

PARALLEL SESSION I - SESSION PARALLÈLE I - PARALLELSITZUNG I

CHAIRMAN - PRÉSIDENT - VORSITZENDER

P. WEISS

ROLE OF HEALTH SCIENCE LIBRARIES IN SUPPORT OF
HEALTH SERVICES MANAGEMENT

RÔLE DES BIBLIOTHÈQUES MÉDICALES DANS LA
GESTION DES SERVICES DE SANTÉ

ROLLE DER MEDIZINISCHEN BIBLIOTHEKEN IM
MANAGEMENT VON GESUNDHEITSDIENSTEN

INFORMATION FÜR LEITENDE KADER DES GESUNDHEITSWESENS:
ERFAHRUNGEN DES INSTITUTS FÜR WISSENSCHAFTSINFORMATION
IN DER MEDIZIN

Paul Weiss

Wie in anderen gesellschaftlichen Bereichen, spielen auch im Gesundheitswesen Leitungsprozesse eine wichtige Rolle. Dabei hängt eine effektive Leitung entscheidend von der optimalen Gestaltung der Informationsprozesse ab. Aus diesem Grunde hat daher die WHO für die Verwirklichung der europäischen Regionalstrategie 'Gesundheit für alle bis zum Jahre 2000' als eine der Zielstellungen (Target 35) die Entwicklung nationaler Gesundheitsinformationssysteme vorgesehen.

Allerdings zeigt sich ein Widerspruch: Meist werden unter health information nur solche Informationen verstanden, die den Zustand des jeweiligen Gesundheitswesens (Arbeitskräfte, Ressourcen, Leistungen) bzw. den Gesundheitszustand der jeweiligen Bevölkerung (Gesundheitsstatistik) beschreiben. Solche "inneren" Informationen haben für das strategische Management, die sogenannten policy maker, nur einen begrenzten Wert. Entscheidungen über die zukünftige Entwicklung setzen auch das Vorhandensein von "externen" Informationen voraus, wie z. B. sozialökonomische Daten, aber auch Informationen über die internationale Entwicklung der gesundheitlichen Betreuung und der biomedizinischen Wissenschaften. So können die Erfahrungen anderer Länder bei der Gestaltung des Gesundheitswesens (als Ergebnisse der sogenannten health services research) genutzt werden für die bessere Organisation des eigenen Gesundheitswesens. Vor allem müssen die Erkenntnisse und Fortschritte der internationalen biomedizinischen Wissenschaften und ihre Auswirkungen auf die medizinische Praxis berücksichtigt werden.

Dazu zwei Beispiele:

1. Als die Wissenschaftler in der Lage waren, wirksame Impfstoffe gegen die Poliomyelitis zu produzieren, änderte sich die Bekämpfungsstrategie gegen diese Krankheit komplett: statt der Förderung kurativer und rehabilitativer Maßnahmen spielte nun die Organisation und Durchführung von Impfungen die entscheidende Rolle im Gesundheitswesen.
2. Die rasche Entwicklung der modernen Technologie hat vielfältige Auswirkungen auf die medizinische Praxis, die Organisation des Gesundheitswesens und seine Kosten. Wenn man sich nicht rechtzeitig darauf einstellt, führt das zu kostenspielerigen Disproportionen, wie es in vielen Ländern mit der Computertomographie der Fall war.

Den umfassendsten Zugang zu dem in der Welt vorhandenen Wissen über den biomedizinischen Fortschritt, den Zustand des Gesundheitswesens und die Gesundheitspolitik anderer Länder stellt die wissenschaftliche Literatur dar. Ihre Nutzung ist daher ein wichtiger Weg, Leitungsprozesse im Gesundheitswesen zu unterstützen. Die Erfahrungen in vielen Ländern zeigen aber, daß für die Informationsaufnahme der Leiter die Literatur eine untergeordnete Rolle spielt. Ursachen dafür sind:

- der größte Teil wissenschaftlicher Publikationen ist Teil der wissenschaftlichen Kommunikation zwischen Forschern und spricht den Leiter aufgrund der fachspezifischen Details nicht an;
- die große Zahl wissenschaftlicher Publikationen und die mangelnde Selektivität der Informationsströme erschwert den Zugang zu relevanten Informationen;
- der für Leiter typische Zeitmangel, die Sprachbarriere, aber auch das fehlende Bewußtmachen der eigenen Informationsbedürfnisse senken ihre Motivation zum Lesen wissenschaftlicher Literatur.

Eine Verbesserung der Versorgung leitender Kader mit wissenschaftlichen Informationen kann auf mehreren Wegen erreicht werden, so z. B.

- durch eine auf die Bedürfnisse der Leiter zugeschnittene Bibliotheksarbeit (Aufbau relevanter Bestände, aktiver Service, ständige Beratung);
- durch Aufbau oder Nutzung vorhandener automatisierter Informationsrecherchesysteme, die speziell leitungsrelevante Literatur nachweisen (z. B. HECLINET, HELMIS, HEALTH).

Die damit mögliche Bereitstellung relevanter Literatur stellt aber nur eine, wenn auch wichtige Basisform der Unterstützung der Leiter dar. Ihr Wert ist vor allem dadurch begrenzt, daß die bereitgestellten Publikationen thematisch und inhaltlich Ballast enthalten (relevant ist nicht gleich wichtig und nützlich!), sowie fachlich und sprachlich oft schwer verständlich sind, so daß ihre Erschließung vom Leiter intellektuellen und zeitlichen Aufwand erfordert. Die Bereitschaft der Leiter zur Aufnahme von Informationen ist aber nur vorhanden, wenn diese ihren Informationsbedürfnissen entsprechen, d. h.

- die Thematik der Information muß relevant für Funktion oder Aufgabe sein;
- die Information muß eine bestimmte Qualität haben (wichtig, verlässlich, aktuell, von prognostischer Bedeutung);
- die Information muß in verdichteter und gleichzeitig verständlicher Form dargeboten werden.

Solche leiterspezifischen Informationen setzen eine "intellektuelle" Informationsverarbeitung voraus, deren Wesen darin besteht, einerseits die erforderliche Qualität der Information zu gewährleisten und andererseits das Überangebot an Informationen quantitativ entscheidend zu reduzieren. Diesen Service bieten spezielle Informationsdienste für leitende Kader des Gesundheitswesens, wie sie z. B. am VNIIMI in Moskau, am CNIMZ in Sofia und am IWIM in Berlin betrieben werden.

Grundlage der Leitungsinformationen des IWIM, die im folgenden vorgestellt werden soll, bildet die Auswertung folgender Informationsquellen: ca. 200 nationale und größtenteils internationale Zeitschriften, dazu Zeitungen, Kongreß- und Reiseberichte, WHO-Publikationen. Eine Analyse der ausgewerteten Zeitschriften zeigt, daß sich eine Gruppe von Kernzeitschriften identifizieren läßt, in denen besonders häufig leitungsrelevante Informationen enthalten sind. Ein Vergleich der von verschiedenen europäischen Informationsdiensten ausgewerteten Zeitschriften zeigt außerdem, daß sich auch hierbei Kernzeitschriften erkennen lassen, die von mehreren Institutionen gleichermaßen hoch eingeschätzt werden. Diese Untersuchungen werden gemeinsam mit dem WHO-Regionalbüro in Europa fortgesetzt werden, um so möglicherweise zu einer empfehlenden Liste zu kommen.

Die eben erwähnte intellektuelle Informationsverarbeitung der Informationsquellen durch Informationsspezialisten mit medizinischer Bildung ist ein mehrstufiger Prozeß: Durchsicht aller Informationsquellen - Selektion relevanter Publikationen - kritische Prüfung des Inhaltes - Extraktion der wichtigen Informationen und Daten - Erarbeitung von Referaten oder synthetischen Informationen (z. B. Minireviews).

Diese laufende Überwachung des aktuellen Schrifttums bildet die Grundlage für einen Current Awareness Service, den es in drei Formen gibt:

1. Referatedienst:

25 bis 30 Karten pro Monat mit ausführlichen Referaten zu den Problemkreisen Gesundheitspolitik, Organisation des Gesundheitswesens, Hygiene, medizinische Probleme, Fragen der Leitungstätigkeit. Diese Informationen werden ohne Selektion an ca. 200 leitende Mitarbeiter des Gesundheitswesens der DDR (Ministerium für Gesundheitswesen, zentrale Institutionen und Organisationen, Bezirksärzte) geschickt.

2. "Sonderinformationen":

Minireviews oder Übersetzungen zu besonders wichtigen Themen, die selektiv nur an ausgewählte Nutzer aus dem oben genannten Empfängerkreis geschickt werden.

3. Forschungsleitungsinformationen:

Ausgewählte Informationen über die neuesten Entwicklungen in der internationalen biomedizinischen Forschung für leitende Kader der medizinischen Wissenschaft.

Die Auswahl der Informationen für den Current Awareness Service, bei dem allgemeingültige Hintergrundinformationen den Vorzug haben vor spezifischen Informationen, erfolgt auf der Grundlage des sogenannten objektiven Informationsbedarfs, der sich aus den Schwerpunkten der nationalen Gesundheitspolitik ergibt. Eine enge Zusammenarbeit mit den Leitern sichert die ständige Anpassung an deren Bedürfnisse.

Während der Current Awareness Service vor allem dazu dient, die Informiertheit der Leiter in bezug auf ihre Funktion zu verbessern, hat der on-demand-Service direkten Bezug zu spezifischen Aufgaben. Dabei lösen konkrete Anfragen der Leiter die Durchführung von bibliographischen Recherchen, Sachauskünften und die Bereitstellung gewünschter Literatur aus. Besonders anspruchsvoll sind Auftragsstudien, die den internationalen Stand zu einem spezifischen Problem umfassend und kritisch darstellen.

Die Bilanz der Information für leitende Kader, die seit 15 Jahren erarbeitet werden, ist erfolgreich. Unsere Erfahrungen mit diesem Informationsdienst zeigen, daß es möglich ist, leitende Kader des Gesundheitswesens zu ihrer Zufriedenheit mit wissenschaftlichen Informationen zu versorgen und damit die wissenschaftliche Literatur zu einem Bestandteil des nationalen Gesundheitsinformationssystems zu machen.

