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## HEALTH ECONOMICS

Report on a WHO Workshop

Moscow

31 August - 4 September 1987

## TARGET 34

### Management of planning and resource allocation

Before 1990, Member States should have managerial processes for health development geared to the attainment of health for all, actively involving communities and all sectors relevant to health and, accordingly, ensuring preferential allocation of resources to health development priorities.

#### Index:

HEALTH SERVICES %ECZ  
HEALTH FOR ALL  
DIAGNOSTIC RELATED GROUPS  
EDUCATION  
RESEARCH

#### Note

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The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every receipt and invoice should be properly filed and indexed for easy retrieval. This is particularly crucial for businesses that deal with a large volume of transactions or those in highly regulated industries.

Next, the document outlines the various methods used to collect and analyze financial data. It covers traditional methods like manual bookkeeping as well as modern software solutions that automate data entry and reporting. The text highlights the benefits of automation, such as reduced human error and faster processing times, while also noting the need for regular software updates and security measures.

The third section focuses on the role of internal controls in preventing fraud and ensuring the integrity of financial information. It provides a detailed overview of key control points, including segregation of duties, authorization procedures, and regular reconciliations. The document stresses that a strong internal control system is essential for building trust with stakeholders and for the overall success of the organization.

Finally, the document discusses the importance of transparency and communication in financial reporting. It encourages organizations to provide clear, concise, and timely reports to their investors and other interested parties. The text also touches upon the ethical responsibilities of financial professionals and the potential consequences of misreporting or manipulating financial data.

## 1. Introduction

The Workshop was held at the Central Institute for Advanced Medical Studies (CIAMS) in Moscow from 31 August to 4 September 1987, as a joint initiative of the Ministry of Health of the USSR, the Council for Mutual Economic Assistance (CMEA) and the WHO Regional Office for Europe. It was attended by experts from six member countries of CMEA (Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland and the USSR) and WHO temporary advisers from three other countries. It was chaired by Professor I.V. Pustovoj, with technical assistance from Dr V.E. Chernjavskij.

The objectives of the Workshop were to:

- exchange experience concerning activities in health economics in the countries of the European Region of WHO;
- study ways of making better use of material resources for the development of health care for the population and the implementation of health for all by the year 2000; and
- discuss ways of improving undergraduate and postgraduate training of health services staff in health economics.

To achieve these objectives, Workshop sessions were held to:

- throw light on the main economic problems in the development of public health at the present time and the possibility of solving them more effectively;
- determine the present status of research on health economics; and

- elucidate ways of improving the training of decision-makers in the practical aspects of health economics.

## 2. Background to the Workshop

In opening the Workshop, Professor O.P. Ščepin, First Deputy Minister of Health of the USSR, pointed out that not enough attention had been paid to the economics of health care in the past. However, it was now recognized that improvements in health status make an important contribution to economic development and that the health care sector is a significant user of resources. It was therefore important that it operated in the most cost-effective way possible.

In considering the efficiency of the health care sector, it was important to recognize that health status was affected by lifestyle and that some aspects of rapid economic growth had had harmful effects on health. Therefore, attention had to be paid to intersectoral issues and the way the health care sector related to the broader economic and social system. In particular, a key issue in socialist countries was that of reforming the health care sector in the interests of more efficiency, without compromising the broader socialist principle of equal access to health care for all the population. The issue was no longer one of training more doctors and nurses and building more hospitals, but rather of improving quality, health consciousness and economic efficiency. Also, the grass roots level should participate more fully in health care financing.

The timing of the Workshop was ideal because the problems of the health care system were now receiving attention from political leaders and the public as part of the broader process of restructuring the economic and social sectors. Several initiatives were already being taken or considered (such as enhancing the role and

responsibility of local bodies in decision-making and encouraging flexibility in planning services to meet local needs). It was therefore important that local decision-makers were well prepared to accept this managerial responsibility. Particular issues under discussion in the Soviet Union at the present time included fee-for-service payments to health providers or institutions, the assessment of new health technologies, and ways of coping with an aging population.

