Lecture 4

Modern condition and organization of palliative care to population

Areas of resource allocation in Health care system

the best way to finance health care systems (e.g.. public or private finance);

the study of supply and demand for health care (the study of health care markets);

valuing health and assessing the relationship between health and its social and economic determinants (analysis of the relationship between health status and income);

management of health services (needs assessment);

microeconomic evaluation (concerned with comparing the resource implications of alternative ways to deliver health care, e.g. an assessment of the efficiency of new health technologies such as MRI scans).

Is economic evaluation important?

- **All healthcare workers are involved in making decisions about resource allocation everyday, many times a day**
- **Economic evaluation is simply a framework to make the trade-offs explicit**
- **Resources in health care are limited, there why health care workers have to choose which technology should be used. All such decisions have to be made in the light of the accountability demanded, regardless of whether health care systems are public or private.**

- **Healthcare workers should understand economic evaluation**
- **Healthcare workers should take part in such evaluation**
- **Multidimensional evaluation necessary**
- **Increasing managerial responsibilities necessary**

Economic logic

Is based on the concepts of:

- **Scarcity of resources**
- **Opportunity cost**
- **Choices**

Scarcity of resources

- Needs outstrip resources
- By resources we mean staff, time, buildings, capital, goodwill, equipment, power and all else that we need to use to meet a need
- As resources are scarce each decision to use resources implies a sacrifice. This is because once resources are used in a certain way, they cannot be used in an alternative manner.

The economic concept of cost and benefit

- **A benefit is what is gained by meeting the need I have chosen to meet**
- **Cost is the benefit which I would have obtained had I used the same resources in an alternative manner.**

For this reason in economic evaluation the costs we attempt to measure are called opportunity costs, to remind us that the cost of our actions is that of benefits foregone.

Choices can be

- **<u>Technical evaluation</u> - when the decision to meet need X has been taken and we are evaluating the most efficient way of meeting it**.
- **<u>Allocative efficiency evaluation</u> -when the many needs to be met have to be defined and we must compare costs and benefits of each alternative**

Such decisions are rarely taken on economic grounds only and choices are rarely made in an "all or nothing" context. Usually we need to decide upon possible expansion or reduction of current services

Economic logic and medical ethics

- **Presumed conflicts are based on misunderstandings of respective roles**

Economic logic and medical ethics

- **General aim of any health worker is to promote health and alleviate suffering.**
- **Health economics allow us to reach conclusions about the best way resources can be allocated, i.e. the way which will lead to greater social benefit.**
- **Clinical freedom is the faculty of choosing the best intervention for a patient, based on one's knowledge. This choice however is always tempered by knowledge of what resources are available. (For instance: waiting lists for non-emergency hospital admissions; triage is based on the need to use resources efficiently)**

The evolution of health economics (1)

- **17th century - Sir William Petty estimated the value of a human life.**
- **19th century William Farr developed the theme of the relationship between economic growth and workers' health.**
- **1950s- 1960s economists gave scant attention to the issue of the use of health care resources.**
- **1950s American economists, such as Kenneth Arrow and Milton Friedman, started analyzing the application of classic economic theory to health care and in particular to two possible uses: as an aid to decisions on how to allocate resources and as a vehicle for social reform.**

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The evolution of health economics (1)

- In the 60s “cost-of-illness” (COI) studies appeared followed by Cost-Benefit Analysis (CBA)
- In the 70s and 80s other forms of economic evaluation
- Steady growth of economic literature

The evolution of health economics (2)

- The American school of Klarman, Fein and Rice began publishing descriptive studies called "cost-of-illness" studies dedicated to calculating the burden to society of particular problems
- In the 1970s economists began trying to adapt evaluative techniques of classic economics such as Cost-Benefit Analysis (CBA) to health care and to incorporate the descriptive element of Cost-of-Illness methodology into the analytical framework of CBA.

The evolution of health economics (3)

- **The creation in the late 1970s of a single measure of outcome combining quantity and quality of life reflects people's preferences for health status (the Quality-Adjusted-Life-Year or QALY) led to the birth of Cost-Utility-Analysis (CUA).**
- **There has been a steady increase in published economic evaluations during the 1980s with a relative demise in popularity of CBA to the advantage of CEA (Cost-Effectivness-Analysis).**

Basis of economic evaluation

- **Economic evaluation is the explicit itemisation and valuation of costs and consequences of our decisions.**
- **Depending on purpouse and context the items vary.**
- **Economic evaluation is only one of the many tools available to decision-makers.**

Economic evaluation (1)

- **The importance of view point**
- **The importance of the question being asked**

Economic evaluation (2)

- **Consequences of interventions are numerous and complex (avoiding the beginning of a desease, getting longer survival, etc.).**
- **The total benefits or damage arising from our actions.**

Economic evaluation (3)

- **Resources are needed for providing health care interventions or programs.**
- **Tangible resources and intangible resources.**
- **Complete economic evaluations aim to clarify, quantify and value all of the relevant options, and their inputs and consequences.**

The studies of use of resources in health care

- **Cost-Benefit Analysis (CBA)**
- **Cost-Utility Analyses (CUA)**
- **Cost-Effectiveness Analyses (CEA)**
- **Cost-Minimisation Analyses (CMA)**

Methods of Economic Evaluation

- All examine one (or more) possible interventions and compare the inputs or resources necessary to carry out such interventions with their consequences or effects.
- The various methods of economic evaluation differ in the way they itemize and value inputs and consequences. Such differences reflect different aims and view points of the decision-making problems.