INFORMATION FOR TOP EXECUTIVES IN THE HEALTH FIELD.
EXPERIENCES OF THE INSTITUTE FOR SCIENTIFIC INFORMATION
IN MEDICINE

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ABSTRACT

In the field of health, management processes play a major role. The best management needs the best information. Most management information systems are based on "inside" information (for example, health statistics). Strategic management, however, needs "external" information (as, for example, on the development of biomedical science, or the international development of medical care).

The most important source of such information is scientific literature. However up to the present it has been relatively little used by managers. An effective way of improving information available to managers would be the development of a special information service, which is particularly concerned with the information needs of this user group (relevance, quality and quantity of the information provided).

ISIM has been providing such an information service for top executives in the health field for 15 years. The management information is based on the evaluation of approximately 200 newspapers and periodicals, and other information sources, by information specialists. The most important product of the intellectual information processing is a Current Awareness Service in three forms : monthly reference service, "Special information" and research management information. These services are complemented by an on demand service (research, studies).

COLLABORATION FOR PLANNING IN THE BRITISH NATIONAL HEALTH SERVICE

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The British National Health Service (NHS) delivers free medical care to citizens by means of very many diverse but coordinated agencies. Health care is planned at the district level according to local requirements. Regional health authorities exist to coordinate these activities and provide some common services to district health authorities; while the state and paymaster, through the agency of the Department of Health and Social Security (DHSS), decrees the broad constraints and policies to which health care agencies must conform. Democratic control is exercised by elected members of health authorities. The 'three tier' structure is characterised by the independence of its parts, resulting in discrepancies in provision of services between authorities. The community physician, a doctor with supplementary specialised training, contributes medical and epidemiological expertise to the local planning process at regional and district levels. His or her commitment to the 'promotion of health' signifies responsibility for the present and future health of the whole community, rather than merely to those who have already presented identifiable health problems.

Financial stringency perpetuates an emphasis on the efficiency rather than the effectiveness of health services. Health service organisations respond to the expressed demand for health care and are obliged to make recurrent economies in the cost of services. Thus, for health service managers, 'information' means operational statistics rather than the analyses of need and evaluations of care that are the proper concern of the community physician. Computing technology is employed on a large scale for the processing of this information, and computing specialists and statisticians are likely to be integrated in the planning process; while the major role of librarians is the support of medical education, and they suffer relatively poor salaries, career structures and prestige.

A research project into the information needs of community medicine was conducted at the University of Southampton.[1] Enquiry was by a postal survey of national health service community physicians and academics in community medicine in the UK in 1984, and obtained a 75% response. Respondents were characterised by a wide range of responsibilities in the areas of health service planning, screening, health education, and epidemiological study.

Information regarding the age and sex structure of the population and the provision of services in the area to be served proved to be of principal importance. Respondents were also concerned about positive health measures, such as immunisation uptake and control of infectious disease, and about the health experience of the population. In this last respect morbidity was a major problem. For the community physician measuring of morbidity is a prior condition for describing outcome and hence evaluation of the effectiveness of health care strategies. Morbidity is related to individual well-being and to performance at work and is a predictor of the demand for health services. It

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may, however, be perceived by individual and physician as untreatable; it suffers major problems of definition when attempts are made to record it; and it lacks coordination of such records as do exist, for example handicap registers. Some subjects in the areas of health experience and positive health indicators (such as nutritional status and measures of individuals' satisfaction with health) displayed low consensus regarding their importance while causing especial difficulty in the obtaining of information for those who thought them vital.

This discrepancy between the need for, and provision of, local information obliged community physicians to conduct their own researches. A majority had been involved in the planning or execution of a survey of health needs or provisions within the authority during the previous year. It may be speculated that the information resulting from these researches would have been of interest to colleagues in other areas if they had known about them. A wide range of health service record systems was used for research purposes, but frequently proved unsatisfactory because they had not been designed for those purposes.

Small computers were available to the majority, and 53% used them for statistical purposes. That 271 brand names were mentioned reflects the local independence and lack of cohesion in health service policy. Joint planning activities with local authorities (which provide care for elderly and handicapped people, social services, well-baby and family planning clinics) are a major part of the community medicine role. Many respondents received some information support, such as background reading or access to information services, from local authorities.

Dissemination of information is also an important aspect of the role. Community physicians and academics are both suppliers and recipients of information to and from external organisations, are involved in education within the health service, and explain matters to the public at large.

A need was shown for information about innovations and progress in community medicine, but identifying and obtaining studies by foreign and international organisations presented special difficulties. While obliged to carry out the policies of local health authorities, only half the respondents confirmed that they had access to indexes of health authority minutes.

Epidemiology was the chief subject area for reading. The greatest problem in identifying and obtaining what they wanted to read was experienced by those who thought that reading in technology, and especially computing, was important to their work. This subject is characterised by its speed of development and by dissemination of information by non-conventional means, and is not a major subject for a medical library.

Document collections at the work-place were customary. 51% of community physician respondents had access to an indexed collection and 37% of the indexers were librarians. The usefulness of conventional medical libraries must be questioned by the very wide range of subject interests in community medicine. Respondents were reluctant to criticise libraries and librarians, yet when considering a problem in an unfamiliar subject were most likely to make their first approach for information to a medical specialist or colleague. Library services were unimportant as means of identifying documents used and only 11% of community physicians obtained cited documents through libraries. Because of the wide dispersal of resources 76% of community physicians favoured the proposal of a directory of information resources in community medicine; current awareness services and regular bibliographies were also favoured by a majority.

Statistical information is required to compare local with national and international problems and trends, and as has been shown includes epidemiology and health-related behaviour, as well as population studies and statistics concerned more narrowly with the management of health services. A report commissioned by the Commission of the European Communities has recommended the creation of a European Communities epidemiological resource and advice centre which would act as an information resource for statistics and reports, as well as promoting training and research.[2] This represents an example as to how librarians and statisticians might fruitfully work together with the planners of health services to exploit existing information.

At the local level cooperation of this kind can ensure that resources are coordinated, for example by major indexes, and that information obtained for users may be interpreted and presented according to their requirements. Those planning surveys may be assisted to obtain a comprehensive overview of existing work as well as the background, or theoretical knowledge, which enables them to formulate good questions; while information users in general should be kept up to date and aware of broad issues. Such a service should assist the cross-fertilisation of ideas which is necessary to ensure that health services are planned according to real rather than expressed need. At the present time professional statisticians are more scarce at the district level than are professional librarians, and the enquiry showed a demand among community physicians for their services. New forms of collaboration between statisticians and librarians might strengthen both professions and enhance working conditions.

These suggestions regarding coordination echo the proposals resulting from dialogue between the DHSS and information providers in 1982. *Converting data into information* recommended that all authorities should provide access to an information service, which should be a repository of statistical data collected both within the district and by other agencies. It would facilitate comparisons with the performance of other districts; provide a library of internal and external policy and planning documents and research data; have capability for *ad hoc* studies and analyses of statistical data; and be able to extract and present information from both documentary and statistical sources in accordance with needs of management, and to an appropriate timetable.[3]

A research project reported in the same year into the information needs for planning and management of an area health authority.[4] It recommended that authorities should develop an integrated information service and library for planning and management purposes, combining locally collected data with published literature, and that indexing systems should be used for storage and retrieval. The CORMORANT microcomputer system subsequently developed for Cambridge District Health Authority's information service* permits search of eight linked databases of books and journal articles, press cuttings, statutory returns of data from the authority to the DHSS, information contained within the authority's filing system, statistical publications of the regional health authority, an index to the authority's own statistics, information from authority minutes and DHSS policy circulars.

Northampton District has since 1979 provided a district information service in which librarians and statisticians work together to support management functions. Ealing Health Authority now provides a district information library to furnish managers with information for their reports and make available computing and information skills to help them clarify their ideas and proposals for new information services.[5]

A further development proposed by Tabor is the establishment of an interactive information system for community medicine and related fields.[6] Viewdata would be used for a directory which would either provide the source of the information needed or the actual information. Search protocols should be

suitable for both naive and sophisticated users and software should be as far as possible 'hardware independent' to cater for the diversity of information systems within the NHS. The high cost of such a system is justified in terms of the benefits of coordination to avoid duplication of effort.

This is to address the heart of the problem. Coordination presents a challenge of great magnitude, but without it dispersed information systems prepared to different standards will proliferate and remain unknown to the majority. There must be an incidental advantage to the status, and indeed power, of our profession if librarians take initiative in this matter.

FOOTNOTES

* Area health authorities disappeared in the 1981-2 reorganisation of the NHS.

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SOME AIMS AND PURPOSES OF THE SERVICES FOR SCIENTIFIC
MEDICAL INFORMATION AND DOCUMENTATION RELATING TO
MEDICAL RESEARCH AND PUBLIC HEALTH MANAGEMENT

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Certain aims and purposes of the services for scientific medical information and documentation relating to medical research and public health management, attract notice. They ensue from:

- the role of medicine in modern society;
- the intensive cross-sector relations of medicine to other sciences and of public health to other social systems;
- the intensive implementation of up-to-date technologies in medicine;
- the necessity of working out realistic prognoses and efficient programmes so as to ensure the strategic aims of medical research and of the entire public health system.

The services for scientific medical information and documentation are entrusted with highly responsible tasks as the efficiency of medical research management and the consecutive realization of the goals of public health depend on them.

The experience of the Centre for Scientific Medical Information and Documentation with the Medical Academy in Sofia has yet again proved the importance of information differentiation according to the level and aims of management.

Along these lines three levels of information are differentiated: national, district and local.

The information required at the highest managerial level, i.e. at the national level, is of a strategic character, while the information needed at the lower managerial levels, i.e. at the district and local levels, is of an operative character. Strategic information must cover the new fundamental research ideas and methods, discover blank spaces in science, elucidate the prospective trends in medical research and practice and pave the way for the consistent realization of ideas by throwing a bridge from the present to the future. Operative information must cover comprehensive data about the new approaches, methods and equipments relating to diagnostics, prevention, treatment and rehabilitation, thus keeping medical practice abreast of the latest achievements in medicine, and improving its quality.

