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COOPERATION BETWEEN MEDICAL LIBRARIES

COOPÉRATION ENTRE BIBLIOTHÈQUES MÉDICALES

ZUSAMMENARBEIT ZWISCHEN MEDIZINISCHEN BIBLIOTHEKEN

STEPS TOWARDS COOPERATION AMONG ITALIAN BIOMEDICAL LIBRARIES  
WITH PARTICULAR REFERENCE TO THE ROME AREA

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Some results in cooperation by the biomedical librarians' working group in the Rome area are described. Among recent achievements the paper outlines: a) a guide to the resources of the biomedical libraries in Rome; b) a union catalogue of biomedical periodicals. Besides local activities, some of the cooperative enterprises are set forth, as part of the series of developments in Italian biomedical libraries. The item points out the key issues in cooperation policy.

In Italy, as is the case in several other European countries, one could not say there is a long-standing cooperation among libraries in the field of biomedicine. The intrinsic reason behind this can be found not only in the lack of an adequate and consolidated national biomedical librarianship policy, but also because of a certain self-sufficiency, real or presumed as it may be, on the part of the institutions to which the libraries belong.

However, this attitude is beginning to change with the growing need for information. In fact, from a professional point of view, there has been recently, particularly in certain regions of the centre and north of Italy, an increasing interest, not only in theory but also in fact, in several of the projects promoted by the Italian Biomedical Libraries Group of the Italian Libraries Association (AIB). This Group was set up recently and has Valentina Comba as its head. Organizing the activities of the members of this Group is now becoming a matter of decisions and choices based on professional rationality rather than on a simple, sporadic, voluntarism.

This can be seen, for example, in the recent projects realized by the Roman Librarians' Group: the production of the Union catalogue of biomedical periodicals of libraries in the Rome area [1] and the publication of the Biomedical libraries in Rome [2]. The latter was a rather unique experience in that the usual methods of comparative analysis were applied to a local situation as vast and varied as that of Rome. In this area we find leading national scientific institutions - of similar and/or different specialization - as well as numerous local institutions. Both types of bodies have undergone different processes of formation and development which are reflected in their libraries. We thought it would be interesting to describe the development - which could be called "historic" - and the administration of these libraries. Moreover, the study of the current state of the art in the main biomedical libraries in Rome - together with a knowledge of the territory itself - has proved useful for a better understanding of the availability of resources: bibliographical, human and by other means, by a system of comparing and then verifying similarities and differences.

The task of assessing and comparing the conditions of biomedical libraries, according to the individual items of the survey, could provide significant basic information for defining priorities of interacting group activities in the future. A noticeable result of the joint study was the response of the participants in this compilation, although this participation could have been greater. On the other hand, the participants themselves, collaborated in every way for the production of the biomedical union catalogue of periodicals, mentioned above.

One can easily imagine the usefulness of a catalogue - consisting of approximately 10,000 serial titles - for researchers, physicians, university lecturers and other scholars who need rapid, extensive and up-to-date information. This catalogue, designed to meet the needs of these numerous users who form a large biomedical community in Rome, and also for us librarians, who provide information, was realized with the valid support of the Institute for Studies on Research and Scientific Documentation (ISRDS) of the Italian National Research Council.

The catalogue includes a wide range of subjects sufficient to satisfy the requirements of all those operating not only in the medical and biological sectors but also in disciplines of public health - in the broader sense of the word - and of environment.

The survey on user/computer relationship is also of importance even though it does not specifically refer to biomedical libraries. This survey [3] was promoted by the Italian Libraries Association, Latium Section. The Study Group for Special Libraries carried out a statistical analysis based on a questionnaire to examine the behaviour of different groups of users regarding the use of libraries both for traditional catalogue research and on-line file research as well as consultation of primary sources of information. The study showed that users would appreciate a regular access to the different types of computer services which, not only in Latium but throughout Italy, and even in the field of biomedical libraries, unfortunately, are not readily available. Generally speaking, automation is little used or is only just being introduced. This is the case also in the Istituto Superiore di Sanità (National Institute of Health Library), where only in the last few years has the work been partially computerized with the introduction of the DOBIS/LIBIS system.

In order to continue the steps towards cooperation, we hope to go ahead with the implementation of the intersectoral relationships, especially among health libraries. There are several paths to pursue: to share resources; to pay attention to basic professional training; to follow the developments of the professional situation of librarians in Local Sanitary Units; to produce the union catalogue of biomedical periodicals of libraries in the Rome area classified, according to the Universal Decimal Classification international medium edition.

Besides local activities, and as part of the series of projects regarding biomedical libraries, we think it appropriate to mention the Congress on biomedical libraries and documentation centres, promoted and organized by the Library and Documentation Service of the National Institute of Health in 1984 [4].

Of the many positive features arising from this Congress undoubtedly we should note: a) the recognition of the activity of the main Italian biomedical libraries and the identification of the needs for new undertakings through a thorough overview never before developed in Italy; b) the comparison with librarians and documentalists of other European countries of problems of top-level management and of methodology in order to improve the quality of information.

A few words must be spent on the Italian Biomedical Libraries Group's newsletter (Notiziario. Sottocommissione Biblioteche Biomediche), initiated by Valentina Comba, produced and distributed by O. Masciotta. This newsletter could become a good means of professional cooperation if it were based on solid and not superficial attempts to build up a feeling of participation which at the moment is not yet sufficiently aware of or respondent to group functioning. However, the newsletter is an educational-informative experiment which has created quite an impact among biomedical librarians.

The cooperation outlined above, even though not fully integrated due to the lack of networks linking biomedical libraries in Italy, has certainly contributed to maturing a critical conscience in librarians and increasing the flow of information among the various libraries, as one can see, and as a result there have been positive effects also for the users.

Possibly other even more important and efficient undertakings could be embarked upon were there the opportunity of working within an overall - regional and national - context with adequate means and structures. Nevertheless, at the outset, it should be considered that it is not easy to effect rapid changes which should lead to a vast and varied articulation/integration of biomedical libraries in their contents and relationships. Moreover, it should be noted that a change must be determined also by a multilateral scientific policy to eliminate resistance, if any, to innovation, to link the various decision-making offices, to dissolve internal polarity, to make available funds, to guarantee the constant verification of working parameters.

