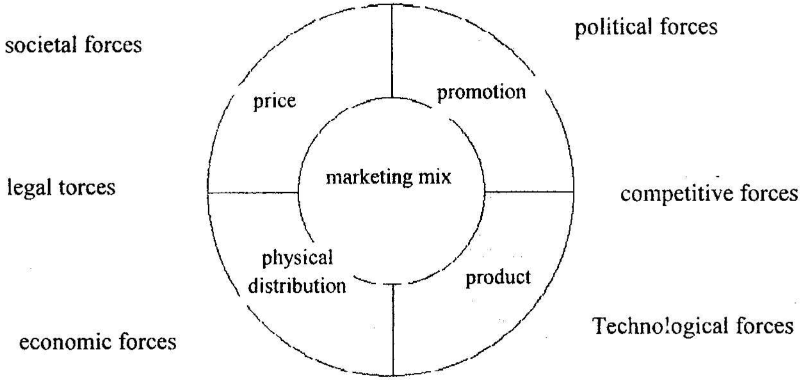


Figure 4. Market environment

The firm generally has no control over the external marketing environment. The **internal marketing environment** includes all inside factors of the firm: medical material and financial resources, human resources (medical personnel),the system of management, controlling, the organizational structure etc. The firm generally has control over the internal marketing environment.

The external marketing environment.

*Economic forces-the effects of economic conditions on customers' ability and willingness to buy (advertising, f.e.)

*Legal forces-the laws enacted either to protect consumers or to preserve a competitive atmosphere in the market.

*societal forces-consumers social and cultural values, the consumer movement.

*competitive forces-the actions of competitors, who are in the process of implementing their own marketing plans.

*political forces-government regulations and policies that affect marketing.

*technological forces-in particular, technological changes that can cause a product to become absolute almost overnight.

Marketing Research-is the process of systematically gathering, recording, and analyzing data concerning a particular market problem.

External information(input)consists of the circle of sources: suppliers intermediaries, customers, competitors, activities, economic conditions. Internal information: sales figures, product and marketing costs, inventory levels, sales force activities.

The 6 steps of Marketing Research

- Define the problem
- Make a preliminary investigation
- Plan the research
- Gather data
- Interpret the information
- Reach a conclusion

Types of Buying Behavior

Buying behavior may be defined as the decisions and actions of people-consumers (consumer buying behavior) or of organizations (organizational buying behavior). People buy because they have a use for the product, they like convenience a product offers, they believe the purchase will enhance their wealth, they take pride in ownership, they buy for safety. Consumers are classified as follows: economical (>50%), prestigious (10-15%), ethical (25%), innovators, conservators etc.

Review questions

1. Compare and discuss 3 basic types of economic system: traditional, command and market.
2. Classification of market economy. What is social market system?
3. Which preconditions of market in the Public Health System are the most important?
4. Classification of medical services. Why do we call them economic goods?
5. Market mechanism: the basic elements description. What is demand and supply?
6. Substitutional and complementary goods at the medical market. Why do we call them non-price determinants?
7. Monopolistic competition> conditions of development.
8. In which cases does government allow monopoly?
9. Describe the essence of marketing.
10. Internal and external environment of the marketing: what examples could you give?

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Questions:

1. Property (ownership) and its economic content and classification.
2. Medical institution as an economic agent.
3. Entrepreneurship in medical institutions: organizational forms.
4. Business-plan of medical institution. The risk in economic activity.

Key terms

Property, ownership, proprietor, owner, appropriation, alienation, economic realization, private property, public property, municipal property, mixed property, civil property, intellectual property, privatization, nationalization, denationalization, leasing, auction, contest, bargain of capital, financial indicators, overage and marginal cost, the funds productivity, capacity, individual (sole) business, partnership, corporation, entrepreneurship, entrepreneur, business-plan, business person, franchising, small business, business risk.

1. Property (ownership) and its economic content and classification.

Relations of property are complex public events and they reflect different fields of public relations. In unlike juridical notion, reflecting a human's attitude to an object, economical content of property reflects human relations on the occasion of an object.

Property as an economic category represents a relationship between people on the occasion of a system of ownership:

1. Appropriation;
2. Possession;
3. Disposal of economic goods.

This system is created in the process of economic activity.

The property attributes are as follows:

a) Appropriation an alienation of economic goods.
b) Economic using of goods
c) Economic realization of ownership (receiving of incomes)

Property is the center of economic activity.

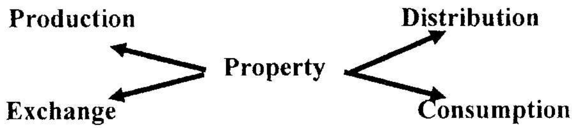

Figure 1. Property and Economic Activity

Economical meaning of property has 3 main peculiarities.

Firstly, it's public character. Outside the society and human relations the property can not exist.

Secondly, it's historical character. It characterizes economic system of society.

Thirdly, its objective character – economical content of property is determined of the development of productive forces and is changing under their influence.

There are different forms of property. Objectively they are predetermined with the state of productive forces, economical and social development of society.

There are 2 main types of property: **private** and **public**.

By the reason of Progress and social development there have been developed a lot of property forms:

Private property	**Public property**
1. Private property a) labor property b) non-labor property	1. Public state property
2. Corporational property	2. Federal property
3. Monopolistic property	3. Municipal property
	4. Collective property (cooperation)
	5. The Public organisation property
	6. Public corporational property

Figure 1. The property forms plurality.

Private property characterizes the relationship between economic agents, which shows their relation towards property objects as private ones (their own).

Public property characterizes the relationship between economic agents (society, particular social groups, and individuals), which shows their relation towards property objects as public ones (common goods).

Mixed forms of property – they are represented by different private – public forms, and at well known extent, it may be corporational property, especially when the private owned share belongs to one person and is more than 50% . Also may be **individual (personal) property** – to somebody's personal things or items, **civil property** (personal items as household or car), and **intellectual property** – the products of intellectual labor – innovations, discoveries, inventions etc. They must be protected by means of copyright, license, patents, trade mark. Innovations may be radical (new methods of treatment, "know - how", new medicines etc.), and modified ones (rational perfections (new management and marketing approaches, new advertising).

Nationalization and denationalization.

Nationalization it is the process of transferring of private forms of property to the public property (state, municipal etc.) The aims of nationalization are connected with the necessity of increasing the efficiency of firms and industries. It may be done in the national motives.

Denationalization reflects the process of vice-versa process, when national public property is transferring to different private forms. The goals of privatization are connected with the necessity to risk quality of medical services, creation of competition, improving system of re-muneration, and effectiveness.

Privatization – it is the process of transferring of state property to individual owners and creation of private property. The aims of privatization are connected with the necessity to raise the efficiency and quality of labor, the social protection of workers, the system of remuneration, creation of competition.

The forms of privatization are as follows:

1. Auction, public sale
2. Contest (concurs)
3. Bargain of capital share (purchasing of shares (securities) of the firm)
4. Leasing (rent)

2. Medical institution as an economic agent.

Medical institution as an economic agent is a firm which is organized to work out different medical services for population. Medical institution possesses its own material, financial, human, informational resources, financial account in bank, credit relations. Medical institution uses different economic activity: management, marketing, price forming, advertising etc. Medical institution has its own legal form of economic activity.

Economic characteristics of medical institution.

1. Material resources (medical equipment, technique, instruments, buildings, gar, water, electricity, transport, medicines.
2. Financial resources (inside money of medical institution and outside bank deposits, credit)
3. Human resources (medical staff – doctors, nurses, other workers)
4. Informational resources (Data bank of information in computer system)
5. National resources (land ownership, pharmaceutical plants)

The main economic agents of medical institution environment:

a) Consumers (users) of medical services – patients receiving medical services.
b) Competitors – other medical institutions
c) Bank and credit system
d) Medical insurance companies
e) State organizations (taxation, policy etc)
f) Partners of medical institutions – industrial firms, medical organizations, laboratories, diagnostic centers.
g) Advertising firms
h) Mass-media, TV, internet.

<u>Aim of Medical institution</u>: medical services for patient

<u>Consumer</u>: patient (people, receiving medical services)

<u>Competitors</u>: other medical institution which work out analogical medical services.

The main economic indicators of analysis.

They are divided into several groups according types of activity:

1) Productional indicators
2) Financial – economical indicators
3) Social indicators

1. **Productional indicators**
   a) Technological documentation
   b) Amortisation
   c) Moral and physical ageing
   d) Fixed and circulating capital.
2. **Financial – Economical Indicators**
   a) Total income
   b) Profit, NET profit
   c) Budjet assignations
   d) The number of medical services
   e) Efficiency
   f) Rentability
   g) Economic (business) risk of activity and some others, such as follows:

- CT (cost total = cost fix + cost variable)
- Marginal costs = MC = $\frac{\Delta \text{Cost total}}{\Delta Q} = \frac{CT2 - CT1}{Q2 - Q1}$
- Average costs = AC = $\frac{CT}{Q}$
- Efficiency = E = $\frac{Q:\text{profit or income}}{\text{Expenses}} \times 100\%$

The funds of Medical institution are represented by Economic funds:

– Active funds (medical staff and equipment)
– Passive funds (building and technical equipment)

- The funds productivity = FP = $\frac{\text{Profit}}{\text{Capital}} \times 100\%$
- The funds capacity = FC = $\frac{\text{Capital}}{\text{Profit}} \times 100\%$

3. Social indicators.

They are represented by social and premium funds, medical services quality, quality standards, unit costs, unit prices on medical services, conditions of Medical institution, professional ethics in the organization.

The forms of private business in medicine:

1. Individual (sole) firms – owner – 1 person, responsibility is unlimited, but capital is limited.
2. Partnership – owners – 2 or more persons, responsibility is divided, capital is limited.
3. Corporation – a number of owners, responsibility is divided between owners, capital is not so limited.

The market position of Medical institution is determined by 4 important characteristics:

1. The form of business
2. The form of property
3. The number of employees (doctors, nurses)
4. Medical specialization (polyclinic, hospital, and according to medical directions: gynecology, stomatology etc.)

Common features of public and private medical institutions are using of medical standards and norms of medical technology and quality, medical ethics, basic medical services. But in private medical institutions the profit motives are represented more effectively, therefore there are some **disadvantages** of Public Medical Institutions: inflexible and immobile character of Wages/ Salaries system, state control and planning of pricing and resource supply, weak relations with market requirements and demand, low numbers of efficiency, rentability, quality of medical services.

Leasing/rent in medical sphere means using of technical capital (building, equipment, transport) during a certain period of time. As usually this capital belongs to other economic agent. The reason of leasing is in the fact, that it is very expensive to buy some capital items. Leasing is a kind of long – term rent of equipment and machinery.

Corporation or joint-stock company is created first of all by gathering or accumulation of money of individual partners. Accumulated Capital is divided among partners according to their ownership, which is represented by securities (valued papers, shares, obligations). Corporations may be open, they sell their securities to all economic agents, who want to buy them, and closed, (only for inside selling of securities). Valued papers are called securities, issues, shares, stocks, obligations, bonds. The income from one security is called divided or yield nominal value. Its current price is called course of share.

$$\text{Course of share} = \text{nominal value} + \frac{\text{Dividend}}{\text{N\%}} \times 100\%$$

3. Entrepreneurship in medical institutions: organizational forms.

Our initial focus is this chapter is on three common forms of business ownership: sole proprietorships (individual private firms), partnerships, and corporation.

<u>The forms of private business in medicine.</u>

I. Individual (private)

- Owner: 1 person
- Responsibility: unlimited
- Capital: is limited
- Taxes: value added tax (VAT) = HDC – income tax

II. Partnership

- Owner: 2 persons (or more)
- Responsibility: is divided among partners
- Capital: is limited
- Taxes: value added tax (VAT), income tax

III. Corporation:

- Owner: a number of persons
- Responsibility: is divided among owners
- Capital: limited but there are some additional sources
- Taxes: value added tax (VAT), income tax corporation income tax

A **<u>sole proprietorship</u>** is a business that is owned (and usually operated) by one person. Sole proprietorship (S. P.) is the oldest and simplest form of business, and the easiest to start. Some of the largest of today's corporations, including FORD Motor company, started out as tiny. Now they are common in the retailing, agriculture, and service industries (including medical sphere). Most of the advantages and disadvantages of S.P. arise from 2 main characteristics of this form: simplicity and individual control.

Advantages of Sole Proprietorship.

- Ease and low cost of Formation and Dissolution.

No contracts, agreements, or other legal documents are required to start a sole proprietorship. A state or city license may be required for certain types of firms, such as medical services, that are regulated in the interest of public safety.

- Retention of All Profits.

All profits earned by a sole proprietorship, become the personal earnings of its owner. It is the direct financial reward that attracts many people to the sole business form.

- Flexibility.

The Sole owner is completely free to make decisions about the firm's operations. Without asking or waiting for anyone's approval a sole proprietor can switch from retailing to wholesaling; move a firm's location, or open a new department.

- Possible tax advantages. The S.P. profits are taxed as personal income of the owner. Thus a sole proprietorship does not pay the special state and federal income taxes that corporations pay.

- Secrecy. S.P. are not required by federal or state government to publicly reveal their business plans, profits, or their vital facts. Therefore, competitors can't get their hands on this information.