Besides the two types of information described, a third type, the so-called control information is vital to medical research and public health management. It makes possible to judge research plans and public health programmes by their correspondance to the up-to-date level and the latest achievements in medicine. This information is particularly significant to research, since it

reduces risks of research duplication and redundancy, and of the blueprinting and implementation, by neglecting scientific achievements, of public health programmes with a limited medical, social, and economic effect.

A basic task of health information and documentation services is to meet the information needs of the managers of medical science and practice and of public health by supplying strategic, operative and control information. The adequate fulfilment of this task depends on the adoption of a problem-oriented, specific and comprehensive approach and the improvement of the service organization.

In the first place, it is necessary to adapt the relatively stable and traditional structures and functions of the information and documentation services to the dynamism of medical research and of contemporary medicine in general, focusing on the problems whose solution will lead to an advance in medical science and practice. This can be achieved by the selective strategy of research planning necessitating information differentiation by priority and significance.

The approach essential to this strategy includes:

1. A priority in providing information to specialized research teams and to the managerial bodies of the national health programmes.
2. The improvement and differentiation of the structure of information and documentation services and the functions of their personnel entrusted with supplementary and specific tasks linked to specialized research teams, and demanding systematic contact with them.
3. The creation of specialized data banks that are problem-oriented so as to provide timely and relevant information in the respective areas.
4. The stimulation of the research workers' information knowledge, since the efficiency of the information process depends on the efficiency of the two parties involved in its realization - research and information workers.
5. The improvement of information collection, processing, multiplication, provision and dissemination processes through an wide computer network.
6. The promotion of the access to foreign data banks.

The realization of this approach has to be put on a sound theoretic basis proceeding from information system analysis. This analysis has to provide possibilities for assessing:

- the potential of the existing information and documentation services of reflecting the trends in medicine, of suggesting ideas to research workers and of revealing problem areas;
- the changes in the structure of information and documentation indicating the necessary modifications of research tactics;
- the ways of constructing high-capacity information models which, in turn, will reduce indefinite results, increase information semantic content and obtain a higher rate of rational solutions.

The role of scientific medical information and documentation is constantly growing as a result of the rapid development of science and its impact on practice. The efficiency of research in public health management depends on

the methods of organization and equipment of the information services within the framework of an integral and unified system. The integrity of all managerial structures and levels and of all information activities is a prerequisite to the development of an efficient and economical information system.

These activities of the national services for medical information and documentation also demand close international collaboration, which will contribute to their effort towards promoting a higher information level.

STATISTICAL DOCUMENTATION:
USE IN ASSESSMENT OF HEALTH PROGRESS IN THE EUROPEAN REGION

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The status and nature of the statistical information available for assessment of progress towards the targets adopted by the countries of the European Region of WHO as part of the regional strategy for health for all are reviewed, and the main gaps in this information, are identified, particularly as regards equity.

Revue des sources d'information statistique disponibles pour l'évaluation des progrès accomplis par les pays membres de la Région européenne de l'Organisation mondiale de la Santé et des principales déficiences en matière d'information sanitaire, particulièrement en ce qui concerne l'équité en matière de santé.

1. INTRODUCTION

In 1984, the Member States of the European Region of the World Health Organization adopted a common regional strategy towards the attainment of the goal of health for all [1], which listed 38 targets to be attained between 1990 and 2000. The first and main emphasis of this strategy lies in reducing the inequalities in health status and health resources between the countries of the region and within the countries themselves; the strategy covers areas such as health status, the promotion of healthy lifestyles, environmental aspects of health, and the types of health services and support services needed to reach the goal of health for all in the Region. Target 35 deals with information and states:

Before 1990, Member States should have health information systems capable of supporting their national strategies for health for all."

Increasingly, therefore, documentation will have to be relevant in helping to identify, spell out, and assess the health policies and programmes defined and undertaken by a country.

*The views expressed here are those of the author and do not necessarily represent the decisions or the stated policy of the World Health Organization.

This is something that librarians in Ministries of Health or health documentation institutes have been doing for a long time, often without stating it in those terms. In order to develop common guidelines to define problems, identify possible solutions, and assess progress towards these solutions, the Member States of the European Region of WHO have elaborated and accepted a list of indicators corresponding to the 38 regional targets. The criteria for indicators for health for all are the following:

- the indicator should relate to one of the 38 regional targets;
- the terms used in the wording of the indicator should be clear and unequivocal;
- it should be clear how trends in the indicator or in groups of inter-related indicators should be interpreted, i.e. it should be possible to state unequivocally whether a change in the indicator value indicates progress towards or away from the regional target concerned;
- the indicators should be such that data of suitable quality can be obtained at regular intervals in order to permit trend assessment; there will, of course, be exceptions to this in the case of indicators relating to areas where suitable measurement tools are still at an early stage of development (disability is one such area).

Some indicators include information on the existence of legislation, policies, programmes aimed at attaining a target, or facilitating attainment thereof, ("non-quantitative" indicators); although very useful in identifying areas in which improvements are needed, these indicators present problems of definition, analysis and interpretation and are outside the scope of this paper. The quantitative indicators proposed to the Member States for the assessment of their own progress towards health for all measure an item of health status, resources, lifestyle or environment, and represent the area of health statistics *stricto sensu*. They are summarised in Table I, and constitute a basis for the recent self-assessment by the Member States of the region on national progress and of progress in the Region as a whole towards health for all [2].

2. SOURCES OF STATISTICAL INFORMATION

The documentation of values for quantitative indicators is based on health statistics. At national level, official statistical yearbooks are published by most countries and provide basic information on population and resources. Although these data may be disaggregated by geographical or administrative region (thus providing some information on the distribution of resources) they rarely provide the type of information which is increasingly needed in order to assess equity of distribution, e.g., information on the distribution of resources between primary health care and other types of health services, or use of health resources by the various socioeconomic strata of the population.

2.1 Mortality, morbidity and disability - health status.

In the European Region, mortality data are usually complete and fairly up-to-date (about three years old in most countries). Published information may not always include details on ranges of values between administrative, geographical, or socioeconomic divisions of the population. The data are consolidated

Table I

QUANTITATIVE INDICATORS FOR MONITORING PROGRESS TOWARDS HEALTH FOR ALLReducing/Eliminating disease & disability (Regional Targets 2-5)

incidence of various diseases - tuberculosis, intestinal infections, viral hepatitis, sexually transmitted diseases, influenza, congenital rubella, measles, indigenous malaria, diphtheria, tetanus, poliomyelitis, congenital syphilis, neonatal tetanus; self-perception of health status; measurement of disability in the community; expectation of life free from disability; incidence/prevalence of disabling conditions; dental health; congenital disorders

Life expectancy at birth and different ages (Regional Target 6)Infant mortality, maternal mortality (Regional Targets 7-8)Cause-specific mortality and morbidity (Regional Targets 9-12)

diseases of the circulatory system, ischaemic heart diseases, cerebrovascular diseases, all malignant neoplasms, lung cancer, cancer of cervix uteri, all external causes, motor vehicle traffic accidents, suicide

Healthy behaviour (Regional Targets 13 - 17)

literacy rate in the adult population; social contact; time devoted to physical exercise and health education; tobacco consumption; average daily intake of calories, proteins, lipids, carbohydrates; % of newborn with a weight above 2500 grammes; breastfeeding; alcohol consumption and alcohol-related pathology; drug consumption; homicide and purposeful injury

Environmental health (Regional Targets 18-25)

% of population with access to safe water and adequate sanitary facilities; occupational diseases; outbreaks of food poisoning, major toxic accidents

System based on primary health care (Regional Targets 26-31)

% of population with access to primary health care services, % of national health expenditure devoted to local health care, staff to population ratios, distribution of personnel between types of health care, % of children immunized, contraceptive use

Resource allocation (Regional Targets 32-38)

% of public health expenditure spent on research, % of gross national product spent on health, gross national product per capita

Demographic data

by WHO in the World Health Statistics Annual, with a time-lag of from three to seven years for countries of the Region; the latest issue [3] contains data as recent as 1983. The annual provides historical data from 1950 onwards. These data are available in machine-readable form from WHO headquarters in Geneva; studies on special items appear in the World Health Statistics Quarterly [4].

Information on morbidity is plagued with problems of definition: for sexually transmitted diseases, for instance, the number of disease entities covered ranges from two to six. Completeness in reporting is another problem. Official figures for diseases such as measles and pertussis, to name but those, often bear a very tenuous relation to reality. Several countries increasingly have recourse to a different approach for information on morbidity, the "sentinel-reporting" approach, where selected "sentinel" physicians are used to report as completely as possible on the community they serve [5]. This approach is now used in the Netherlands, Switzerland, Belgium and to some extent in France and in the United Kingdom, and reports from these "sentinel" schemes may increase the reliability of morbidity statistics. Disability statistics are even more fragmented. A recent WHO classification [6] provides a framework for the definition of disabilities, impairments and handicaps, and this should assist in the measurement of these conditions, and in the assessment of their trends. Many countries in the Region, i.a. Czechoslovakia, Netherlands, France, and the Federal Republic of Germany, have started an investigation of disability in their populations; the level of official information routinely available varies considerably from one country to another, but is usually low: in the recent evaluation exercise [2] only eight countries provided information through their Ministries of Health on the proportion of disabled persons in the community. Other measures of disability such as assessment of independence in activities of daily living (three countries), or proxy indicators such as absenteeism at work (nine countries) were likewise scarce. For sixteen countries out of 32, no official population-based statistics on disability were given.

Information on health status can be obtained through a combination of the three types of information (mortality, morbidity, disability). This can lead to synthetic indices of health status, which are often restricted to articles in learned journals and rarely appear in routine statistics. A concept such as "years of life lost through premature death" was reported on in four countries only; others, such as "expectation of life free from disability" are not yet part of routine statistics.

Several countries provide information on values of health status by geographical area, and these types of statistics can provide a proxy measurement of equity in health status. More rarely, data disaggregated according to socio-economic status appear in routine statistics. The best established example of such disaggregated data is the record of occupational mortality published in the United Kingdom, the most recent issue of which includes several thousands of tables and provides epidemiologists and health planners with many opportunities for analysis. Other countries have undertaken nationwide or limited investigations in this area (the Netherlands, the Nordic countries, France, and Hungary being only a few examples), and this type of analysis should increasingly occur in official statistics as concern for the political issue of equity in health grows.

