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**REPORT ON THE
INTERCOUNTRY MEETING TO DEVELOP GUIDELINES ON
NATIONAL HBI PLAN FORMULATION**

EMRO, 14-16 February 1993



**WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR THE EASTERN MEDITERRANEAN
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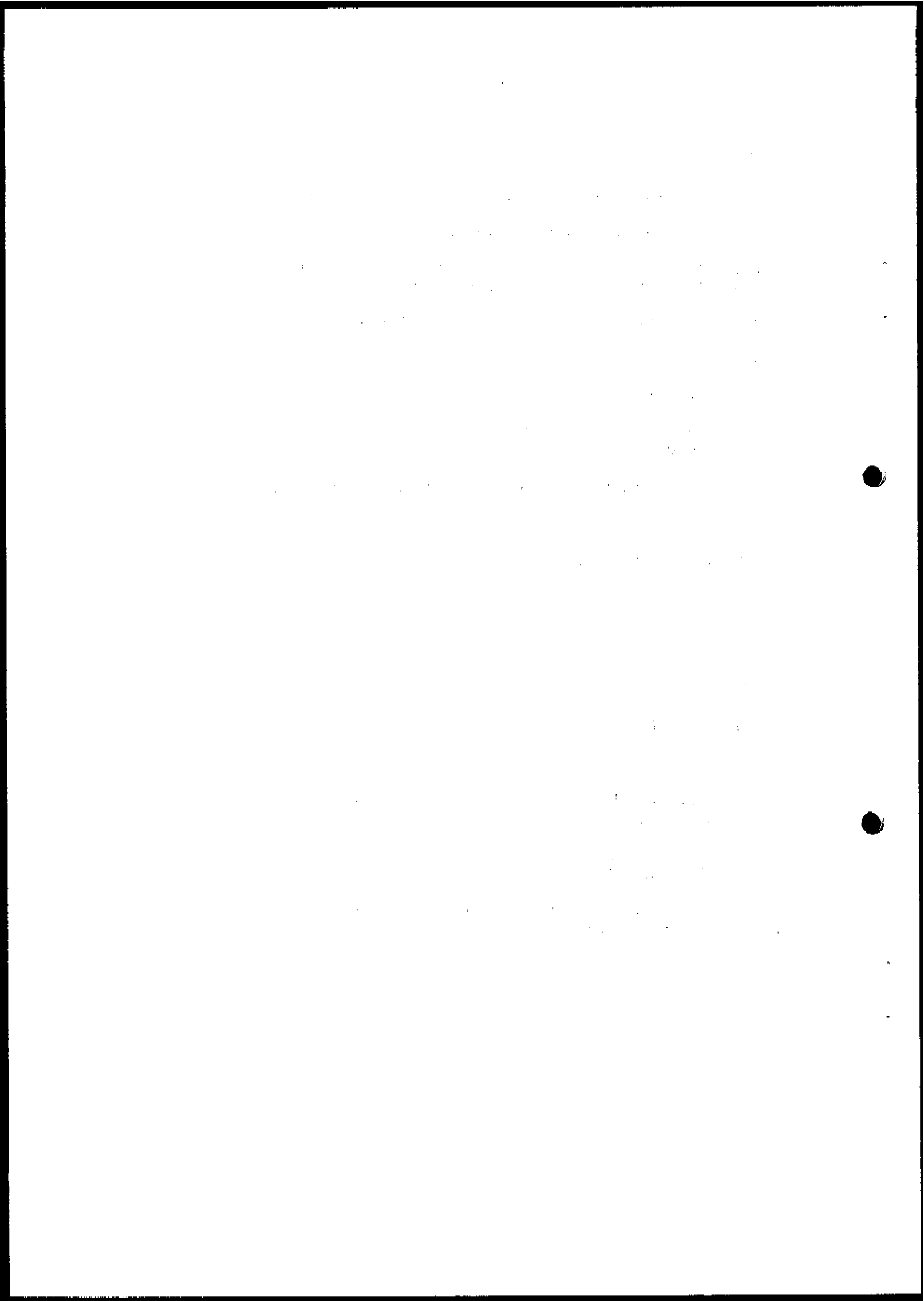
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1. INTRODUCTION

An Intercountry Meeting to Develop Guidelines on National HBI Plan Formulation was held in Alexandria, Egypt, from 14 to 16 February 1993. There were 19 participants from 18 countries, as well as a participant from United Nations Educational, Scientific and Cultural Organization (UNESCO) and an Observer from the Food and Agriculture Organization of the United Nations (FAO).

In a message delivered by Mr R. Spina-Helmholz, Director of the Support Programme, Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean, welcoming the participants, said that the meeting was for him a special occasion. He was gratified because the Regional Office for the Eastern Mediterranean (EMRO) was recording another first in holding the present intercountry meeting. EMRO had recently taken an important step when it developed the first-ever national plan for health and biomedical information, which was the outcome of a workshop held last July in the Islamic Republic of Iran. The present meeting was considering how best to replicate these endeavours in other countries of the Region, thus setting the pace in this highly useful enterprise.

There was no need to reiterate the importance of information and its dissemination as part of WHO's efforts to achieve the common goals of the Member States and the Organization. Indeed, information has always been felt to constitute a basic part of the work of WHO. The founding fathers of WHO gave it its due importance in WHO's Constitution wherein the functions of the Organization are defined and which include the provision of "information, counsel and assistance in the field of health" and providing assistance "in developing an informed public opinion among all peoples on matters of health".

The Declaration of Alma-Ata, which established primary health care as the key approach to the achievement of our cherished goal, Health for All, makes information an essential component of that approach. This reflects the importance attached by health strategists to making information available to an increasingly wide audience. Health and biomedical information (HBI) should be made available to all, because there is much that the people themselves, as individuals and communities, can do in the field of health protection and promotion.

Among WHO's programmes, health and biomedical information has not generally been seen as a substantive programme, but rather one which supports all other WHO programmes. This concept is changing, as is indicated in the grouping of HBI with such programmes as research and health statistics in the Ninth General Programme of Work of WHO. While HBI continues to fulfill its responsibilities in providing health information support, Dr Gezairy said that he was pleased to see the beginning of substantive activities at the country level in this Region.

WHO has been stressing that the work of health authorities must be complemented by well-considered and properly planned activities at individual and community levels. This is certainly right, but it cannot be properly done unless people have access to valid health and biomedical information that combines simplicity with accuracy and personal relevance.

It is in this light that WHO has been maintaining that health and biomedical information should be an integral part of every technical activity that it undertakes, and indeed of every national activity that promotes health. It is thus the perfect

example of an integrated programme. This does not apply only to health. The United Nations Development Programme (UNDP), the largest funding agency in the United Nations System, has now stipulated that every project it finances must have an information component.

Information is a very precious resource, for all the striking technical advances made in recent years. It is often true that the best, or even the only, response open to the medical profession and the health authorities is to provide valid and timely information. The clearest example was AIDS, where protection against the disease is achieved only through personal behaviour that relies on good information. AIDS, the environment and nutrition are only examples of the areas in which personal behaviour and life-style are of vital importance.

The changing demography in many countries also plays a decisive role. On one hand, there are increasing populations of young persons acquiring literacy and education and who are thus ready for valid information about healthy life-styles. On the other, there is the phenomenon of growing numbers of the elderly, whose health and well being is such an important social and economic factor. Information about healthy behaviour is the key to ensure a better quality of life for the elderly, to help achieve WHO's goal of adding life to years.

The significant rise in life-style diseases everywhere in the world does not mean that changes in life-style make people willing to take more risks with their health. It simply highlights the importance of health information. All of us in the health field have a duty to make people realize that their own habits and practices can often mean all the difference between enjoying good health and suffering from disease. This can only be done through a careful and well-considered plan of providing health information.

He said that when we speak of information, we often tend to think of the public at large. It is equally important that health practitioners, public health officials as well as students and researchers in medical and ancillary schools should always have access to accurate and timely information.

Timeliness is particularly important. Information can today be made available in different forms, using high, yet appropriate, technology. On-line services, telecommunications, even satellite services are becoming increasingly relevant to the health sector. These too form part of the development of the health and biomedical information programme.

The HBI programme was taking a very positive step with the convening of this meeting which will set guidelines for the formulation of national HBI plans. Each country will eventually develop its own plan for health and biomedical information.

In conclusion, he wished the participants a very pleasant stay in Alexandria and said that he looked forward to receiving the outcome of the discussions.

Dr J.-P. Jardel (Assistant Director-General, WHO) conveyed the greetings of the Director-General and thanked the Regional Director for his invitation to participate in the meeting. The Regional Office for the Eastern Mediterranean had taken a lead in WHO in organizing a meeting to develop guidelines for the

formulation of national HBI plans and, among the Member States of WHO, the Islamic Republic of Iran was the first country to develop the first-ever national plan for health and biomedical information.

Data made useful is information, he said, and information made useful is knowledge. Dr Jardel then referred to the many areas of information and their definitions, and noted that the present meeting would concentrate on health and biomedical information. Of course, health and biomedical information should be considered in the total context, and not in isolation. He said that in view of the short duration of the meeting it may not be possible to develop a model national HBI plan, but it should be possible to develop guidelines for developing such a plan, which was the objective of the meeting, and he wished the participants success in achieving this objective.