Disadvantages of S.P.

1. Unlimited Liability – S.P. is personally responsible for all the debts of his or her business. This means there is no legal difference between the debts of the business and the debts of the proprietor.

2. Lack of Continuity. Legally, the Sole proprietor is the business. If the owner dies or is declared legally incompetent, the business essentially ceases to exist. The owners' heirs take over the business and continue to operate it.

3. Limited ability to borrow. Banks and other lenders are usually unwilling to lend large sums to sole proprietorships. Only one person – the sole proprietor can be held responsible for repaying such loans. The assets of most S.P. are limited. The limited ability to borrow can keep a sole proprietorship from growing.

4. Limited Business Skills and Knowledge. Often the S.P. is also a sole manager – in addition to being a salesperson, buyer, accountant etc.

5. Lack of Opportunity for Employees.

The S.P. may find it hard to attract and keep competent help.

Partnerships.

We'll define a partnership as an association of two or more persons to act as co-owners of a business for profit.

Types of partners.

– General partners – assume pull or shared operational responsibility of a business. They are active in day - to day business operations, and each partner can enter into contracts on behalf of all the others.

– Limited partners – persons who contribute capital to a business but is not active in managing it. Their liability is limited to the amount that they have invested. They share in the profits of the finer.

– Articles of partnership are a written agreement listing and explaining the terms of the partner, their responsibilities etc.

Advantages of Partnerships

1. Ease and low cost of formation.
2. Availability of capital and credit.
3. Retention of Profit.
4. Personal Interest.
5. Combined business skills and knowledge.
6. Possible Tax Advantages

Disadvantages of Partnerships

1. Unlimited liability.
2. Lack of Continuity.
3. Effects of Management disagreements.
4. Frozen investment (it is easy to invest money in a partnership, but it may be difficult to get it out).

Questions to ask when forming a Partnership.

1. Money
   a) Where will the start-up money come from?
   b) How and when will be repaid?
   c) How will the partners be compensated?
   d) Salary for employees?
2. Goals
   a) Short-term goals?
   b) Long-term goals?
3. Separation of responsibilities
   a) Who will handle personnel matters?
   b) Which employees report to which partners?
   c) How are the responsibilities divided?

4. Decision making
   a) Which matters require joint decisions?
   b) To which areas can partners act independently?
   c) What criteria are used to evaluate decision?
5. Individual Contributions
   a) How much to contribute?
   b) Do all the partners value each other's contributions as much as their own?
6. Growth
   a) How will areas for growth be chosen?
   b) How will growth be financed?
   c) Who will manage the "growth" work?
7. Disagreement
   a) What are the ground rules for resolving disagreement?
   b) Which matters require complete agreement?
8. Communications
   a) How and when will information be shared?
   b) Will be used the chain of command in the communication with workers?

Corporations

The shares of ownership of a corporation are called "stock". The people who own a stock are called stockholders, or shareholders. Where to incorporate? – A business is allowed to incorporate in any state it chooses. Most small and medium-sized business are incorporated in the state where they do the most business.

Advantages of Corporations.

1. Limited liability. If a corporation should fail, creditors have a claim only on the assets of the corporation, not on the personal assets of its owners.

2. Ease of Transfer of Ownership (a telephone call to a stockbroker is all is required to put the stock up for sale).

3. Ease of raising capital. They can sell stock of shares (securities) to raise additional sums of money, the can borrow from banks.

4. Perpetual life

5. Specialized Management – typically, corporations are able to recruit more skilled and knowledgeable managers than proprietorships and partnerships. They have more available capital.

Disadvantages of Corporations.

1. Difficulty and expense of formation (it's costly and a complex process).

2. Government regulation. Most government regulations of business are directed at corporations. (government standards, reports on activity with local and state governments, periodic reports to stock holders.)

3. Double taxation (tax on profits + personal income tax – on the individual profits of stockholders – dividends)

4. Lack of secrecy (reports)

A not-for-profit corporation is a corporation that is organized to provide a social, educational, religious and other nonbusiness service rather than to earn profit.

Table 1

Characteristics	Sole proprietorship	Partnership	Corporation
Instrument of creation	None	Agreement (oral or written)	Articles of incurporation
Tax rates	Individual	Individual	Corporate
Organisational documents	None	Partnership Agreement	Articles of incorporation
Limited liability	No	No	Yes
Recognition of losses	Owner	Partners	Corporation

* Forms of doing business

4. Business plan of medical institution. The risk of economic activity.

When starting a small business, a lack of planning can be as deadly as a lack of money to the new enterprise. Planning is important to any business, large or small, and should never be overlooked or taken lightly.

A business plan is a carefully constructed guide for the person starting one's own business. It also serves as a concise document that potential investors can examine to see if they would like to invest in or assist in financing a new venture.

The business person, when constructing a business - plan, should strive to keep it easy to read, uncluttered and complete. Officials of financial institutions just don't have the time to flip through pages of facts and figures.

In the business-plan, the business person should be sure to answer the four questions that banking officials and investors are most interested in:

1. What exactly is the nature and mission of the new venture?
2. Why is this new enterprise a good idea?
3. What are the business person's goals?
4. How much will the new venture cost?

Components of a Business - Plan.

1. Introduction. Basic information such as name and address of the business, nature of the business, statement of the business, financial needs and statement of confidentiality.
2. Executive summary. Summary of the entire business plan, including a justification stating why the business will succeed.
3. Industry analysis. Examination of the potential "customer", current competitors, and business future.
4. Detailed description of the business. Information on the products or services to be offered; size and location of the business; personnel and office equipment needed and brief history of the business.
5. Production plan. Description and cost analysis of the manufacturing process, plus an outline of the raw materials, physical plants, and heavy machines needed.
6. Marketing plan. Discussion of prices, pricing, promotion, distribution, and product forecasts. Supply and demand analysis.
7. Organizational plan. Description of the form of ownership of the venture, and responsibilities of all members of the organization.
8. Assessment of Risk. Evaluation of the weaknesses of the business and how the company plans to deal with these and other problems. SWOT – analysis.
9. Financial plan. Summary of the investment needed; forecast of sales, cash-flow forecasts, break-even analysis, estimated balance sheet, and sources of funding.
10. Appendix. Supplementary information such as market research results, copies of leases, and suppliers' price lists.

An assessment of Risk. The Risk Assessment is an evaluation of the weaknesses of the business plan and how the company plans to deal with these weaknesses and other related problems. It is important to show the lender or investor that you have considered the potential problems that could arise and that you have planned to resolve these problems if, indeed, they do arise. **Real business-risk** of economic activity may be measured as your real losses in business-activity. If you will lose the part of your profit, this risk will be called as available. If your loss is the entire profit, then it will be **critical risk**. And if your loss consists of both profit and funds (capital), then it will be **catastrophic risk**. Business risk may appear in production, sales process and banking operations. So, it will be **productional**, **commercial** and **bank** (or **credit**) **risk**.

Franchising. A franchise is a license to operate an individually owned business as through it was part of a chain of outlets and stores. Often the business itself is also called a franchise. Among the most familiar franchises are McDonalds, Baskin-Robbins etc. The franchisor supplies a known and advertised business name, management skills, the required training and materials, and a method of doing business. A franchisee is a person or organization purchasing a franchise.

Industries that attract small businesses, are most of all service industries. This category accounts for about 50% of all small businesses. Of these about ¾ provide such nonfinancial services as medical and dental care, watch, shoe, and TV repairs; Hair – cutting and styling, restaurant meals, etc.

About 14% of the small service offer financial services such as accounting, insurance, investment consulting. Small businesses are typically managed by the people, who started and own them. An entrepreneur is a person who risks his or her time, effort and money and operates a business. He sees that the opportunities for profit are greater than the obstacles to profits. The entrepreneur tends to look at things through the eye of the Customer, he must be helped by good intuitive judgment and common sense.

Table 2

Pro's	**Con's**
Personal relationships with customers and employees	Risk of failure
Ability to adapt to change	Limited potential
Simplified record keeping	Limited ability to raise capital
Independence	Other disadvantages of sole proprietorship.
Other advantages of sole proprietorship	

*The Pro's and Con's of Smallers.

Small firms (especially newer ones) run a heavy risk of going out of business. About 2 or 3 firms close their doors within the first 5 years. Other, well established but small firms can be hit hard by a business recession, mainly because they do not have the financial resources enough to survive.

Review questions

1. Define the property as an economic category.
2. Appropriation, possession, disposal of economic goods: give some examples.
3. Economic realization of property-what does it mean?
4. Property basic types and forms: examples.
5. What is the aim of nationalization? Denationalization? Privatization?
6. Economic characteristics of medical institutions. Examples.
7. Leasing, corporation or joint-stock company: using in medical sphere. Dividend: what is it?
8. Sole proprietorship in PHS: basic factors?
9. Partnership and corporation activity as forms of business in PHS.
10. What do you know about of business-plan and business-risk?

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№ 4. Costs of production: essence and content. Classification in the field of medicine.

Questions

1. Costs of production (medical services): definition, structure, classification.
2. Income and Profit in the Medical Institution.
3. Efficiency and Quality of medical services. Profitability (rentabiluty).
4. Price forming in the PHS. Price classification.

Key terms

Cost of production, expenses, total costs fixed costs, variable costs, marginal costs, average costs, alternative costs, prime costs, direct and divided expenses, price, forming of price, private and state prices, budget price, retail and wholesale prices, control system in pricing, income, profit, sponsorship, rational resource use, total revenue, gross value, balance profit, taxation, net profit, efficiency, profitability (rentability), ROE (return on equity); ROI (return on investment), quality of medical services, medical standards of quality, price index.

1. Costs of production (medical services): definition, structure, classification.

<u>In order that a product may be sold, the price should be:</u>

1. Not less than total (gross) cost, plus profit;
2. Not more than a customer will pay;
3. Related to what the competition is charging;
4. Related to the quality of the product and the volume of sales desired.

What does it mean: "Cost plus profit"? Total cost = Fixed cost + Variable cost.

$$CT = CF + CV$$

CT = total cost
CF = fixed cost
CV = variable cost

Costs of production are the total sum of all expenses during the production process of medical institution Economic Activity (medical services production, for example). In the case of medical sphere, costs are spent by medical institution and medical economic agents (doctors, nurses) to provide medical services.

- Total costs (CT) = it is the general sum of costs.

$$\underline{CT = CF + CV} - \text{if } Q$$

CF = const; *if* $Q = 0$, $CF \neq 0$; and $CT = CF$, then $CV = 0$;
Q – number of medical services, output.

- Marginal costs $CM = \dfrac{\Delta CT}{\Delta Q} = \dfrac{CT2 - CT1}{Q2 - Q1}$
- Average costs $AC = CT/Q$, it is cost per unit (1 medical services)
- Alternative costs = the costs of lost chances (missed chances). It is the cost of other (alternative) way of production.
- Private costs are prime cost or expenses of entrepreneur (businessman)

<u>*Total costs (price) – Prime costs = Profit*</u>

Or: <u>*Price – Prime costs = Profit*</u>

There are centers of value (or centers of cost). They are main components for economic determination of cost:

1. Overhead centers (administration, lanndry)
2. Auxillary centers (iufra-services, X-rays, laboratories)
3. Final centers (words in hospital, sections and departments in medical institutions) = rooms for patients.

<u>**Fixed costs (CF)**</u> are independent of the number of medical services (so called "volume of output"), therefore, fixed costs are independent of the number of patients, and, obviously, they are also independent of the quantity of the medical and pharmaceutical goods (instruments, medicines, drugs, and so on). Fixed costs include expenses on using of medical institute infrastructure: building, maintenance, social insurance, advertising, lazing, administration, fuel, transportation, water, electricity, gas etc. <u>***They are as follows:***</u>

a) Rent, utilities, phone
b) Insurance
c) Maintenance
d) Services
e) Supplies
f) Furnishings
g) Equipment depreciation
h) Security
i) Salaries (not in all cases)
j) Tax on salaries
k) Credit costs (interest on loans)
l) Cost of credit to customers, bad debts.

Variable costs (CV) depend on the number of patients and medical services, on the output of production, on the quantity of medical goods and pharmaceutical medicines produced during the production process. They include expenses on raw materials and all other circulating factors of production, and natural factors such as gar, electricity, water, when they are used as factors of production, and when they don't represent communal [payments. Salary and wages, when they are related with the volume of production output, are also variable costs.

Variable costs are the following:

a) Wholesale cost to merchant or cost of materials;
b) Cost of delivery;
c) Cost of storage and inventory;
d) Cost of inventing shrinkage;
e) Cost of selling and delivering to customers;
f) Tax on income (depends on income);
g) Natural resources cost;
h) Salary/ wages (in the case when they are hourly or monthly wages).

When the production is not working, then Q (the quantity of produced units, or the number of medical services and patients) does not present, $Q = 0$.

In this case: $CT = CF + CV$

If $Q = 0$ -> then $CV = 0$ (we are not producing services/ goods), and

$CT = CF + 0$ $CT = CF$

So, when our activity is stopped, then we have only fixed expenses, that we have listed above.

There are several ways to include product demand in the pricing process. They range from the simple but dangerous method of experimenting with several prices to complex methods involving intricate and detailed calculations. Somewhere between these two extremes is a pricing method based on breakeven analysis.