2.2 Lifestyles

Appropriate indicators for these elements are still limited. Even such items of information as nutrition, tobacco and alcohol consumption are fraught with definition problems, and figures found in national publications are sometimes quite different from those arrived at in the international sources developed by FAO, or by the tobacco and alcohol trades [7, 8]. Information on illicit drug use, not surprisingly, is quasi non-existent in health statistics. For indicators relating to physical activity, self-perception of health, development of health education programmes, violent behaviour, social support and other areas of lifestyle related to health, information is very limited (two to five countries in the recent evaluation), and the data are often presented in such a way that they can be compared neither between different countries nor within a country over time to yield information on trends.

2.3 Environmental health

Whereas statistics related to environment as such (air and water pollution, ionizing radiation, housing) are not readily available in health-related publications, they may be found in national publications relating to environment. The responsibility for environmental matters at national level is often shared between several ministries, and the relevant documentation is correspondingly scattered. Environmental health presents the special problem that quantitative factors have yet to be identified; the indicators currently proposed by WHO include proportion of population using water complying with international guidelines for water quality (six countries answered), occurrence of outbreaks of food poisoning and major chemical accidents (problems of definition and of reporting limit the usefulness of the latter and only eight countries provided information on one or the other, three reporting on both), and the incidence of traffic accidents (ten countries); the latter information is often available from sources other than ministry of health statistics, with reporting problems similar to, but often worse than, those of morbidity data. Accidents at home and at work (six countries) are even more sparsely covered in routine statistics. Seven countries provided information on the occurrence of occupational diseases; one problem is the comparability of information, each country having its own definition of occupational diseases. Only two indicators (availability of water supply and of sanitation facilities) yield routine information for a significant number of countries, often with little information on disaggregation of values within a given country.

For both categories of indicators (environmental health and lifestyles), appropriate indicators will first have to be developed before countries can provide relevant and consistent answers. Mention must be made here of two recent publications [9, 10] which provide standardised and comparable answers for the countries of OECD. Investigations undertaken by other organisations such as the European Economic Community (EEC), the Council for Mutual Economic Assistance (CMEA), the Medical Statistics Commission for the Nordic Countries (NOMESCO), and the Council of Europe, will increasingly provide sources for assessment in these fields.

2.4 Health resources

These are usually well covered in national statistics and the fact that definitions of terms such as physician, nurse, hospital bed, are not standardised

among various countries does not necessarily affect the validity of these data for assessment of trends within one country. It does, however, affect the validity of intercountry comparisons; this is one of the reasons why WHO has ceased to include information on manpower and resources systematically in the World Health Statistics Annual. National statistics sources, which are often geared to the description of resource utilisation, often provide adequate information on the distribution of these resources between the administrative and geographical divisions of the country, but it is in general not easy to find information on resource distribution according to the type of services provided or according to the socioeconomic status of the populations served: in the recent evaluation exercise, whereas sixteen countries quoted a range of 15% to 50% of health expenditure devoted to local health care, only eight provided information on distribution of personnel between primary and other types of health care; for some categories of personnel, this number fell to three. National average values for coverage by services such as prenatal and child care and immunizations are generally high, indicating good overall coverage; however, information on differential coverage of the less well covered segments of the population can often only be found in journal articles or monographs. Similarly, available information is usually not geared to provide an answer to questions such as the proportion of resources spent on research (five countries replied), and these types of indicators remain unavailable in the majority of cases. Only ten countries routinely provided answers on one or the other of the indicators on the quality of services (Table II).

Table II Indicators of quality of care

Nr	Description	Nr of Replies
31.2	Incidence of accidental poisoning by pharmaceuticals or biologicals	5
31.3	Mortality due to appendicitis / Mortality due to hernia	9
31.2	Incidence of nosocomial infections	4

3 CONCLUSION

Among the indicators selected by the Member States of the Region to measure their progress towards health for all, standardized, reliable information exists mainly for mortality indicators. For morbidity, disability, and resources, problems of definition affect the quality of the data. In most other areas (lifestyles, environmental health, analysis of service provision and use) routinely available information is not satisfactory and international comparisons or trend analyses are always difficult. One particularly important gap is that of equity in health. The growing importance of this topic in the scientific literature on planning of health care is not yet reflected in official statistics (despite the possible usefulness of proxy indicators of disaggregation by geographical and administrative divisions). Disaggregation of data according to parameters of socioeconomic status will undoubtedly entail methodological and even political difficulties; nevertheless, the problem of suitable indicators for equity in health will have to be addressed in future if health information is effectively to address and support the development of national and regional strategies for health for all.

4 ACKNOWLEDGMENTS

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THE ACTION OF THE ITALIAN LIBRARY ASSOCIATION IN THE FIELD OF GREY LITERATURE AS RELEVANT TO HEALTH CARE MANAGEMENT

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Grey Literature (GL) provides the earliest information on much current research and in some cases, remains the only source of information. In order to improve the practice of collection and production of GL at national level and to give some support to the SIGLE programme, the Study Group on GL of the Italian Library Association is carrying on a survey for the identification of both the Italian producers of GL and the collections of this literature in libraries and documentation centers. A Subgroup for Public Health GL has been established for the survey in this field, which includes health care planning and management.

1. GREY LITERATURE: A NEW MEDIUM OF COMMUNICATION

In medicine, in general, there is a long-standing tradition of publication in the conventional literature, but where the pace of investigation and achievement is at its most rapid (in particular the in biomedical fields such as cancer research, aerospace medicine, epidemiology and pharmacology), communication has found its own way by means of personal contacts (in letters and telephone talks between colleagues in the so-called "invisible college", but in this stage the information is private and known only to a few) and through technical and research reports, i.e. grey literature. We note that documentation in almost every field is, nowadays, mainly based on grey literature that is going to be considered as a form of primary communication.

This is true also for health care planning and management, which must provide the appropriate care at the right time, on the basis of the best scientific knowledge and experiences gained within a range of different fields. We know that research builds on research, on which policy decisions are based, and researchers need access to the past research and much more to the current one.

Some fields such as health care planning and management imply a more integrated relationship between users and providers of health care, decision-makers and researchers. They need information both for policy decision making and planning and for better health care. Good results are obtained only from their constant interaction and interchange of ideas and experiences. The transfer of information involves therefore governmental bodies, health institutes, hospitals, research groups, health care personnel and expert committees at various levels, national, regional and international, and directly all people working in the fields concerned.

Also from events and/or accidents occurred in these last times, when the

necessity of immediate information was unquestionable, we can see that most data are taken from unpublished papers or from reports of national and international committees or study groups.

All this underlines the importance of what we now call "grey literature". This term refers to the publications which are not available through commercial channels in so much as they are published, and generally distributed by their originators, produced in limited quantities and not subject to rigorous quality control either of content and reproduction. Examples of these publications are: report literature, pre-prints, conference proceedings, technical specifications, theses, translations, official documents. Some of these publications (such as conference proceedings and translations) may remain "grey" only for a limited period of time until they are published in the traditional way. Their main feature, however, is that the information they contain is generally more detailed and appears in the literature earlier than the same information condensed into a journal article. Moreover, some of this literature is often destined to remain in shadow, i.e. never published because of the bulk of material it contains (compilations of data, tables, charts, graphs, designs, blueprints and similar material, in addition to written matter). For different reasons the same destiny falls on some reports on the work of committees set up to conduct special investigations.

It is also important to point out that scientific grey literature is generally aimed to a particular target of research, accordingly information policy reflects the need to use and make available the results obtained by and to a selective and specialized group of users.

As we well know, this type of literature poses a lot of problems concerning identification, acquisition, storage, availability, reading, copying and so on. Of course, bibliographic control and document supply are strictly interrelated. Some countries succeeded in organizing good collections of this literature in clearing houses (we refer mainly to the United States and United Kingdom [1]), and in creating a number of information centers; other countries (also among the developed ones) did not give the due attention to such emerging way of publication, particularly in the scientific fields. So librarians of these countries had not a sufficient training about the new materials and were (and in some cases still are) unprepared to handle them and the information therein contained. It is time now for "grey literature" to be introduced into the curricula for librarians, and not only for documentalists, if we want to make more accessible the store of existing knowledge.

2. GREY LITERATURE IN THE EEC COUNTRIES: RISE AND DEVELOPMENT OF THE SIGLE PROGRAMME

The Commission of the European Communities, around the years 1977-1978, took into consideration this literature with both the aim to improve the access to scientific communication and to organize the exploitation of the informal publications produced in the Member States. The action of its Directorate General - Scientific and Technical Information and Information Management - brought to the organization of a European seminar (York, 1978) [2], which gathered 30 experts from the Member States with the purpose of finding common conclusions and recommendations as to any action which should have to be taken by the Commission [3-6]. In particular common resolutions were reached for the creation of a data base and a reference center to handle such a literature coming from the Member States, providing that each Member should encharge a national authority responsible for the organization, collection, archive and supply of the grey literature produced in the country. At the beginning of 1980 in Luxembourg, representatives of some Member States agreed to start a project

(of French origin) for a data base for the retrieval of the grey literature produced in Europe. The projected data base is the System for Information on Grey Literature in Europe (SIGLE). Now SIGLE is operating and the European Association for Grey Literature Exploitation (EAGLE), seated in Luxembourg, is the body responsible for the management of the system. Eight Member States, the promoters (Belgium, the Federal Republic of Germany, France, Ireland, Italy, Luxembourg, the Netherlands and the United Kingdom), have drawn up the Statute of the Association in 1985. Italy is represented by the Central Library of the National Research Council (CNR).

3. ITALIAN PRODUCERS AND LIBRARIES DEPOSITORY OF GREY LITERATURE: A SURVEY OF THE ITALIAN LIBRARY ASSOCIATION

The Italian Library Association (AIB), in the framework of its Commission of Special Libraries and under the pressure of some of its members, created in 1985 a Study Group on Grey Literature with the aim to make a survey of production and collection at national level (a previous inquiry on Italian producers only was performed in 1980 by the Institute for Studies on Research and Scientific Documentation (ISRDS) of the Italian National Research Council [7]). In this way the two initiatives (from CNR and AIB) have a common target, although acting through different channels.

