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STRATEGY FOR ADJUSTING HEALTH INFORMATION SYSTEMS TO SUPPORT HEALTH CARE REFORMS

Report on a WHO Workshop

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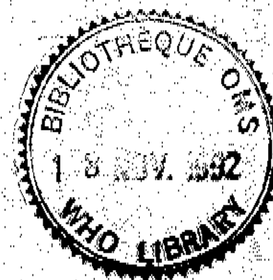

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EUR/HFA TARGET 35

This activity was organized by the WHO Regional Office for Europe to promote work aimed at achieving the following target in the health for all strategy.[a]

TARGET 35

HEALTH INFORMATION SUPPORT

By the year 2000, health information systems in all Member States should actively support the formulation, implementation, monitoring and evaluation of health for all policies.

Keywords

DELIVERY OF HEALTH CARE – trends
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CZECHOSLOVAKIA
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[a] *Updating of the European HFA targets.* Copenhagen, WHO Regional Office Europe, 1991 (document EUR/RC41/Inf.Doc./1 Rev.1).

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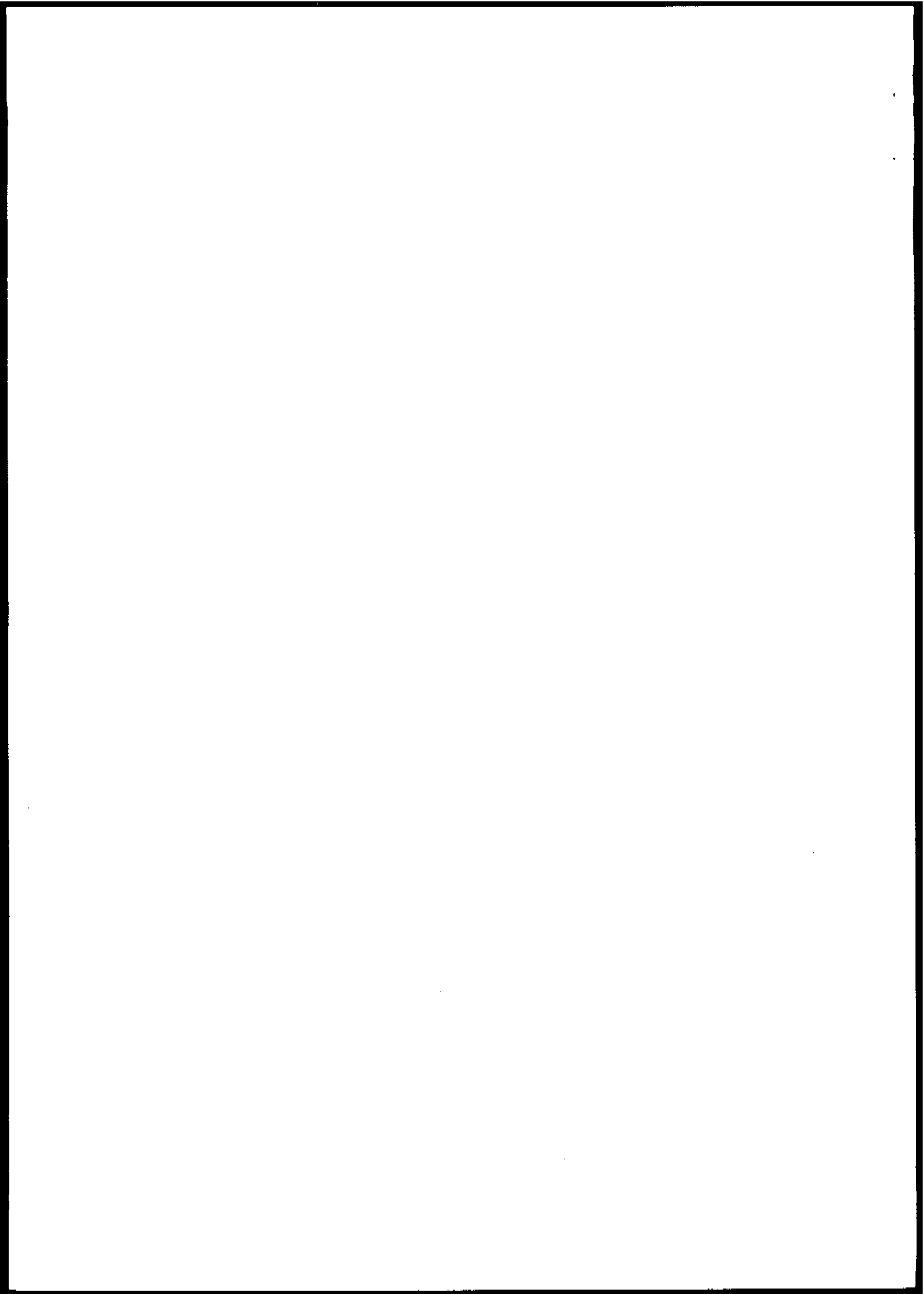