For any product, the breakeven quantity is the number of units that must be sold for the total revenue (of all units sold). Total Revenue is the total amount received from sales of the product. We can estimate projected T.R. (total revenue) as the selling price multiplied by the number of units sold.

The costs involved in operating a business can be broadly classified (as we have seen) as either fixed costs or variable costs. A fixed cost is incurred no matter how many units of a product are produced or sold. A variable cost is a cost that depends on the number of units produced. The cost of fabricating parts for a stereo receiver is a variable cost. The more units produced, the higher this cost is. The total cost of producing a certain number of units is the sum of the fixed costs and the variable costs attributed to those units.

If we assume a particular selling price, we can find the breakeven quantity either graphically or by using a formula.

Figure 3 graphs the total revenue earned and the total cost incurred by the sale of various quantities of some hypothetical product. With fixed costs of $40 000, variable costs of $60 per unit, and a selling price of $120, the breakeven quantity is 667 units.

To find the breakeven quantity, one must first deduct the variable cost from the selling price to determine how much money the sale of one unit contributes to offsetting fixed costs. One then divides that contribution into the total fixed costs to arrive at the breakeven quantity. The breakeven quantity in figure 3 is the quantity represented by the intersection of the total – revenue and total – cost axes. If the firm sells more than 667 units, it will earn a profit. If it sells fewer units, it will suffer a loss.

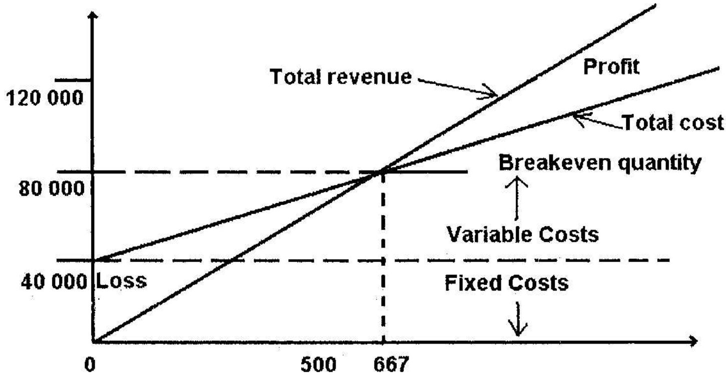

Figure 1. Breakeven analysis. Total Cost of Revenue

Marginal costs slow us the additional expenses for producing of additional units:

$$CM = \frac{\Delta CT}{\Delta Q} = \frac{CT2 - CT1}{Q2 - Q1}$$

Average costs show the average unit cost (cost per unit of production)

$$AC = \frac{CT}{Q}$$

The Total Revenue, or income, may be counted according to formulas:

$$\begin{cases} TR = CT + Pr \\ TR = p' \times Q \end{cases}$$

p' = unit price
Pr = profit
TR = Total revenue
Q = units quantity

2. *Income and Profit in the Medical Institution.*

In general, **<u>Profit is the difference between Total Revenue and total costs of production.</u>**

In the course of normal operations, a business receives money (Sales revenue) from it's customers in exchange for goods/services. It must also pay out money to cover the various expenses involved in doing business. If the firm's Sales revenue is greater than its expense, it has earned a profit. More specifically, as shown in figure 4, profit is what remains after all business expenses have been deducted from sales revenue. (A negative profit, which results when a firm's expenses are greater than its sales revenue, is called a loss.

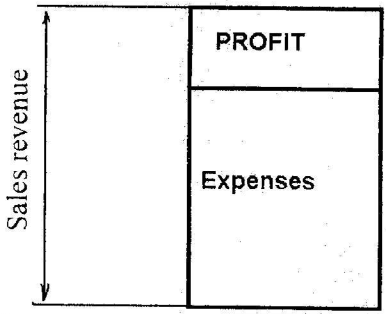

Figure 2. The relationships between Sales revenue and Profit.

Sales revenue is also called Total revenue or Income (or Total Income).

Expenses are also called Costs. (CT = CF + CV).

The **profit** earned by a business becomes the property of its owners. So, in our sense profit is the return, or reward, that business owners receive for producing goods and services that consumers want. Profit's also the payment that business owners receive for assuming the considerable risks of ownership. One of this is the risk of not being paid. Everyone else – employees, suppliers and lenders – must be paid before the owners. And if there is nothing left over (if there is no profit), there can be no payments to owners. A second risk that owners run is the risk of losing whatever they have put into the business. The business that cannot earn the profit is very likely to fail, in which case the owners lose whatever money, effort, and time they have invested. For business owners, the challenge of business is to earn a profit in spite of these risks.

Therefore, Profit is a part (or element) of Income (Gross Sale's Revenue, or Total Revenue). Profit = Total Revenue (Total costs + Taxes). Sometimes total Costs are called prime costs.

Sources of income are as follows:

1) Sales of paid services/goods of medical institutions and medical and pharm. firms.
2) Sale of the funds of production (building or its part, equipment etc.)
3) Sale of licenses and patents (from discoveries and inventions, and other scientific and technological researches)

4) Sale of circulating assets (some raw natural materials, or instruments)
5) Rent and leasing (building, equipment)
6) Joint – stock activity (dividends from joint – stock property)
7) Incomes from partnership activity
8) Budget financing
9) Sponsorship
10) Rational resource use
11) Additional incomes from management improvements and advertising.

Balance sheet of the business firm reflects the sum of all its incomes.

Functions of the profit.

1. Profit is a final result of business activity
2. Profit is a main money resource for business investment.
3. Profit is a main source of taxes.
4. Profit is used to provide return on your investment and costs (rentability, ROE, ROS, etc.)
5. Profit is used to allow unexpected events.
6. Profit allows business growth.

Profit is the most important category of financial projections of your business – plan:

1. All income Statement shows the results of the operations of the firm whether it has earned a profit (net income) or incurred a loss over a period of time (monthly, quarterly or yearly).

2. Balance sheet indicates the financial position of the company, its assets, liabilities, and net worth) at a particular moment in time.

3. Cash Flow Statement estimates and shows flows of cash into and out of your company. It is designed to estimate future cash receipts, outlays, balances and then compare actual results with the estimate at the end of each month of operations. The statement provides a schedule of cash flow and serves as a ready device for ascertaining whether or not the schedule is being met.

4. Profit and Loss Statement or P&L statement is valuable as a planning tool (instrument) and as a key management tool to help control operations to reach business goals. It enables the owner to develop a preview of the amount of profit, or loss, generated each month, and for a business year – based on reasonable (rational) predictions of monthly level of sales, costs, and other expenses. The owner can compare the

year's expected profits or losses against the profit goals and needs established for the business. A completed P&L statement allows the owner or manager to compare actual figures with the monthly projections, and to take steps to correct any problems.

5. Break – even analysis.

The Net Profit directions of using.

1. Investments in production of goods and services.
2. Scientific investigations.
3. Marketing, advertising, promotion.
4. Social policy (benefits for personnel)
5. Renovations of Capital (repairment of equipment and building)
6. Educational programs for staff/ personnel and for their professional growth.
7. Sponsorship.
8. Private individual income of the owner.
9. Joint – stock activity goals.

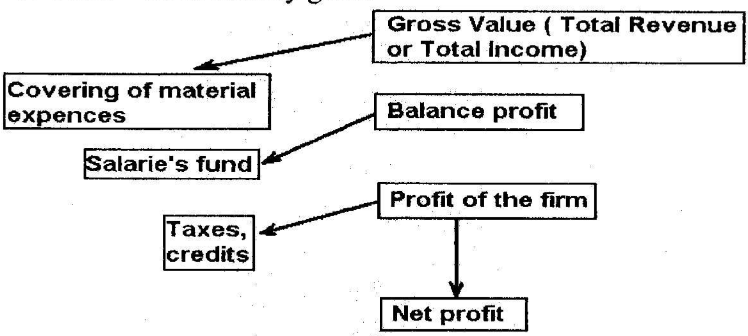

Figure 3. The Scheme of Commercial Mechanism. (Profit distribution)

3. Efficiency and Quality of medical services. Profitability (rentabiluty).

Efficiency and Rentability is a relation between the result of economic activity (profit or the number of medical goods/ services divided to the volume of costs (expenses, capital, funds)

$$E = \frac{\text{Result (Pr : Q)}}{\Sigma \text{Costs}} \times 100\%$$

In the field of medicine the social – economic efficiency is used, which takes into account the quality of medical services. Medical efficiency is characterized by such indicators, as birth – rate, mortality (death – rate), general and specific morbidity, other clinical indicators.

$$E\ med = A0 \times t - (A1 + A2 + \ldots + An)$$

A0 – the number of morbidity cases in the previous (basic) year.
A1, A2, ... , An – the number of morbidity cases in the following years.
Emed – Medical efficiency; t-number of years.

Rentability (Profitability) is different ratios from the balance sheet Rentability is the form of efficiency.

Classification.

1) R. of production = (Balance profit / The sum of funds or capital) * 100%
2) R. of products = (Sales revenue / Total prime costs) * 100%
3) ROE (return on equity) = (Net profit / Capital of the firm) *100%
4) ROI (return on investment) = (Net profit / Capital investments) * 100%
   Average Revenue = AR = TR/ Q
   Marginal Revenue = MR = ΔTR/ΔQ

In order to realize its interests, the firm must have high rent of Profit, high rentability, not less than 30%. Quality of medical services has 3 main elements of research: Structure, Process, Result. Quality is a component of social – medical and economic efficiency, and the condition of high Profit of the firm.

Table 1

Rentability (= Rent of profit)
Rentability is the form of efficiency

1. Rent of production	$R = \dfrac{\text{Balance profit}}{\Sigma\text{funds}} * 100\%$
2. Rent of products(services)	$R = \dfrac{\text{Incomes of sale}}{\text{Prime costs of production}} * 100\%$
3. *ROE* = Return on equity	$R = \dfrac{\text{Net profit}}{\text{Capital of the firm}} * 100\%$
4. *ROI* = Return on investment	$R = \dfrac{\text{Net profit}}{\text{Capital invested}} * 100\%$
5. *ROS* = Return on Sales	$R = \dfrac{\text{Net profit}}{\text{Net incomes of Sale}} * 100\%$

*Rentability forms

$$Total\ Revenue = \sum Incomes$$

$$TR = p' * Q$$

p' – price of unit (1 service);
Q – Number of services

$$TR = CT + Pr$$

$$\text{Average Revenue} = AR = \frac{TR(\text{total revenue} = \text{cost total} + \text{profit})}{Q}$$

$$\text{Marginal Revenue} = MR = \frac{\Delta TR}{\Delta Q}$$

To realize a profit the firm must have high rent of Profit, and sometimes it must have excess profit.

Losses must be lower than profit. It is not profitable to offer goods at cost or next to cost; you need to have profit by a transaction.

I. **Quality of medical services.**

Quality is a characteristic feature of good medical services, it allowed services to be at high level and to satisfy needs of patients. Standartization is a process of comparison of our services with norms and rules, existing in our country and in other countries. Standards of quality exist as concrete, certain rules of treatment.

Classification of Stanards:

1. Standards of medical equipment
2. Standards of medical staff
3. Standards of medical services
4. Standards of labor in P.H.S.
5. Standards of other resource use

Quality may be analyzed from 2 points of view:

1. Perspective of User (patient)
2. Perspective of Seller (doctor or medical Institution)

There are 3 components of Quality:

1. Structure (resources)
2. Process (of treatment) – according to CSG - clinical-statistical groups of diseases.
3. Result (medical services)

People may be satisfied with high quality medical services only.

Efficiency (Effectiveness) and Quality in Public Health System. (P.H.S.)

II. Profit is a part of income. Income is Gross sale of Medical Institution.

$$\text{Profit} = \text{Gross Sale (Income)} - [\text{Prime cost} + \sum \text{Taxes}]$$

Prime cost (expenses)	Taxes	Profit

Gross Sall = Income = Total Revenue
Prime cost = Expenses of the firm

4. Price forming in the PHS. Price classification

Price in market economy is a money expression (equivalent) of value of goods and services. Price may be measured by expenses (costs) of labor, materials, finances (capital), and in theory of marginal costs it may be measured by commodity's use for consumer (patient). A.Marshal (neoclassic theory) combined these theories and suggested to use also such factors, as demand, supply.

Free movement of prices is the essence of market economy.

Price functions:

1. Functions of orientation in market.
2. Functions of motivation and stimulation
3. Functions of producers and consumers
4. Functions of division (to divide incomes, resources)

Table 2

1. State prices	6.Tariff prices (insurance system)
2. Market (free) prices	7.Season prices
3. Contract prices	8.Retail prices
4. Budget prices	9.Wholesale prices
5. World prices	

*Classifications of prices

Formula of prices: $\boxed{\textit{Price} = \textit{Prime cost} + \textit{Taxes} + \textit{Profit}}$

The structure of price.

1. Labor expenses (wages, salaries)
2. Material expenses (materials, groups, electricity)
3. Financial expenses

4. Taxes (to budget)
5. Other taxes (extra budget funds)
6. Profit

$$\text{Price index} = \frac{\Sigma\text{current price (the price of current year)}}{\Sigma\text{base price (price of base year)}} * 100\%$$

Price index is indicator of national price level.