All this is not easy to realise d'embée also because of actual difficulties. In fact, it should be borne in mind that in Italy we have a complex system of institutions, some central others local, which govern various disciplinary areas. In the present situation - or rather in many current situations - it is necessary therefore to adapt the possible strategies to the reality. Sic stantibus rebus ... one should be realistic and be satisfied: and this is what, within present limits, the National Institute of Health Library - acting as bibliographic research support to the National Health Service - and its partners have done. Currently, the Library, in cooperation with the World Health Organization, acts as an Italian reference library for consultation of WHO publications.

On a reciprocal basis, our Library integrates biomedical information retrieval, also obtainable from several departments and services of the Institute.

Within the European Communities it is interesting to mention, for example, the elaboration of toxicological data carried out by the Department of Comparative Toxicology and Ecotoxicology and that of Applied Toxicology. They have a very active role in collecting, examining and elaborating toxicological data on selected chemical substances in order to produce toxicological monographs.

These monographs are of use essentially as tools for providing information to competent Authorities for risk management purposes and for serving as bases for risk assessment purposes in several international and national Committees. Some examples indicating the extend of this work being carried out at the Institute are as follows. The National Inventory of Chemical Substances, developed at the Institute since 1979, consists so far of several hundreds of monographs on an equal number of chemicals. Moreover, more than 200 monographs have been produced on food additives or technological adjuvants to support the risk assessment work of the EEC Committee for Food, 70 monographs on flavourings for the toxicology Experts Group of the Council of Europe, and about 20 monographs to respond to requests of the local Authorities under emergency conditions. In the meantime, participation in the work of above-mentioned Committees makes available to Institute staff members a very large number of similar monographs produced by the other members of these Committees.

Of similar interest is the information given in the registration of formulations for agricultural antiparasitics, supplied by the Department of Epidemiology and Biostatistics on a file easily accessible through the Institute's central IBM4341 system. The aim of the file is to make available, even to outside users, toxicological and production data referring to the entire range of antiparasitics found in Italy from the year when such production has been subject to Law and authorized by the Ministry of Health.

Furthermore we should not forget to mention the information collected by the Drug Surveillance and Documentation Service of the Institute. The main interest of this department is centred on a topical and very important subject: control of drugs and their various implications, explicit or implicit, within the National Health Service. To organize a proper system of management and availability of pharmaceutical and pharmacological data collection, the Service has conceived the project SIDAF (Pharmaceutical Data Information System) and has established a data bank on drugs.

The Service has formulated a series of research programmes some of which have been already carried out, for example: 1) drug technical surveillance performed locally and on a regional and national basis; 2) pharmacological research (classification of active principles contained in the National Formulary along the lines of acceptable validity, monitoring of secondary and/or undesirable effects etc.); 3) scientific contribution in resolving general questions on drug policy.

Naturally, for all activities concerning the production and information retrieval, especially within the Latium Region, it is obvious that the Institute, and consequently the Library, has external contacts: with institutional hierarchy, local government bodies, experts, etc., all in a relationship of reciprocal interdependence.

We can certainly state that biomedical librarians of Rome show great interest - as point of reference for developments - in the First European Conference of Medical Libraries as has been evident on many occasions in the working groups. Undoubtedly, this meeting will yield much as regards cooperation in programming methods and stages of development within the scope of a European library policy, integrating more and more in an evolving process, valid also for Italy.

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MEDICAL INFORMATION RESEARCH AND CO-ORDINATION  
IN THE CZECH SOCIALIST REPUBLIC

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In Czechoslovakia medical library and information services are provided by a system of scientific information in medicine. The system is formed by information centres and libraries in medical research institutes, hospitals and health care facilities.

The Institute for Medical Information in Prague co-ordinates this system in the Czech Socialist Republic, renders library and information services and performs information research.

The activity of the research department is orientated to the solution of problems concerning implementation of new automated information services and library processes, integration of the medical information system with the automated health care control system, co-ordinated acquisition of foreign medical publications, education of medical information users, study of some quantitative features of the communication of medical information and participation in the development and improvement of the international medical information system Medinform.

Co-ordination activity is concentrated mainly on management of the system, training of librarians and information specialists, improvement of organizational structure of the system and statistical surveys.

These activities are aimed at improving availability and more effective use of information in medical research and practice.

## 1. INTRODUCTION

In Czechoslovakia the system of medical information provides library and information services to users in medicine. The system forms part of the national library and information systems and is also an integral component of Czechoslovak system of health care and research.

The organisational basis of the medical information system is constituted by information centres of medical research institutes, hospitals, health facilities, the Public Health Service, spas and enterprises of pharmaceutical industry. The information center provides both library and information services. Its main and substantial part is represented by the medical library.

The objective of the system is the differentiated provision of library and information services to all categories of users in the Czechoslovak medicine. The principle that is being put through is that the users' needs and requirements can be met only by the system as a whole by means of co-operation of the various information centres.

Czechoslovakia is a federation of the Czech and Slovak Republics. In the Czech Socialist Republic the medical information system is headed by the Institute for Medical Information in Prague. Besides providing library and information services, the Institute performs also information research and system co-ordination and gives methodical guidance.

## 2. INFORMATION RESEARCH

The Institute has been engaged in information research since 1973, its main objectives being

- to study new trends in the field of medical information,
- to work out projects for the implementation of new, especially automated, services and to verify pilot schemes,
- to cope with problems of a better availability of all kinds of medical literature and of their effective use.

The solution of the above-mentioned problems is the responsibility of the Research Department. Because the department is rather small, numerous staff members of the other departments of the Institute participate also in research. It is expected that even some personnel of selected information centres of medical research institutes and of health facilities will be engaged in these research activities, too.

The research team has been concerned especially with the study of the following problems:

### 2.1. Implementation of new automated information services

The result of the research has been the establishment of the database of the Bibliographia Medica Českoslovaca, containing data on national medical literature and the introduction of a number of foreign medical and related databases to Czechoslovak users.

The database of the Bibliographia Medica Českoslovaca has been in use since 1979. /National medical bibliography has been processed since 1947 in the classical way./ The annual input of this base amounts to some 10 000 items per year. The database is used in the following ways:

- in the form of printed output data /a monthly bulletin/,
- in the form of SDI, with online information retrieval being under preparation,
- as an annual information survey, published in English under the title "Annual of Czechoslovak Medical Literature", which is being sent abroad in the form of microfiches,
- as the Czechoslovak input into the database of Medinform /in Russian/.

Foreign databases are used in the form of SDI /8 500 profiles from the database of Excerpta Medica, original ones and copies/, in the form of online information retrieval from the database centre in Prague /Excerpta Medica, Chemical Abstract Search,

INSPEC, World Patent Index and others/ and from database centres abroad, mainly the DATA-STAR in Berne, Switzerland.