Speaking on behalf of WHO, Dr H. Zöllner, Regional Officer for Health Economics, stressed that health economics was an important, often neglected, subject. Economics was neither cold nor cruel; nor was it in opposition to medical ideals. These erroneous impressions were often created because economic aspects were considered too late when policies were set, budgets were overspent and cost-cutting was required. He thought, too, that the timing of the Workshop was ideal because new economic policies within CMEA countries were now under discussion.

Health economics could be viewed in three ways. First, it included the study of issues (such as whether to relate the financing of hospitals or clinics more closely to the types of patient treated, how to introduce incentives and possibly competition into a publicly financed health care system, and whether to devote more resources to primary health care). Second, it recognized that resources were scarce and that difficult choices had to be made. Finally, it represented a way of thinking about choices in health care. There was nothing mystical about economics, since many people practised it in their daily lives in assessing the costs and benefits of particular actions.

It was surprising that the economics of health care had not received more study, given the size and importance of the health care sector. Thus, it was important that the Workshop should, above all, be

practical. Experts could bring their knowledge and experience to bear, but the solutions to problems lay in the hands of each country.

Academician K.P. Kashkin, in his capacity as Rector, CIAMS, welcomed the participants and said he hoped that the meeting would lead to new knowledge and suggestions for postgraduate training and research.

Speaking on behalf of CMEA, Dr R. Arslan, Deputy Head, Department of Public Health, pointed to the wide range of achievements of the CMEA in many areas of medicine and environmental health. The key to these successes had been the close cooperation between the member countries, and it was to be hoped that health economics would be another area where this could take place.

### 3. Economic aspects of achieving health for all in Europe

All countries in Europe have agreed that a main social target of governments and the World Health Organization should be the attainment by all citizens by the year 2000 of a level of health that will permit them to lead a socially and economically productive life. The first topic addressed in the Workshop was the extent of the task being faced by European countries in achieving this target and the mechanisms they had found particularly useful.

On a general level, it was noted that all countries had experienced difficulties. For example, many countries have not as yet fully succeeded in:

- determining how resources are allocated for health once they look beyond the legal-administrative fiction of how resources are supposed to be allocated;

- checking whether priority health policies do indeed receive an increasing share of resources;
- looking into the often considerable sums involved in hidden subsidies and taxes and in private and under-the-counter payments;
- introducing deliberately chosen incentives for better delivery and management and more appropriate utilization of services;
- setting clear priorities for modern equipment and technology on the basis of economic and other analyses, and avoiding vacillation between luxurious and "cinderella" services;
- setting norms and standards for resources and activities not in isolation but in the light of the likely behaviour of the system;
- taking a critical look at variations in the practices of daily health care delivery and management;
- visualizing the economic and social life in the years ahead, when major advances towards health for all will have been made;
- appreciating the economic importance of the health sector and consequently introducing modern methods of evaluation, accounting and performance measurement;
- avoiding being penny-wise (e.g. using administrative overkill on minor instances of waste) and pound-foolish (e.g. failing to put more resources into cost-effective prevention and support to informal care);

- investigating the degrees to which people with differing levels of income, education and housing also differ regarding the healthiness of their lives and regarding their access to services; and
- using economic arguments to persuade people and industry and other sectors of the economy to take action in primary prevention and health promotion.

The temporary advisers from Western Europe and Canada outlined some of the issues of current concern in their countries. For example, four major components of the health for all strategy were to promote healthy lifestyles, develop programmes for the prevention and control of diseases and injuries, shift the balance of care from hospital level to primary health care level, and support and mobilize resources for health and health care. However, the promotion of healthy lifestyles may be in conflict with other sectors of the economy (such as industries producing tobacco and alcohol). Also, the prevention of accidents, a major cause of morbidity and mortality, requires the cooperation of industry. In addition, since much has been invested in institutional and hospital care, shifting the balance of care is a slow process.