The participants then introduced themselves. Since some participants were still expected to arrive, the selection of Chairman and Rapporteur was deferred until after the first presentation.

2. BASIC CONCEPTS AND CONSULTATION METHODOLOGY

This topic was introduced by Mr Christopher Zielinski, Manager, Health and Biomedical Information, World Health Organization, Eastern Mediterranean Regional Office. He first noted that the National Planning activity was very much in keeping with WHO's perception of information as a major tool of technical cooperation. This included planning information needs, establishing transmission formats, targeting information to appropriate users, and monitoring the information's use. In addition to the physical dissemination of information, WHO had a fundamental responsibility for establishing the systems through which it would assemble the information needed for its own activities, and also for advising Member Countries about their information needs.

He explained that, in deciding on how to structure the meeting, it was felt that a consultation format would be the most appropriate, since many of the issues to be addressed would certainly benefit from applied brainstorming by a high-level group. Following on from Dr Jardel's comments, he suggested that, instead of expecting to produce *guidelines* on national HBI plan formulation, it would be very satisfactory to come up with *guiding principles* for the elaboration of such plans.

Mr Zielinski then devoted some time to illustrating the unusual nature of information as a commodity: it appeared that excess was the norm and that a great deal of redundancy was not only tolerated but actually expected by the recipients.

Just as information was not a commodity like any other, he concluded, so a national policy or plan dealing with information was probably not going to be like any other. First, such a plan generally existed in the absence of a national information policy, often with no health information policy and always without a health and biomedical information policy.

Second, the very activities that were to be covered by the plan were scattered. "Health and biomedical information" was a WHO concept, and in WHO it had a structural basis, with HBI divisions at headquarters and in several - but not all - Regional Offices. In countries, the component HBI activities are generally spread throughout ministry, academic and commercial sectors, and without any specific

coordinating unit responsible for them. This spread of HBI-related activities was not necessarily a bad thing. It was, rather, another expression of the fact that information is, and should be, part of every public health activity.

Then, there are no indicators. What units quantify a good health and biomedical information system? Specific HBI indicators should certainly be developed in due course, but they are largely absent at present.

So planners would generally find the peculiar situation that HBI plans could not be based on an explicit policy. The present situation regarding HBI in a country could not be measured, and the effects of a plan could not be monitored or evaluated. Although he noted that many people would conclude that such a planning process could not lead to any useful results, he said that this was a feature of the subject matter treated - information - rather than a flaw in the design of the activity.

Information support in developing countries is often given low priority, and lags well behind development programmes. Few of our countries had a national health and biomedical information programme or policies to support such programmes. Even though most countries had medical research agencies with libraries, in the absence of the recognition of the importance of information in furthering development, the learned societies and special libraries were not able to exercise bibliographic control in their own territories. Many of the regional journals were poorly funded and irregular in their publication. Local printing facilities may be poor. Researchers tended to seek publication abroad in international journals. However, with foreign exchange limitations and other restrictions, these international journals were often not available in the country.

Information had not yet been recognized in many countries of the Region as an essential commodity and asset in planning and management. This was precisely what this national planning process sought to address. He concluded his introduction of the topic by suggesting that it was time to treat information support itself as a development programme.

In closing, Mr Zielinski described the process of work planned for the meeting, the speakers and the consultation methodology adopted.

3. ELECTION OF CHAIRMAN AND RAPORTEURS

The participants elected Dr Abdo Jurjus, Professor, Department of Human Morphology, American University of Beirut, Lebanon, as its Chairman, and Dr Ibrahim Abdallah Al Kharashi, King Abdulaziz City for Science and Technology, Saudi Arabia as Rapporteur.

In the Working Groups, Working Group A, chaired by Dr J.-P. Jardel, ADG, WHO, Geneva, elected Dr Victor Montviloff, PGI, UNESCO, Paris, as its Rapporteur, and Working Group B, chaired by Dr Omar Sulieman, WHO Representative, Islamic Republic of Iran, elected Dr Kamel Essaghairi, Directeur des Etudes et de la Planification au Ministère de la Santé Publique, Tunisia, as its Rapporteur.

4. NATIONAL HEALTH INFORMATION PLANNING IN THE CONTEXT OF A NATIONAL INFORMATION POLICY

In his introduction, Dr Victor Montviloff (UNESCO) stressed the need for information to be organized and managed in order that information systems and services have a key role in linking their past, present and future activities. Despite the overabundance of information, much remains underutilized. Many projects fail to achieve their expected results and become self-sustainable because they do not use information as a basis.

He described an information policy as a set of principles and strategies that provide guidance for the development, implementation, operation and utilization of information resources, services and systems. Information policies may be legal instruments, professional instruments or cultural instruments. National information policies can concern a variety of policies, such as those dealing with agriculture, or the economy, etc., and national health and biomedical information could form a subset of such national information policies.

The specific objectives of a national HBI policy will be to ensure:

- provision of relevant, reliable and timely information and data;
- preparation and implementation of a plan of action for the establishment of national HBI policy;
- provision of support to different components of the national HBI system;
- cohesiveness and sustained growth of HBI system

The key issues in the development of an information policy are:

- information capital development;
- information on human resources;
- information transfer development;
- access to information

As to the designing of an HBI plan, he said that the plan should be synchronized, realistic, pertinent and global.

The steps that should be taken in this regard are:

- to carry out situation analysis;
- to define the main goals of the HBI plan;
- to identify different components of the plan;
- to propose strategies for their implementation;
- to propose a coordination mechanism for the plan's implementation

The information systems and services offered today are very powerful, and all that is required is good management and application of resources.

Discussions

During the ensuing discussions, it was suggested that the following methods that were being suggested by UNESCO to convince decision-makers of the need for a national information plan could also be used for the development of a national HBI plan, namely:

- preparation of a background document of existing information and on information plans and policies; and
- organizing a national seminar for top-level managers, members or representatives of the national cabinet and key ministries, etc.

The objectives of the national seminar would be to draft a national HBI plan and to oversee the implementation of the plan by a coordinating body.

It was considered that a national HBI policy should be coherent and in harmony with the overall national information policy, the national HBI policy should be separate, as there could be delays in approval and implementation of the HBI policy if it was linked with the national information policy. It was also advocated that national HBI plans should be backed up by appropriate legislation, as experience has shown failure without such a back-up.

It was suggested that UNESCO and WHO should combine forces in arranging training programmes and coordinating activities at the country level including publications in this area.

It was also suggested that, in order to convince policy-makers of any plan, it would be necessary for the head of the agency to liaise with someone at the director-general level of the government concerned, as well as agency representative level in the country concerned with his/her national counterpart.

5. THE EVOLVING ROLE OF HBI IN NATIONAL HEALTH DEVELOPMENT

Dr O. Sulieman, WHO Representative, Islamic Republic of Iran, began his presentation by noting that the provision of information to its Member States is a constitutional obligation of WHO. Health information and knowledge were vital for the development of health policies and plans.

In order to understand the role of HBI in health development, it is necessary to consider the development of policies, plans, resources and implementation.

In its early years, WHO supported country-level pilot projects, followed by national, regional and global vertical programmes. Then the emphasis shifted towards developing national health services. Finally the focus was on the health-for-all concept, using the primary health care (PHC) approach.

As regards progress in implementing health-for-all national plans, problem areas include resource generation, resource management, intersectoral cooperation, community partnership, health management, environment, and lack of adequate degree of overall social development. He felt that these were the areas where most of the HBI input should be concentrated.

In a poll taken at the World Health Assembly in May 1992, representatives of Member States overwhelmingly expressed the wish to see WHO concentrate on areas of health policy formulation, planning and resource mobilization. Again, these are three areas where information constitutes the backbone.

While, in the countries, requests for consultants, fellowships, supplies and training were likely to decrease as their own facilities improved, the exchange of information would continue to be required from WHO, and other international bodies. This included collecting, collating, analysing and disseminating experiences and information from various countries and permitting others to avail of them.

Dr Sulieman cited the need to invest in human resource development (the recipient). A negative lifestyle is the most important global cause of disease and death.

He stated that the major health problems of the future would be cancer, AIDS and environmental hazards. Other problems will include the health effects of upheavals, disasters as well as new technology. New trends expected in the 21st century, which may have direct or indirect effects on health, may include: new technologies, an international lifestyle leading to a "global" culture, increased travel, "religionism", privatization of welfare states, increased individualism and consumer-driven competitive communities. When developing future HBI material, these are areas to consider.

The type of information to be produced will depend on the audience targeted. Future trends indicate an increasing number of interest groups, as well as more women in leadership positions. Health information targeted to these audiences should be planned. There will be an increasing need for donor-oriented material.

WHO should also produce health information that can be continually updated, to meet the needs of countries, at short notice, in times of emergency (e.g., how to deal with animal carcasses after earthquakes or drought; steps to be taken in cases of chemical poisoning, etc.). It will also be necessary for WHO to have ready lists of standards, criteria and specifications.