The problems studied cover also questions relating to the training of information workers in the use of these automated services, the preparation of the necessary manuals and consulting assistance.

It is further intended to solve problems of the use of micro-computer technology for the rationalization of some methods employed in retrieval /1/.

## 2.2. Co-operation of the medical information system with the management information system

Problems connected with the possibility of using technical equipment of research institutes and health facilities /e.g. computers, terminals/ for the introduction of automation into library operations and online access to the Czechoslovak Database Centre are studied.

## 2.3. Co-ordinated acquisition of foreign medical literature

As a result of the research activity co-ordinated acquisition /resource sharing/ of foreign medical literature was introduced in the medical and related information systems.

In the acquisition results of an extensive analysis of users' needs of medical journals are taken into consideration as well as results of citation analyses. Very helpful is the assistance of medical societies in the professional selection of useful journals.

## 2.4. Education of users of medical information

Some information centres at medical faculties, in research institutes and in health facilities educate users of medical information. More detailed data about the state of the art of the information education of physicians in the Czech Socialist Republic were obtained from an inquiry carried out in 1982 and 1983. As this education is neither uniform nor systematic, a decision was made to prepare a project of a system of education of medical information users. In the first phase, the attention of research team is focused on the most important groups of users - the physicians. Conceptual, pedagogical and didactic questions are considered.

Two user manuals have been prepared in advance. Problems of the preparation of information workers and librarians as lecturers, mainly from the pedagogical and psychological aspects, are also being tackled. In 1985 a course was organized on this topic /2/.

## 2.5. Study of some quantitative features of the communication of medical information

Comparative studies have been carried out on the reference patterns of Czechoslovak and foreign authors, or sometimes authors publishing their articles in Czechoslovak and foreign biomedical journals of identical disciplines. As possible causes of statistically significant differences especially differences



in the information supply and motivations of the authors have been considered. Measures were proposed for the elimination of these differences.

Further, the scope and speed of the processing of publications from Czechoslovak biomedical institutes in the Excerpta Medica database were examined in relation to whether the publications appeared in Czechoslovak or foreign journals /3,4/.

## 2.6. Participation in the development and improvement of the international medical information system Medinform

The Institute for Medical Information has actively participated in the development and improvement of the Medinform system. Organizational and technical problems associated with the processing of Czechoslovak input data and with the use of output data in Czechoslovak medicine were also studied.

## 3. CO-ORDINATION AND GUIDANCE

Co-ordination and guidance activities were renewed in the Institute in 1975. Their principles were formulated, the goal-orientation determined, the forms of implementing co-ordination and guidance were proposed, and the organisational and functional aspects of these activities were put on a firm basis.

The guidance in the medical information system is the responsibility of the Institute for Medical Information as a whole, which means that all departments meet the co-ordinating duties in keeping with their special orientation; thus e.g. the Search Department co-ordinates search activities throughout the medical information system.

The Department of Co-ordination has been charged with regulating the co-ordination efforts of the Institute and with pursuing those activities that cannot be done by any other department. This pertains to the following tasks:

- management of the medical information system,
- preparation of conceptual and legislative documents for the Ministry of Health,
- methodical visits in information centres of the system,
- organization of further education of information workers,
- statistics of the system.

Co-ordination and guidance are decentralized, division of work being organized on several levels. Links with central co-ordinating aims and programs are ensured.

### 3.1. Management of the medical information system

Management of the medical information system is performed in co-operation with and under the guidance of the Ministry of Health. Among important forms of management are regular meetings of the key personnel engaged in the system /twice a year/. Usually, the meetings are held in one of the well functioning information centres so that the participants may get acquainted with their concrete conditions and functions. It is mainly the conceptual goals of the system and the approach to the management of the existing problems that are discussed at these meetings. Usually,

the director of the institute in which the meeting takes place, is invited to open the meeting.

### 3.2. Further education of information workers

For medical information workers with secondary school education one-week courses are organized once in two years. For university graduates one-week courses are held every year in the Postgraduate Medical and Pharmaceutical Institute in Prague. These courses are a part of the system of further education of medical and health workers.

The subject-matter of the courses for both categories of workers is to a certain extent identical. It is focused mainly on selected theoretical problems /e.g. theoretical fundamentals of medical information, developmental trends of basic medical disciplines/ or on selected present-day problems /e.g. utilization of available databases/.

### 3.3. System of statistics

The system of statistics has been developed since 1975. It is a part of the statistical surveys carried out by the Ministry of Health. Information centres follow currently 28 indices. The choice of the indices studied was made so that they represent the conditions and activities of information centres. Statistical analyses make it possible to determine priorities of problems encountered in the functions of the analyzed centres, to rectify the co-ordination and guidance activities and to provide matter-of fact arguments for gaining support for the information centres.

## 4. CONCLUSION

Both research and co-ordination activities are closely related. Of importance is the co-operation of both departments not only in the approach to research tasks but particularly in the application of research results in practice.

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INFORMATION POLICY AS AN IMPORTANT FACTOR FOR THE FURTHER  
DEVELOPMENT OF THE CZECHOSLOVAK HEALTH CARE SYSTEM AND  
FOR BIOMEDICAL SCIENCES

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The basic principles of health information policy correlate with the current state and future trends of a whole complex of health care system, biomedical sciences and other connected activities. Health information policy depends also on governmental goals aimed at acceleration and improvement of scientific and technical development. There are various automated information systems at the disposal, increasing number of them in modern online forms. Of importance in medicine are also expert systems and statistical systems and automated information systems for managers. Past and contemporary efforts in the information field aim at relevant covering of information needs in the measure corresponding to the significance and status of health care personnel and scientific workers. National health information policy is also interconnected with international influences and integration processes of public health systems of CMEA states.

Future activities of Czechoslovak information centres and libraries in implementation of new and further development of existing automated information and library systems, improvement of organizational structure and of all activities of the whole national information system; appropriate exploitation of all relevant primary and secondary sources of national and foreign origin / users education/; development of special systems for health care managers; research of different aspects of scientific information in medicine /public health and biomedical sciences/; promotion of international cooperation and integration /participation in existing and future networks, especially in European region/; active participation in scientific and technical development in the field /coordination of information policy with the main goals of national economics/.