Control system in price formation.

The system of price regulation:

1. Market (free) regulation
2. Enterprise regulation (firm regulation)
3. State control

Control system – it is the process of economic analysis of situation and price policy with the aim of increasing of number of medical services and their quality in conditions of market supply and demand. The price must be competitive, because people must be able to buy services and goods, and medical institutions must be cover their expenses (costs) and receive Profit.

The use of price The price of a product is the amount of money that the seller is willing to accept in exchange for the product, at a given time and under given circumstances. At times, the price results from negotiations between buyer and seller. But in many business situations, the price is fixed by the seller. Each interested buyer then makes a very personal judgment regarding the utility of the product, often in terms of some dollar value.

Price serves the function of allocator. **First,** it allocates goods and services among those who a willing and able to buy them. As we noted in the first lecture the answer to the economic question "For whom to produce?" depends primarily on prices. **Second**, price allocates financial resources (sale revenue) among producers according to how well they satisfy customer's needs. And **third**, price helps customers to allocate their own financial resources among various want-satisfying products.

Low prices and aggressive marketing are the two major elements in the success of some corporations and product-lines.

Can firms control their price? In a system of pure competition, no producer has control over the price of its product. All producers must accept the **equilibrium price**. In the real economy, producers try to gain some control over price by differentiating their products from similar products. Product differentiation is the process of developing and promoting differences between one's product and all similar products. The idea behind product differentiation is to create a **specific demand** for the firms product –to take the product out of competition with all similar products. Then, in its own little "submarket". The firm can control **price** to some degree. Firms also attempt to gain some control over price through advertising. It the advertising is effective, it will increase the quantity demanded. This may permit a firm to increase the price at which it sells its particular output.

Price competition allows a marketer to set prices based on demand for the product or in response to changes in the firm's finances.

Price competition occurs when a seller emphasizes the low price of a product and sets a price that equals or beats competitor's prices.

Review questions

1. Costs of production-what is it? Give the definition and structure.
2. The difference between fixed and variable costs: is this factors important for price forming?
3. Income and profit: correlations and difference. Examples for medical firm.
4. Sources of income for medical firm.
5. Profit distribution (the scheme of Commercial mechanism) in the business-firm.
6. Net profit: how to use it?
7. Profitability (rentability) classification. What is ROE and ROI?
8. Medical and social efficiency –what is it?
9. The factors of medical service quality.
10. Price forming in the PHS: what do you know about it?

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№ 5. The macroeconomic mechanism of state regulation. Cyclicity and economic disbalance.

Questions:

1. The macroeconomic results and their measuring. Macroeconomic problems in the Public Health System (PHS).
2. The economic function of the State. State Budget and taxation policy.
3. Cyclicity and economic disbalance.
4. The market of labor. Unemployment as the case of disbalance at the labor market.
5. The market of money. Inflation.

Key terms

Total demand, total supply, economic balance, economic disbalance, extensive growth, intensive growth, cyclic fluctuations, animation, crisis, long waves of Condratiev, economic boom, employment, unemployment, Laffer curve, Lorenz curve, Jiny indicator, deciles coefficient, state budget, taxation policy, Phillips Curve, National Bank, Creeping inflation, hyperinflation, demand-push inflation, nominal and real income, living standards, great depression, direct and indirect taxes, Gross National Product (GNP), Gross Domestic Product (GDP), National Income (NI), Personal Income (PI), Net Economic Wealth (NEW), Social infrastructure, micro-proportions, macro-proportions.

1. The macroeconomic results and their measuring. Macroeconomic problems in the PHS.

Measuring Economic Performance.

One way to measure a nation's economic performance is to address its productivity. Productivity is the average level of output per worker per hour. An increase in productivity results in economic growth because a larger number of goods and services are produced by a given labor force.

A general measure of a country's national economic output is called its **1 gross national product (GNP)** - it is the total money value of all goods and services produced in a country for a given time period (usually- for a year). Comparing the GNP for several different time periods allows one to determine the extent to which a country is experiencing economic growth.

To make accurate comparisons of GNP figures for two different years one must adjust the figures for inflation, that is, higher price levels. By using inflation adjusted figures one is able to measure 2 real gross national product (RGNP) – it is the total money value adjusted for price increases, of all goods and services produced in a country during a given time period. Comparisons of RGNP information allows one to accurately measure differences in output form one time period to another.

3 DGD- means Gross Domestic Product. It is calculated as the GNP, not including the services and goods produced outside the country, e.g. produced by both national and foreign producers at the national territory of the country.

4 NNP-means Net National Product. $\boxed{\text{NNP = GNP - Amortization}}$

You remember that amortization is the process of money covering of physical ageing of Fixed Capital, this process is also called depreciation.

5 NI –National Income. $\boxed{\text{NI=NNP – ndirect Taxes}}$

6 PI- Personal Income. $\boxed{\text{PI = Personal Incomes + Transfers}}$

7 RPI- Real Personal Income. $\boxed{\text{RP I= PI – Taxes}}$

8 National Wealth –NW.

It is the sum of all wealth of nation during all of its history. It includes country's national resources, technologies, scientific and human potential, and all capital and circulating funds, historical, cultural and religious values etc. It is places mainly inside the country, but some items of NW are located abroad. (For example churches, enterprises, corporations, missions etc.)

9 Net Economic Wealth- NEW

NEW = GNP – Damages in economy + Benefits of the living quality

Damages in the economy occur from earthquakes, catastrophes etc.

Living quality is permanently rising in the country and the process results in living standards -personal income, quality of the environment, standards of health etc.

Productivity is increasing along with the living quality level.

The system of **National bills** of accounts is used in national economy. It consists of macroeconomic indexes, listed above, and demonstrates the country economic development.

$$\text{Deflator of GNP} = \frac{\text{Sum of Current Prices}}{\text{Sum of Basic Prices}} \times 100\%$$

As people are not equal in their skills, talents, conditions of life, opportunities and money, there is social-economic differentiation in incomes. It is sown in graphic of **Lorenz (Curve of Lorenz)**. It demonstrates the share of income in GNP in regulation to the share of population.

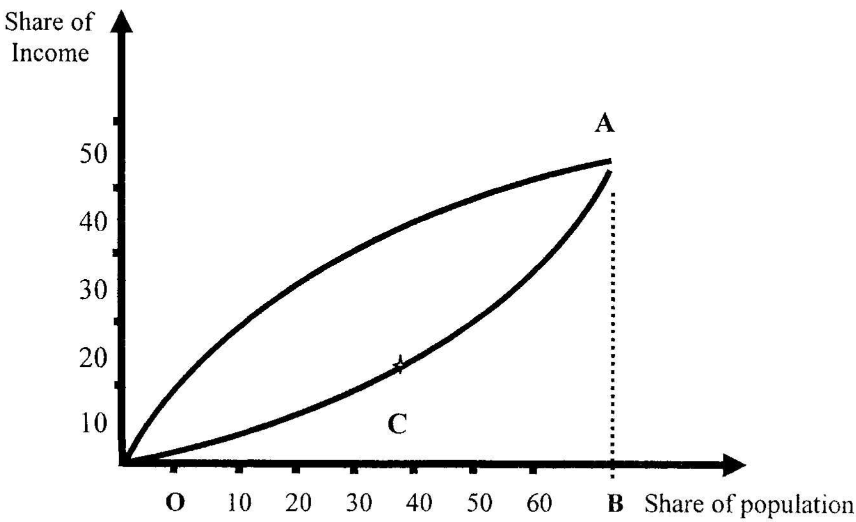

Figure 1. The curve of Lorenz.

$$\textbf{Jiny Indicator} = \frac{S\ \Delta OCA}{S\ \Delta OAB} \times 100\%$$

Deciles coefficient – shows the difference between the incomes of 10% of the richest people and the incomes of 10% of the poorest people.

Nominal individual income – it is the sum of money received as salary or other income.

Real income – it is the sum of products (goods/services) that may be bought for this sum of money.

– $$\textbf{Price Index} = \frac{\text{Current Consumer prices}}{\text{Basic comsumer prices}} \times 100\%$$

– **Consumer's goods/services basket** ⟹ The sum of goods/services/which satisfies firstnthly human needs. (Alimentation, etc.)

For the Republic of Moldova the consumer's good/cervices basket was as follows:

2000 year – 950 lei
2002 year – 1400 lei
2007 year – 2000 lei
2010 year – 2800 lei

- **Standard of living** – the level of life; Incomes, Health Care, Education.
- **Quality of living** – standard of living + conditions for labor, ecological environment, political stability etc.

The macroeconomic Health Care problems are connected with effective methods of Health Care Financing, development of Medical Insurance, reasonable pricing, increasing quality and acceptance of medical services and goods.

We shall speak about these problems more in the other topic, dedicated to the macroeconomic Health Care Systems.

2. The economic functions of the State. State Budget and taxation policy.

What ought to be the role of government in the economy? Today's economists have different opinions on the role of government. Some, like Adam Smith, would argue for the return of "laissez faire", reducing the government role in economic affairs. Other favor for more active participation. Despite their differences, however, almost all would agree that the following economic responsibilities are best fulfilled by government:

- Safeguarding the market system;
- Providing public goods and services;
- Dealing with externalities;
- Assisting those in need;
- Helping specific groups;
- Stabilizing the economy.

➢ **Safeguarding the Market System.**

In the free market system (Adam Smith's system) competition forced the sellers to produce the things consumers wanted, at the lowest possible prices. The sellers, whose products didn't measure up in price of quality lost sales and faced the chance of failure. Quite the opposite is true where there is little or no competition. Prices are determined by the producers themselves. The lack of competition is likely to lead to higher prices, wasted resources, and lower living standards since people would be able to afford fewer goods. On order to protect the market system, government has enacted **antitrust legislation**. These laws prohibit practices that reduce **competition** and increase the power of **monopolies**. The State has also taken steps to encourage competition.

➢ **Providing public goods and services.**

The roads, the traffic lights and signs, the police and highway maintenance crews are furnished by government. Governments provide these goods/services because private enterprise is unable, or unwilling, to do so. Items that can't be provided by the market system and so must be furnished by government are known **as** ***public goods and services***. National defense, street lighting, parks, airports and sanitary control are examples of public goods and services.

(For example local, state and national parks are so expensive to build and maintain that private companies could not charge high enough entry fees to make a profit).

➢ **Dealing with Externalities**.

Certain costs fall outside (are external to) the market system. The cost of promoting or connecting there "externalities" falls to government. (Cleaning up the river will require a major effort and considerable expense. Nothing in the market system would require the mill or its customers to assume the cost of restoring the river to its former state).

The building landscaping is an example of another **externality**. Government can correct harmful externalities either by **regulating** them of **taxing** them. Subsidies may be also used. Subsidies are payments to producers of consumers from the government.

➢ Programs to assist those in need.

The goal is to increase the income of disadvantaged groups and to provide everyone with equal economic opportunity. The poor, the elderly, the victims of discrimination and others in need have been the intended beneficiaries of these efforts. These programs are:

1) **Programs to help people in need** by increasing their **income**.

(Welfare payments, food stamps, Social Security benefits).

2) **Programs to eliminate** the causes of **poverty** and **economic disadvantage**.

(To outlaw discrimination and provide for educational programs).

3) **Programs to help Specific Groups**.

(Patent and Copyright laws have protected inventors, writers. Subsides and loans have enabled farmers who may have been forced into bankruptcy to continue farming their land).

4) **Programs to Stabilize the Economy.**

Experience has shown the government can do much to stabilize (smooth out the ups and downs) of the economy. Government may seek to minimize unemployment, stabilize prices and promote the growth of economic activity. **Full employment, stable prices** and **economic growth** are these of the most important goals of government economic policy.

The History of State economic intervention and regulation.

1) After the World War I

2) The Great Depression (The first practical experiences of State Regulation- Macroeconomic Theory of J.M. Reynes- 1925–1936).

1) Modern methods of State Regulation.

Table 1

1) Micro proportions	*2) Macro proportions*
Direct entrepreneurship (state firms)	Taxation
Public sector in the economy	Ecological programs
Energetics , traffic, communications	Social programs
Social infrastructure (Education, Health Care, Scientific researches)	Anti-cyclical policy (anti-unemployment, anti-inflation)
State management at private firms	Investment policy
Direct investments to private business	Foreign trade policy
Corporations and joint-stock activity	Foreign affairs policy
Externalities	Scientific research policy
	Structural economic policy

*Micro- and Macroeconomic functions of the State.

Micro proportions are state functions at the level of firms; **macro-economic** regulation appears at the level of **national economy**.

Financial Policy is the main instrument of Incomes' distribution and method of providing other government functions.

Table 2

1) Decentralized Finances	*2) Centralized Finances*
- Finances of the population	- Public Finance (State Budget)
- Finance of business firms	- Public Credit
- Finance of banks	- Public personal Insurance
	- Social Public Insurance

*The Structure of Finances.

State Budget.

The State Budget is a general government fund that consists of incomes and expenses. There are 3 main states of State Budget: deficit (Expenses >Incomes), proficite (Expenses <Incomes), normal state (Expenses =Incomes).

Budget cuts lead to national debt.