However, a number of mechanisms have been developed to assist in bringing about these changes. Their usefulness in a particular country would depend on its social and economic context, and they should therefore be seen as a menu from which to choose. Among the mechanisms mentioned were programme budgeting, the development of preventive and community care programmes, health technology assessment, the reform of incentives and the derivation of standards and performance measures. Several of these were highlighted for further discussion during the Workshop.

The particular problems and needs of CMEA countries were discussed at length. A number of key issues were identified. For example:

- how does one decide what level of funds should be devoted to health care compared to other sectors;
- should central government provide all the funds or should some be provided at local level;
- what is the appropriate balance between centralization and decentralization in health care decision-making;
- how are priorities assigned for the allocation of resources within the health care sector;
- how is the need for good quality care reconciled with the need for economy, and how can qualitative indicators be developed to accompany quantitative indicators;
- how can indicators be used in a more intelligent and flexible manner, and should more emphasis be placed on end-result indicators rather than input planning norms;
- what would be the appropriate system of incentives for efficiency within a socialized health care system;
- what can be done about the assessment and control of new technologies within health care; and
- can improvements be obtained by strengthening the role of existing bodies, particularly regional and local bodies, or does a new institutional framework need to be developed?

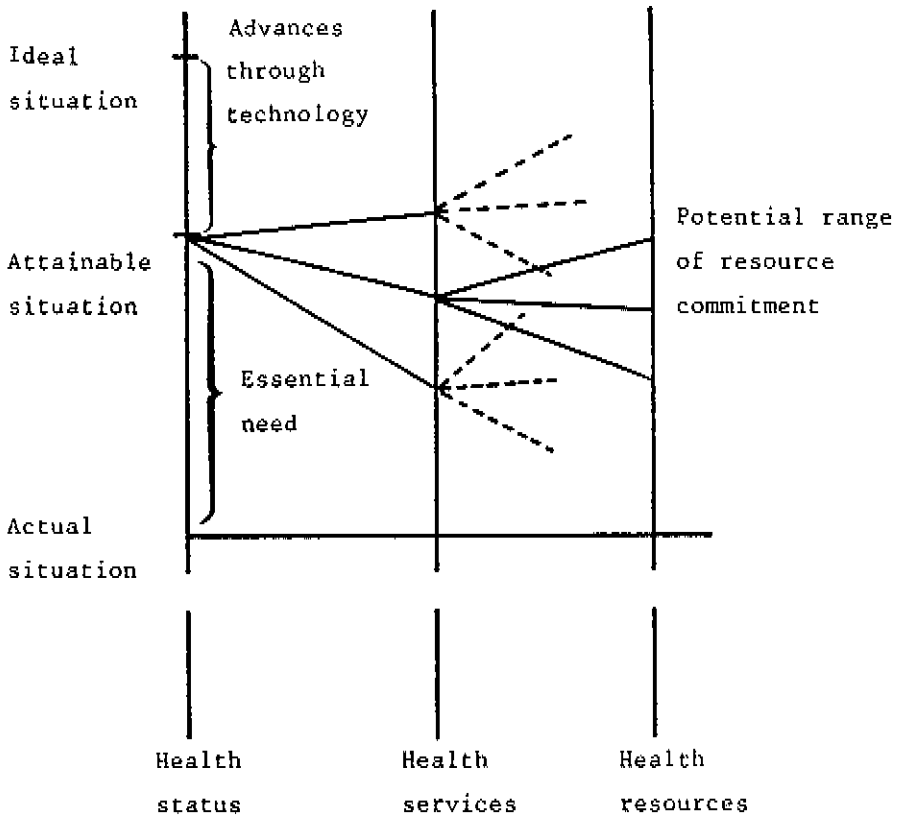
It was concluded that these were complex issues for which single, simple solutions would be unlikely to be found. However, the Workshop provided a useful forum in which they could be discussed.

Discussion continued on these problems and the ways of solving them. It was suggested that the appropriate level of expenditure on health care could be estimated by assessing the needs of the population. However, it was pointed out that there is no simple way of translating need (i.e. the difference between actual and attainable health, sometimes erroneously defined as the difference between actual and perfect health) to resource commitment, as there is a range of alternative strategies and technologies for providing the necessary services. For example, a country stressing primary health care and prevention may be able to make progress towards attainable health at a lower level of resource commitment than one whose service provision is biased towards curative services (Fig. 1).