An important modifying, controlling and unifying tool in the area of scientific, technical and economic information in the Czechoslovak Socialist Republic is the state information policy that has been pursued in implementation plans and medium-term programmes since the beginning of the seventies. After the verification on a model, results of information research have been gradually introduced into practice, and their actual implementation is facilitated by a number of specific organizational, technical and legislative measures. The information policy principles have been shaped in keeping with the developmental trends, the Czechoslovak specificity, and, likewise, with a due regard to the prevailing international relations in which a priority role is played by the

international socialist integration of states of the Council of Mutual Economic Assistance.

In the postwar period the Czechoslovak health care system, as a tertiary sphere with production components, joined forces with the branches that started a goal-oriented reform of their organizational and institutional platform according to the existing principles and in conformity with the targets of a socialist society. Nationalization of Czechoslovak health services and their development leading to an integrated system of facilities of curative and preventive medical care and an effective scientific research suprastructure is to be regarded as the decisive moment determining also the nature of further components, one of them being the information infrastructure. With its interdisciplinary nature the health care has established co-operative relations with a number of other branches that participate, directly or indirectly, in its functions both through research and certain other activities.

Towards the end of the 'forties and at the beginning of the 'fifties the developing system of scientific medical information found its basis in the Medical Library in Prague and in the Medical Information Centre that co-operated with it /in Slovakia a similar activity was pursued by the Slovak Medical Library in Bratislava/. Matters of jurisdiction and departmental spheres of competence were settled by the foundation of the State Institute for Medical Information and Library Service, subordinated to the Ministry of Health of the Czech Socialist Republic and covering also the library component. Relations with institutions of other socialist countries started to develop in the 'sixties and have been since then gradually stabilized; in this respect an important role has been played by the regularly convened meetings of experts of medical libraries and scientific information institutions in the given area.

In connection with the federative organization of the Czechoslovak state and with the establishment of two national Ministries of Health /the Czech and the Slovak one/ two branch information centres were founded in 1977 /the Institute for Medical Information, Prague, and the Institute of Scientific Health Information in Bratislava/. The Institute for Medical Information was entrusted with the responsibility for information on medical sciences /clinical, paraclinical and related disciplines and medical information/, while the Institute of Scientific Health Information was to orientate its activities on the organization and management of health care, on medico-legal information and other related disciplines. Both institutes act, at the same time, as central medical libraries for the national networks. The division of responsibility is also based on the principle that either of the branch centres carries out its functions in the other Republic through its partner centre. Thus the regional principle was suppressed to a certain extent to the advantage of a topic-oriented approach, but in the management and organization of the system the regional principle is still being applied. In the course of the 'seventies the Institute for Medical Information and the Institute of Scientific Health Information signed an agreement on co-operation with the other branch centres of the co-operating departments. The most important agreements concluded in this respect form, moreover, a part of interdepartmental contracts /so far with the sphere of education and the Academy of Sciences while a contract with the area of culture is under preparation/. The question of the division of responsibility results from the penetration of health

problems into the other departments - at the present time of importance are for example relations to the departments of chemistry, of agriculture and nutrition, food industry, electrotechnical industry, education, culture, and nuclear programme.

The idea of a uniform concept of the system /the branch system of scientific medical information/ was being put through already in the phase of its designing, namely in keeping with the final goals of the state information policy.

From the aspect of its functions the branch system of scientific medical information has a direct connection with the scientific and technological development in the health care system /a link exists with the recently approved Comprehensive programme of scientific and technological progress of states of the Council of Mutual Economic Assistance up to the year 2000/ - it is responsible for supply of information in the individual stages of development and, at the same time, it reduces effectively the risk of a repetition of research both in relation to the national and supranational activities.

The structure of users' categories is given by the delimitation of responsibility, by experience and dynamics of the development of biomedical disciplines. The professional structure /physicians of the relevant disciplines, pharmacists, non-medical graduates, nurses and laboratory technicians, scientific, educational and research workers, student nurses and students of other schools for the training of health workers/ represents an important factor in the implementation of information and library services and their further development. Within the framework of the community demand scientists involved in research and development are preferred in the branch system of scientific medical information, especially in posts where their active participation is needed in the investigation of tasks that have to be approached in the appropriate stages of the science and technology development plans. In the users' sphere the costs are governed by nationally valid principles on relations between organizations that are either state budget-dependent, economically self-sufficient, partly subsidized or of another type. The fact that services of the Institute for Medical information are free, as far as they are provided for the state budget-dependent organizations, makes it necessary in view of the absence of financial regulations, to influence the demand through methodological tools.

The branch system of scientific medical information was designed and is gradually implemented as a user-oriented system applying restricting criteria when these are necessitated by the available capacity, material, technical, financial and other conditions. Services of the system are intended for individual and collective users /including those from abroad, namely on the basis of contracts or actual needs/, mostly irrespective of the type of the users' sphere. In the category of preferred users and in selected services the relevance is tested, and its estimation has an effect on the further improvement of the quality of the services. In the users' sphere also regional and inter-republic differences can be observed; when they are substantiated /e.g. regions with a specific curative-preventive care/, a new order is fixed for the provision of information services. These measures are directly related to the existing capacity available and the costs needed for the operation of the information services.

The objective of the Czechoslovak health care system follows from the Czechoslovak Constitution, from the People's Health Care Act No. 20/1966 of the Code, from concretization of resolutions adopted by Congresses of the Communist Party of Czechoslovakia, and from other related party and state documents. In the Czechoslovak health care system two types of management are in existence - direct /centrally controlled state budget-dependent and economically self-sufficient organizations/ and indirect /Institutes of National Health/. The branch of Czechoslovak health services has a number of important institutes outside the sphere of competence of the Ministries of Health of the Czech and Slovak Socialist Republics. Among the most significant ones are medical and pharmaceutical faculties that are under the Ministries of Education of the Czech and Slovak Socialist Republics, and biomedical research institutes that are under Czech and Slovak Academies of Sciences. The branch system of scientific medical information is defined as a subsystem of the Czechoslovak system of scientific, technological and economic information, prepared and implemented independently of the limits of the different spheres of competence. At the same time, it is a subsystem of comprehensive departmental information systems of the Ministries of Health of the Czech and Slovak Socialist Republics and a subsystem of the international branch system Medinform involved in scientific medical information of the socialist countries. Activities of the branch system of scientific medical information are guided by legislative measures applicable to the Czechoslovak system of scientific, technological and economic information - at present an inquiry is made into the departmental impact of the Decree No. 21/1985 of the Code, issued by the State Commission for Scientific and Technological Development and Investments, through which, besides a number of other aspects, also the relationship to the area of patents and inventions is going to be determined. The information policy receives due attention from both Ministries of Health - in keeping with the objectives contained in the resolutions of the XVIIth Congress of the Communist Party of Czechoslovakia and in agreement with the prognostic studies on the development of the Czechoslovak health care system and its research and developmental basis, there is being prepared at present a complex of measures that will cover also the information policy goals and the tools for attaining them. For the shaping of the information policy and a further development of the concept of the branch system of scientific medical information of importance are also the conclusions and views of the advisory bodies appointed at the respective levels of the management hierarchy /Council of State Scientific and Technological Programme 13 - "State information system for scientific and Technological development", set up at the State Commission for Scientific and Technological Development and Investments, Scientific Council of both Ministries, chiefly its Commission for Scientific and Technical Information, Directing Commission of both Ministries for the Development of an Automated Medical Information System and Introduction of Automated Systems of Management, Council of the Institute for Medical Information and of the Institute of Scientific Health Information, the Central Library Council in the Czech Socialist Republic and the corresponding body of the Slovak Socialist Republic, and other institutions having a relationship to the development of the Czechoslovak system of scientific, technological and economic information/.