The main objectives of the AIB Group are the following:

- 1) identification of the Italian producers of grey literature;
- 2) survey of the collections of technical reports (Italian and foreign) available in the Italian libraries and documentation centers;
- 3) general action to improve and widespread standards for the presentation and cataloguing of technical reports to be carried on also through translations into Italian of existing international or foreign rules;
- 4) promotion and diffusion of the action of the Group through workshops or study days.

The identification of the Italian producers will give some support to the Italian National Authority responsible for the promotion of the SIGLE programme, and will provide the necessary information to realize the link between bibliographic control and document supply. At the same time, in view of the practical difficulties for librarians to get such literature when it is required, the Group is going to carry on a survey of the existing collections in the Italian libraries and documentation centers. The two surveys will be conducted through two questionnaires (Annexes 1 e 2), which will be processed automatically.

The scope and research areas of grey literature to be investigated have not been limited beforehand to any particular subject category field (according to the SIGLE scope). The areas which are taken into consideration are those for which there are librarians and documentalists willing to cooperate for their specific competence. At present two subgroups have started to work, one for public health and the other for energy sources (both nuclear and alternative energies); others (telecommunications, economic sciences, aeronautics, etc.) are going to be formed.

4. SURVEY ON PUBLIC HEALTH GREY LITERATURE

For what concerns public health, in which the relators of this paper are

involved on the basis of an agreement established between AIB and the Istituto Superiore di Sanità - the Italian National Institute of Health -, the organization of the subgroup activity is the following:

- 1) survey of the Italian institutions and bodies which are in some way connected with public health and in particular with the Italian National Health Service (central and local Authorities), mainly for what concerns health care planning and management, and their libraries and documentation centers;
- 2) assessment of the results of the survey to decide whom the questionnaires will be addressed to;
- 3) evaluation of the answers received.

After a two year period, the subgroup will be able to provide:

- a preliminary guide of the Italian producers of grey literature in the field concerned;
- a preliminary guide of the collections of grey literature existing in the Italian libraries and documentation centers in the field concerned.

Before concluding these short notes on grey literature, a few words must be spent on that kind of information obtained through data base terminals; such information is now available only to a privileged group of people who have direct access to it, but the future of communication foresees an unprecedented development of this new practice which is not absolutely apace with its bibliographic control; screens are going to take the place of written paper on office desks and it is very easy to realize how difficult it will be to get a kind of control of the information stored.

We are aware of the difficulties we are going to encounter in the realization of such an ambitious programme, and we hope to be able to critically discuss the results we shall have obtained at the next conference of the European medical libraries.

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ANNEX I

QUESTIONNAIRE for Agencies, Institutes and Companies PRODUCERS of GREY (non-conventional) LITERATURE

Date of compilation: _____

A) NAME OF THE AGENCY (*) _____

Abbreviation / Official Acronym _____

Address _____

City / Town _____ ZIP _____

P. O. Box _____ Telephone _____ Telex _____

B) OFFICE IN CHARGE OF THE PRODUCTION OF NON-CONVENTIONAL DOCUMENTS

Officer _____
(name) (surname)

Specify address and telephone number if different from those of the Agency _____

C) OFFICE IN CHARGE OF THE DIFFUSION ON NON-CONVENTIONAL DOCUMENTS

Officer _____
(name) (surname)

Specify address and telephone number if different from those of the Agency _____

(*) List in the space below (or separately) the subordinate Institutes, producers of grey literature—if any, whose production is not included in that of this Agency.

Agency, Institute, etc.

Address

D) SUBJECT CATEGORY FIELDS

- Aeronautics
(Specify) _____
- Agriculture, plant sciences, animal husbandry, fishing, hunting
(Specify) _____
- Equipments and methods
(Specify) _____
- Architecture and town planning
(Specify) _____
- Energy sources
(Specify hydraulic, nuclear, coal, solar, etc.) _____
- Information science
(Specify) _____
- Engineering
(Specify electronic, electric, mechanical, industrial, civil, naval, etc.) _____
- Materials
(Specify textiles, ceramics, metals, wood, paper products, etc.) _____
- Biological and medical sciences
(Specify biology, medicine, psychology, pharmacology, etc.) _____
- Chemistry
(Specify) _____
- Economic and social sciences
(Specify sociology, statistics, law, etc.) _____
- Physics
(Specify biophysics, astronomy, astrophysics, etc.) _____
- Mathematical sciences
(Specify) _____
- Ordnance
(Specify) _____
- Space technology and sciences
(Specify) _____
- Earth sciences
(Specify environment, ecology, geology, oceanography, meteorology, etc.) _____
- Human and social sciences
(Specify archaeology, history, antropology, psychology, pedagogy, etc.) _____
- Veterinary sciences
(Specify) _____
- Telecommunications
(Specify) _____
- Transport
(Specify) _____
- Others
(Specify in details) _____

Name of the Agency, Institute, etc. _____

E) DOCUMENTS PRODUCED

	Monographs	Serials	Acronyms of identification	Consecutive Numbering	ISSN	ISBN	Paper support	Microforms	Other supports
1) Scientific – technical reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Technical specifications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Institutional reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Conference proceedings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Lecture notes prepared for courses, workshops, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Theses and academic dissertations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Bibliographies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8) Dictionaries and glossaries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Number of monographs produced in a year _____

Number of series produced _____

F) AVAILABILITY

Is the Agency's policy favourable to supply the documents produced to:

public agencies	{ free on payment }	<input type="checkbox"/>	private individuals or companies	{ free on payment }	<input type="checkbox"/>
		<input type="checkbox"/>			<input type="checkbox"/>

Name of the Library, Agency, etc. _____

WORKSHEET FOR THE REGISTRATION OF THE SERIES OWNED BY THE LIBRARY (*)

PRODUCER _____
(full name and place)

TYPE OF DOCUMENT _____
(see point B)

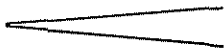
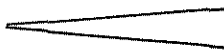
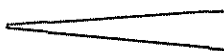
TITLE OF THE SERIES _____

CODE OR ACRONYM _____

SUBJECT CATEGORY FIELD/S _____
(If possible, follow the attached pattern)

SUBJECT/S _____
(If possible, give specific subjects, or supply a list separately)

DATE _____
SERIES OWNED SINCE _____ CEASED IN _____

ACQUISITION	purchase		systematic	<input type="checkbox"/>
			occasional	<input type="checkbox"/>
	exchange		systematic	<input type="checkbox"/>
			occasional	<input type="checkbox"/>
	gift		systematic	<input type="checkbox"/>
			occasional	<input type="checkbox"/>

DEPOSIT	permanent	<input type="checkbox"/>	temporary	<input type="checkbox"/>
			specify duration	_____

SUPPORT	paper	<input type="checkbox"/>	microforms	<input type="checkbox"/>
	other (**)	<input type="checkbox"/>		

(*) Fill in one worksheet for each series
(**) Specify _____

ANNEX 2

QUESTIONNAIRE for Libraries, Agencies, Documentation Centers, Services DEPOSITARY of GREY (non-conventional) LITERATURE

Date of compilation _____

A) NAME OF THE LIBRARY (specify office, section, etc. working on this kind of literature) (*)

Name of the officer (responsible for Grey Literature) _____

Address _____

City / Town _____ ZIP _____

P.O.Box _____ Telephone _____ Telex _____

B) DOCUMENTS OWNED

- | | | | |
|--------------------------------|--------------------------|---|--------------------------|
| Scientific – technical reports | <input type="checkbox"/> | Lecture notes prepared for courses, workshops, etc. | <input type="checkbox"/> |
| Technical specifications | <input type="checkbox"/> | Theses and academic dissertations | <input type="checkbox"/> |
| Institutional reports | <input type="checkbox"/> | Bibliographies | <input type="checkbox"/> |
| Conference proceedings | <input type="checkbox"/> | Dictionaries and glossaries | <input type="checkbox"/> |

C) AVAILABILITY

Is the library's policy favourable to supply the documents possessed to:

- | | | | | | |
|-----------------|------------|--------------------------|----------------------------------|------------|--------------------------|
| public agencies | free | <input type="checkbox"/> | private individuals or companies | free | <input type="checkbox"/> |
| | on payment | <input type="checkbox"/> | | on payment | <input type="checkbox"/> |
| | on loan | <input type="checkbox"/> | | on loan | <input type="checkbox"/> |

(*) Specify below (or separately) the subordinate Libraries, Offices, Services, etc. depositary of grey literature—if any, whose deposits are not included in that of this Library

Library, Office, etc.

Address

Name of the Agency, Institute, etc. _____

WORKSHEET FOR THE REGISTRATION OF THE SERIES PRODUCED (*)

CODE OR ACRONYM _____

TITLE OF THE SERIES _____

MAIN SUBJECTS _____

DATE (series production) STARTED IN _____ ENDED IN _____

NUMBER OF PUBLICATIONS IN ONE YEAR _____

In the title—page, or elsewhere in the documents belonging to this series, do the following elements appear?

- | | |
|--|---|
| <input type="checkbox"/> code or acronym | <input type="checkbox"/> availability |
| <input type="checkbox"/> consecutive number | <input type="checkbox"/> periodicity (**) |
| <input type="checkbox"/> date of publication year <input type="checkbox"/> month <input type="checkbox"/> | <input type="checkbox"/> ISSN |
| <input type="checkbox"/> name of the Agency | <input type="checkbox"/> ISBN |
| <input type="checkbox"/> authors | <input type="checkbox"/> copyright |
| <input type="checkbox"/> authors' affiliation | <input type="checkbox"/> publisher |
| <input type="checkbox"/> authors' address if different from that of the Agency | <input type="checkbox"/> abstract (***) |
| <input type="checkbox"/> reserved | |

(*) Fill in one worksheet for each series

(**) Specify _____

(***) Specify languages _____

INTEGRATED INFORMATION FOR HEALTH CARE

R.B. TABOR

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There is mounting tension in health care in the world today. The costs of technological medicine are spiralling in much of the western world while basic health for all remains an international objective in the year 2000. A number of factors are influencing the present and future patterns of health care and these include the following (Sommer, 1985)

- demographic changes producing populations that are older on average,
- a changing pattern of disease towards chronic illness and handicap associated with ageing and often aggravated by life-style factors,
- advances in medical terminology introducing far more sophisticated patterns of diagnosis and care and extending the scope of medical care,
- rising public and professional expectations connected with technological advance and increased reliance on formal health services for alleviation and comfort, rather than on informal coping mechanisms in the family and the community.