The potential range of resource commitment to health care is very wide and the appropriate expenditure on health care hard to define. This is the very nature of policy-making, priority-setting, management and decision-making in general. While it may be tempting to plan, manage and evaluate on the basis of fixed need/service/resource ratios, they are ultimately misleading and lead to mere quantitative growth without real development.

Another key area of interest in socialist countries is estimating the contribution of health care to economic development. It was pointed out that there should be more study of the interrelationships between health care and other sectors of the economy. Health care can make a contribution to development, and at the same time economic development creates more resources for health care. On the other hand, some of the consequences of economic development (e.g. pollution and stress) can be

Fig. 1. Need in relation to resource commitment



harmful for health. The distinction between productive and non-productive sectors must not be allowed to negate the important economic role of the health sector in practice.

Several possible initiatives were identified. First, it was felt that there should be more training in health economics for health professionals, since it is important to make key decision-makers more aware of the concepts involved (training initiatives were discussed later in the Workshop). Second, it was suggested that there is scope for more international collaboration between CMEA countries in the field of health economics, since much can be learned by comparing the experiences of countries with a similar social and economic system. The Workshop was seen as a useful starting-point in this process.

Finally, it was pointed out by the temporary advisers that Western European countries are grappling with many of the same problems. In the countries of the European Community (the Common Market), there are a number of shared concerns (such as how to cope with a slowing down of economic development, meaning less additional resources for health care, with an aging population, with the proliferation of new health technologies, and with changing social values). However, it should be remembered that, even within Western Europe, patterns of health needs and services vary considerably.

The main points arising from the discussion of the economic aspects of attaining health for all were therefore as follows.

- (1) Despite the wide variation in social and economic systems, the problems or issues surrounding modern health care are very much the same in each country.

- (2) Certain key issues need to be resolved in all countries. These include deciding on the level of

resources to be devoted to health care, assigning priorities within health care, ensuring that health care programmes are delivered in a cost-effective manner, and providing appropriate incentives or stimuli to health care professionals and users of services.

(3) The main differences between countries lie in the choice of detailed mechanisms to tackle these issues, since the appropriateness of mechanisms is determined partly by the social and economic system in each country. Therefore, health care decision-makers should continually review the range of available mechanisms and the evidence of success or failure in countries where they have been tried. This will form a basis for the selection of new mechanisms, which can then be tested in particular settings.

#### 4. Current topics in health economics

The Workshop discussed a number of areas of topical interest. Some of these are well established fields of study (such as incentives in health care, the economics of prevention, and programme budgeting). Others are more speculative (such as the use of quality-adjusted life-years in economic evaluation and economic information in the form of diagnosis-related groups).

##### Effect of incentives on the quality and cost of care

It was pointed out that every system and method of organizing, financing and delivering health care has its own series of incentives and disincentives to health care professionals, institutions (such as hospitals) and service users. Despite the variety of approaches and the extensive comparative analysis of them, no one model can be said to be superior in all respects. Although much published literature concerns changes in financial incentives, incentives do not have to be financial to be "economic". For example, patients may be rewarded in the

form of extra services when they are able to choose an efficient type of health care provision. For health care workers, incentives may take the form of improved working conditions or career advancement.

Western countries have experimented with incentives to service users, involving the imposition of user charges (known as cost-sharing). Advocates of cost-sharing claim that it gives patients an incentive to act responsibly and assist national efforts to control health care costs. Yet international experience does not in general support this claim. Furthermore, cost-sharing often impedes access to care and reduces equity. It might be better to reward individuals for maintaining healthy lifestyles or for choosing efficient forms of health care provision.

Most policies on incentives are directed towards providers, typically physicians and hospital managers, through the choice of method for reimbursing them (for individuals, this concerns the salary or income and for institutions the payment they receive for delivering services). The four most common reimbursement methods are fee-for-service, capitation, salary or global budget, and payment per case. Some of these (such as payment per case and fee-for-service) are very sensitive to the amount of work performed. On the other hand, salary or global budget is independent of the number of patients seen or cases treated.