Neither the Institute for Medical Information, nor the Institute of Scientific Health Information are so far members of any of the international organizations existing in the given area, even

though some steps have been already taken in this respect. Both institutes are further interested in being entrusted with the function of a national depository library of the World Health Organization - it should be emphasized that they are making effort already now to have in their stores an as complete set of WHO publications as possible, and are also making their best to ensure their rational use in the practice of Czechoslovak health services.

In 1976 foundations were laid for a systematic co-operation among states of the Council of Mutual Economic Assistance. The Institute for Medical Information and the Institute of Scientific Health Information meet, in the framework of the system Medinform, the function of appointed national bodies, the Institute for Scientific Health Information was, moreover, selected to act as the basic body for medico-legal information. The most important subsystem of the system Medinform is the bibliographic base Medik, formed and further developed in the Bulgarian People's Republic. Czechoslovak participation in this base represents about a half of the Czechoslovak production of biomedical publications /some five thousand documents per year/. Information exchange takes place with the use of magnetic tapes, information retrieval is processed off-line /perspectively on-line/ from cumulated files. The possibility of exchanging perspectively this base for a relevant world information system is being considered. In the projection and operation of the system Medinform are involved, in addition to the Czechoslovak Socialist Republic, the Bulgarian People's Republic, Cuba, the Hungarian People's Republic, the Polish People's Republic, the German Democratic Republic and the USSR; marginally, also the Vietnamese Socialist Republic and the Mongolian People's Republic take part in the system.

An important supplement of the national classical and automated services within the branch system of scientific medical information is the information obtained from relevant foreign databases. Since 1978 the magnetic tape service Excerpta Medica has been in operation /at present also the retrospective files prepared in the database centre of the Central technical basis in Prague since 1982/ is available in the on-line regimen - the Institute for Medical Information co-operates closely with the producer with a view to taking rational measures, and perspectively also an active participation is considered gaining input into the system, corresponding to a representative selection of the production of Czechoslovak biomedical publications. In Czechoslovak health services also other available magnetic tape services of a non-medical nature meet with a good response and, through the Centre of Automated Information Exchange attached to the Central Technical Basis also other relevant databases, stored abroad, are made accessible to users in the on-line and off-line regimens. The spectrum of the available databases is sufficiently wide but problems arise associated with obtaining primary sources, although their major part, processed in the respective bases, does come to the Czechoslovak Socialist Republic. As far as the medical practice is concerned, besides the world systems of reviews /Index Medicus, Medicinski Referativnyi Zhurnal/ also the national system of Digests has been found useful; it covers 23 medical specialities - the information workers draw on titles appearing in the journals that are received in the Czechoslovak Socialist republic and, in this way, the availability of full texts of passages in which the users show interest is guaranteed. An important and from the users' point of view much appreciated part of the stores within the branch system of scientific medical literature is the so called grey literature;

reports on duty and study visits abroad /branch registration is based on data of the central registration/ and research reports and accepted scientific theses /the survey of acquisitions forms an annex to the registering non-annotated national medical bibliography/. The branch registration of the mentioned documents is likewise the basis for inputs considered within the system Medinform. The further development of the branch system of scientific medical information is given by the needs of health services in the near as well as distant time horizon. The growing volume of international obligations admittedly draws partly on the existing sources and capacities but, at the same time, it forms a platform for the implementation of otherwise badly attainable goals. A more definite transition to new information technologies will require, in connection with automation, a fundamental change in the standard of technical equipment of the branch system of scientific medical information and also a change in the qualification structure of the staff and a reorientation in the preparedness of the users' sphere. A progress towards more demanding services /factographic information, analytical-synthetic reports, information for the sphere of management/ will be perspectively possible through a requalification, decentralization and internal transfers within the branch system of scientific medical information with a simultaneous modernization of compatible computerization, telecommunications, and reprography.

The main objective of the branch system of scientific medical information is the attainment of a relatively complete supply of information to users, corresponding to the existing needs and requirements, within the Czechoslovak health care system and the co-operating branches. This applies also to the needs of users abroad where the provision of services is based on contracts or the duty to keep international usage in the given area, or depends on the prevailing interest. The branch system of scientific medical information is currently trying to increase its participation in the process of internal integration /interlinks with the other systems within the Czechoslovak system of scientific, technological and economic information/ and at the same time also supranational integration. Similarly as in the socialist states, the Institute for Medical Information makes efforts to ensure or mediate an international flow of information also the framework of other international bodies, represented e.g. by information institutions and libraries of the European region. In the present stage of development conditions are being already prepared for such a more active part, i.e. a participation exceeding the framework of the conventional services. The dynamics of the development of medical sciences, the existence of a whole number of new specialized disciplines and the necessity of a closer co-operation of experts of different branches in the management of key problems - all those are facts to which medical libraries and information institutions must react flexibly. Internationalization of sciences and the increasingly more complicated tasks that research has face will undoubtedly lead to a new concept of the role to be played by the libraries in the world of today. The concept of library networks must be based on the contemporary reality and, at the same time, it has to seek and find ways of overcoming the existing economic, commercial or political barriers. A mutually advantageous co-operation of libraries of the European region might greatly promote an operative exchange of scientific findings and contribute to an acceleration of scientific and technological development on the global scale. I believe that the more radical steps needed for meeting these goals will be facilitated not only by the



rising standard of methods used by computing services, telecommunications and reprography, but also by the necessity to concentrate the available scientific potential in the management of the tasks of medical sciences and health care, which surpasses the possibilities of a single state or of a few states only. The First European Conference of Medical Librarians is opening up a more widely based dialogue on a series of questions of a theoretical and practical nature and demonstrates the efforts made at achieving a more profound integration of the information sphere and at increasing the overall effectiveness of its activities.