At country level, different types of information are needed. For example, at peripheral level, paramedicals will need special kits of information. Such kits should include basic techniques, guidelines and checklists for performing assigned tasks, as well as simple catalogues for operating and maintenance procedures related to equipment being used, and should include material that describes the recording, reporting and monitoring systems. Similar kits of information need to be developed for health centres, hospitals, training institutes, district and provincial health teams and authorities.

In existing PHC systems there is a gap between peripheral health facilities and recipients. Information materials for families, community leaders, community institutions and associations should be made available to promote self-care and health education.

At national level, health information should be made available to and used by politicians, leaders of various health or health-related sectors, health decision-makers, providers of tertiary services, researchers, medical universities, private practitioners, nongovernmental organizations, international agencies and national

associations, trade unions and clubs. Data collection should be carried out by a national health information centre. This is the body that should receive WHO support, although it will be mainly a government undertaking.

Intercountry information systems need to be developed. The type of information should include case studies, research, epidemiological and relevant health and demographic statistics, new discoveries, strategical approaches, etc. Such intercountry information exchange can be performed through a network of the national health information and HBI centres supported and facilitated by WHO.

For information to be useful, there must be trained human resources, management, advocacy for Health for All, strengthened relations with the press and other media, promotion of the use of national languages in medical and health training, the demystification of health information through the incorporation of information and education for health (IEH) in adult, informal and formal education systems, etc. These functions, which could be performed by national HBI centres, should receive WHO support.

The format in which information and knowledge should be presented is as important as the information itself, since it will affect its readability and use. There should be more investment in the production of graphics, small pocket-size data summaries and newsletters. The usability of materials and their suitability should be evaluated periodically, and should be a major deciding factor in deciding about the design, format, quantity and distribution of items produced subsequently.

Discussion

The Chairman proposed that the discussion be limited to HBI as it affected national health development issues.

Dr Jardel questioned the use of the term "recipient" in the report, saying he preferred the term "community". He liked the idea of information kits. Information is essential and is one of the three elements needed. As regards the future focus on cancer, AIDS and environmental hazards mentioned in the report, most of the least-developed countries are likely to remain in the grip of communicable diseases for some time yet, and proper information for the surveillance and control of those diseases would still be required.

6. THE IRANIAN EXPERIENCE

Dr Ahmed Reza Nikkar Esfahani, Islamic Republic of Iran, discussed the HBI plan of his country, which was, he said, regarded as being of vital importance. His government had adopted a multilateral approach in which various organizations will bring their own "outlook" to solutions proposed.

A significant step was the governmental reorganization in 1987, when the Iranian Parliament passed legislation creating a single Ministry of Health and Medical Education, merging the universities of medical sciences and the Ministry of Health. This restructuring allowed greater cooperation and coordination.

Situation analysis had revealed many problems, including insufficient laboratories and other facilities. There was also limited modern equipment with advanced technology and lack of trained personnel. More research activities were also needed, and a comprehensive approach was essential, including an emphasis on health and biomedical information.

Many workshops and activities had been conducted since then, including 28 workshops for librarians in the 29 universities of medical science. They had held workshops on how to correctly read medical journals. There have been four workshops on training librarians on how to use MEDLINE and optical disks (there are currently 59 centres in the Islamic Republic of Iran equipped with CD-ROM readers and databases, able to provide the latest medical articles for use by students and faculty. WHO terminology workshops have also been held for 50 librarian experts.

Workshops on numerous medical resource projects were also held. Future workshops will cover WHO terminology, medical records using optical disks and MEDLINE, how to use the modem and other forms of modern technology, how to access articles online, for "long-distance" clients, and new terminology software and methods in library sciences.

They had centralized the purchasing of textbooks and subscriptions to journals for the library system, and spent \$45 million on books and \$10.5 million on journals in the current budget period. Around 1.7 million volumes of medical books were distributed to over 100 000 medical students and 5 000 faculty members. Over 7 000 health and medical journals had been subscribed to on behalf of the medical libraries throughout the country.

Turning to HST matters covered in the National Health Information Centre, he noted that over 200 personal computers were distributed among pilot hospitals in Teheran, and other workshops included those for statistical staff.

Appropriate and effective solutions will depend on the high quality of health and biomedical information available. This is the reason that the country has embarked on development of detailed HBI components in their National HBI Plan. He added that they were planning to issue an HBI journal and booklet.

The core of trained health librarians will constitute a firm base on which to build a comprehensive and effective national health information system (NHIS).

Reviewing the successive areas of focus in recent decades, he felt that the most important indicator in the 1940s had been production; in the 1950s and 1960s it was business methods; in the 1970s it was expertise in economics; from 1980 until now there had been major advances in science information, which was now, in his opinion, the most important indicator.

He then spoke on other issues of importance to HBI such as translation of WHO books and booklets into Farsi (36 WHO books had been translated in the last nine months alone). He said that WHO should continue to develop its HBI activities in support of the countries. Books and materials on HBI activities were needed, as well as research on HBI.

Discussion

Dr M. Awamleh, Jordan, commented that the infrastructure in the Ministry of Health was different in the Islamic Republic of Iran from most other countries in the Region, which made it easier for them to coordinate and modify HBI activities. He asked if Iran had established a separate HBI department, and wondered about the procedure followed for drawing up the HBI Plan.

Dr Nikkar agreed that Iran's Ministry of Health infrastructure was well adapted to developing HBI activities. He said the addition of responsibilities for medical education had simplified the process. It was cost-effective as well, allowing a greater percentage of the budget to be allocated to health activities in general.

Replying to the question as to whether the Islamic Republic of Iran had established a separate cell or department for HBI, Dr Nikkar said that the decision had been made to have a separate department for HBI, in order to give a greater emphasis to information.

Developments were occurring rapidly. Just the preceding week they had started the modem system; in three months, professors would be able to search through databanks for medical articles, 24-hours a day, and from their homes.

Mr M. Sammakia, Distribution and Sales, EMRO asked how the Islamic Republic of Iran went about disseminating its books to the right people. Were there mailing lists? And what was the role of WHO in relation to the central distribution bureau, and how might WHO help?

Dr Nikkar said that in Teheran there were three large medical sciences universities, each with their own bookshop. The "heart" of each institution is the library. He said that they would be glad to become a distributing centre for WHO publications, not only for books to be published in Farsi but for any other books on health-related matters.

Dr V. Montviloff, UNESCO, noted that the approach the country had taken was quite unusual in the field of information, because it was derived from a "literature point of view", the components including translation, electronic media, publishing and printing. He wondered about the "national health literature policy" cited in the Plan, and asked how they had been able to conduct so many workshops.

Dr Nikkar said that, at present, there was as yet no HBI policy *per se*. Regarding the workshops, he said that Iran had used many short-term consultants (STCs), not only from WHO but from universities around the world, who had helped to conduct these workshops, as well as staff from the 29 medical universities in the country. The recommendations of all these workshops had been implemented for the greater part. They had also held two workshops on terminology, assisted by Mr Lewalle, Chief, Terminology, WHO/HQ, and they had trained up to 4 000 faculty members in the use of computers and CD-ROMs.

Dr K. Essaghairi, Tunisia, questioned the title of the draft Plan, suggesting it would be more accurate to call it "Plan for HBI Documentation and Reference Support". He regarded "health information" as morbidity and mortality indicators, regional and geographical disease distributions, etc.

Responding to the Tunisian participant's comment, Mr C. Zielinski, Manager, HBI, WHO/EMRO, noted that the definition of HBI contained in the glossaries provided as an annex to the Plan covered the contents of the draft Plan accurately. Regarding Dr Moontviloff's question about the "national health literature policy" quoted in the Plan document, this referred to a workshop paper prepared by Mr R. Weizel of HLT/HQ some years back.

He then took up the Jordanian participant's question regarding the method used to draft the National Plan. Under the supervision of Dr Zali and Dr Nikkar, the different component areas had been reviewed, and general objectives drawn up for all of them. These objectives were very general and could probably serve for many countries.

Taking the example of the chapter on library services, the process had then gone as follows: a workshop had been held, with participation from most of the country's medical librarians, to draw up specific objectives and targets and some of the possible activities. The next step was carried out several days after the workshop, with a "brain-storming" session, including some librarians who had not participated at the workshop. All of them had been given copies of the notes on the Workshop as a basis for their work. The purpose of this brain-storming was to generate suggestions on further activities. These were then written up and agreed upon in a final meeting with all the participants. The effect of this process had been to generate a very practical set of recommendations for action, that had the support of most of the medical librarians in the country.

A similar process could be envisaged for each of the other component areas of HBI in the Plan, and work would continue in this direction, as a part of the process of finalizing the Plan for adoption.

He turned to Dr Montviloff's point that there were many ways to break down the component areas of HBI. The breakdown used in the Iran Plan had been arrived at after considerable experimentation. Nevertheless, he acknowledged that this might not be suitable for all circumstances.

He asked for more information about the HBI journal and booklet Dr Nikkar had mentioned in his presentation. Dr Nikkar replied that the Islamic Republic of Iran had translated the plan into Farsi. The booklet he had mentioned covers the activities they had undertaken (including book purchasing, journal subscriptions, etc.), and he would soon send a draft to the Regional Office.