Introduction

The need for appropriate and relevant health and health-related information systems to enable knowledge to be shared within and among Member States is critical to the achievement of health for all. This is recognized in target 35 of the health for all policy which also suggests that such systems should be so integrated or at least coordinated, as to meet the requirements for planning, management and evaluation.

Recent policy developments in many European countries have triggered health services reforms and particularly in the countries of central and eastern Europe. These reforms are intended to improve the allocation and management of resources so that better health outcomes and higher satisfaction of the citizens are achieved. The effective use of resources in the health services will have to be properly and continuously evaluated.

In the reform process, solutions are sought in the following areas:

- strengthening of the public health strategy function to identify health targets for specific populations;
- decentralization of decision-making;
- introducing health services internal markets in order to put into practice the idea of competing for patients;
- financial incentives to provide services and procedures at a lower cost.

All these are in line with the basic principles of the health care reform in the Czech Republic, though their specific application needs to be worked out and documented.

It is recognized that the aims of the reform cannot be achieved without valid and adequate information. A new document on regulations for statistical reporting and health information systems has been drafted.[a]

The first task of the workshop was to review the document vis-a-vis international experience and, in particular, the WHO health for all strategy. The information systems should be adapted to provide data along the lines of the new health care system in the Czech Republic.

The second task of the workshop was:

- to identify the major information requirements for decision support; and

- to discuss and propose a strategy for implementing the necessary changes.

The workshop brought together opinion leaders from health services administration and management (central, district and community levels), the medical profession, statistical and information services in the Czech Republic, and a few experts from other selected countries.

Method of work

The group used a variety of methods during the working sessions. It was a complex procedure because information systems development reflects overall socio-political and health management problems, as well as general technological, educational and psychological problems. Two main lines of thought were evident: one was the analysis of the existing information systems. This analysis concentrated on structures, processes and forces which act on the problem situation and also included elements of the "S.W.O.T." (Strenghts, Weaknesses, Opportunities, Threats) analysis. The other line of thought was "strategy development" which included the identification of a desired alternative situation, using the experience of other European countries and the WHO Regional Office. Strategy development would require an analysis of the factors which influence changes towards the future situation, a definition of priorities and an analysis of the sequence of goals, activities, and implementation steps (including project definitions). The group also endeavoured to produce a plan on how to manage the changes toward the desired state.

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[a] National Health Information System (project), Ministry of Health of the Czech Republic, Prague, January 1992.

The situation in the Czech Republic

Extensive changes in the administrative infrastructure have been introduced and the regional level of state organization has been replaced by central and district levels. One of the resulting difficulties of this change has been the difficulty in organizing the interface between the central health information institutions and the 85 districts (which have no health information structures at present). Independent health organizations have been set up in the 85 districts and these organizations receive respective shares of the disintegrated health budget. Part of the funds come from the Ministry of Health and part from the newly created independent health insurance organizations. These insurance organizations have established a branch in each district. However, as there is only one state-owned agency, choice is limited. It was planned to move towards contracting between the insurance organizations and the hospitals. In practice, the existing health reporting system does not support the health insurance organizations. This creates a major problem which needs to be tackled before the new health insurance scheme is fully developed. At local level, the standard of computerization is reasonably high, but networks are rarely in place. Some calculations are produced for health insurance requirements but these are far from adequate.