## MEDICAL INFORMATION SYSTEM IN POLAND

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### GENERAL DESCRIPTION

The general characteristics of the System may be defined as follows:

The System serves the needs of different categories of users from all over Poland. The System services are both general /e.g. printed bibliographies/ and individual /e.g. online searches/. As a rule there is a close connection between information services and library activities. They are both interconnected within the network of medical scientific and professional libraries. This network functions largely independently of government department affiliation of individual libraries belonging to it. The system is centralized with the Central Medical Library /CML/ in Warsaw being a hub of it. The System employs all modern technologies such as:

- xerography and microfilming for reproduction of original documents;
- computer typesetting and offset for printing;
- automation for information processing.

The System is linked with a number of both national and international information systems.

In Poland it constitutes one of 19 specialized subsystems of national scientific and technical information system /other subsystems deal with e.g. agricultural, chemical or physical information/ and cooperates with 11 other document-type oriented specialized subsystems /e.g. subsystems concerning patents, translations or technical and commercial literature/.

Especially great importance is attached to international cooperation. The Central Medical Library in Warsaw is registered MEDLINE user and has had direct access to KIBIC Computer Centre in Stockholm since 1974. From 1983 thanks to the terminal installed in the British Institute in Warsaw it is also possible for the CML to use three other systems: DIALOG, BLAISE and INFOLINE as well as to loan documents or to order their copies from British Library. The CML also participates in the Comecon medical information system called the MEDINFORM. Within this system the CML is responsible for information languages.

### THE NETWORK

The main node of the network of medical libraries is the Central Medical Library in Warsaw /founded in 1945/. Its stock is the biggest in Poland. It consist of:

- 440 000 volumes of books;
- 120 000 volumes of periodicals;
- over 50 000 items of special collections  
/among them old books, archival and museal items/.

The Library has its own reprographic facilities using the Rank-Xerox and Canon copiers; microfilming section equipped with the Pentacta microfiche systems; printing office with the COMP/EDIT computer typesetting facility and computer centre equipped till now with the ICL-1500 minicomputer system a which shortly to be replaced by an IBM system 36.

The other participants of the network fall into 3 categories. The first one is the group of 12 high medical school libraries and 9 the CML branch libraries both collecting general medicine works. The second group includes specialized libraries and information centres of 17 scientific institutes subordinated to the Ministry of Health. Among them the biggest one is the Institute of Occupational Medicine in Łódź. It has its own computer centre equipped with a large ODRA computer. There are also over 30 libraries administered by other ministries. The third group is composed of over 300 hospital and other professional libraries.

#### OPERATION OF THE SYSTEM

The main task of the System is the provision of information on:

- current medical literature;
- availability of this literature in Polish libraries.

The first function with regard to the world literature is carried out using international medical information systems such as MEDLARS, CURRENT CONTENTS, EXCERPTA MEDICA, BIOLOGICAL ABSTRACTS or CHEMICAL ABSTRACTS /printed versions/. The CML alone has access to online information services such as MEDLINE and DIALOG.

With regard to the Polish medical literature the System produces its own documentation of it. Each regional and some Warsaw based ones library publish bibliography of local authors. The CML produces national medical bibliography in two forms: the current one - selective and the retrospective one - complete.

The second function /information on availability/ takes the form of:

- printed information about new additions to existing bookstock in individual libraries;
- printed lists of current periodicals;
- printed retrospective union catalogue of periodicals;
- individual current contents service.

Factographic information and user education are the other tasks of the System. The Institute of Occupational Medicine in Łódź runs two such systems: toxicological information and information about maximum permissible exposure levels. User education is a routine activity of high medical school libraries.

#### AUTOMATION

The CML was the first library in Poland to introduce automation. From 1974 the Library has had access to the MEDLINE system via Stockholm. Up to the present time over 16 000 retrospective

searches have been done /1 500 in MEDLINE and 200 in DIALOG during the last year only/.

Apart from that the CML has introduced its own, locally-produced following data bases /DB/:

- DB of Polish medical literature /all types of documents/.  
Total No of records: 45 000. Number of records added each year: 14 000;
- DB of periodicals and serials in medical collections:  
3 500 - 2 500 records a year;
- DB of Polish Medical Thesaurus /Polish Version of MeSH - correlated also with the Russian terms/: over 14 000 descriptors;
- DB of multilingual Interthesaurus /10-language medical thesaurus of the MEDINFORM system/: over 9 000 descriptors correlated with MeSH descriptors.

Using its computer facilities the CML has published various lists of periodicals available in Poland /since 1977/; the Polish Medical Bibliography /since 1978/ and the Polish Medical Thesaurus /since 1979/. The contents of the Polish medical literature data base produced by the CML has been deep indexed for the purpose of the future bibliographic information retrieval system.

The Institute of Occupational Medicine in Łódź has developed some very interesting software for use in its factographic data bases.

Automation is to be gradually introduced in the whole medical information network. It is to be based on IBM PC-compatible microcomputers. The CML will organize the production of standard utility programs and possibly cummulation and exchange of local data bases.

#### CONCLUSIONS

The achievements and efficacy of Polish medical information system are based on:

- the application of modern technologies;
- collaboration of different specialists such as indexers, bibliographers, software specialists, system analysts, ecc.;
- cooperation within the national library network;
- international cooperation.

The Polish medical information system has proved itself over the years and it is further developing in spite of all the difficulties. Some of its solutions are on a par with the world medical information practice.

L'accès à l'information scientifique dans un institut de recherche  
biomédicale : nouvelles perspectives

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L'Institut National de la Santé et de la Recherche Médicale, a pour objectif principal le progrès des connaissances dans un secteur fondamental, le secteur de la santé. Il est également chargé, en tant qu'organisme public de recherche, d'une mission de transfert des connaissances scientifiques auprès de l'ensemble de la communauté biomédicale et en premier lieu, auprès de ses chercheurs.

L'information est au coeur du travail du chercheur qui se situe lui-même tantôt comme destinataire, tantôt comme producteur d'informations.