Mr G. Guirguis, Librarian, HLT/EMRO wanted to know the present set up of the HBI cell at the ministry level, and especially its relations with MEDIC. Who had the leading coordinating role as regards book acquisitions and library policy? Did decisions come from the top, or was this delegated to MEDIC?

The situation had changed, Dr Nikkar said, since Mr Guirguis's last visit to Iran some 4 years ago. MEDIC was fully responsible for all its functions, and was taking a role nationally. They were installing modems for connections to all the provinces. It would take another two or three years to complete all HBI activities in the Islamic Republic of Iran.

Dr Sulieman said that Dr Nikkar had been instrumental in implementing a nation-wide health survey. The Islamic Republic of Iran had since published a volume about each province and they were engaged in integrating all this data to establish national baseline data. They had also devised a new streamlined form for collecting data. All the programme areas had their own information systems. Currently, this area was being developed along with HBI activities in the National Health Information Centre.

Collecting data throughout the 24 provinces in the Islamic Republic of Iran had been very difficult, Dr Nikkar said, and they had used a single form for various statistical data. They worked closely with the statisticians to abbreviate the form, and he had now the latest updated data on the findings, which he would be glad to share with anyone who was interested. All the forms for data collection had been standardized throughout the country.

In regard to whether there was a "plan" and whether there was a "department," Dr Nikkar had first been appointed a focal point, and was now the Director of the National Health Information Centre in the Islamic Republic of Iran. Under the law in the Islamic Republic of Iran, any national plan will have to be approved by parliament.

Dr A. Abdel Bassit, Egypt, wanted to know about users of online and CD-ROM services in the country. He also wanted to know if there were any plans for networking, resource sharing, inter-library loans, etc., so as to make use of the 59 stations in the country.

Dr Nikkar said that the 59 centres were being linked by modem.

Dr Jardel congratulated Dr Nikkar and the Islamic Republic of Iran for this very interesting initiative. He said that many of the questions raised related to problems of definition. Concerning the way the Islamic Republic of Iran has decided to move in this field, it may or may not serve as a model, but in any case it must certainly be taken as an example. He was happy to be able to announce that the WHO Director-General had the previous week approved the designation of the MEDIC centre in Teheran as an official WHO Collaborating Centre for HBI.

7. HBI/NHIS POLICY CONSIDERATIONS

Dr A. Manuila introduced the document entitled "National Health and Biomedical Information Plans and National Health Information Systems: What They Are and How They Interrelate".

In the paper, Dr Manuila traced the policy basis for, and the history of, national health information systems beginning with the First World Health Assembly in 1948. Various policy decisions by the governing bodies of WHO were identified. Of particular interest to the present meeting was the Interregional Consultation on National Health Information Systems held in Costa Rica from 14 to 20 November 1979.

Based on the report of this meeting and of further comments by the WHO Programme Committee and the Global Programme Committee, a paper was produced in July 1980 under the title National Health Information Systems Guiding Principles, copies of which were transmitted to WHO Member States. The paper

includes, *inter alia*, the definition of an NHIS and the categories of users and their needs and different types of information, the establishment and development of an NHIS, and strategy for the development of an NHIS.

The users of an NHIS were grouped into five categories - health policy-makers and managers; health care personnel; research workers; educators and trainers of health personnel; and users and promoters of health information outside the health sector. It was considered that a well-designed NHIS is one that meets the wide-ranging needs effectively and efficiently, at a cost that a country can afford.

The relationship between the types of information that comprise an NHIS and the five categories of users was depicted schematically. Information was classified into three types - management information, health statistics and health literature.

Eleven general principles that were recommended for particular attention in the Costa Rica consultation report, and a strategy for the development of an NHIS were outlined.

The paper goes on to describe as to how the concept of a national HBI plan developed, starting with a three-member team visiting the Islamic Republic of Iran in August 1992 to prepare a draft national plan for health and biomedical information for the country. The organizational structure of the Ministry of Public Health and Medical Education was conducive for such a development, particularly with the department responsible for HBI being charged with looking after medical records and health statistics, it was inevitable natural corollary to bring all these programmes into the planning process.

Work was currently underway to convert the draft plan into a full-scale national plan for the Islamic Republic of Iran. Project formulation was in progress and fund-raising will follow.

Dr Hussein A. Gezairy, WHO Regional Director for the Eastern Mediterranean, had commented previously on the significance of the Islamic Republic of Iran's move, as "the first country in the world to formulate and, I trust, implement a national plan for health and biomedical information".

Following the present intercountry meeting, each country of the Region is to be encouraged to draw up guidelines for formulation of national HBI plans, to be followed by each country's own national workshop to formulate its national plan.

A national HBI plan is a vehicle for describing the development aims of the country in the production and dissemination of information in support of the national public health effort. It includes a situation report and a medium-term development plan, complete with time frame and an estimate of resource needs. The first stage beyond the framing and approval of the plan at the highest level should be the generation of a full range of specific project proposals for funding and implementation.

Whether a national HBI plan is necessary at all was considered in the paper and offers two alternatives. The paper also examines the proposal made in the draft plan for the Islamic Republic of Iran to establish a WHO collaborating centre in the Department of Research Affairs and Technical Cooperation of the Ministry of

Health and Medical Education, aimed at providing a focus for developing HBI activities in the country. Under this proposal, the planned centre in Teheran will have broad terms of reference covering the full extent of all HBI activities.

The final section of the paper considers future strategy and activities. It suggests that countries should decide at this stage whether an HBI national plan would work by itself or as part of an NHIS. It also suggests that the participants should consider how best at the central and peripheral levels, the components representing health statistics and health literature services could be brought nearer to each other without ignoring the third component, management and operational information.

The participants should also consider what would be the "ideal mechanism" or structure in a Member State for the development of a national HBI plan, an NHIS, or both, as is the case with the Islamic Republic of Iran. Would it be a WHO collaborating centre, or simply the extension of any existing HBI focal point?

The participants were also invited to decide if they favoured the mechanism of a WHO collaborating centre to implement national plans, on the criteria for selecting a national institution to serve as a WHO collaborating centre, taking into account the criteria set down by WHO.

Discussion

During the discussions that followed, it was stressed that it would be appropriate to start small and then build up, rather than starting with an elaborate system and then failing. It was also advisable to avoid the term "national system" as such a terminology might frighten away policy/decision-makers to embark on a new "system". In the case of Islamic Republic of Iran, HBI was used as an entry point for the development of an NHIS.

It was also considered appropriate to use the term coordination, rather than "integration". Also, involvement of decision-makers in a national coordination committee could speed up decision; it was possible that these decision-makers might shy away from "integration committees".

It was felt that the proposed Regional Advisory Committee on Health Information Systems, planned to meet in May 1993, could review the existing information systems in the Region and the linkages between health information and health biomedical information.

A suggestion was made concerning identification of leadership in the field of HBI who could lead and bring together different categories of people involved, such as information producers, information users, government officials, etc. In addition, development of human resources, finances, and technical know-how should be addressed to, and these developments should produce a snowballing effect.

It was emphasized that it was not being suggested to build up an HBI system *de novo*, but rather to develop the existing structures.

8. EVALUATION OF NATIONAL HEALTH AND BIOMEDICAL INFORMATION SYSTEMS

Mr C. Zielinski, Manager, HBI, WHO/EMRO, introduced this topic.

He said that the phrase "evaluation of national health and biomedical information systems" implies much that in practice is absent. In order to evaluate something, one must be able to assess it, and this usually means measuring it somehow. Yet, there are no widely accepted tools, or indicators, to measure health and biomedical information.

A national plan requires some kind of indicators that tell you what the situation is now, and that allow for a dynamic view over time. Indicators make it possible to monitor and evaluate progress towards relevant, adequate, efficient and effective health and biomedical information plans and to measure their impact.

As an introduction to the topic of evaluating country HBI systems, and specifically to the problem of identifying indicators that measure them, he cited another WHO publication entitled *Development of Indicators for Monitoring Progress Towards Health for All by the Year 2000*.

Looking beyond WHO, a very interesting approach to the task of formulating new indicators had been developed by the Organization for Economic Development and Cooperation (OECD). With the aim of providing information about the state of education, its approach was to identify various thematic areas where member countries could cooperate in developing indicators. Mr Zielinski felt that this was a reasonable set of principles. The standards were certainly demanding, and the development of new indicators will require much initial research and subsequent clarification among the cooperating countries. The UNESCO publication from which this information was derived notes that the countries will require high-level support in producing accurate and timely information.

Mr Zielinski stressed the need, when developing HBI indicators, to ensure that they were analytically linked to the programme and that they provide feedback into policy-making and management. In other words, the national HBI plan needs to be modified subsequent to changes in key indicators.

He touched on the political component of the question, namely, that in the absence of indicators and concrete data, most countries do not base their national HBI activities on needs, but rather on political power and elite interest. This leads to facilities that are skewed, with the greatest input of resources being concentrated mainly in urban centres and industrial/administrative centres. In this context, indicators can be seen as powerful tools for the spreading of resources to all sectors of the country, including the rural and underprivileged.