As a counterbalance to these demands and the spiralling costs of technological medicine there are also other influencing factors which include

- an increasing awareness of, and freedom to choose, alternative therapies outside the boundaries of orthodox medicine,
- a rising demand by the 'consumer' to understand and to influence medical decisions; this is accompanied by initiatives towards self-help,
- a shifting in the balance of health care from the hospital towards the community; this embraces both community care of the elderly and the mentally ill and also the emphasis on primary preventive care.

The roots of these tensions in health care are different in the Western world from the developing countries. In industrial nations people over eat, drink too much alcohol, smoke cigarettes and subject themselves to too much stress. Developing countries have problems relating to nutrition and infectious and parasitic diseases; one person in three drinks unsafe water, one in four has an inadequate diet and each year there are one billion instances of acute diarrhoea in children under five.

In some developing countries 80% of the population have no access to adequate health care and in many countries some 75% or more of the health budget is spent on hospitals and technological medicine providing curative care for a small minority (Macagba, 1985).

A new approach to health services management is indicated - and in some countries seems to be emerging, where there is a trend towards improved

primary health care and increased involvement of the people themselves in their own health care. Better diet, proper exercise, simple remedies for common minor ailments and a general improvement in life-style all play their part together with a 'community diagnosis' approach complementing the now conventional practice of curative medicine for the individual.

These changes pose questions for medical librarianship. Traditionally medical libraries for doctors (acting as curative gurus) have been based in hospitals and have sought to provide information support for basic and continuing education of the medical professional. Medical librarians have understood the relationships of education, research and clinical practice and have developed many sophisticated services based on extensive library collections together with valuable co-operative networks for the interchange of documents. But the problems facing health care suggest a need for a critical and radical questioning of the future development of library services. If the purpose and nature of the health care system is questioned then it may be timely to question the purpose and nature of the health care information system.

It is axiomatic that an information system should serve the needs of the parent organisation but those needs require identification. The health care system is concerned with

curative care of individuals who are ill or disabled,
preventive care against illness and accident, and
promotion of active health.

Medical librarians might usefully see these as a guide to their future pattern of involvement with information for health in contrast to the past emphasis on information relating to disease.

A first step towards the management of information for health care lies in the recognition that patient care is a multidisciplinary team effort. Many medical librarians now accept this and provide facilities and the appropriate information materials for nurses, paramedical and support staff in addition to 'medical books for doctors'. But this involves a much greater change than is often realised. It is not merely a matter of putting a few nursing texts on the shelves or displaying a periodical for chiropractors, or physiotherapists or speech therapists. That first step is closely followed by a radical re-appraisal of the purpose of the health care system and the function of the information support service.

The primary concern of both family doctor and of hospital medicine is the care and cure of the individual and this activity extends to the family of the patient. Here an important information need is now recognised; the patient, and relatives, are partners with the health care team in the care process, and both partners require information. Although clearly doctors and nurses need professional information it is becoming increasingly clear that patients also need information about the structure and workings of their own bodies and an elementary understanding of the disease process if they are to participate effectively in the diagnosis and treatment of their own condition. Health care libraries therefore need to provide information materials and appropriate services for patients and relatives. This should not be seen as a two-part provision, one library for 'staff' and another for 'patients' but rather as a general information service for partners in health care. How this will be implemented will be influenced by local circumstances and attitudes. (Figure 1)

But the information service is not simply an educational one. During the care process patients and the health care team need a range of information

including general information about the health care system itself, how to prepare for entering hospital, visiting times, how to make gifts to hospitals, how to complain about poor service, times of transport, registration details of births and deaths, what hospital departments do, the meaning of tests done. Such information may be needed by patients, relatives or member of staff. Other information will be required about health care services available, what medical specialty departments are available and any specific protocols which the family doctor needs to follow, what patients associations exist and how they may be contacted to give support to patient or relatives. Much of this information is not normally held within a medical library but can be seen as necessary to a health care information service. (Figure 2)

The emphasis here is on information required for patient care - information which can directly affect both the quality of care given to the patient and also the quality of life experienced by the patient and relatives. But much of the information enumerated above applies equally as an information need by health services management. Managers need to know what care services exist in the hospitals under their control and in the local community, information is needed about services for specific care groups and there is much common information need on topics such as drug abuse, alcoholism, AIDS, smoking and occupational health. The information requirement begins to coalesce as an integrated entity where the care process and the service management process come together and where the needs of carers, patients and relatives (or informal carers) merge naturally.

The management of health services involves another range of information need. Beginning with statements of national policy on health and related issues management requires information about central government decisions and activities. In turn the Health Ministry issues directives and guidance together with consultative documents and research and development papers. Alongside this information there are numerous regulations and codes of practice used by the wide range of professional, technical and administrative staff. Together these form a body of information which holds a controlling influence on the actions of service managers and shapes the design and nature of the provision of health care service. (Figure 3)

At the local level, whether region, district, county, hospital or similar management body, there is an authority directing the local health care services. Within the British National Health Service there are Regional Health Authorities and District Health Authorities, each with a body of elected and appointed members meeting regularly to decide local health services policy and provision. Their meetings are influenced by central government policy, Ministry of Health directives as well as by local circumstances and needs. There will be numerous sub-committees and working parties dealing with specific topics and each will report to the main Authority and produce a range of documents on aspects of health care; these form part of the grey literature problem of health. It is frequently important for practitioners as well as authority members at a lower management level to know what business is in hand in these committees, when deadlines need to be met for submitting advice, comment or expert evidence or even the names and composition of sub-committee membership.

There is also a constant flow of data up from the clinical interface with patients to management relating to workload measurement, patient throughput and associated details. These data form the basis of information for planning and management of the health care services. Much of this makes its way as 'hospital returns' or similar submissions to higher authorities including the relevant Ministry of Health. After debate by Parliament and the civil service such data becomes reformed into government policy and

Ministry directives on health. This is the two-way flow of health information and is a constant feature of all national health care systems.

It might seem that in a well-established health care service all, or most, essential information needed for planning and management would be collected and available. This is not so. In a recent study undertaken in the UK surveying the information needs of community physicians (Specialists in Community Medicine) a range of information was identified which was regarded as essential but which appeared to be unobtainable. (In another paper presented at this Conference Mrs. Lynette Hawkins, the research officer for that project, describes the findings of that study in detail). The community physicians surveyed included doctors involved in medical administration and in the planning, design and evaluation of health services provision. A wide range of responsibilities and diversity of circumstances was demonstrated. This was reflected in an extremely wide range of subject interest encompassing the whole field of medical knowledge and stretching beyond into many other fields including the social services and law with technical topics such as computers and radiation.

The greatest concern felt by the community physicians was for information about their own authority; thirty-four different subjects were listed in five categories - population structure, the environment, health experience, positive health measures (health promotion) and other activities or services. From a ranked list there were five outstanding information requirements -

- age and sex structure
- provision of NHS services
- immunisation uptake
- provision of local authority social services
- age, sex, specific mortality by cause.

For many respondents to the survey this information could not be obtained easily. There were other areas of information which were considered to be vital but where it was believed the information does not exist; in the study this information was also ranked -

- nutritional status
- measures of satisfaction with health
- smoking, alcohol, drug abuse
- involvement in physical activity
- age, sex, specific morbidity by degree of handicap
- public knowledge about health.

All of these are 'consumer information' topics and relate to the promotion of health. This declared need for information about positive health measures contrasts with the conventional emphasis by health care systems (and medical libraries) on illness and disease information.

Such difficulties in obtaining information led community physicians to undertake many local surveys to gain the necessary planning data. Of the 328 survey topics specified the two main areas of investigation were hospital services and special care groups or populations. Some 58% of respondents could not obtain information on voluntary organisations and patient associations, but earlier research funded by the British Library and undertaken in the same Wessex Regional Library Information Service has evolved into a regional service which captures such information on a local and national basis. It should be noted that that research and the subsequent service development was initiated and carried out by health care librarians. This might suggest that librarians have a real contribution to make to solving the information problems of health services planning and management.

Mere numbers of librarians is not a principal criterion to meet these information needs. A new and radical approach to information provision may be necessary where the librarian or information officer forms an essential link between the producers and the consumers of information. This is distinct from the conventional role of the librarian as mediator between the library resources and the library user. The successful information intermediary requires knowledge, understanding and ability to exploit the resources with more flair and imagination and rather less traditional thinking than is apparent in many cases. It is not simply a matter of providing more information - 'information overload' can result where the brain becomes unable to store and process large amounts of information at the same time. Even time spent on scanning newsletters and current awareness bulletins can consume excessive time and impair alertness. An improved 'on demand' information service would seem to be indicated for the future.

It must also be recognised that much information required by both clinicians and by health services managers is not contained in existing databases. The mere provision of a microcomputer or terminal to access the mainframe database hosts is by no means an answer to the problems of health information provision. But current, and developing information technology, does indicate a viable line of development. In the Wessex region, arising out of this research and almost twenty years of library networking experience, we are proposing the concept of an electronic library on the end-users's desk to give access to information on demand as and when needed. This will provide a new type of network of information users with an interactive facility to point enquirers to an appropriate source of information (a person or document) or to the information itself. A balance of information provision is required and this is where the skills of experienced health care librarians and information scientists can be valuable in designing and implementing this type of information network. Referral is an appropriate response to enquiries concerning up-to-date information about a project or seeking know-how or experience (a conventional use of libraries in support of education) but this may not be appropriate where information is required with a minimum of effort (a usual requirement in clinical and management decision-making).

The information network proposed has been named HEALTH COMPASS and is intended to be a direction-finding device to sources of health information. Essentially the information directory service will either provide the source of the information needed (a personal contact or a document) or will provide the actual information itself. The datafiles comprising the service should answer the questions - What is being/has been done, reported or published? Who can tell me? What are the facts? The information system will be fully interactive, that is enquirers will be able to specify their requirements and manipulate the system to obtain appropriate information. An important feature of the network will be its ability to link information provider with end user. This will be necessary in order to cope with the wide subject base required. Input and maintenance of the information to specific datafiles will therefore be co-operative - selected system users will also act as information providers (IPs) accepting responsibility for the currency and accuracy of their own information sets. There will also be facilities for Bulletin Boards and closed user groups to facilitate the interchange of news, views and research and operational information between pier groups.