Cost-Minimization Analysis (CMA)

- **When the consequences of the intervention are the same, then only inputs are taken into consideration.**

The aim is to decide the chiapest way of achieving the same outcome.

Cost-Effectivness Analysis (CEA)

- **When the consequences of different interventions may vary but can be measured in identical natural units, then inputs are coasted.**
- **Competing interventions are compared in thems of cost per unit of consequence.**

Cost-Utility Analysis (CUA)

- **When interventions which we compare produce different consequences in terms of both quantity and quality of life, we express them in utilities (measures which include both length of life and subjective levels of wellbeing).**

Cost-Benefit Analysis (CBA)

- **When both the inputs and consequences of different interventions are expressed in monetary units so that they compare directly and across programmes even outside healthcare.**

Inputs and consequences

- identify inputs and consequences;
- measure inputs and consequences using appropriate physical units;
- valuate inputs and consequences;

Problems are encountered in all three phases.

Economic techniques

- **Discounting** allows the calculation of the present values of inputs and benefits in the future.
- Marginal analysis compares inputs of different kinds of services currently provided and the change in consequences that result from that variation of inputs.
- Sensitivity analysis, which repeats the comparison between inputs and consequences varying the assumptions underlying the estimates. It tests the robustness of the conclusions by varying the items around which there is uncertainty.

New economic conditions in public health service (1)

- wide application of economic methods of management, including payment of medical workers for final results;
- change of system of budgetary financing in terms with three basic sources:
  - budgetary funds,
  - insurance funds
  - the funds received under contracts;

New economic conditions in public health service (2)

- transition from the allocated means under separate clauses in the budgetary estimate of charges to capitation financing under long-term stable specifications;
- introduction of the self-supporting estimate (or the financial plan)

New economic conditions in public health service (3)

- use of new forms of work organization (rent and cooperative ratio, brigade forms, including a team contract, "flexible" operating modes, etc.);
- granting of collectives independence and expansion of the public health service manager rights in distribution of financial assets.

Conditions of shifting to the market of health (1)

- Active development of processes of privatization and formation of subjects of the property or the market of medical services (state, municipal, collective, mixed, private).
- Definition of financing sources and mechanisms of subjects of market relations.
- Granting maximal economic freedom to market subjects, definition of their concrete responsibility for quality of medical services.

Conditions of shifting to the market of health (2)

- Development of the effective mechanism of medical services pricing depending on balance of requirements for each concrete type of medical aid.
- Development of effective system of stimulation of work of health workers at which they would prefer to work qualitatively.
- Shifting to new system of preparation and retraining of medical institutes.
- Changing of the attitude of people for the health.

Planning as a management's component

- A federal level of planning (state planning),
- a level of branches (sector planning),
- regions (regional planning),
- the separate enterprises, organizations and establishments (local planing).

Tasks of planning (1)

- **An estimation of a population state of health among the territory**
- **The analysis of a condition of public health service among the territory**
- **An establishment of the purpose, tasks and priorities of development of public health service for the scheduled period**

Tasks of planning (2)

- **Definition of the financial resources allocated for realization of the state guarantees and volume of extra-involved financial assets**
- **Approval of territorial norms and specifications used at planning of public health service of territory**

Tasks of planning (3)

- **Definition of strategic parameters of population state of health and activity of public health service**
- **Approval of the perspective Program of the state guarantees of granting to the population of medical aid**
- **The program of territory network of medical institutions reforming on conditions of resources rational use is accepted**

Tasks of planning (4)

- **Acceptance of a complex of plans and target programs providing realization of public health service of the Russian Federation subjects plans**
- **An establishment of parameters for planning public health service of municipal educations**
- **Realization of procedure of routine planning of the public health service, providing realization of strategic plans, and at change of external conditions - updating of strategic plans**

Kinds of plans:

- perspective, strategic (for the long period)
- current (operative, monthly and annual)
- plans of activity of establishments
- plans for development (construction, repair, and reconstruction)
- comprehensive plans

Requirements for a plan:

- **efficient definition of the purposes and tasks,**
- **reality and concreteness of planned actions,**
- **allocation of leading problems,**
- **comparability of parameters,**
- **concrete definition of terms of performance and executors.**

The basic parameters of planning of public health service

- **The strategic purposes, tasks and priorities of development of public health service.**
- **Social standards, norms and specifications adapted to conditions of subjects.**
- **Average statistic specifications (on one person] of financing of public health service.**
- **Efficiency of investments and parameters of investment projects of public health service.**

Methods of planning

- analytical (the analysis of initial plans),
- normative (for definition of requirement for normative parameters),
- experimental (calculation of parameters on the basis of the previous experiment) and other special methods (balance, ratio, proportions, etc.).