Moving on to the content of HBI indicators, he noted that indicators were generally supposed to be capable of a degree of universality. That is, they were meant to apply to different countries, thus permitting some comparison between countries. Equally, an assessment of health information support focusing on techniques and means of production could be supposed to be independent of the content of the information. However, both of these suppositions run into difficulties which throw some light on the content of the indicators and the methodology of subsequent evaluation and analysis.

This led to two key questions: Are there any comparator countries? And, Are there different information needs for different health problems?

He responded to the first of these by citing experience in HBI/EMRO in preparing *Country Health and Biomedical Information Profiles*. This research effort was carried out over two summers with the help of a group of interns from Harvard. Valuable input was received from the Health Statistics and Trend Assessment group at EMRO.

The data collection activity in itself had been of value, since it provides reference information to HBI/EMRO, and to the countries, particularly when they come to frame national plans for HBI. It also revealed the location and size of the gaps in the information available on the data fields selected.

The efforts at comparing countries yielded ambiguous results. In general, there appeared to be no way to say that Regional Country A should attain the the information infrastructure of Comparator Country X in all its indicators. This seemed to depend on factors outside the information field. He gave several examples of clearly misleading results based on simple inter-country comparison.

He expressed the idea that the indicators selected should be capable of calibration to generate an "ideal" version of the country's information infrastructure. A country would be compared with an ideal version of itself, rather than to a universal ideal.

Turning to the second question, he introduced the concept that different health problems imply differing amounts of health information support. Some health programmes and problems clearly require massive information support, while there are others where the information "content" is not so decisive. It may be worth the attempt to define an ideal information infrastructure for a given country in relation to its priority health problems. This would enable channeling resources available to HBI to areas where there is most need and where they can have greatest effect.

As a practical approach to the problem of developing HBI indicators, he suggested that the range of objectives and intermediary targets shown in the draft National Plan for Health and Biomedical Information adopted by the Islamic Republic of Iran could provide a framework for developing indicators.

Each form of production and distribution of health and biomedical information tackled in Iran's National HBI Plan has an overall objective and specific targets and objectives. Generalized versions of these objectives were prepared for the sake of defining indicators that may be applicable to all countries.

Concluding his presentation, Mr Zielinski referred to monitoring and evaluation of country HBI systems. The dynamic qualities of information, and how the needs of a country in respect of health information support change with the priority health problems of the country lead to the concept of and need for a constantly changing national plan, which would be updated periodically in the light of the changing indicators.

He then listed the steps in the evaluation process, and noted that, from verifying relevance to impact assessment, these should flow from technically sound indicators constructed according to such principles as those proposed by the OECD, with the possible exception of intercountry comparability.

Discussion

Dr Jardel, ADG/WHO, stressed that indicators had to be linked to objectives. This point was reiterated by several participants, who agreed that the results of evaluation conducted using the indicators should feed into the national planning process, modifying the plan if necessary.

Responding to a question from Mr Ouakrim, HST/EMRO, Mr Zielinski noted that links with the Health for All strategies were difficult to find, owing to the "non-content-specific" nature of HBI. The programme concentrated on making and disseminating books and other information products, rather than acting in some way directly related to their content. Of course, insofar as the HBI interventions in a country were prioritized according to the information support required to deal with the priority health problems, this would most likely fall in line with the HFA strategy of the country.

Dr V. Montviloff, UNESCO, mentioned that UNESCO had been working for a long time on developing general information indicators related to information policies, and that these could have some relevance for HBI. It took a long time to create indicators, citing work done in Berkeley on indicators of information utilization potential, which had taken four years.

9. PRESENTATION AND APPROVAL OF REPORTS OF WORKING GROUPS

Draft reports of the working groups were presented to the plenary on the third day of the meeting.

The draft report of Working Group A, on the "Interrelationship between (a) national HBI plan and national health information system, and (b) national information policy" was presented by the Rapporteur of the Group, Dr Montviloff.

The report, as approved, follows.

WORKING GROUP A ON GUIDELINE FORMULATION

1. Concept of Health and Biomedical Information (HBI) Policy

1.1 Definition of HBI and HBI plan

Health and biomedical information (HBI) is information and knowledge required by all categories of health personnel in the performance of their work. It includes the production, promotion, distribution, monitoring and evaluation of a wide range of media in printed, multigraphed, electronic, audiovisual and any other form.

HBI needs not only to be available but useful as well, i.e. it needs to be organized and managed so as to match with the users' requirements. A national HBI plan should be designed to promote the integration of national HBI resources and services into the health development plan. Its main purpose is to provide consistency and cost-benefit advantages in the:

- assignment of priority areas in accordance with the national health development plan;
- support to the design of programmes in response to these priority areas;
- improvement of the selection process of projects making up the programmes;
- provision of the necessary information for the estimation procedures of resources and costs for the implementation of these projects.

The drafting of such a plan is normally guided by information policy priorities.

1.2 Definition of an information policy

An information policy is a set of principles and strategies which ensure the commitment of the decision-makers to the harmonious development, implementation, operation and utilization of information resources, services and systems e.g., timely access to relevant information to varying needs of users throughout the society, coordination and compatibility of the overall national information system, better complementarity and compatibility between the various legislations concerning the provision of information, better responsiveness to the implications of new information developments and more effective participation in regional and international information systems and networks. Information policies can be micropolicies (with an organizational or institutional scope) or macropolicies (with a local, national, international scope).

Most countries have various policy instruments ranging from legal instruments (constitution, parliamentary acts, international treaties, etc.) to professional instruments (codes of conduct, professional ethics, etc.) and to cultural instruments (customs, beliefs, traditions, etc.). Some may be general in nature (privacy act; free flow of information), others more specific (legal deposit act).

1.3 Relationship between national information policy, health information policy and other health-related information policies

Health information includes several interrelated and, some times, overlapping components, different in source and purpose, which all serve at different degrees the needs of the users working in different fields of health. Among these components (see Annex 4) are:

- a) Health management information for the planning, programming, implementation, and evaluation of the health programmes and services; different types of data and information will be required at different levels of management; examples of these types of information are health legislation, human and financial resources, supplies, research, etc.
- b) Health surveillance information includes health statistics and epidemiological information for health situation and trend assessment.

c) Health and biomedical information is health literature, scientific and technical information, material for public information, and more generally, the world's health and medical knowledge and experiences recorded on different types of support.

The same source of information may sometimes be used in one or several of the above three components; for example, health records established to support the delivery of health care can also provide useful information for statistical purposes and for management.

Each of these components requires the development of proper mechanisms for organizing the production, communication and use of relevant information. However, such systems should be properly coordinated, in order to facilitate interchange of information and to make the outcome more relevant to the needs of users. The concept of a National Health Information System (NHIS) proposes a higher degree of integration of the different components. Whatever solution is chosen, enough flexibility should be kept to ensure adaptability to users' needs.

Whenever a national information policy exists (see definition), all components of health information, and particularly HBI, should properly respond to the requirements and orientations of the national policy. But the existence of such information policy is not a prerequisite to the formulation of HBI policy.

1.4 HBI resources, services, systems

HBI resources include data in textual, numerical, image or sound forms recorded on conventional and non-conventional media; HBI services include provision of information and data through activities such as document delivery, SDI, on-line information interrogation, retrospective searches, etc. An HBI system is composed of information units (databases, libraries, documentation centres, information analysis centres, statistical offices, and human resources) that interact with each other in some consistent pattern.

1.5 Objectives of a HBI policy

The main goal of a national HBI policy is to set up a "strategic vision" for health planners and decision-makers and to improve the HBI plan and to ensure access to, and optimal use of, the health and biomedical knowledge available within the country and elsewhere in the world as a problem-solving resource for national health programmes, i.e. to provide relevant, reliable and timely information at a reasonable cost to all those contributing to the achievement of the national health improvement (researchers, technicians, planners, extension makers, paraprofessionals, etc.).

Its specific aims are to ensure:

a) the preparation and implementation of a plan of action for the establishment of a national HBI system based on existing infrastructures, coordination of the various systems and

services, identification and correction of deficiencies and productive interaction with regional and international health information systems;

b) support to the different components of the national HBI system, including manpower, facilities and technologies through financing and other collaboration arrangements;

c) cohesiveness and sustained growth of the national HBI system by formulating guidelines for assigning areas of responsibilities, choice of means and methods, research programmes, priorities, financial arrangements and coordinating mechanisms in conformity with the country's health development objectives and plans.

2. Procedures for HBI Policy Formulation

(see Annex 5)

a) The national health authorities need to be made aware of the need and advantages of having a national HBI policy for guidance in strengthening national capabilities to adapt and/or produce health information material in order to manage effectively their health information systems and to develop intercountry mechanisms for exchange of information. The initiative could come from the governments, universities, or international organizations. The role of WHO Representatives is particularly important in promoting the concept of HBI policy formulation for the establishment of a coordinated HBI plan.

b) A lead agency/institution or person(s) should be identified and selected to be in charge of setting up a working group for the preparation of a workplan and the implementation of the different steps of this workplan.

c) A need assessment should be undertaken through a comprehensive national survey and should cover:

- the health development sector
- the health information sector
- the health information policies

A checklist of possible sources of information for describing the current situation is given in Annex 6.