The different kinds of reimbursement can be judged in terms of their impact on efficiency, productivity, cost control and quality. It was reported that no one method is superior in all respects. In some cases, there is little knowledge of the likely impact of a given approach on, for example, quality of care. Also, the result of using a particular reimbursement method depends largely on local circumstances. Therefore, it is important that whenever changes are made they be monitored and evaluated. In addition, there ought to be

more study of non-financial incentives (such as providing additional facilities to health care professionals or offering them educational or career opportunities).

Several interesting experiments with incentives in different CMEA countries were reported at the Workshop, including making extra payments for good quality hospital care. One experiment involved a mix of capitation and fee-for-service. Patients were given free choice of therapists, who were rewarded in accordance with the number of patients enrolling with them and the number of services delivered. Yet another experiment was based on the teamwork concept being developed in a number of countries. The team had a contract with the hospital and was rewarded partly in relation to the amount of work done. Each member of the team was then paid in proportion to his or her respective contribution.

The general impression was that a wide range of experiments was being undertaken in a number of countries. It was thought that incentives could be used to serve the dual purpose of rewarding health care professionals more adequately and increasing the quality and cost-effectiveness of care.

Programme budgeting as an instrument for the management of public health resources

It was explained that traditional budgeting systems that are based on institutions (e.g. hospitals and clinics) or functions (e.g. catering, and laboratory services) are not helpful in improving health care planning and evaluation. For this, an alternative presentation of the financial data is required, according to broad programmes, which should themselves be linked to broad objectives or targets.

There are a number of possible uses of programme budgeting:

- to monitor trends in expenditure on particular programmes (for the elderly, for addiction control, etc.) over time and to relate these to health care policies;
- to assess whether changes in expenditure are reflected by changes in activity levels or the outputs of programmes;
- to provide a framework for the more detailed economic evaluation of programmes or treatment; and
- to plan future expenditure.

Several concrete examples of the application of programme budgeting were given.

In discussion, it was pointed out that programme budgeting does not usually replace traditional budgeting and is therefore an extra task. In some settings, this has limited its adoption. However, the process of thinking through one's objectives can itself be useful, and there are alternative approaches such as assigning a budget for the coordination of health care programmes (e.g. for the elderly). Furthermore, programme budgeting can be linked with incentives, with rewards being given for meeting policy objectives.

There are some examples of the use of programme budgeting in CMEA countries, although the precise application usually depends on local needs. One thing to consider is whether adequate information is available for the successful implementation of programme budgeting. However, one would expect it to be a useful tool in planned public health services. With the current interest in decentralization of decision-making,

attention will have to be paid to the application of programme budgeting and the information requirements at each level of decision-making.

### The economics of prevention

Prevention has often been viewed as an attractive alternative to curative medicine, both because it avoids the pain and suffering associated with disease and because it offers the potential to avert future health care costs. However, these potential benefits have to be balanced against the costs of prevention programmes.

A distinction was made between primary, secondary and tertiary prevention. Primary prevention involves the reduction of health risks by, for example, immunization, pollution control or changes in lifestyle of the population. Secondary prevention involves the early detection plus costly treatment of disease by, for example, screening for certain types of cancer or for hypertension. Tertiary prevention involves medical care or rehabilitation of individuals with a known health problem so as to avoid a worsening or recurrence of their condition by, for example, providing physiotherapy for heart victims.

Several examples of economic evaluation of prevention programmes were presented. In general, the prevention programmes proved good value for money, especially when targeted on high-risk populations. However, two points were emphasized. First, as prevention programmes are more extensively applied (by focusing on the general population rather than on a high-risk population) or more frequently applied (by screening the same population more regularly), there is the possibility that the additional (marginal) benefits of the expansion of programmes will not justify the additional costs. Second, prevention programmes often deliver benefits in the future rather than in the

present. Therefore, the evaluation of such programmes depends on the relative value the community places on benefits occurring at different points in time.