Même si le système d'information documentaire ne représente à l'INSERM qu'un des canaux possibles du transfert d'informations, il n'en constitue pas moins un outil déterminant. L'interpénétration de recherches fondamentales, appliquées, cliniques, épidémiologiques et de santé publique rend complexe la tâche de ceux qui participent à cette activité d'appui et nécessite le recours à des systèmes et à des réseaux performants.

L'INSERM s'est préoccupé très tôt des besoins de ses chercheurs et a mis en place peu après sa création des structures permettant d'y répondre. Mais le développement des techniques et des sources d'information entraîne des remises en cause et des réajustements. Des enquêtes sont menées périodiquement afin de mieux connaître les besoins documentaires des équipes de recherche et leur évolution dans le temps.

En quoi consistent aujourd'hui les besoins documentaires des chercheurs ? Quelles sont les conditions générales pour accéder à l'information à l'INSERM ? Quels sont les problèmes rencontrés ? Quels projets sont en cours, quelles actions sont déjà engagées pour répondre à la demande ? Telles sont les principaux thèmes qui seront abordés dans ce document.

LA COMMUNAUTE SCIENTIFIQUE A SERVIR

L'INSERM comporte plus de 4.500 agents (1900 chercheurs et 2600 ingénieurs, techniciens et administratifs) regroupés en 270 unités de recherche ou services communs situés en règle générale, dans les hôpitaux ou universités. Par ailleurs, l'INSERM accueille dans ses laboratoires propres des chercheurs appartenant à d'autres organismes (2200 personnels universitaires ou hospitaliers et 1200 personnels en formation), ce qui fait que le nombre total des personnes travaillant dans ces laboratoires (environ 8000) dépasse de beaucoup le nombre des personnels statutaires. L'INSERM apparaît donc comme un organisme très ouvert sur les autres institutions, médicales, scientifiques et hospitalo-universitaires.

L'implantation est la plus forte en région parisienne (2/3 en Ile de France et 1/3 dans les autres régions).

Dans l'ensemble, la communauté scientifique de l'Institut se présente comme non homogène et décentralisée : les unités sont réparties dans des ensembles plus vastes, les lieux de travail sont multiples, les financements hétérogènes.

L'imbrication de la recherche avec l'université et l'hôpital est de nature à favoriser les échanges, mais pose un certain nombre de problèmes : dispersion des fonds documentaires, prestations souvent très spécialisées répondant à des besoins ponctuels et diversifiés.

La formation des chercheurs est essentiellement scientifique, médicale dans 29 % des cas. Un petit nombre seulement de chercheurs a reçu une initiation aux systèmes documentaires automatisés.

Tout chercheur se doit de publier le résultat de ses recherches (en moyenne un article par an). L'ensemble de la communauté apporte ainsi une contribution importante à la production d'articles dans les périodiques médicaux spécialisés ; la publication de monographies ou d'ouvrages est plutôt le fait des grades les plus élevés.

Les activités de recherche couvrent l'ensemble du domaine biomédical avec une prépondérance pour le secteur de la recherche fondamentale. Il est à noter que les travaux situés au carrefour de plusieurs disciplines impliquent une information plus difficile à cerner.

42% des chercheurs ont des activités connexes à la recherche (clinique, enseignement, administration) les grades les plus élevés étant les plus nombreux à diversifier leurs activités.

Le travail de recherche, organisé généralement en petites équipes de 3 à 4 chercheurs et 2 à 3 techniciens favorise les échanges sur le plan documentaire. En outre, 54 % des chercheurs ont une responsabilité directe sur les travaux d'autres chercheurs ce qui implique un intérêt pour des sujets autres que ceux qui leur sont propres.

Les enquêtes effectuées au sein de l'Institut ont permis de préciser les sources et les moyens d'informations utilisés, le moment et le lieu où le chercheur exerce sa documentation et le temps qu'il y passe.

Tout chercheur se trouve situé dans un réseau d'information. La transmission de l'information peut se faire de façon informelle, par exemple contacts avec les collègues, ou de façon formelle, par exemple lecture d'articles de périodiques. En général, le chercheur n'utilise qu'une partie du réseau global d'information à sa disposition et notamment il n'utilise pas toutes les ressources existantes. Ceci est particulièrement vrai des systèmes documentaires automatisés.

Les sources les plus citées sont :

- les répertoires de titres et de résumés (70 %)
- les périodiques (61 %)
- les contacts (17 %)
- les systèmes automatisés (14 %)

Le besoin d'information peut s'exercer de diverses façons. Il concerne surtout les thèmes spécifiques auxquels le chercheur consacre son activité :

- 75 % des chercheurs effectuent plus de la moitié de leur documentation sur leur thèmes propres
- 39 % consacrent un quart de leur activité documentaire à des domaines proches
- la part de la documentation effectuée dans un objectif de culture générale est la moins importante. Certains chercheurs la délaissent totalement. Les grades les plus élevés sont les plus nombreux à y consacrer du temps, répondant ainsi à leur rôle d'orientation et de coordination.

Le chercheur consacre une partie importante de son temps à la documentation en moyenne 7 à 8 heures par semaine avec des écarts de 1 heure à 30 heures. Ce travail s'effectue plutôt de façon régulière mais privilégie certaines périodes, notamment le début d'un projet ou sa préparation et le moment de la publication, temps fort de la documentation : le chercheur consacre alors 80 % de son temps à des travaux documentaires.

Le chercheur peut être en quête de documents existants sur son thème de recherche ou dans certains cas, sur ce qui touche à l'environnement de ce thème. Il peut aussi vouloir vérifier qu'aucun document n'existe : c'est la preuve qu'il est alors le seul à travailler sur le sujet. En recherche fondamentale, le chercheur pourra être amené à explorer des thèmes voisins, mais différents du sien afin d'identifier des méthodes et des expériences originales dont il pourra tirer parti. La recherche bibliographique n'a pas toujours, dans ce cas, d'objectif très défini. En recherche appliquée, le chercheur sait, au contraire, ce qu'il recherche et ce, de façon précise. Les situations sont donc variables. Elles laissent toutefois apparaître un certain nombre d'exigences communes :

- extrême diversification et précision des questions posées : La spécialisation a provoqué une fragmentation de la connaissance et donc de l'information recherchée
- besoin d'exhaustivité: le scientifique est extrêmement soucieux d'être tenu au courant de tous les travaux qui sont réalisés de par le monde sur son thème de recherche.
- mise à jour rapide des connaissances visant à réduire au minimum le délai entre la publication d'un résultat et le moment où l'on en est informé.