Problems and shortcomings will have to be analysed and needs for information activities clearly expressed (policy issues) and assessed, along with actions that will be required to fulfill those needs.

d) A national consultation will be conducted with a view to:

- acquaint the national authorities with the issues involved;
- achieve a national consensus regarding the most relevant themes and elements to be included in a national HBI policy

- and thereof the major implications for their implementation with particular reference to the country's social, economic, cultural and political context;
- set up a national operation follow-up mechanism to ensure the endorsement of the policy statement;
- identify a general strategy which would facilitate and enforce the implementation of the policy.

This consultation may take the form of a national meeting, interviews or questionnaires.

e) The expected output of the consultation will be:

- a general national HBI policy statement (see example in Annex 7);
- a selective list of major issues which need to be incorporated in a plan of action (examples of issues could be: production; dissemination; handling; development of human resources, terminology, technology, etc.);
- a proposal for a HBI policy-making mechanism for the coordination and development of activities related to information resources and services;
- appropriate format and procedure for presenting a national HBI policy to authorities for approval

WORKING GROUP B ON GUIDELINE FORMULATION

Dr Kamel Esseghairi, Rapporteur of Working Group B, presented the draft report of the Group.

The Working Group had focused on methodology to be adopted for (a) national plan formulation and (b) evaluation and analysis of country HBI situation.

The Group had developed an outline of the methodology involved in plan formulation. This is given below, including relevant discussion on the individual points.

Outline of National HBI Plan Formulation Methodology

Step 1. Sensitization on the Need for a Plan

1.1 WHO level

- Having the issue raised during *DG and RD country visits* in the Region ;
- Involvement of the WHO Representative;*
- Briefing of senior national officials* in Alexandria and during *Joint Government/WHO Programme Review Missions (JPRMs)* ;
- In correspondence* to and from WHO;
- Preparation and distribution of promotional material, including a publication drawn from the work of the present meeting*, supplemented by documentation of case studies covering national HBI planning activities carried out in the countries;

- When applicable, WHO could identify national institutes, focal points, non-governmental organizations, etc., and involve them in the "sensitization" process. Of course, the country was entirely responsible for deciding on the composition of any planning group or committee.
- National Planning for HBI should be considered as a "Technical Discussion" item at a future Session of the EMR Regional Committee;
- WHO should promote the idea with other UN agencies;
- WHO should support academic research to be carried out on HBI indicators, as a form of health services research

Comments by Working Group Participants

Among the comments of participants regarding this step, were the following:

- Although in a given country there may be several medical schools and a number of various other health-related institutes (e.g., Ministry of Health, Institute of National Statistics, etc.), the Minister of Health was the overall person responsible for national HBI.
- In some countries WHO should be the "sensitizer", while in others, it should be done by other agencies or people.
- There must be communication and understanding among the various ministries in order to sensitize them to collaborate in the planning process.

1.2 National level

- The participants of this intercountry meeting should act as "sensitizers" in their home countries, vis-à-vis HBI plan formulation.
- The role of country focal points. There are 19 HBI focal points in the 22 Member States of the Region, and it was suggested that the participants should contact these persons upon their return home.
- Intersectoral communication.
- Study tours. The representative of the Islamic Republic of Iran said he would invite participants to observe how HBI was working in his country

Comments by Working Group Participants

- A person was needed at national level to liaise with other ministries.
- Plan formulation should take into account the size of the country and not just its socioeconomic status.

Step 2. Review of guidelines for developing a national plan (by a national group, whenever possible, and with WHO)

Step 3. Appointment of focal point

Step 4. Situation analysis

- Identification of participating institutions and people (multisectoral involvement)
- Review of existing/past country experiences
- Identification of resources (audiovisual, publishing, media)
- Identification of users and usage
- Review of data collected
- Processing, transmission, storage, management

Step 5. Decision to formulate a plan

Step 6. Planning

- Form a planning group
- Review other countries' plans
- Review proposed objectives (WHO and adapting to country situation)
- Contents
 - i) objective setting - goals - specific objectives
 - ii) target setting
 - iii) decide on plan components
- Formulate strategy
- Decide activities
- Develop managerial/information system
- Human resources development
- Appropriate research
- Costing and budgeting

Step 7. Methodology

- Drafting of proposals of activities by relevant component groups
- Incorporate all relevant activities into the national plan
- Submit draft plan to national workshop for refinement/ modification

Step 8. Submit plan for approval and adoption

Step 9. Resource mobilization

Step 10. Implementation

Discussion by Plenary Participants

In the discussions that followed the presentation of Working Group B's report, Dr M. Awamleh, Jordan, questioned the positioning in the sequence of the "decision to make a plan". He felt it was too late in the process, considering the resources that had been expended up to that point. Also, he thought steps 6 through 10 were presented as a part of a classic planning process, rather than a methodology. He also queried the need for a "policy" before undertaking situation analysis, which was in any case a reasonably straightforward piece of research. He felt that the role of NGOs seemed absent, and stressed the responsibility of nationals in selecting focal points and members of the planning group, rather than WHO.

Dr Sulieman, Chairman of Working Group B, was concerned in case bringing the task of policy formulation in before the planning process could start would delay things unduly.

Dr Jardel, ADG/WHO, said that one does not need a policy to conduct situation analysis, but situation analysis is needed before there is a policy. He said there was some overlapping between the proposals of Group A and steps 1-4 of Group B.

The participants agreed that a *Step 11* covering *monitoring, evaluation and reprogramming* should be added to the methodology of national plan formulation.

Dr Montviloff, UNESCO, said that the aim of a policy was to try to put coherence where aims existed, and that budgeting was absolutely necessary.

Dr Shah, Pakistan, asked what measures should be adopted if, as in many countries in the Region, there were budgetary and political constraints related to emergency situations. What happened to national HBI planning in such circumstances?

Mr C. Zielinski, Manager, HBI, EMRO/WHO, noted that the plan was likely to include a relatively large range of activities, and that these would be costly, taken together. He pointed out that, by including budgetary calculations in the plan, this might arouse premature fears among the authorities that the national budget would be expected to cover all the activities. Would it not be preferable to have a plan that invited decisions as to the desirability of the range of objectives and activities proposed, without an explicit specification of costs. The main emphasis after the plan was adopted would then be on fund-raising - national, bi- and multi-lateral donors would be sought (with WHO's assistance if desired). He noted that the big problem in information work was the lack of viable projects to be funded, rather than a lack of sources of funds. A main objective of the national planning process was thus to provide the tools for accurate and effective project writing.

Responding to the participant from Jordan, he recalled that he had outlined a specific detailed methodology in his reply to a question from another participant during the discussions regarding the Iranian National Plan. He proposed that the meeting recommend that a draft of the guidelines on preparation of an HBI national plan be prepared and circulated to all participants as a sequel to the present meeting, and based on the comments made.

There were also questions raised on semantics and a query was made on the definition of a plan versus a plan of action, and a plan versus a programme; to him, the proposed draft plan was more like a programme.

Dr V. Montviloff, UNESCO, agreed that a situation analysis should come first, including a review of existing policies and plans related to health information in all sectors. He noted that the decision to go ahead with situation analysis was in itself a policy statement. Regarding the budget question, he said that a solution could be to include in the national plan an indication where the funds would be sought from. He preferred to call the Plan a Plan of Action. Decision makers should be involved, ideally in the format of a national consultation.

Dr A. Manuila, former Director, HBI/WHO, asked how an HBI plan would relate to the regular budgeting of WHO, including the cycles of Visits of Senior National Officials, Joint Programme Review Missions, and the like. The reply offered was that WHO had its cycles and the countries had theirs (including political/government cycles), and that it was up to WHO to keep track of the best times to promote the planning process, which should relate to the lifespan of a government.

The recommendation was renewed made that research should be carried out into indicators so as to enable the assessment of country information needs. Another recommendation concerned the drawing up in each country of a *Directory of HBI Resources* as one of the results of the situation analysis activity. UNESCO offered to collaborate with WHO in drawing up the contents of such a directory.

Dr Jardel commented that the role of WHO, at the global level, was to try to reflect the commonly approved policies, main priorities and objectives of Member States - collectively. And at the country level, WHO must collaborate with the national plans of its Member States, and these may or may not include WHO inputs. It is up to the WHO Representatives to define with the Member States the ways and means in which WHO can assist. WHO generally provided catalytic input only, and worked to mobilize potential donors. He regarded a country profile as a great help in carrying out a situation analysis.

Dr Nikkar invited the intercountry meeting participants to attend a workshop in Teheran in mid-July 1993.

10. CLOSING SESSION

At the final plenary closing session, copies of the draft report were distributed and discussed. It was agreed that recommendations would subsequently be extracted from the previous days' deliberations. It was stressed that the guidelines, or guiding principles, that the meeting had been convened to develop were contained in the reports of the two working groups. These now needed to be brought together into a set of draft guidelines. This would be done by the Secretariat, and the draft guidelines would be circulated to the participants for comment and amendment, prior to appropriate publication.

The meeting closed with thanks for the Chairman and Rapporteur of the plenary and the Discussion Leaders and Rapporteurs of the Working Groups.