Finally, it was noted that some prevention strategies require intersectoral cooperation, as in the case of dietary change and pollution control. Economic or other measures may need to be taken to ensure that such collaboration takes place (e.g. incentives to, or regulation of, industry to reduce pollution). Also, many prevention programmes require the cooperation of members of the community, acting individually or collectively, to ensure their success. Attention should therefore be paid to incentives and information measures to encourage members of the public to participate in prevention programmes.

#### Quality-adjusted life years in economic evaluation

Health economic evaluation is the comparative analysis of alternative courses of health action in terms of both their costs and their consequences. In the past, the consequences have been measured in terms of either money or natural units (or effects). The use of quality-adjusted life years as the measure of consequences has recently gained popularity. It permits comparisons of a wide range of programmes having disparate effects, without the problem of determining consequences in money terms. This approach should not be confused with "willingness to pay" for different levels of health and life quality. In the case of quality-adjusted life years, states of health are valued relative to one another, and this information is combined with survival data to produce a single index of the success of health care intervention. In some countries, there has been a surprising consensus of values among different groups of people regarding the evaluation of certain health problems concerned with quality-adjusted life years.

Although considerable progress is being made in the calculation and use of these life years, a number of issues are still under active discussion and require further investigation. For example:

- what is the reliability of the different methods used to calculate the relative values of states of health;
- on whom should such measurements be performed: patients, their doctors or members of the public (i.e. whose preferences are to count); and
- now that evaluation of cost and of the quality-adjusted life years gained has been performed in a number of health care programmes, should we go one step further and construct tables comparing cost per life year, and how should these be interpreted?

Diagnosis-related groups as medical and economic indicators of patient mix

Diagnosis-related groups were originally constructed in the United States as a method of improving hospital efficiency. They were an essential component of schemes to reimburse hospitals prospectively, in relation to the categories of patient treated. Subsequently, they have been used for different purposes in different countries (e.g. planning, budgeting and the review of clinical activity).

Diagnosis-related groups consist of hospital cases classified according to the types and quantities of services required. Therefore, each group represents a class of patients requiring similar sets of hospital services. It is possible to classify about 450 types of cases in this way and then to agree on a reimbursement level for each. The proponents of this approach argue that if hospitals are reimbursed prospectively by the

agreed amount, they will be more careful in their use of resources than under the alternative systems of retrospective reimbursement or global budget. Participants considered that it might be useful to combine different approaches. For example, one could use classifications of diagnosis-related groups in hospital planning, budgeting and evaluation. They are attractive mainly because they attempt to classify service outputs and case mix, while at the same time looking at resource consumption. Other issues surrounding them (such as per-case financing, reimbursement and competition) may, by contrast, be less important in the countries represented. They are in a way the counterpart, at the micro-level, of programme budgeting: if properly adjusted, they could serve as an element in the monitoring and evaluation of medical care in socialist countries.

## 5. Education and training in health economics

During the Workshop, it was pointed out on a number of occasions that doctors and other health care professionals require appropriate training in health economics. The discussion therefore turned to this topic.

In the Soviet Union, CIAMS has been involved in postgraduate training courses in health economics since 1962, first for health care planners and, more recently, for a wider range of health care managers and clinical specialists. Other CMEA countries also have experience in this field, especially the German Democratic Republic and Poland, where the deputy head of every institution is an economist. At CIAMS, a number of courses in health economics are offered as part of advanced medical studies, extramural studies and, more recently, training in support of the teamwork approach in health care. Training is problem-oriented and also involves study of issues at the workplace. It is thought that doctors need training in five disciplines: planning, finance,

management, economics and sociology. A wide range of health care workers should have exposure to economics because, in reality, it is the health care workers who make the resource allocation decisions through their treatment and care practices.