Another significant feature of the network will be that information will be accessed at the point of use - office, ward, clinic or family doctor surgery. A simple to use information system placed where information is used and available whenever it is required should lead to more effective and economic use of the total information resources. The potential of the information

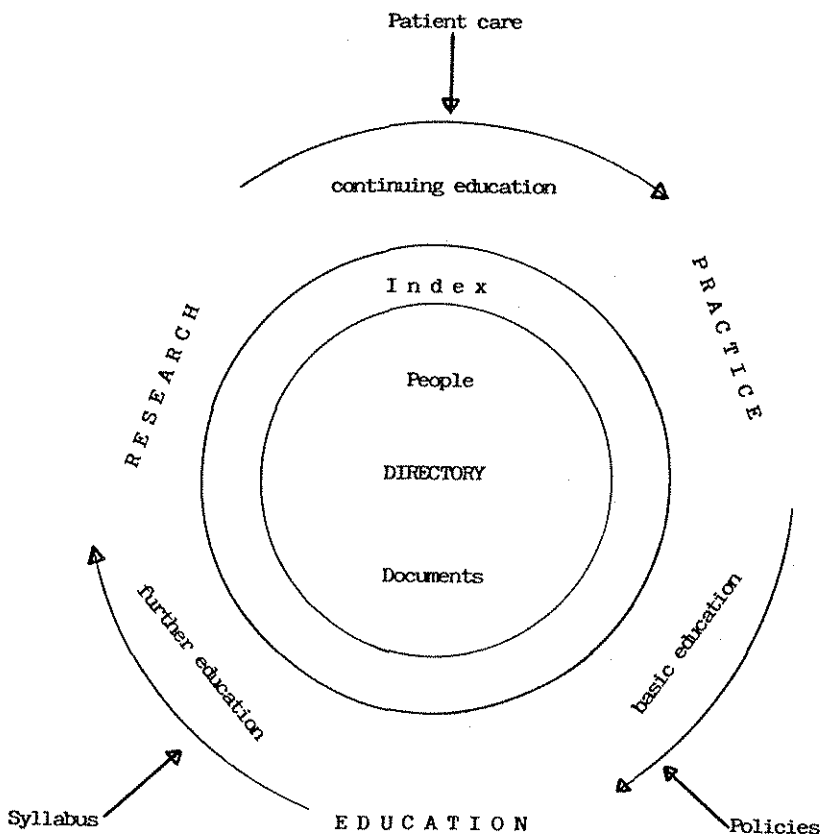
technology is now becoming clearer and the shape of future health care information systems is starting to emerge. But, as Kochen has commented, "the flow of technology is so rapid it can acquire a momentum of its own and sweep us into lifestyles we may not like ... we have barely enough lead-time to prepare for effective control." The nature of information communication is changing and the role of health care librarians is changing. There is a need, and an opportunity, for librarians to provide a different and more direct information support to clinical care and to health services management. It remains to be seen whether medical libraries will evolve sufficiently and quickly enough to meet the need and the opportunity.

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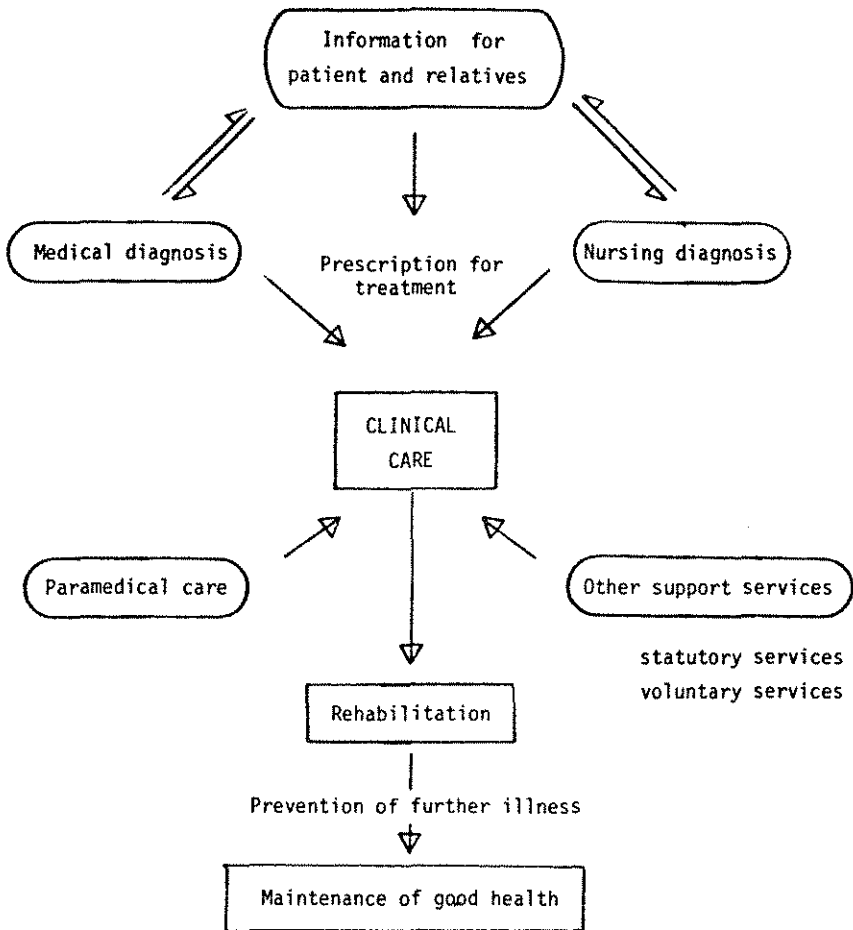
FIGURE 1

INTER-RELATIONSHIPS : Education, Research and Practice



These three elements are interlinked and the information flow is influenced by the constraining factors of Syllabus, Patient care and Policies. The key to effective communication of information lies in knowing where to seek help, i.e. an indexed directory or guide to people and documents as sources of information.

FIGURE 2

INFORMATION FOR CLINICAL CARE

Individual and community health is the objective of health care practice. Information is needed during episodes of illness and disability by 'patients' and relatives and by the carers; this is followed by restoration of health and the individual's responsibility to maintain health or to cope with an adjusted quality of life.

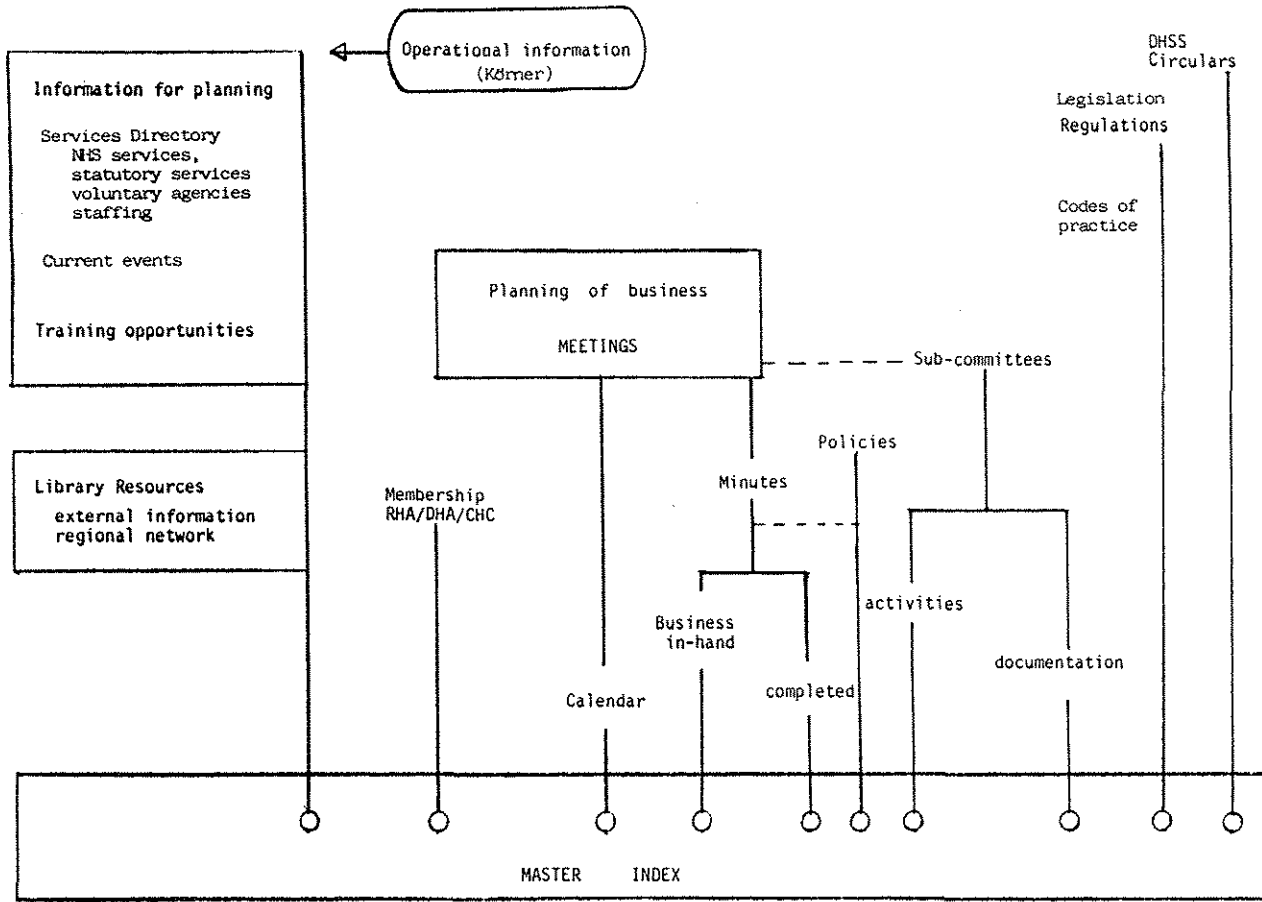


FIGURE 3 INFORMATION FOR MANAGEMENT : some principal elements in the web of information

THE NETWORK OF SPECIAL MEDICAL LIBRARIES AND SCIENTIFIC INFORMATION CENTRES IN THE SLOVAK SOCIALIST REPUBLIC

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1. THE ROLE AND FUNCTION OF MEDICAL LIBRARIES AND SCIENTIFIC INFORMATION CENTRES IN THE SLOVAK SOCIALIST REPUBLIC

The medical libraries and scientific information centre in the Slovak Socialist Republic /the SSR/ are an unseparable constituent part of the unified health care system, which consists of the health establishments for preventive care, public health, establishments for education of health workers, production works as well as the scientific research and other workplaces within the sphere of the health service.