11. RECOMMENDATIONS

1. Guidelines, or guiding principles, on national HBI Policy and Plan formulation should be extracted from the reports of the two working groups by the Secretariat and circulated to the participants for comment and amendment, prior to appropriate publication. (An abbreviated draft is contained in Recommendation 2 below.)

2. The following methodology was recommended to each country for formulating a National HBI Policy and Plan:

1. WHO and HBI focal points should begin sensitization on the need for a National HBI Policy and Plan;
2. A lead agency/institution or person(s) should be identified and selected to be in charge of setting up a working group for the preparation of a workplan and the implementation of the different steps of this workplan.
3. The group should organize a national seminar for top-level managers, members or representatives of the national cabinet and key ministries, etc. to:

- review guidelines for developing a national plan
- acquaint the national authorities with the issues involved;
- achieve a national consensus regarding the most relevant themes and elements to be included in a national HBI policy;
- set up a national operation follow-up mechanism to ensure the endorsement of the policy statement;
- identify a general strategy which would facilitate and enforce the implementation of the policy.
- Decide whether or not to formulate a National HBI Policy and Plan.

4. In respect of HBI Policy formulation, a needs assessment should be undertaken through a comprehensive national survey and should cover the health development sector, the health information sector, and any health information policies.
5. Preparatory to HBI Plan formulation, a situation analysis should be carried out covering all sectors relevant to HBI in the country.
6. Drafting of the National HBI Policy and Plan should be undertaken subsequently.
7. The Plan should be submitted for approval and adoption
8. Resources should be mobilized in support of the Plan, at national, bi- and multilateral levels
9. Implementation of the Plan would then follow
10. Monitoring and evaluation should be carried out periodically. Review and revision of the Plan should then take place as necessary.

3. In order to convince policy-makers about the merits of having a National HBI Policy and Plan, it was recommended that the Regional Director/Director General liaise with officials at the director-general level of the government concerned. At country level, this function should also be carried out between WHO Representative and his/her national counterpart.

4. National Planning for HBI should be considered as a "Technical Discussion" item at a future Session of the EMR Regional Committee.
5. It was suggested that UNESCO and WHO should combine forces in arranging training programmes and coordinating activities at the country level including publications in this area.
6. Each country should draw up a *Directory of HBI Resources* as one of the results of the situation analysis activity. UNESCO will collaborate with WHO in drawing up the contents of such a directory.
7. WHO should support academic research to be carried out on HBI indicators, as a form of health services research. These indicators should permit the monitoring and evaluation of HBI infrastructure and capabilities in countries of the Region, and point to their priority information needs.
8. A study tour should be organized for country representatives in Teheran to observe the development of HBI activities in the context of a national plan, and the new WHO Collaborating Centre for HBI.
9. WHO should prepare and distribute promotional material, including the working papers of the present meeting. A publication could also be drawn from the work of the present meeting, supplemented by documentation of case studies covering national HBI planning activities carried out in the countries.



Annex I

AGENDA

1. Message from the Regional Director
2. Nomination of Chairman and Rapporteur
3. Workshop Methodology and Introduction of Participants
Mr C. Zielinski, Manager, HBI, EMRO
4. National Planning in the Context of a National Information Policy
Dr V. Montviloff, CII, PGI, UNESCO, Paris
Discussion
5. The Evolving Role of HBI in National Health Development
Dr O. Sulieman, WHO Representative, Islamic Republic of Iran
Discussion
6. The Iranian Experience
Dr A. Nikkar, Director, HBI, Department of Research Affairs and
Technical Cooperation, Ministry of Public Health and Medical
Education, Islamic Republic of Iran
Discussion
7. HBI/NHIS Policy Considerations
Dr A. Manuila, former Director, HBI, WHO Geneva
Discussion
8. Working Groups on Guideline Formulation:
 - A. Interrelationships between a) national HBI plan and national
health information system, and b) national information policy

Discussion leader: Dr J.-P. Jardel, Assistant Director-General,
WHO, Geneva
 - B. Methodology to be adopted for a) national plan formulation and
b) evaluation and analysis of country HBI situation (the
development of indicators and comparative assessment tools)

Discussion leader: Dr O. Sulieman, WHO Representative, Islamic
Republic of Iran
10. Reports of Working Groups on Guideline Formulation:

Discussion
11. Adoption of Draft Report

Annex 2

PROGRAMME

Sunday, 14 February 1993

- 08.00 - 08.30 Registration of participants
- 08.30 - 08.50 Message from the Regional Director
- 08.50 - 09.00 Nomination of Chairman and Rapporteur
- 09.00 - 09.30 Introduction of participants and Workshop methodology
Mr. C. Zielinski, Manager, HBI, WHO/EMRO
- 09.30 - 10.00 Break
- 10.00 - 10.30 National Planning in the Context of a National Information Policy.
Mr V. Montviloff, CII, PGI, UNESCO, Paris
- 10.30 - 11.30 *Discussion*
- 11.30 - 12.00 The Evolving Role of HBI in National Health Development
Dr. O. Sulieman, WHO Representative, Islamic Republic of Iran
- Discussion*
- 12.00 - 12.30 Break
- 12.30 - 14.30 Working Groups on Guideline Formulation
- A. Interrelationship between a) national HBI plan and
 national health information systems, and b) national
 information policy
- Discussion leader: Dr J.-P. Jardel, Assistant Director-General,
 WHO, Geneva*
- B. Methodology to be adopted for a) national plan
 formulation and b) evaluation and analysis of country
 HBI situation (the development of indicators and
 comparative assessment tools)
- Discussion leader: Dr O. Sulieman, WHO Representative, Islamic
 Republic of Iran*

Monday, 15 February 1993

- 08.30 - 9.15 The Iranian Experience
*Dr A. Nikkar, Director, HBI, Department of Research Affairs and
Technical Cooperation, Ministry of Public Health and Medical
Education, Islamic Republic of Iran*
- 9.15 - 9.30 *Discussion*
- 9.30 - 10.00 HBI/NHIS Policy Considerations
Dr. A. Manuila, former Director, HBI, WHO Geneva
- 10.00 - 10.15 *Discussion*
- 10.15 - 10.45 Break
- 10.45 - 11.15 Evaluation of Health and Country Biomedical Information Systems
Mr. C. Zielinski, Manager, HBI, WHO/EMRO
- 11.15 - 11.30 *Discussion*
- 11.30 - 12.00 Break
- 12.00 - 14.30 Working Groups on Guideline Formulation

Tuesday, 16 February 1993

- Reports of Working Groups on Guideline Formulation
- 08.30 - 09.00 A. Interrelationships between a) national HBI plan and national health
information system, and b) national information policy
- 09.00 - 09.30 *Discussion*
- 09.30 - 10.00 B. Methodology to be adopted for a) national plan formulation and b)
evaluation and analysis of country HBI situation (the development of
indicators and comparative assessment tools)
- 10.00 - 10.30 *Discussion*
- Break
- In closing Adoption of Draft Report

Annex 3

LIST OF PARTICIPANTS

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FAO Observer, ITALY	Mr Keith Richmond Chief, Editorial Branch, Publications Division Food and Agriculture Organization of the United Nations Rome