Table 3

Income:	*Expenses:*
a) Taxes	a) Social Policy
b) Incomes from foreign trade	b) Science
c) Joint-stock activity	c) Ecology
d) State business firms	d)Anti-cyclical policy
	e) Other macroproportions

*The Structure of State Budget.

Methods of Incomes distribution.

1) Transfert policy
2) Rational Taxation
3) Incomes' indexation
4) Living standards of existence and minimal wages/ salaries.

Transfers are **vertical** incomes, coming from the state budget according to social support programs (pensions, benefits, subsides, scholarships, retirement pays, unemployment deficit, grants)

Primary forming of incomes is functional distribution (wages, salaries, profits, rents, dividends, interests etc.)

Functional incomes come from factors of production and property.

Taxation.

Taxes are legal payments, paid in favor of State in obligatory way. They form the Public finance. Taxation is a method of income regulation and control.

Classification of Taxes.

1) Progressive (Income $\nearrow$ Tax $\nearrow$)
2) Regressive (Income $\nearrow$ Tax $\swarrow$)
3) Proportional (Fixed)
4) **Direct taxes** (They are: taxes on profit, individual or personal taxes, real estate taxes etc.)
5) **Indirect taxes** (They are included in process, as TVA).

The Structure of Taxes.

1) Object of tax
2) Subject of tax
3) Tax rate (%)

Laffer Curve shows the relations between tax level (tax rate) and money going to the State Budget. Laffer considered that the tax rates shouldn't be too high, because in this case business firms will not be interested in economic activity and they will not pay taxes. So the tax sums in the budget will decrease.

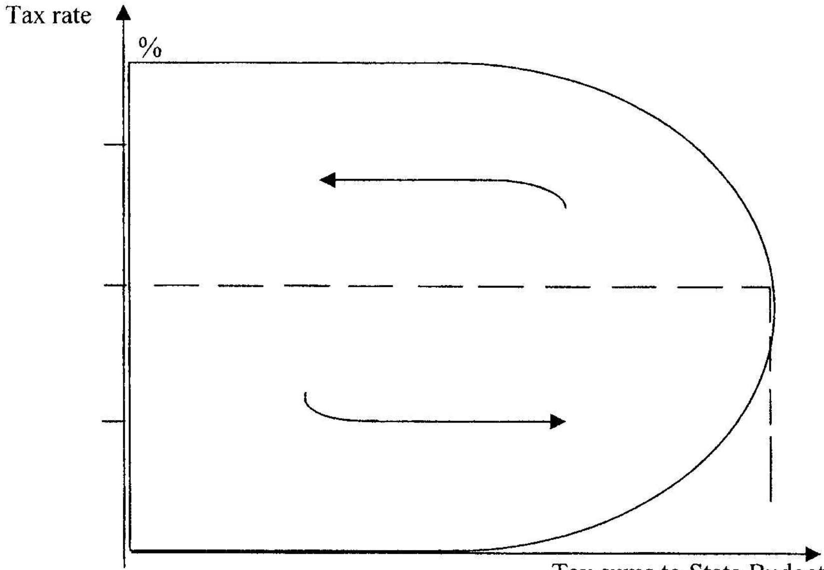

Figure 2. The Curve of Laffer.

3. Cyclicity and Economic disbalance.

The "roaring twenties" in the world economy ended with the sudden crash of the stock market in 1929 and the near collapse of the economy.

The Great Depression that followed in the 1930s was a time of misery and human suffering. **The unemployment** rate varied between 16 and 25% in the years 1931 through 1939 and the value of goods and services produced in America fell by almost a half.

Business investment came to a **complete halt**. People lost their faith in business and its ability to satisfy the needs of society **without government interference**. After the election of the president Franklin Delano Roosevelt, the federal government devised a number of programs to get the economy moving again. In implementing these programs the government got deeply involved in business for the first time-as both a **regulator** of business entrepreneurship activity and a **provider** of social services to individuals. Many entrepreneurs, business people opposed this government intervention, but they reluctantly accepted the fact that they were no longer operating within a purely capitalist economy. The famous author of Macroeconomic theory of government regulation of the market was scientist John Maynard **Keynes**. In 1936 he issues the famous book “The common history of money, interest and unemployment”, which reflects the steps and laws of economic cycles, economic crisis, peculiarities of economic consequences of crisis-unemployment, inflation etc.

The economy was on the road to recovery when World War II broke out in Europe in 1939. The need of vast quantity of was materials spurred business activity and technological development. This rapid economic pace continued after the war, and the 1950s -1960s witnessed both increasing production and a rising standard of living. **Standard of living** is a loose, subjective measure of how well off and individual or a society is, mainly in terms of want satisfaction through goods and services.

In the mid 1970s, however, a shortage of crude oil, along with constantly rising prices for petroleum products, led to a new set of problems to business. Petroleum products supply most of the energy required to produce goods/services and to transport goods around the world. As the cost of petroleum products increased the cost of energy increased along with it, and the cost of goods and services increased as well. The result was **inflation**, the general rise in the level of prices, at a rate well over 10% per year. **Interest rates** increased dramatically, so **borrowing** by both consumers and businesses decreased. **Business profits fell** as the consumers **purchasing power** was **eroded** by **inflation** and **high interest rates**, and **unemployment** reached alarming levels.

These cyclical problems were solved. The inflation rate, interest rate, and unemployment have all declined. Consumers have become more willing to spend money and business people became cautiously optimistic. Production was again increasing. Services have become a dominate part of the economy. Since well over half of country’s workers are involved in service industries, the economy is often called a ***service economy*** (Germany, USA, Sweden, France, Italy, Switzerland, Japan- all these countries have service economics).

Cyclical development of economy is reflected in regular economic development fluctuations and ups and downs of Gross National Product, National Income and other macroeconomic indicators. Economic growth is also fluctuating; high figures are changing to low ones. Therefore, **cyclical fluctuations** are called **economic disbalance** or disorder in the economy. It is represented by obvious disbalance between common economic Supply and Demand. **Economic cycle is characterized by periodic growth and fall of economic activity and macroeconomic indicators.**

The structure of Economic Cycle.

1. **Animation** (It is reanimation of economic activity)
2. **Economic Growth**
3. The Top of Economic Growth (or Economic "Boom")
4. **Economic Fall** (consists of recession and depression- two phases of economic fall, distinguished by their terms, deepness, consequences for population and business. **Depression** is the most dangerous economic fall.
5. **Crisis**- it is the lowest of economic fall or depression, economic growth in this situation is absent or negative, unemployment and inflation rates are very high.

After crisis the economy begins to animate its activity and the cycle is repeating again: animation, growth of GNP, economic boom, falling (depression, recession), crisis.

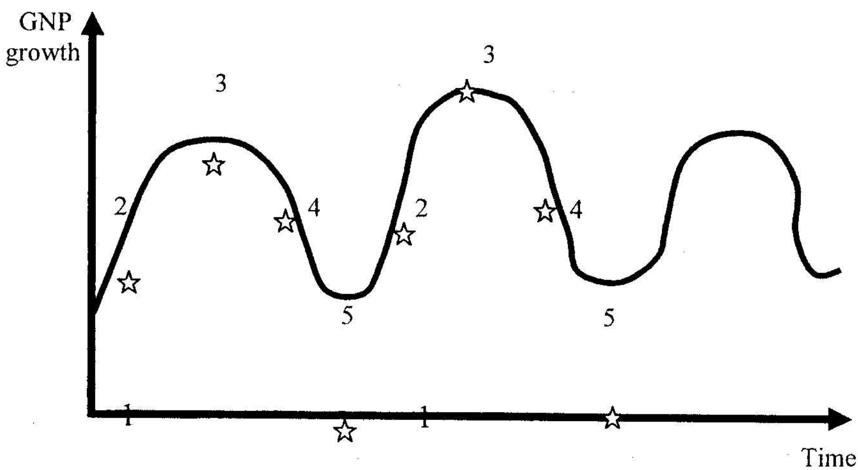

Figure 3. Cyclical development.

Economists argued that there are different **reasons** for crisis and cycles in economy:

1. Market demand declines frame supply (start –term and long term crisis)
2. Demand on heave equipment fluctuations (fix capital demand)
3. The long "*waves of Condratiev*" –it is revolutionary changes in technological ways of production (40–60 years).

Also the reasons of crisis may be recognized as **outside**-innovations, wars, policy, ecological reasons etc. (Including scientific –technical progress), and **inside** ones- consummation, banking and credit policy, government activity, demographic fluctuations, strikes etc.

J.B.Say and **D.Ricardo** recognized so called "partial" crisis (The reason is **non-proportional industrial development**); J.M.Keynes and A. Hansen recognized that the main not **enough level of consumption** of goods/services. Today's economists recognized that the main reason is the **money credit system** and unreasonable growth of consumer credits for population and business crediting. (They proved this idea with the example of last **financial crisis** 2007–2010).

Therefore, cyclical economic development is, more or less, **natural state of economy**, but the aim of government is to minimize negative consequences of it in the economy.

The first crisis was registered in Great Britain (1825, 1836, 1841).

Classification of crisis.

1. Structural
2. Financial
3. Oil
4. Food (Alimentary)
5. Raw materials (or natural resources) etc.

The Government policy in the cyclical epoch is directed to **minimize** the negative crisis' influence on population and economy. At the top of cycle (boom) it provides the policy of "***freezing***"-expenses in State Budget are increasing, taxes are increasing, salaries are decreasing as investments etc.

In the period of crisis –**vice versa**- salaries and investments are increasing, taxes are decreasing etc. (the policy of animation and **support**).

4. The market of labor. Unemployment as the case of disbalance at the labor market.

What would you like to do once you graduate from University? Are you thinking of starting a business of your own or working for someone else? Whatever your goals, the likelihood is that someday you will enter the **labor force**.

The labor force consists of all those people 16 years of age or older who are currently employed or looking for jobs. The labor force in developed countries has been changing in recent years. Some of the most significant changes are the following:

- The number of **white-collar** jobs has been increasing in comparison with **blue collar** jobs.

White collar and service industry employment –office managers, scientists, educated people, office workers, marketologists).

Blue collar –industrial workers

Farm workers- agricultural workers

The decline of blue collar jobs has been balanced by the growth of opportunities in service industries. Some of the important service Industries are the retail trades, transportation, financial, food, hotel industries, law, education, and **medicine**.

- **Education has become increasingly important.**

Electronic technology (microcomputers, fibro optics and robotics) has given us a need for highly trained labor force. The same volume of work now may be fulfilled by smaller quantity of labor, but the more trained (craft) workers and the larger salary/wage level.

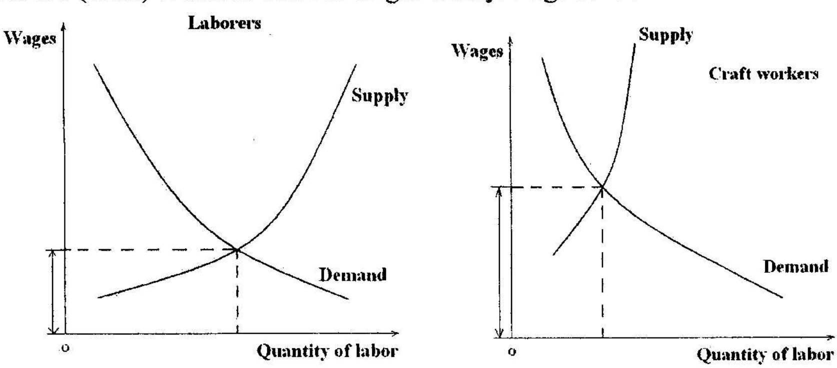

Figure 4. The relations between demand, supply, wages and productivity.

Market and non-market forces, which affect wages

1) Supply (on labor farce)
2) Demand (on labor force)
3) Education, craft workers share (%)
4) STP (Scientific-technological forces)
5) Demography
6) Job discrimination
7) People like to stay where they are
8) Government legislation
9) Labor unions (associations of workers which seek to promote their labor's interests, so called "trade unions")
10) The effect of nonmarket Forces on Supply and Demand.

For example by refusing to move to an area offering higher wages , workers keep the labor supply in that area lower (and wages higher) than they might otherwise be. Meanwhile by remaining in the area paying low wages, workers help to keep the supply of labor high in that region, which helps to keep the wages low.

Discrimination also affects supply. F.e. if women are refusing jobs viewed as "man's work" the supply of workers in that field will remain lower helping to keep wages high. Women will then be forced to enter traditionally female occupations, adding to the supply of those workers and forcing wages down.

Labor is one of the most important factors of production. **The market for labor force** consists of the following **economic agents**:

1) Buyers of labor (producers, sellers, Medical Institutions, doctors)
2) Sellers of labor (consumers, people, young medical staff, doctors, nurses)
3) Intermediates (organizations, agencies)

Labor market represents the sum of human relations concerning labor, wages/salaries, labor distribution, consumption).

Employment is a situation in the market when everybody who is able to work , are currently employed (or 4–5% is looking for jobs).

Unemployment – is a disbalance at the market between supply and demand for labor force.