While the system of health statistics is well established, some basic problems are evident e.g. it is recognized that the health information systems are too centralized and rigid. Surprisingly large amounts of data continue to be collected but the use of the data to provide information on needs and priorities must be identified. More consideration should also be given to the analysis of data and the interpretation and presentation of information, including feedback to local managers, users and data producers.

There is a need to reassess the requirements of the potential users. The content of information systems needs to be extended to cover more aspects of positive health. The health for all indicators of the WHO Regional Office for Europe are a relevant guidance. A more flexible presentation of information is of particular importance. Because of the new social insurance scheme, more health care providers will go into private practice and will subsequently be required to collect data.

At the same time, there is a strong feeling that the data collection requirements of the central government are an imposition and a duplication. Although it is recognized that some basic health indicators should be available to the government, there is some resistance to the traditional statistical reporting. Therefore, the well-established system of health statistics is threatened. Consequently, the most urgent task is to keep the system running during the transition period. At present, the municipalities are, for the most part, autonomous and not very enthusiastic about providing information to the central government, unless they can see a direct benefit from doing so.

The regulations on health information systems

In order to adjust the health information systems to the new situation in the health services, a draft document had been prepared and presented to the participants at the workshop. The leading objectives in drafting the document were:

- after an analysis of the positive and negative elements of the previous system, to maintain, as far as possible, the established standards and the organizational unity;

- to speed-up the feedback to information providers and users;

- to increase the usefulness of the information to the final users;

- to seek strong legislative support for the health statistics.

The major problem has been to establish and promote an integrated system in a situation where decentralization is frequently accompanied by poor coordination and discipline. When working on the document the team felt that there was a lack of optimism about the outcome of the exercise.

The workshop, initiated by the WHO Regional Office for Europe, assembled people of different views and interests and thus achieved an important step forward in the strategic planning for adjusting the health information systems to the new requirements. It was agreed that the national health information system should continue (at least in the next few years) to be funded by the state budget. However, no provisions have yet been made to provide services to private and independent health care providers and other users. Emphasis was placed on the organizational background e.g. the need for unique identifiers of citizens (clients/patients) and for different types of data - health status, service utilization, financial, etc. This is particularly important, since the regional and district institutes for health information structures have been abolished, leaving the national health information systems without peripheral counterparts.

The situation in the Slovak Republic, in particular, was not discussed, but participants from the Slovak Republic reported that the problems and approaches were similar, although no national document had yet been drafted.

Country experiences

In The Netherlands, the health information systems are quite centralized. Established databases are used for planning, management, quality assurance in health care, and epidemiological studies. The partners in health information are: patient associations, care providers, health insurance companies, governmental and advisory bodies, and various industries. Prices for information services differ, depending on the intended use of the information and whether it will generate profit. At regional and local levels, health information is also used to determine the market position of any particular health care provider as well as the catchment area. This is important for negotiations with governmental bodies. Quality of data is ensured when the data suppliers use the data and have to pay for the information services. Although the national health information systems are mostly under one institution, the important difference to the situation in the Czech Republic is that databases and services are negotiated and "sold" to the users. There are no legal requirements for providing health information, except for confidentiality provisions.

In Spain, there are both state and private agencies dealing with health information. Some basic concepts of health services reforms also apply to the area of health information - privatization, decentralization and change in financing to use both private and public funds. Health information has proved to be of special importance during a period of change, as it facilitates thorough negotiations on the cost of services and the most appropriate organizational arrangements. Therefore, information was recognized as being a strategic resource, particularly in the context of a difficult financial situation, developing new policies, and proving the legitimacy of alternative action plans. Perhaps the most striking example is Catalonia, and the reduction of almost 50% in the number of hospital beds in the region between 1980 and 1984. However, any change in the system has a time-limited effect and further changes are planned and will require detailed information on health care providers. It had been demonstrated that information services can significantly improve the quality and efficiency of care.