In discussion, several issues were raised:

- who should receive priority in health economics training (doctors or economics specialists);
- should economics be included in medical undergraduate training;
- how can economics best be introduced into medical training (in particular, the use of case studies was mentioned);
- should there be more incentives to ensure that individuals make use of their training (some participants felt that there is not enough evidence of changes in practice following attendance at courses); and
- should professional economists be involved in the teaching of health economics, possibly alongside medically trained teachers (most participants were in favour of this approach and reported that it had already been partly or fully applied in their countries)?

In addition, there was some discussion of whether it is essential that managers of health services, hospitals or polyclinics have a medical background. There was not full agreement on this issue, but it was pointed out that there are a number of examples of successful managers from a range of professions. Whatever their background, managers should be good managers and should be adequately trained in, among other subjects, aspects of health economics.

At this point, the discussion turned to the detailed design of training programmes in health economics. As a background to the discussion, the temporary advisers outlined a recent study on the development of health economics training. Presentations were given on the process of development of the training materials in the study, the content of five modules, and teaching styles. It was stressed that, although the training materials had been developed by an international group involving economists and health care professionals from all parts of Europe and were in principle applicable to all settings, it was expected that instructors in all countries would develop their own materials. Those presented in the study report were intended to be a guide.

The participants then considered the existing teaching modules and their relevance to the training of different categories of health care worker within CMEA countries (in particular, managers of health services, hospitals and polyclinics and members of research institutions). Many of these people would have a medical background. Although there were some suggestions for additional materials, there was a fair amount of agreement that the modular materials as presented would be highly relevant. The economic restructuring in health care would, in time, provide ample additional learning material.

## 6. Health economics research

It was pointed out that there is a long history of research in health economics in the USSR and other CMEA countries. However, researchers often work in isolation, and there is not enough opportunity to exchange experiences and disseminate research findings, although in principle good mechanisms exist in socialist countries for propagating research findings and ensuring that these are applied. Another difficulty facing economic researchers was that, in the past, much of their work

related to the establishment of planning norms and service standards. Now, there is more flexibility and scope for innovation in research.

Nevertheless, in the USSR, there are already a number of identifiable achievements in health economics research. Economists have succeeded in demonstrating that investments in health care are worth while, that giving more flexibility and incentives to health care managers improves efficiency, and that expenditure on better equipment will not necessarily reduce other costs, although there will be other benefits. There are a number of substantial publications in health economics in many CMEA countries.

Although economic experiments have been conducted in the health care field for around 20 years, they are now receiving greater emphasis in the context of the current restructuring. Another change is that the economics of the non-productive sphere has now been recognized as an important subject, given the economic contribution of health and the need to be efficient in the use of health care resources. Several examples of experiments were given. These include experiments in widening the powers of chief physicians and in taking measures to intensify the use of hospital beds. There is evidence that these experiments have shown an excess of benefits over costs. For example, in an experiment concerning the use of hospital beds, 5000 extra patients were treated through a reduction in length of stay by 1.5 days on average. These benefits more than exceeded the costs of the exercise, by a ratio of 2.5 to 1.

A few negative experiences were mentioned. First, experiments are sometimes of an excessive duration. Second, decisions taken at the higher level as a result of successful experiments do not always filter down to, for example, heads of hospitals.

A particularly important experiment, beginning in some regions of the USSR in January 1988, was mentioned. Its objective will be to put more emphasis on the role of outpatient departments, which will be given a budget to care for a given population. They will then both provide services themselves and pay for services from other sources. This is therefore an example of using the capitation approach to improve incentives for efficiency.

In addition, there was some discussion about the level of resources in health care. According to the methods of calculation of national income in the CMEA countries, the percentage of gross national product devoted to health care is between 4% and 6%, and funding has recently been increased, most notably in the USSR. However, it was pointed out that the greater availability of funds does not reduce the need for health economics. Rather, it is important that all resources are used in the most cost-effective way.

Other examples of health economics research were mentioned. In particular, calculations have been made of the number of working days lost as a result of sickness, of how these varied by region and disease, and of the loss in national income resulting from the lost working days. There has also been research into health promotion programmes undertaken jointly with industry. As in other fields, decentralization is the present trend in research.