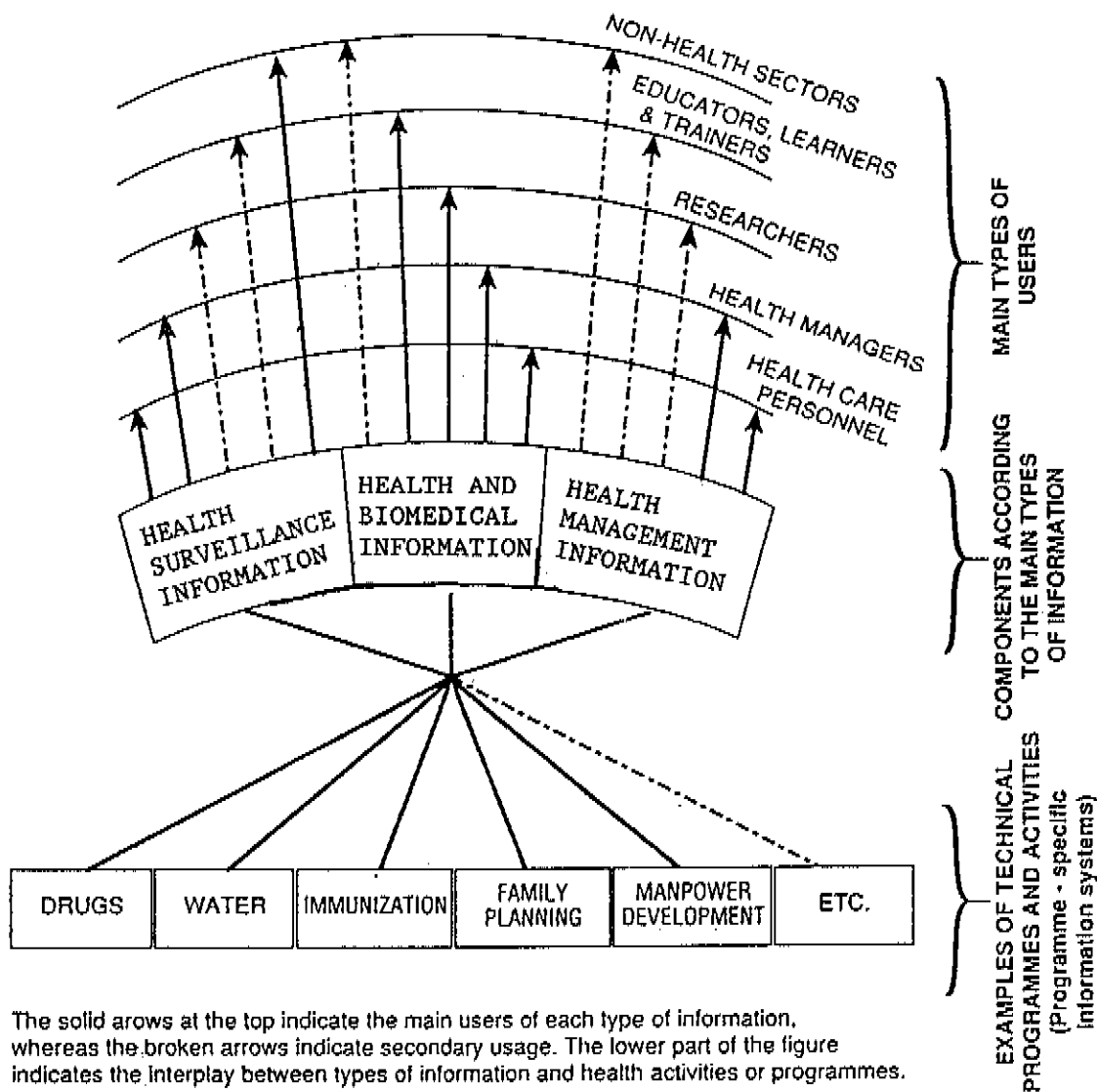
*unable to attend

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Dr A. Manuila	Temporary Adviser Former Director HBI, Geneva
Ms Chong Sheau-Ching	Temporary Adviser (Project Formulator), EMRO
Ms S. Fellows	Editor/Reports Officer, EMRO
Mr J.V. Perumal	Reports Officer, EMRO
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Ms N. Khoury	Administrative Assistant Health & Biomedical Information, EMRO
Ms A. Deukmedjian	Secretary, Health & Biomedical Information, EMRO

Annex 4

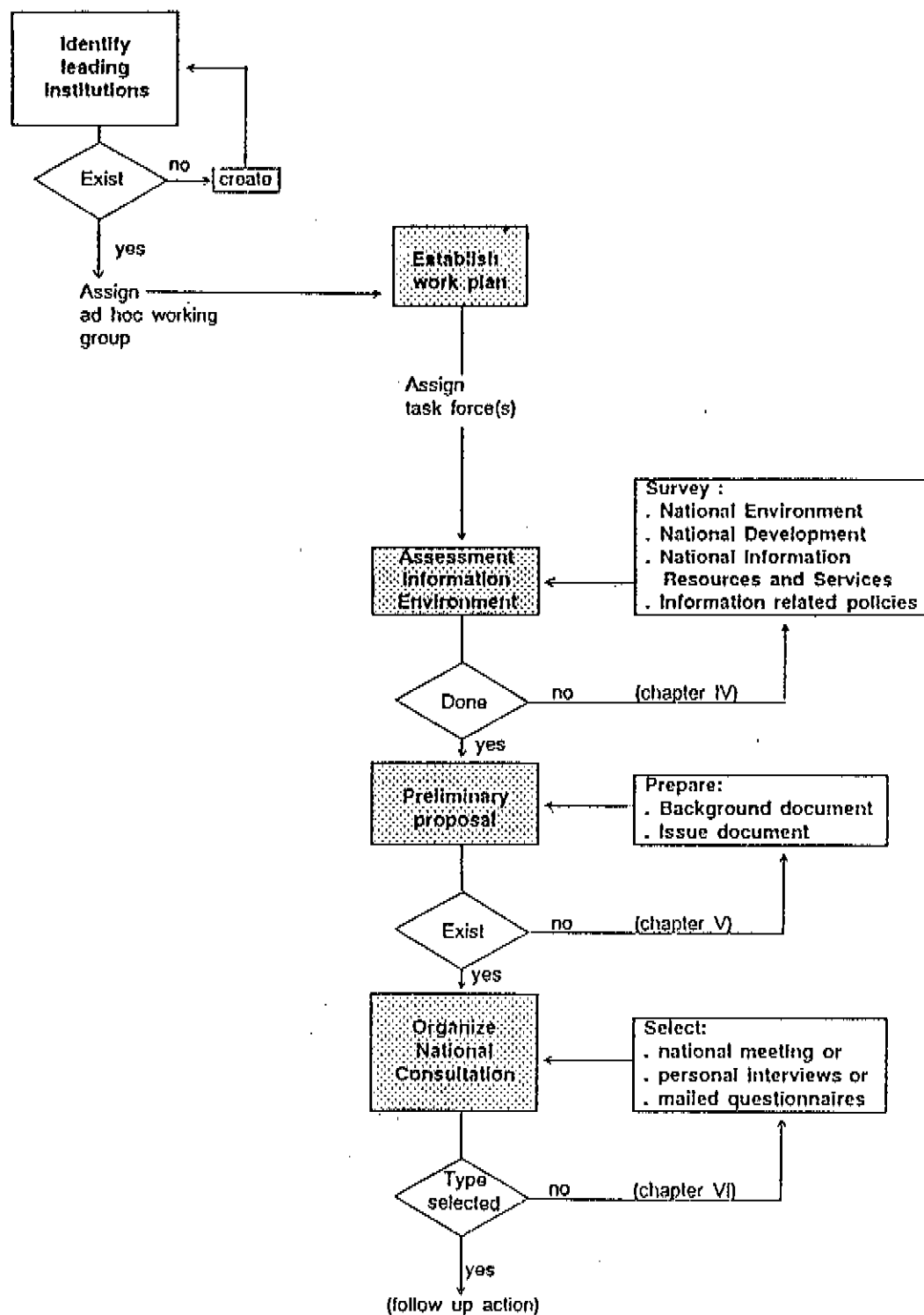
STRUCTURE OF A NATIONAL HEALTH INFORMATION SYSTEM



The solid arrows at the top indicate the main users of each type of information, whereas the broken arrows indicate secondary usage. The lower part of the figure indicates the interplay between types of information and health activities or programmes.

Annex 5

STEPS IN FORMULATING A HEALTH AND BIOMEDICAL INFORMATION POLICY



Annex 6

**EXAMPLE OF A CHECK-LIST FOR SURVEY OF EXISTING
HEALTH AND BIOMEDICAL INFORMATION**

1. Main Health Priorities of the Country
2. Public-sector Infrastructure
 - 2.1 Organization of public health services
 - 2.1.1 Central
 - 2.1.2 Provincial
 - 2.1.3 PHC
 - 2.2 Health and biomedical information in the Ministry of Health
 - 2.3 Other associated ministries/departments
 - 2.3.1 Information
 - 2.3.2 Education
 - 2.3.3 Islamic Affairs and Culture
 - 2.3.4 Communications
3. Academic-sector Infrastructure
 - 3.1 University Faculties of Health
 - 3.2 Intermediate-level training institutions
 - 3.3 Schools for publishing, printing, media, design and library science
4. Private-sector Infrastructure
 - 4.1 Islamic organizations
 - 4.2 Publishers
 - 4.3 Booksellers
 - 4.4 Writers' professional institutions
 - 4.5 Translation services
5. Other Infrastructure
6. Socio-cultural and Political Factors
 - 6.1 Languages
 - 6.2 Religion
 - 6.3 International, regional and sub-regional aspects
 - 6.4 Other factors

Annex 7

EXAMPLE OF A POLICY STATEMENT ON A NATIONAL HEALTH LITERATURE SERVICES POLICY

The following policy statement is not formulated for a specific country. It represents a model which governments may use, adapting it to their respective national situations. Its scope is therefore minimal and limited to the essential administrative and technical elements. Each individual national policy will have to be enriched by the specific details that reflect both the needs and the socio—economic realities of the country.

Preamble

The Government recognizes health literature, in all its forms, as a vital source of information and an essential component of the national health system.

In order to ensure that this information source can be optimally exploited, a National Health Literature Services (HLS) system is set up and maintained.

Objectives

The overall objectives of the HLS system are:

- to make the national and international health literature resources accessible to all health personnel in the country, regardless of their function and location;
- to organize the collection, processing and bibliographic listing of the national health literature;
- to ensure that a representative selection of the international health literature is acquired and made available to the health personnel;
- to set up and operate a cooperative network of health science libraries, documentation and information centres.

Scope and Coverage

The national HLS system comprises all health literature facilities and services in the public sector; health and medical libraries, documentation centres, bibliographic services, data bases, etc. Any such facilities and services in the private sector may also adhere to the system and are encouraged to do so.

The scope of the system embraces the medical and health—related sciences, including the environmental sciences, the behavioural sciences, maternal and child welfare, family planning, toxicology, housing and nutrition.