Similar experiences were reported from Denmark, using the example of the Danish Hospital Register. Again, when deciding on information systems infrastructure and services, the emphasis was on market analysis and identification of users needs and not on legislative provisions. Data are basically collected as a part of the usual administrative and managerial processes. For these purposes there is no need for extensive information on health status and specific diseases.

Discussions

Discussions were held on how to adjust the present health information system in the Czech Republic to suit the requirements of the reformed health sector. It was clear that this could only be done through an extensive strategic planning process, based on broad consultations. It is difficult to alter the current static phase in information systems and this is partly due to the quality of the existing infrastructure and information technology. A good beginning would be to ensure that, in the future, information is collected in such a way as to be useful not only for statistical purposes but also for supporting specific health products. One major problem is the lack of an explicitly defined long-term health care policy. If the health for all policy were adjusted to suit the specific needs of the country, an information strategy could be developed to support the national health policy. It would then be possible to specify what needed to be changed and/or omitted. In the meantime, the capacity (at central level) to report on the progress of the health care reform itself should be improved. However, it is already clear that some areas, e.g. lifestyles and consumer behaviour, need to be strengthened, particularly through health surveys. The system of standard measurement indicators currently being used in the Czech Republic should be retained during the period of transition to the revised information systems. The new system which will only become useful after a time span of 2-3 years, should make broader use of the principles of selective findings and sample surveys. It will be necessary to train managers to work with health objectives rather than financial objectives. Therefore, education and training are critical in all sectors and levels. Validity of data deserves special attention because data of questionable validity threaten the credibility of the system. The real challenge in adjusting the health information systems will be to replace the bureaucratic approach with a consultation process. This should make it possible to get a clear picture of the information needs of the health managers and health insurance institutes, in the new situation.

Conclusions and recommendations

The workshop outlined opportunities for both immediate and mid-term activities for improving health information systems in the Czech Republic.

The proposed short-term line of activities (2-4 years) is outlined in the national document on Health Information Systems. The following suggestions were made:

1. It was felt that a description of the methodology used to prepare the document (i.e. institutions consulted, timing, etc.) would help in understanding its scope.

2. The short-term changes suggested in the document are necessary in order to adapt to the present situation and to comply with current government and legislative requirements. However, it is essential to prepare a medium-term plan for health information systems development.

3. The document stresses the needs and changes required for the central and district administrative levels (i.e. the Ministry of Health, District Office) and only limited attention is given to the local level of health, and health care management, i.e. health care providers.

4. A more detailed analysis of the present system may lead to identification of its failures and, consequently, to a more specific description of the areas where changes are necessary.

5. Along with some unavoidable legislative measures, more attention must be devoted to convincing local health care managers and providers of the strategic needs for change in health information systems.

6. The new health information project must allow for more flexibility in order to ensure smoother adaptation to inevitable future changes.

7. Health care indicators should be defined jointly with users at front line health care and health promotion facilities.

8. The list of indicators annexed to the national document would benefit from a specific description of purpose, uses and users, of each indicator. Some standard products can easily be defined e.g.:

   (a) reports on the state of the public health;
   (b) reports on the progress of the reform;

   while others need to be identified. This will help to justify why specific data are to be collected.

9. The Ministry of Health must allow for and promote the development of information systems, to support management of health care and health promotion activities at local level.

10. The requirements for data being received from a wide number of sectors other than the health care institutions (i.e. environment, housing, employment, etc.) must be specified.

The line of mid-term activities (5-7 years) is indicated in the following recommendations and proposals for further collaboration between the WHO Regional Office for Europe and the Czech Republic:

(1) Health information systems should be developed together with the health policy reforms and the health and health care objectives which they are to contribute to. The WHO Regional Office for Europe could assist with the definition of health targets for the Czech Republic.