Anti-unemployment activity of the state is connected with the state control, state regulation, and measures of social protection of population.

$$\textbf{The level of Unemployment} = \frac{\text{Unemployed}}{\text{Total Number of Labor force}} \times 100\%$$

(Unemployment Rate)

Besides this indicator, some of the following indicators are used:

1) Nominal Income (money received as income or salary)

2) Real Income (goods/services, that may be bought with this money)

3) Price Index (Current Prices/ Past Prices Unemployment × 100%)

4) Consumer Goods/ services "basket" – (the first necessities of goods/ services for 1 month)

5) Living standards, quality of living

Classification of Unemployment.

1) **Natural Voluntary Unemployment** (4–5% of labor force):
   a) Frictioal (mobile)
   b) Young people unemployment
   c) Institutional unemployment

2) **Artificial Unemployment**:
   a) Structural unemployment
   b) Cyclical unemployment
   c) Regional unemployment

The reasons people are unemployed vary. It may simply suit their needs to be temporarily out of work or "between works". Or it may be that the demand for a particular type of workers is dwindling, or that the demand for workers in general in diminishing.

Frictional Unemployment. Temporary unavoidable unemployment is described as fractional unemployment. F.e. it takes time for workers to move from one job to another. Until they actually start working again, however, they will be counted in government data as "**unemployed**".

Seasonal employers are still another category of workers, who spend a part of the year in voluntary unemployment. Waiters, who earn their living in summer and winter resorts are a case in point.

➢ **Structural Unemployment.** Structural unemployment results from technological and other changes in a local economy. (Building elevators were run by "elevator operators" in the past. Today elevators are self-service. Elevator operators are structurally unemployed until they find other jobs).

➢ **Regional Unemployment.** Long term changes in consumer preferences or movement of jobs from one region of the country to another can cause structural unemployment, which is called "regional". Also we can speak here about migration.

➢ **Cyclical Unemployment.** Changes in the business cycle also cause unemployment. During periods of contraction, and recession, declining demand for goods and services results in rising unemployment.

Government strategies in the field of Unemployment

The first approach is called **social european approach**, based on different measures of social protection – subsides, benefits, and other forms of adaptation and supporting.

The second approach is called market method, or **American approach**, based on providing new jobs and new working places and creating business opportunities.

5. The market of Money. Inflation.

What is money? Money can be anything, we repeat, anything that is generally accepted in payment for goods and services. Money appeared as a result of development of Commodity Economy (Market Economy), it is **a universal equivalent of Exchange, the means of payment, an artificial device for exchange.**

Form the earliest times precious metals, such as gold and silver, along with cooper, have been the most popular forms of money.(as you read through history you will discover such money forms as tobacco, fish hooks, shells etc.)

Qualities of money material:

- Stability
- Portability
- Durability (long term)
- Uniformity (equal denominations of money should have the same value)
- Divisibility
- Recognizability

Functions of money:

1) A measure of value(standard of value)
2) A medium of Exchange
3) A store of value
4) The means of payment and credit
5) World money

A measure of value. Money enables us to state the price of something in terms that everyone can understand.

A medium of Exchange. There is a great difference between barter economy and money economy. Money, therefore, is the medium that enables exchanges to be made easily.

Store of value. Money enables us to use the value of something that we sell today to make a purchase sometime in the future. You may store money in the following forms: banks, individual form-at home, industrial or production store.

The means of payment and credit. The money is represented in modern electronic credit cards. It is "electronic" money; also this money serves for credit operations. **World Money**- is a universal mean of payment all over the world or large world areas: dollar, euro, gold.

The Money Laws.

1) The law of money circulation.

$$\textbf{Q Money} = \frac{\text{Sum of prices}}{\text{Speed of money circulation}} = \frac{S + P - C - MP}{\text{Speed of money circulation}}$$

S – Sum of prices for goods/ services sold at the market.
P – Sum of prices for goods/ services sold at credit, which is paid.
C – Sum of prices for goods/ services sold at credit, which is not paid.
MP – Mutual payments.

2) The rule of Money Aggregates:

$$M2 = M1 + \text{Quasi Money}$$

Quasi Money – money deposits, which may be drawn from the bank after a certain period of time. They are called " certificates"

Liquidity of goods represents the ability of asserts to be converted into the money forms. The highest level of liquidity belongs to money itself. Also we can name such liquid goods as gold, silver, platinum, real estate, jewelry, diamonds.

M2 consists of the components: currency, demand deposits, other checkable deposits, traveler's checks, saving accounts, savings, large denomination certificates, securities.

Inflation.

The value of money can change. Economists use the term "**purchasing power**", or **value**, to describe the quantity and quality of goods and services we can buy with our money. When prices increase, our money cannot buy as much. Its **purchasing power declines.**

An extended period of rising prices is called inflation.

Inflation- is a disbalance at the financial market. (Disbalance between Money Supply and Money Demand). Money Supply is usually more than Money Demand. Inflation is generally defined as a persistent rise in the general price level with no corresponding, rise in goods output, which leads to a corresponding fall of the purchasing power of money.

What Causes Inflation?

- The wrong money policy of state (emission)
- State expenses are more than state incomes
- Wrong taxation
- Credit and banking policy is not with accordance of money market requirements
- The increase or import prices of raw material

Classification of Inflation.

✓ **Market Classification**
- Demand-pull inflation
- Cost-push inflation

✓ **Inflation rates classification**
- Creeping inflation (prices increase within 10% per year)
- Galloping inflation (or Run-Away inflation 100–300%)
- Hyperinflation (>1000%)

✓ **Inflation in the dependence of State policy**
- Open inflation
- Covered inflation

✓ **Structural inflation**
- Balanced inflation
- Disbalanced inflation (different rates of inflation in different industries)

Demand-push inflation – a situation in which there is "too much money chasing too few goods", when demand increases faster than industry's ability to satisfy that demand, prices will increase.

Cost-push inflation – a period of rising prices in the cost of production. When, for example, labor unions win wage increases greater than the workers increases in productivity, management may choose to raise prices to maintain profits. With prices going up, other unions and workers might demand wage increases to keep up the increasing cost of living, and so on, in an **inflationary spiral.**

Similarly, efforts of the producers to increase profits by increasing prices rather than by reducing costs, can also trigger an inflationary spiral.

Who suffers or benefits from inflation?

Those, who suffer from inflation, are:

- People living on relatively fixed incomes, savers, lenders, business.

Those who benefit from inflation are:

- Those who can easily increase their incomes, borrowers and government can benefit from inflation.

Anti-inflation policy.

1) Adaptational approach- price control, incomes indexarion – (European countries)

2) Liquidational approach- active actions, fixed prices (USA, Great Britain)

3) Compromise way.

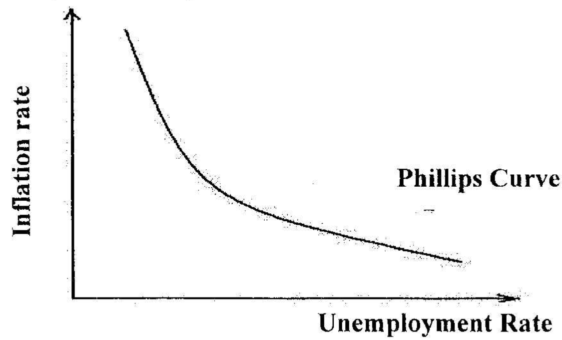

Figure 5. Phillips Curve

Phillips Curve demonstrates the indirect relations between Inflation and Unemployment (within 1–2% rates).

Table 4

Credit and Banking institutions	*Bond market*
– National Bank	– Securities
– Commercial Banks	– Bonds
– Investment Banks	– Issues
– Industrial Banks	– Shares
– Agrarian Banks	– Auctions

*The market of Financial Capital.

A bank is a "financial institution that accepts demand deposits and makes commercial loans". Inflation may be a reason of a national debt.

Conclusion.

The Circular Flow of the Economy among Government, Consumer, Households and Business Firms.

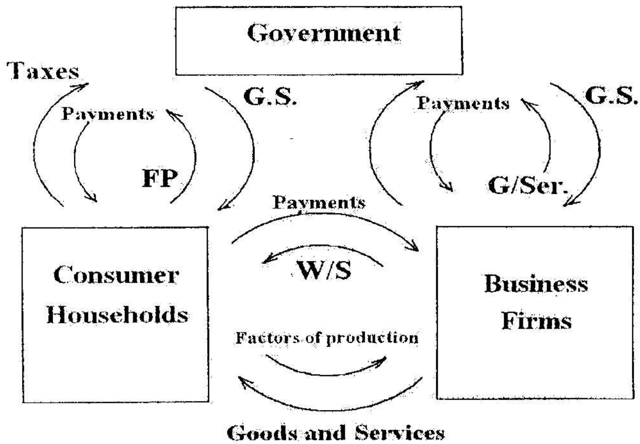

Figure 6. The Circular Flow
(*FP* – Factors of Production, *G.S.* – Government Services, *G/Ser.* – Goods/ Services, *W/S* – Wages/ Salaries)

Review questions

1. The macroeconomic results and their measuring. Give some examples. GNP and GDP-what does it mean?
2. Describe the Curve of Lorenz an Jiny Indicator.
3. Why do we use Price Index and terms "employment", "inflation"?
4. Do you distinguish micro- and, macro-economic functions of state policy?
5. Describe the Curve of Laffer and structure of Taxes.
6. Methods of Incomes distribution: what do you think about them?
7. Describe the structure of Economic Cycle. Economic "Boom"-what does it mean?
8. Could people avoid crisis?
9. Which forces affect wages and salaries?
10. Government strategies against Unemployment: are they effecttive?

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№ 6. The classification of Health Care financing systems: macroeconomic level

Questions

1. The Health Care system – main characteristics. The classification of Health Care systems (HCS)
2. The model of Obligatory Medical Insurance and the Model of Voluntary Medical Insurance. The Reforming of HCS in the Republic of Moldova.
3. The Financing of Health Care systems. Elements of Financing mechanism. Revenues and mechanism of resource allocation.
4. The medical services mechanism of payment as a part of Financing mechanism.
2. Economy and efficiency as basic elements of economic appreciation. The economic appreciation typology.

Key terms

Health Care System, Public Health, budget and extra-budget forms of financing, medical staff, medical management, Beveridge System, Bismarck System, Semashko System, Private medical Insurance, Obligatory Insurance, Voluntary Insurance, Douglas System, Insurance Police, resource allocation, revenues and incomes, "capitation", payment for case, payment "through salary", economy, efficiency, effect, "costs-effect" analysis, "costs-benefit" analysis, "costs-profit" analysis, Public Health economic functions, alternative sources of financing, social-economic reforming, attestation, labor analysis.

1. The Health Care system-main characteristics. The classification of Health Care systems.(HCS)

The System of Health Care (HCS) includes the plurality of organizations, institutions and resources used in Health Care system. The following points which represent its main characteristics are analyzed in the HCS:

The relationships between insurance company (which pays money), medical institution (which is making medical services) or a doctor (physician), and a patient (the consumer or user of medical services:

I. Insurance company-paying

II. Medical institution / doctor-doing

III. Patient-using

So, the circle represents the following:

Paying (I.C) - Doing (M.I.) - Using (P)

2. The method of financing
3. The organizing of process.
4. Ownership (property).

According to Maxwell, the conditions of medical services provision include the following:

- The total inclusion of population,
- Availability to medical services
- Accordance with needs
- Equity in rights
- The choice opportunity
- Effectiveness and efficiency
- The long-term public availably
- The government responsibility.

Health Care as a branch of National Economy.

1. The characteristic of Health Care.

a) Production: non-material in medicine, material in pharmacy.

b) Output; medical service (rezult)

c) The peculiaritics of management and organization

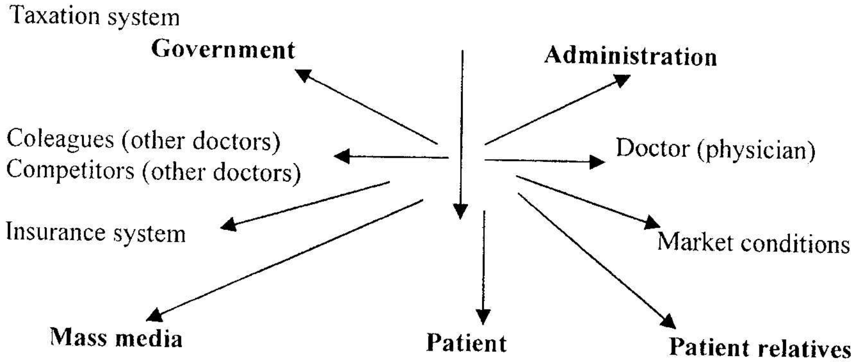
d) The character of activity (business): as a rule, it is non-commercial

e) Resourses:

- Material (technique, medical drugs, equipment)
- Financial(money)
- Labor
- Information
- Enterpreneurship

f) The subject of public health economics: social economic relation and communnication in medicine, medical services, production, resourse use, and profit, quality of medical services.

g) theoretical base: economic theory



Fugure 1. Social economic relations in Health Care (pyramid of relations)

<u>The subject of Health Care Economics is:</u>
Social economic relations in medicine, pyramid of relations.
<u>Plurality of problems:</u>

- Labor relations (economic paints)
- Standardization and resources of medical services
- Effective use of resources (material, labor, finance)
- Remuneration (wages and salaries)
- Price formation (price and costs)
- Profit, business, rent ability
- Ecology, labor protection

P. H. Economic Functions.

1. To define the place of Public Health in national economy
2. To analyze conditions, resource, their optimal use, effectiveness
3. Reforming of Public Health
4. Quality of medical service, standards of quality
5. Scientific and technological progress in medicine, innovations
6. Management problems
7. Organizational problems
8. Marketing problems

2. <u>Management and economic structure in Public Health.</u>

- Labor records
- Salary organization
- Planning of jobs in Health Care
- Planning of resource use in medical institutions

- Calculation, accounting, registration, prognosis, business forecasting of resource use
- Medical-economic analysis of activity in M.I. (medical institutions)
- Periodic statements, accounts, reports
- Economic departments and facilities in M.I.