It was recognized that health economics research ought to be closely integrated with other forms of health services research. Also, many topics in health economics benefit from an interdisciplinary approach. Therefore, the Workshop discussed the characteristics of successful interdisciplinary research teams in health economics. The characteristics were grouped into three categories: the environment, personnel, and the research programme itself.

In respect of the environment, it was stressed that the team must be placed in an administrative environment that can cope with the conflicts interdisciplinary research may create, that applies appropriate standards, and that provides appropriate rewards for investigators willing to work in such a framework. In addition, the team should ideally be in close proximity to clinical activity, to promote better understanding of clinical practice and clinical thinking among non-clinicians and vice-versa for the social, behavioural and mathematical scientists. The team should also have an adequate infrastructure of support staff and be fully linked to a network of other similar centres or units.

In respect of personnel, it is important to have a "critical mass" of researchers in each of the major disciplines, to create a stimulating environment and permit the conduct of large-scale projects. A broad mix of disciplines may be envisaged, including the clinical, social, behavioural and mathematical sciences. In particular, it is important that health economics research teams have access to clinical researchers and epidemiologists, as well as access to other members of their own discipline in nearby locations. It should also be recognized that truly interdisciplinary work suits the personality of some researchers better than others.

In respect of the research programme itself, it is important that a clear vision of the goals of the research group is developed and announced and that team members state their commitment to it. In an applied area such as health economics, it is important that research is relevant and timely. Team members should therefore be aware of emerging health care policy issues. Finally, it is important that the health economics research programme contains a blend of projects ranging from, for example, evaluations of the cost-effectiveness of specific health programmes to studies of health system issues such as financing, manpower and utilization of services in aggregate.

It was thought that several of these comments were of relevance to CMEA countries. Certainly, the organization of research needs to be improved, and there would be benefits from more closely integrating researchers with practitioners in medicine, management, policy-making and sociology.

There was some discussion about the appropriate method of funding research, by grants or by guaranteed budgets. It was felt that some guarantee of funding is required to maintain the "critical mass" of researchers, but that at the same time the grant system encourages high quality and efficient research by subjecting proposals to explicit review.

## 7. Conclusions and recommendations

The participants made the following recommendations.

(1) To strengthen economic management capabilities, in view of the further decentralization of health services management to regional and district levels, by:

- designing new forms of economic incentives and responsibilities for consumers, providers and administrators;
- adding to existing information systems appropriate economic information, pertaining where possible to programme budgeting, economic performance and the cost of care by type of diagnosis and service;
- strengthening the training of health care managers and providers to enable them to take on additional management responsibilities; and
- investigating the equity and efficiency of the regional distribution of health funds and resources.

(2) To apply health economics increasingly at the strategic level as a tool for all aspects of health for all, by:

- using a wide range of economic appraisal techniques in the evaluation and planning of broad health strategies;
- experimenting with a wide range of economic policies in health policy and health care;
- developing economic arguments in favour of health promotion and disease prevention, to help to persuade other sectors and the public to take health action; and
- introducing quality-of-life aspects into discussions on health priorities.

(3) To strengthen the role of the economist in research, training, management and administration, as member or leader of interdisciplinary and interprofessional teams.

(4) To suggest to the medical department of CMEA that it look into the possibility of including in one of its future meetings of ministers of health a discussion on the desirability of establishing an intercountry programme in health economics, which might, among other activities:

- carry out a comparative study on health expenditure and national health accounts, with a view to creating routine monitoring;
- further develop methods for comparison of the performance of socialist health care systems;
- establish a clearing-house for economic literature, research and advice; and

- prepare a list of terms in health economics in Russian and English.
- (5) To suggest to the WHO Regional Office for Europe that it should:
- support national follow-up seminars in the participating countries;
  - organize, again jointly with CMEA, a second international Workshop in two to three years' time to evaluate changes in the practice of health economics;
  - assist Member States in selecting and adapting practical methods for use in economic restructuring in the area of health policy and health care; and
  - associate experts from the participating countries in a wide range of activities pertaining to Europe as a whole.

## Annex 1

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