(2) On this basis, an information strategy should be developed, related to the health targets, i.e. the principles of providing health information services.

(3) An information systems strategy should follow, i.e. what type of data are needed for any specific function at all levels as well as health institutions, in order to support decision-making and monitoring of health activities.

(4) When developing the information strategy, the following should be considered:

   (a) the information systems should support health and health care objectives;

   (b) the information systems should contribute to health outcomes;

   (c) the data should be largely collected as a by-product of everyday operations in the health and health care sector;

   (d) duplication of data collection should be minimized;

   (e) costing of health information activities should be tried as an incentive to avoid data redundancy;

   (f) the users (i.e. health care providers, health managers, policy makers, etc.) should be consulted widely so that they can become committed to using the information and develop a sense of data ownership;

   (g) responsibility for the data collection and ascertaining of data quality should be placed as closely as possible to the operational level, i.e. health care providers and managers;

   (h) data protection (data access) regulations must exist;

   (i) it is essential to consider the research and training needs for implementing the strategy.

(5) A working group should be set up and a plan initiated so that users (i.e. health institutions, physicians, districts) can be widely consulted. The tasks of each single actor must be identified so that the information needed to support the task of the main players in the health system is defined. This includes data on health status, performance of health institutions, quality of care provided, need and provision of services, guidance on costs, health resources, manpower, and on payment for services, for the health insurances, drugs, supplies, etc. The WHO Regional Office for Europe could support consultations in most of the specific areas, e.g. quality of care, financing of services, etc.

(6) Finally, technological and infrastructure considerations will also be included to support the information systems strategy.

(7) The development of information systems is a learning process. Therefore, it is appropriate that local projects be started as soon as possible. These projects must demonstrate the usefulness of information systems at local level and be supported by the central levels of administration. The WHO Regional Office for Europe can support some of these projects.

Examples of projects could be:

(a) development of public health reports;
(b) performance indicators project;
(c) quality of care monitoring projects (WHOCARE, DIABCARE);
(d) development of data protection procedures;
(e) implementation of standard definitions of indicators, and methods to measure these.

The set of projects could be devised as a general plan for collaboration between the WHO Regional Office for Europe and the Czech Republic.

(8) The Czech authorities may decide to approach the WHO Regional Office for Europe for assistance in formulating a project proposal to be submitted to potential donors.

Annex 1

WORKING PAPERS AND BACKGROUND DOCUMENTS

Working Papers

CZE/HST/110/1	Provisional List of Working Papers and Background Documents.
CZE/HST/110/2	Scope and Purpose.
CZE/HST/110/3	Provisional Programme.
CZE/HST/110/4	Provisional List of Participants.
CZE/HST/110/5	Health Policy and Health Information Systems in Countries of Central and Eastern Europe, by Dr A. Nossikov.
CZE/HST/110/6	Information Systems as a tool for Quality Development - Model programmes developed by the WHO Regional Office for Europe, by Ms Ritu Sadana, MSPH.
CZE/HST/110/7	Project on the Health Services Indicators for Central and Eastern Europe, by Mr Arun Nanda.
CZE/HST/110/8	National Health Information Systems (Project).
CZE/HST/110/9	Towards European Hospital and Health Informatics, by Dr Richard G.M. van den Heuvel.
CZE/HST/110/10	How Can Central Governments Manage Health Information to Influence Performance in Hospitals and Health Institutions?, by Dr Oriol Ramis-Juan.
CZE/HST/110/11	The Health Information System in Denmark, by Dr Jens Peter Steensen.

Background Documents

1. Health Monitoring Systems and Epidemiology as a Basis for Health Policy Decisions. Report on a WHO Symposium, Kiel, 14-16 November 1989 (EUR/ICP/HST 123).
2. European HFA Information Strategy (EUR/RC40/11).
3. Reform of Health Care in the Czech Republic, version 11, Prague, 28 October 1990.

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