In accordance with organizational financial peculiarities eve can outline the following **Health Care organizational forms:**

- National Health Care System- (Beveridge)
- Insurance System (social insurance by static) – (Bismark)
- The Governmental-national (socialist) System – (Semashko)
- The National Health Care medical System – (Douglas) – as a kind of Beveridge
- Private or free system of Health Care (Private medical insurance)

Let us examine them:

1. **Beveridge National System** is used in Great Britain, Northern Europe, Greece, Spain, Portugal, Italy, Canada (Douglas System).

The more important share of funds (50–90%) is formed by government and is Great Britain the structure of funding is the following:

- 76% – from State Budget
- 11% – from Social Insurance funds
- 10% – from private insurance funds
- 2% – direct payments

The main financial source for Great Britain, Ireland, Denmark HCS – the common budget receipts (returns or earnings, supplies) – i.e. special taxes.

Italy, Sweden and Finland represent the model of Social insurance (based on 3 sides foundation):

- Insurance Company
- Medical Institutions
- Patient

But Government subsidies prevail in this system. The funds are formed by State Budget, and then they are allocated through Health Care sectors. The inclusion of population is total. The population participates in the Health Care System financing through taxation.

In **Australia** the HC System is financing from total Taxes.

2. **Bismark System of Insurance** as a social governmental insurance system. The role of government is limited in this system. The govern-

mental defines the list of basic medical services, which must be given to insured people; the state government also establishes groups of population, which have to be insured; the government regulates the size of insurance payment (contribution) and defines the basic order.

This System is usual for Germany, Austria, France, Belgium, Switzerland, Holland, Japan.

The Public Health Care funds are mainly forming from people's payments (population and entrepreneurs) under the minimal financial partnership of Government. (i.e. through State Budget). It is direct forming of funds (direct funding). But funds are controlled by State; they represent the part of State finances. The OMI (obligatory medical insurance) covers 80-99% of population. All people (income is less than 6 thousands Deutsch -marks (Germany) are the members of insurance medical funds- hospital cases (benefit societies), which are accounted along with medical institution in the framework of the system using common tariff. The patient has right of choosing a medical institution. The patients with incomes more than 6 thousand of Deutsch -marks also may choose the commercial form of Insurance, but they prefer Obligatory Medical Insurance System (hospital cases or benefit societies).

They are local territorial cases (44%), hospital cases of employees-white color workers (34% of insured) funds of factory and plant's (cases) etc.

The pensioners insurance is done by themselves in frames of pensioner insurance. Insurance for the unemployed is done by the state. In the system of hospital cases (funds) the domestic health care is done successfully. But expenses in the field of stomatologic orthopedics, denture prosthetic appliance etc, are shared between hospital cases and patients.

In France, Austria, Luxemburg, patients (insured persons) don't have the right for free choice of hospital case (HC), but they are related to HC according to their professions.

In Belgium, Germany, Israel – is a free choice of insurance fund (i.e. HC)

The main features of Bismark system are the following:

- Obligatory character of insurance (OMI)
- The unique (similar) set of medical services for all insured persons
- Voluntary medical insurance (VMI) may be used along with OMI
- Inputs (payments) are coming to insurance funds (H.C.) from entrepreneurs and workers

- The minimal financial participation of the state
- State control over order, prices and tariffs
- Funds' autonomy

Both in **Bismark and Beveridge** systems there are not direct relation between size of payments and volume (or number) of medical services provided to people; all people must pay and all of them must have equal access to medical care.

But in the **Beveridge** system the main provider of medical services is the state, and the source of financing is the total overhead taxation, also there is state control, state managing over all processes, and equal access for all people. But by its essence it is also obligatory insurance. In the Bismark system the main source of money are payments from population and entrepreneurs along with minimal state investments, but there is state controlling over many insurance funds (H.C.), which are created by payments from workers and owners (entrepreneurs). The principles of these two systems mainly may be explained as follows: Beveridge is the total (overhead) taxation system, while Bismark is the system of payments to insurance funds of OMI system.

3. **The Semashco National System**- it existed in the former socialist system (USSR). The system is financed by State Budget by means of State planning, state monopoly for medical services provision. The general principles are the following: the state salary system, general accessibility, medical services are free of charge (people have them gratis). I.C. Special medical funds are not formed, State Budget is the main financing source, and taxes are coming to State Budget from all people and economic agents. In many respects this system is the same as Beveridge. There is not private sector. This system has had a lot of advantages, much more than drawbacks, and it is a pity that it does not exist anymore anywhere.

4. **The National System of Insurance Douglas** (it is a kind of Beveridge) It is spread in Canada and Australia. The sources of financing are:

- Taxes
- State financing along with provincial authorities (or regional powers).

The system of OMI includes the whole population of Canada from 1914 its management is centralized. Each of 9 provinces has its own OMI system, and 2 directions: hospital and ambulatory insurance.

Canadian Insurance System Douglas
Structure:

1. Federal Budget (State Budget) – 31,9%
2. The Budget of province – 42,2%
3. The Budget of community –1,8%
4. Patients – 24,1% (including insurance and personal payments)

State guarantees provide the population of Canada by almost all kinds of medical health care (excluding services of hyromants, naturopaths, ambulatory dentists, prescription of drugs and medicines during the ambulatory treatment and soon).

Today each Canadian citizen obtains the medical help absolutely free of charge. The coverage (assurance or insurance) with doctors and hospital places in Canada – is the highest in the world. By this reason Canada takes the 2nd place in the world after **USA** (health care expenses, their share in the total volume of Gross Domestic Product). Now days the re-orientation is performing in the Health Care System towards the following directions:

– Primary sector of Health Care is growing

– The numbers of personnel / staff (doctors, nurses) are going to be cut or limited in the medical treatment sector and to be much more in the prophylaxis sector.

The private insurance in Canada is abandoned. Private clinics have only 2% of hospital places. The insurance in Canada is one for all organizations and doctors send their payment bills towards this insurance. Doctors receive money per 1 service, market factors are not so spread in this system and the medical services quality tends to be diminished. Australian system of Health Care is financed by means of total taxes and is the nearest to **Semashko**. Private or free-market system of insurance prevails in private medicine. There are private paid services and social programs, supporting different categories of population. For instance, there is a program in USA **Medicaid** for poor and **Medi Care** for old people and handicaps. Along these programs there is 15% of population not insured. Private insurance are suggested by insurance companies and their 2 models of insurance – individual and collective ones (group insurance). **The majority of American firms provide collective insurance** their employer's insurance. But often in the case of the employee is not insured. The vast majority of population buys policies of private medical insurance (85%) they spend for this goal more than 10% of domestic revenues. Essentially, it is the prevalence of **voluntary-private medical insurance VPMI**.

The structure of Expenses for Health Care in USA:

- 42 % – state (government money / state Budget or Public Finance)
- 33 % – Employer's money (from incomes of business-men and owners).
- 20 % – individual (personal) money of patients.

But Public Finance (or i.e. State Budget) provides mainly social programs, it is not pure money. (14% of GDP – gross domestic product – represent expenses for American Health Care System which is the most costly in the world. Citizens are free in the choice of kind, character and place of medical practice. The accessibility according to price is limited in spite of high quality of medical services. So, USA has 4 financing mechanisms:

- Medicare (OMI)
- Medic Aid (OMI)
- Individual payments from citizens
- Voluntary medical Insurance – Private (VMI-private).

The attractive character of OMI consists of its principles of public solidarity, when rich people subsidy poor and health people subsidy ill people.

2. *The model of obligatory medical insurance and the model of voluntary medical insurance. The reforming of Health Care System in the Republic of Moldova.*

Medical Insurance

Definition:

It is a form of Social protection of patients by the State or Private Insurance companies. The average insurance payment is 8–10% of Wage bill (Germany, Norway). The income, recevied from Insurance, is used for development of medical institutions and Public Health system in general. So, Insurance is an alternative source of financing for P.H.S. There are different insurance systems: Obligatory, voluntary, (good will), Bismark, Beveridge, Mixed etc.

Form of insurance companies:

- Private
- Public (state)
- Municipal
- Mixed
- Joint-stock (corporational)
- Collective

They depend on the form of property. In the USA, for example, there are 2 Public Insurance programs:

1. Medicare (for invalids and pensioners)
2. Medicaid (for poor people)

Financial sourse of Insurance

1. Target payments of employers
2. Payments of employees(people)
3. Budjet payments (from Public Finance)
4. Joint-stock Companies payments
5. Sponsors hip

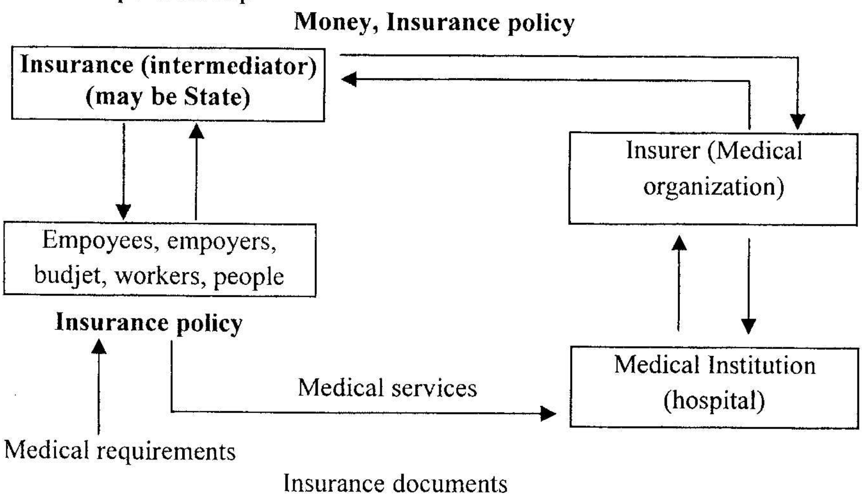


Figure 2. The scheme of Medical Insurance

Obligatory medical Insurance (OMI) represents the guaranteed by State System of protection of populations' interests in the field of health care suggesting equal opportunities in the receiving medical care for citizen of the Republic of Moldova, and this is told in the Unique Insurance Program.

This model of insurance is represented by the following:

- similar medical services for all participants of OMI
- Insurance payments from revenues are obligatory for employers and employees (they are not good willed or voluntary).
- Insurance payments are paid by both employers and employees
- For handicaps and other social-injured people, the state pays money for insurance
- Public – governmental control for insurance funds' activity in which are accumulated financial means aimed for medical insurance.

Obligatory Medical Insurance as a common unique model doesn't exclude the model of Faculty Insurance (Voluntary medical insurance – VMI). The Government of the Republic of Moldova began to include the OMI system at the first of January 2004 as the base of State Law N 1585-13 (27.02.1998) the variants of the law N 173-15 (10.04.2003), N 430-15 (31.10.2003), N 549 (25.12.2003), N 577-15 (26.12.2003).

In accordance with Government Law the obligatory medical, insurance is the guaranteed system of the protection of population interests by means of establishing money funds at the base insurance payments aimed for covering expenses for medical services (insurance cases). The OMI system provides equal opportunities for Moldova citizen in the field of qualified medical care.

The Unique OMI Program was elaborated by the ministry of Health of the Republic of Moldova and it is examined every year. It reflects the volume of medical services, suggested in the framework of OMI.

The object of OMI is an insurance case equal to health care costs (expenses), reflected and previewed in the Unique Program of Insurance (The insurance risk). The Insurance has the common character for the entire population.

The subjects of OMI are:

- Insurer
- Insured person
- Medical Institution

The quality of insurance must be similar for all insured persons. The insurance of special groups of population of children, pupils of primary school, colleges, students of high school, universities, pensioners, unemployed, handicaps – is the matter of State.

Foreign citizen also may be insured. OMI is effectuated by means of employer and employees. Facultative medical services are given in the framework of VMI.

National Company of OMI- ii is the self made state organization, the character is non-commercial, and the NC OMI is making contracts from the name of the state with medical institutions for medical services. It was created at the base of Governmental Decision (N 950-07.09.2001).

Insurance Police

It is a document issued by NCOMI (insurer) which proves the insurance contract between physical or juridical person and National Insurance Company and according to this document the case of medical care is called insurance case.

Obligatory insurance payments are established as a percent (%) from revenue according to the budget law for concrete year and Unique Program of OMI (for 2010 – 3.5 % - from employer and 3.5 % – from employee). The size of insurance payments are accounted every year and signed by the Parliament of our Republic.