Library and informational and health systems are an organizational and functional unit. Their organizational link is determined by the fact, that both the library and information system as the whole and its complement are a part of the organizational structure of the health service. The functional interaction of both systems consists in the fact, that the subject of medical libraries and information centres is determined on the one hand by the purpose, programme and role of health service and on the other hand the library and information centres with their communication function /intermediation of information on worldwide medical knowledge exert an active influence on the formation and realization of health politics. The past and future development of library and information system in health service was determined by the above mentioned relations.

The medical libraries and information centres are however an integral part of the national Czechoslovak library and scientific informational system, in which the libraries and information centres are grouped irrespectively of their departmental pertinence as well as their branch and field specialization. Their mutual connections concern first of all the methodical, methodological and technological problems of library and information activities. The purpose and role of medical libraries and information centres in their interactive function with health system, with national library system and the scientific informational system can be expressed in this way: the role of medical libraries and information centres is to satisfy the needs for information of health workers by modern forms and technological means of librarian and informational work as well as to secure purpose of national health politics in the field of medical science, research, praxis, management and education of health workers.

2. ORGANIZATION OF MEDICAL LIBRARIES AND INFORMATION CENTRES IN THE SLOVAK SOCIALIST REPUBLIC

The medical libraries and information centres in Slovakia are inte-

grated into a network consisting of 132 organizational units, which are methodically managed by the Institute of Scientific Health Information in Bratislava. The organizational structure of the network can be characterized from two aspects:

- a) form the aspect of the health system structuralization /diagram N^o 1/,
- b) from the aspect of typological structure of the information system /diagram N^o 2/.

Both the institutional and directional connections as well as the aim at immediate informational environment and background are accentuated by the network according to the organizational structure of health service.

From the second aspect, the functional hierarchy of particular working places and the feedback of information with the components of its wider environment is displayed by the network organizational structure.

The double-aspect structuralization of the network does not affect its function, but on the contrary it enables to bring into its organization a number of important aspects /e.g. specialization, hierarchization, regional grouping/, that in interaction contribute to the effective function of the whole network and its individual elements.

The Institute of the Scientific Health Information leads the hierarchy and it provides for country wide, national and international information tasks. Within the Slovak Socialist Republic, it performs the function of a central library of medical library and information centre network and methodically directs their activities. It functions as a department information centre in the field of social medicine, health service organization and management, public health, epidemiology, and health education in the Czechoslovak informational system. It was entrusted with the function of being a base for medicolegal information within the international scientific medical informational system of the CMEA countries - Medinform. In accordance with these functions it formed its information profile, which is on the one hand oriented generally /with regard to tasks within the Slovak Socialist Republic it covers all fields of medicine and health service/ and is on the other hand specialized in social medicine and medicolegal problems. Its information services /as document lending, retrospective and current classic and machine information retrieval, publication of information/ are offered to all user categories, and at the same time some user differentiation exists and the priority of information is given to the medical research and the health service management. The active contribution to the production of scientific medical information data bases, e.g. a part in information processing for the automated system of medicolegal information, country wide cumulative catalogue of foreign literature etc. presents an important field of institute's activity.

The branch information centres are constructed for provision of complex information and coverage of chosen branches of medicine and health service. Up to now the branch information centres for rheumatology, pesticides, medical cybernetics and pneumology were formed countrywide with regard to CSSR. As a rule they are established in such health establishment, in which the research of given branch, or if you like the biggest number of potential users is concentrated. The branch specialization of information depart-

ments aims at the closest possible link of information with special medical activities and the cration of a background for the highly qualified forms of informational work.

The basic information centres are the most numerous group of information departments. They intermediate information services for the department and branch information centres and at the same time preface their own information basis for satisfying of needs for information and the requests of health establishment workers. Their information profile is determined by the profile of the given health establishment and dependencing on it the information profile can be multiprofiled /e.g. the basic information centre in a hospital with outpatients' department/ or specialized /e.g. the basic information centre in a research institute/. The function of providing an access to information is dominant over the processing function in this type of information centre, though they are most involved in information retrieval at the present.

The special libraries are the last link in the network. They are established in smaller hospitals /such as the hospitals of first type in the Czechoslovak health system structure/, in outpatient departments and treatment institutions. The main objectives of special libraries is collecting and providing the general medical literature as well as intermediating the information services from the basic and branch information centres.

The medical libraries and information centre network has the following characteristics:

It is an organizational and functional integration of library and information function;
/the library and information departments constitute one network, the library and information constituents are linked up on all organizational levels - at the basic, branch and department centres/.

It means efficient way in combining centralization and decentralization of library and information activities;
/the centralization tendencies, which are pursuing the economization and improvement of the informational process, are dominant in the field of handling scientific information. The decentralization approaches observe the same operational access to information for all medical specialists regardless of their professional or regional location/.

The integration of the regional and branch approach in network constructing from the point of view of its organization and function;
/the regional approach, which is complying with the health service management is used in network methodical management, whereby the higher methodical effectiveness is achieved, that is a precondition for rationally linked feedback of the particular communication process links: information producer - information centre - user/.

3. COOPERATION IN THE MEDICAL LIBRARY AND INFORMATION CENTRE NETWORK

The organized cooperation activity of all components is a significant rationalizing factor of effectively functioning library and information system Its main objective is its most effective utilization by the functional division of labour, of economic means,

which are used for the establishment and development of library and information activities. The main presumptions of a cooperative system establishment are the requirement for a high level in organizing cooperating partners, that means first of all an exact definition of their mutual relations, as well as the specification of cooperation fields and the differentiation of cooperation forms. The preceding parts of this paper dealt with the problems of the medical library and information centre network organization. Further the cooperation fields and forms in medical library and information centre in the Slovak Socialist Republic will be discussed.

The main field in cooperation between medical libraries and information centres are:

- a) the acquisition and building up of library stocks
- b) the handling of library stocks
- c) making library stocks and information services accessible.

The interlibrary cooperation in the field of library stock building is implemented first of all by coordination of foreign document acquisition, so that the libraries obtain the largest possible number of special journals and book titles. The coordination programmes affect all libraries and they are realized on the principles of regional grouping and thematical specialization. The thematic acquisition plans of particular libraries showing their thematic and type profile are the basis for coordination. In the interest of the most objective library profilation various bibliometric methods have been recently used. The Institute of Scientific Medical Information, which is in charge of coordination and looks after its realization, has also a function of the central coordinating working place.

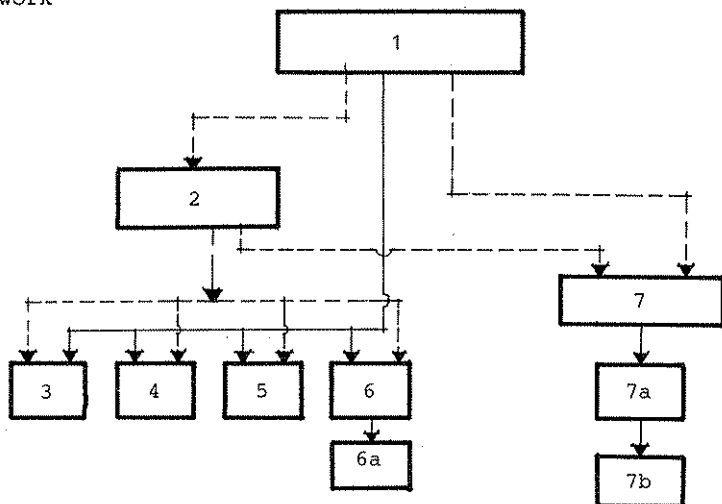
The cooperation in the handling sphere of library activities is used mainly through the establishment of an all-Slovak cumulative catalogue of foreign monograph literature in the field of the medicine, health service and related scientific branches. The system is built up automatically since 1979 with all the working places of the network participating. The information from the all-Slovak cumulative catalogue information base is offered by means of a periodical /"Prírastky zahraničných kníh" - Accessions of foreign books/, current literature reviews, answers to single inquiries concerned on location of the information source. The all-Slovak cumulative catalogue is based on the principle of decentralized acquisition and centralized data processing. Other library networks also participate in this cooperation programme. They notify their access in the field of medicine and health service into the cumulative catalogue data base.

The interlibrary loan service, that is legalized in the CSSR, is the most widely used form of interlibrary cooperation in the field of accessing. Its main principles are, that the library wealth is concentrated in the uniform library system and becomes available to all the interested and users regardless to the place of their localization. Local cooperation using organized exchange of information documents, first of all by means of circular loan service is widely used by medical libraries. Some elements of cooperation have been established also in the information and especially retrieval services. The principles of dividing the work among different network working places to the requests of retrospective literature review have been determined, whereby the branch specialization of libraries and information centres has been taken into consideration.

The organized cooperation of medical libraries involves also other fields of their activity, e.g. bibliographical and methodological activity. Together with the development of more sophisticated information activities, as study analytic work, establishment of factographical information files, it will lead to the widening of interlibrary cooperation aimed at preventing the undesirable isolation of special libraries and information centres and at an effective flow of information in the network and at the same time between particular library networks of the uniform library system in the Slovak Socialist Republic.

Diagram N^o 1

Organizational structure of medical library and information centre network



Comments:

- 1 - Ministry of Health of the SSR
- 2 - Institute of Scientific Health Information
- 3 - Libraries and information centres at research institutes
- 4 - Libraries and information centres at centrally managed bodies
- 5 - Libraries and information centres at economic bodies
- 6 - Libraries of the General Management of Cz.Spas and Health Resorts
- 6a - Libraries of the spa organizations
- 7 - Treatment and preventive establishments
- 7a - Libraries and information centres of regional institutes of health
- 7b - Libraries and information centres of district institutes of health

--- special, methodical management

— administrative management

Typological structure of medical library and information centre network