Insurance funds in the framework of OMI in Moldova are as follows:

- The fund of medical services payments
- The reserve fund of OMI
- The fund of means for prophylaxis
- The fund of governing (operating fund)

Social – economic problems of reforming (reforms) in P.H.S.
(Public Health system = P.H.S.)

Reforming means different basic changes in Health Care (P.H.S.) in order to increase the efficiency and rentability of medical services, the quality of them, and to help doctors to increase their incomes. Reforming is connected with democratization, privatization and optimization of resources use. It also is connected with medical insurance.

Aims of reforming:

I. Social (Quality)
II. Economic (Profit)

The Strategy of Reforming.

a) Democratization
b) Decentralization and privatization of medical Institution (hospitals)
c) Structural reconstruction of P.H.S.

The Tactics of Reforming.

1. New forms of M.I.
2. New forms of payments, rent, leazing, credit, financial sources
3. Market principles of activity, payed services
4. Medical insurance
5. Rational (optimal) resource use
6. Scientific and technoloical progress innovations in medicine
7. Management
8. Marketing
9. Advertizing

3. The Financing of Health Care Systems. Elements of Financing mechanism. Revenues and mechanism of resource allocation.

Financial management – it is the system of operating (governing or managing) of money resources aimed to maximization of organizational revenues.

The following **functions** are realized by financial management:

– Attraction of financial means for the beginning of activity and for re-orientation in the case of business-firm liquidation

– Realization of the basic object activity.

– The use of different payment methods.

The forms of financing.

– Self – finance – expenses are covered from own revenues.

– Outside finance is provided by different economic agents – banks, insurance companies.

The **finance sources** – tax component of state (public) revenues, insurance payments in OMI system, some indirect taxes.

– Private sources-payments in private medical system (VMI), individual money, private subsidies, grants, bounties.

– International finance – money from non-governmental organizations and funds, religions, organizations world health care organizations (WHO), help of other countries.

Finance mechanism – is the instrument of National policy in Health Care System. Different health care systems realize different approaches to finance.

The **finance mechanism** includes the following:

- Resources accumulation for medical services payment
- Resources allocation at the regional level or among different
- organizations, making medical services (medical institutions)
- Medical personnel salary

The forms of revenue accumulation depend on the model of Health Care System. The ways of **finance accumulation** are the followings:

- **Direct payment for medical service by patient**
- **Voluntary payments from private insurance system in Health Care**
- **Obligatory payments in the OMI**
- **Taxes (direct and indirect)**
- **Special bank deposits founding**

State Budget Finance **(Public Finance)** money is accumulated in **Public Finance** (State Budget), and then they may **be allocated by Health Care System** (at the base of established interest or percent). Public Finance is not a stable source by different reasons: State Budget deficit preference of other directions for expenses from State Budget. But independently of Health Care System model, the State Budget is the important source of finance.

The finance by means of medical insurance.

This method provides to citizens opportunities to have medical services, which care pre-paid by insurance payments (and this is proved by insurance policy).

Public insurance is obligatory; the size of payments is established by the State Law (or legislation). In the framework of such system the government forms budget funds with the aim of finance some programs, not included in the insurance system (for example some specific important programs of Health Care System, providing with equipment, building, construction, rehabilitation), Private insurance payments exist in non-commercial companies, it is additional source of finance for Health Care System.

Direct payment finance:

- To pay the total sum of medical services
- Co – payment – the payment for the visit to doctor
- Insurance as a concrete interest (%) from the price of a visit.

The direct payment is realized in private sector, but co-payments and co-insurance may take place in the state (public) sector as well. The positive moment is in decreasing of some medical services volume which are not so necessary today.

Bank deposits:

People may save money by use of special bank account, and money is transported for medical services from this deposit along with this process, people may control revenues for medical services and avoid taxes.

Finance Allocation. According to regional plan between sectors of Health Care System: primary sector of Health Care, secondary sector and between organizations, realizing medical services.

The finance allocation is done in the interests of population.

The Allocation mechanism:

- Payment for medical case
- Budget according to expenses
- Practical budget

The allocation mechanism includes:

- The provision of objects by resources for hospital expenses compensation.
- Money for salaries for medical personnel.

The forms of resource allocation:

- The resource allocation for population;
- The allocation directed to satisfying of needs;
- The allocation directed to efficiency;
- The allocation directed to quality.

Conclusions from the third question:

The budget finance model is based on taxation. The revenue part of budget is formed from taxes, and after that the expenses for Health Care are defined.

Insurance Model. The target payments for Medical Insurance are used in this model. Insurance and budget finance is used as combination of two ways of finance.

Private Model. Individual payments of citizens prevail, and also money of sponsors is used.

4. The medical services mechanism of payment as a part of financing mechanism.

There are the following **forms of payment for medical services:**

1) **Payment for medical service:** This payment stimulates efficiency, decreases cost per 1 service, but as the producer must control expenses, it is not reasonable to pay attention to separate service (or patient); Attention must be directed to total costs.

2) **Payment for conditional patient or "capitation":** This is payment of fixed sum of money for each patient, which is written in the family doctor list independent of the number of services given to him. This payment differs according to age and sex. It is used in family medicine for primary medical institutions finance according to insurance principle and for determining salaries. "Per capita" suggests more technically effective services, more reasonable and profitable relation of "cost-efficiency" is constructed, and it is better for medical services provision. It suggests giving a smaller number of medical services than necessary, especially for healthy people, so the expected costs are lower than the norm or level of capitation (this problem may be solved partially by means of accounting of capitation standards). This situation most of all corresponds to the fact that "per capita" (payment) complies with the costs per 1 person.

3) **"Payment for case"** – it is the payment method, when unit of payment represents the set of services and it is fixed sum of money, pre-established and directed to be paid for concrete diagnosis – therefore, it is payment for diagnosis. The payment for each diagnosis is established beforehand (it is pre-entered payment) and as usual it is equal to average costs or expected results and is not changed; it does not depend on the really given services to each patient. In every medical case the medical institution suffers different risks connected with treatment expenses; in case when the price of one service for 1 patient is more than fixed payment for diagnosis; the organization must cover expenses with surplus, and at the same time – real expenses depend on payment for diagnosis, and organization keeps this difference. Negative moments of such payments are in fact that only some patients are stimulated, expenses for them are more than the established price in the medical institution. The most well-known example in this field is "diagnostic related groups" (DRGs) which were developed in the end of the 60s (last century) in

USA as an instrument or device of payment of medical program "Medic Aid". This payment is used for medical institution (MI) financing and for determining the salaries of medical personnel.

4) **Payment "through salary"** – this is fixed monthly or yearly (annually) sum of money, independent of number of treated patients and is used as salary. Here is neutral motivation, because the number of treated patients and services is not taken into account.

The payment is based on the minimum of responsibilities and duties at the certain position; this mechanism may promote a decrease in worker's initiative and doesn't stimulate the quality of work and services.

5) **"Payment for working day"** – the fixed sum of money is paid for each working day for medical care, more often is used for chronic patients or in hospices.

"The common (general) budget" – it is such payment mechanism, when organization, the group of suppliers (providers) of services or the individual executor of medical services (Medical Institution – M.I.) receives for his disposal the total (common, or general) budget for the certain period of time. Budget may be used only for funds' allocation. Common budget may be based on the following criteria: the cases of previous periods of time, the number of medical services, number and types of medical care (past or expected future), number of population in the sector ect. Total Budget, for example may be represented by the simple sum of money for all citizens using services of certain concrete MI; in this meaningm some of payment methonds (per capita, for example may be used for creating the common budget. Therefore, under the rational method of accounting the Common Budget as a finance method, is effective for expenses economy and for using of free capital for MI development.

Hourly payment (or time payment) – it is the payment for working time, it is such mecnhanism which allows to worker have the preliminary established sum of labour. It may be used only in the mechanism of salary. So, hourly payment is established beforehand and the total payment depends on the number of worked (fulfilled) hours.

Remuneration (Salaries and wages) in P.H.System

When you are an owner (proprietor)of Medical Institution (M.I.), you must know how to remunerate your medical staff. In other words, you must know the system of wages and salaries of your personnel.

1. **<u>There are 4 main groups of medical staff.</u>**

- Doctors and pharmaceutists (with high education)
- Middle medical staff (nurses)
- Junior medical staff
- Other workers and specialists: economists, managers, ingineers, administration, technic workers.

2. **<u>Main indicators of labor analysis:</u>**

- Total number of medical staff
- Demografphic structure (males, female, age)
- The structure of medical staff
- Quality of labor
- Labor attestation (estimation of medical services quality)

3. **<u>The types of labor attestation</u>**

- Official attestation (estimation of personnel)
- Qualification attestation (high, I-st, II-nd, qualification of doctors)

<u>Attestation</u> means exams, elaborated by Health Care Ministry (Department)

4. **<u>The forms of Remuneration (the ways, of painment for medical staff)</u>**

- Payment for the labor (working) time
- Payment for the piece of job (for the number of medical services)
- Analytic estimation of labor – it is a form of polyfactor system of payment – new form of remuneration takes into account quality of labor, time record, licences, labor capacity, motivation of labor.

5. Economy and Efficiency as basic elements of economic appreciation. The economic appreciation typology.

The basic components of practical management are as follows: **economy, efficiency** (effectiveness) **effect.**

A) **<u>Economy</u>** – it is minimal expenses of resources, used for obtainning wanted volume of products under the certain level of quality. Thre is the reasonable quastion: is the number of recources minimal?

B) **<u>Efficiency</u>** (or effectiveness) means the level of recources using by your organization for goods and services production. Efficinecy uses such words as inputs (resources) and outputs (goods and services, products), and also the correlation between productional rezult and expenses (cost) is used. It may be called productivity or efficiency.

Rezult (P, Q)

1) **Efficiency = Expenses (CI)**

P – profit of M.I.

Q – number (volume) of medical services

CT – total costs (expenses of M.I.)

Planned results

2) **Efficiency = Received results**

The different kinds of the first efficiency may be the following: the return on funds (Rf), return on materials (Rm), productivity, profitability (or rentability) and its own types, profitability coefficient – net profit ratio. Besides of all, the next kinds of efficiency are used:

– Efficiency of distribution refflects the level of needs satisfation of consumers, who are doing the certain work.

– Technical efficiency- reflects the situation, when the goods or services are making under the condition of minimal possible costs.

The grouth of efficiency may be realised by the following ways:

- The grouth of effect under the same costs (expenses),
- The same effect under the less expenses
- The grouth of effect under the less expenses

From the economist's point of view efficiency may be appreciated with the help of special indicators of productivity.

- Net profit / Net Capital
- Profits / Expenses (costs)

C) **Effects**- represent results of economic activity – profit, number of services, number of patients, treated during a certain period, the number of operations, consultations etc. All these are net or pure effects. Besides of that, the effects which take into account the accordance of results and aims are also used (for example the quality of medical services is taken into account).

The appreciation (appraisal) of medical care (service) may be realized in 2 steps:

1. Appreciation of medical service efficiency
2. Apreciation of efficiency by means of costs results accounting (profits, profitability)

Economic estimation represents the process of comparison of two and more indicators, which characterise used **resources** and **result** receive. Let us point out 4 types of economic estimation:

1. Decreasing and minimization of costs

2. Costs – effect analysis
3. Costs – benefit analysis (or costs- use)
4. Costs – profit analysis

Minimization of cost analysis is based on the idea that the decreesing of costs is going on under the same results. I.a., if we have 2 objects with similar results, we are to analyse costs and their volume (size). For example, inside the certain medical institution 2 altarnative surgery methods are used, with the similar results. So we must analyse minimization of costs.

– **„Costs – effect" analysis** allows us compare much more alternatives with similar purposes, but also may be used different units of measure (calculation). Units of calculation may be natural for example, number of life years, and others. There is a complete (full or absolute) analysis, when total costs are taken into account and a particular analysis, when we take into account only particular costs. As usual, Costs - effect analysis is used for the improvement of health analysis and for the analysis of the life longtitude.

– **„Costs – benefit" (or use) analysis.** The expenses (costs) are compared with use (benefit) from them. The benefit (use) may be measured or calculated by preferences of citizens for certain medical services. This methodology helps to estimate the life quality of patient after the medical interferrence (medical care). The following indicators are used more often : years of life in the dependence of life quality (QALY), years of healthy life (YHL) or life years in the dependance of obtained disability (disablement) – DAIIY.

– **„Costs – Profit" Analysis.** All costs and all benefits (profits) are presented in money expression or value form. The advantage of the methods is in the fact, that may be compared any medical manipulations independently of results modifications. The majority of disadvantages of the method are connected with the necessity of money form of all indicators. After the definition (calculation) of all costs and profits, the estimation results are expressed throught the correlation costs / profit or throught the difference betweem these two indicators.

Review questions

1. Which main characteristics represent the Health Care System (HCS)?
2. Describe the Health Care System classification.
3. What do you know about the Beveridge National System?

4. Compare the Semashko and the Douglas (Canadian)Systems.
5. Advantages and disadvantages of the Bismark Insurance System and USA Private System.
6. Compare Obligatory and Voluntary Medical Insurance Systems.
7. The principles of Health Care System Reforming. Do you know its aims?
8. Characterize the elements of Financing Mechanism of HCS.
9. The Resource Allocation mechanism: what is it?
10. Describe the forms of payment for medical services.

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