#### ORGANISATION DE LA DOCUMENTATION A L'INSERM

Il existe deux services de documentation qui ont été les premiers "services communs" mis en place au sein de l'Institut :

- l'IMA, Service Commun n° 1 de l'INSERM, fournit l'accès aux bases de données biomédicales et principalement celles de la National Library of Medicine (NLM, Etats-Unis)

Les prestations et services de l'IMA sont :

- . des recherches bibliographiques rétrospectives et des diffusions sélectives de l'information
  - . des séminaires de formation à l'interrogation des bases de données, avec assistance technique pour l'interrogation en ligne
  - . un service question-réponse
  - . une aide aux chercheurs dans l'organisation de leur documentation personnelle
- Le Service Signalement et Microfiches, Service Commun n° 2 de l'INSERM, diffuse les sommaires d'une collection de 500 périodiques de première importance et fournit des documents sous forme de microfiches. Il permet aux laboratoires abonnés de se doter d'une bibliothèque personnelle, adaptée à leurs besoins et facilement archivable.

A côté de l'IMA et du SC2, chargés d'apporter un appui documentaire à l'ensemble de la communauté INSERM et de mettre en oeuvre des projets nationaux, des centres relais (ou antennes régionales) ont été implantés auprès des administrations déléguées régionales de l'INSERM à Lyon, Marseille et Toulouse pour faciliter l'accès à l'information scientifique aux unités de recherche de ces régions.

La création, en 1982, d'une nouvelle structure, la Mission de l'Information et de la Communication (MIC) a donné un nouvel élan à la politique globale d'information de l'Institut, le transfert de l'information scientifique faisant ouvertement partie des objectifs de l'INSERM depuis cette époque. La Mission de l'Information et de la Communication coordonne les activités de plusieurs services et bureaux travaillant en étroite collaboration et complémentarité.

- le Bureau de la Presse et des Relations Publiques
- le Bureau des Colloques et Publications
- le Bureau de l'Édition
- le Bureau d'Information et de Documentation en bio-éthique
- le secteur de la documentation et de l'information automatisée qui recouvre l'IMA et le Service Signalement et Microfiches.

L'une des priorités de la Mission de l'Information et de la Communication a été la mise en place d'un pôle national d'accès à l'information biomédicale avec la collaboration de partenaires ayant des responsabilités majeures dans ce domaine.

Le programme MEDATA mené en coopération par l'INSERM, le CNRS et la société Télésystèmes consiste à soutenir les efforts d'implantation de bases et banques de données biomédicales sur le serveur TELESYSTEMES-QUESTEL pour améliorer la diffusion de cette information en France et favoriser le développement de produits nationaux.

Dans un premier temps, l'INSERM a décidé d'implanter les bases de données MEDLINE et BIOETHICS sur le serveur TELESYSTEMES sur lequel la base PASCAL est chargée depuis plusieurs années, afin d'accentuer, par des opérations de promotion et de formation communes avec le CNRS, la complémentarité entre les deux bases.

Le calendrier MEDATA prévoit, d'ici la fin de l'année 1986 :

- la publication d'un thésaurus biomédical français-anglais (correspondance du thésaurus MeSH de MEDLINE et du lexique de PASCAL)
- un nouveau langage, plus performant, pour l'interrogation en ligne de MEDLINE et PASCAL : QUESTEL PLUS, mis au point par le serveur
- un accès simplifié sur MINITEL à MEDLINE (dialogue guidé par des menus) pour les utilisateurs occasionnels ou qui n'ont que peu de temps pour se former au système
- également sur MINITEL, on pourra avoir accès en kiosque, aux SOMMAIRES des 250 revues internationales les plus demandées (avec commande en ligne de la photocopie du document ou de sa microfiche).

En dehors d'une contribution à l'effort national en matière d'information scientifique et technique, la MIC et les Services de Documentation se fixent actuellement comme autre priorité d'améliorer la circulation de l'information au sein de l'organisme et de développer des produits documentaires nouveaux, mieux adaptés aux besoins.

Une enquête nationale, menée en 1983 après des chercheurs, a permis de mieux connaître la situation réelle de la documentation dans les unités et de réorienter les services rendus dans le sens des préoccupations de la communauté scientifique.



## LES CONDITIONS ACTUELLES DE LA DOCUMENTATION DANS LES UNITES DE RECHERCHE ET LES PROBLEMES RENCONTRES

Le manque de temps à consacrer aux tâches documentaires apparaît comme un problème de base (plus de 50% des chercheurs).

À côté du temps consacré à la lecture, considéré comme essentiel, le temps pris par les tâches documentaires proprement dites - recherche de références et surtout de documents - apparaît lourd.

Peu d'unités disposent d'un ou d'une documentaliste exerçant à temps plein des activités documentaires. Les tâches "matérielles" - tenue de la bibliothèque, reprographie, commande et diffusion de documents - peuvent être effectuées à temps partiel par une personne exerçant d'autres fonctions : secrétariat, aide technique aux chercheurs. Les activités bibliographiques "intellectuelles" - analyse, synthèse et classement des documents - sont plus souvent le fait des chercheurs eux-mêmes. Dans certains cas, l'un des membres de l'équipe a pu être désigné par ses collègues pour ce travail.

La recherche des références est facilitée par le recours aux systèmes automatisés. Pour l'IMA et les antennes documentaires régionales de Lyon, Marseille, Toulouse, les demandes de recherches bibliographiques des chercheurs de l'INSERM représentent :

- un tiers de la production globale pour les recherches rétrospectives
- la moitié de la production globale pour les diffusions sélectives périodiques.

L'accès des unités aux recherches rétrospectives et aux diffusions sélectives est globalement plus important, bien que difficile à évaluer précisément. En effet, il peut s'effectuer par d'autres canaux :

- accès direct au serveur pour les unités qui disposent d'un terminal et d'un code d'accès et qui sont devenus ainsi "Centres Associés" de l'IMA (environ 10% du réseau de Centres Associés de l'IMA)
- accès par l'intermédiaire de laboratoires pharmaceutiques ou des bibliothèques universitaires.

Les deux produits s'emploient généralement en complément de la lecture de revues spécialisées ou du dépouillement de la revue de sommaires du Service Signalement et Microfiches ou des Current Contents. Ces revues de sommaires offrent l'avantage d'une information plus fraîche, mais adaptée de façon moins précise aux thèmes de recherche et moins exhaustive.

Le facteur qui limite l'utilisation de MEDLINE dans les unités est essentiellement l'absence de personnel (documentaliste) susceptible de pratiquer régulièrement l'interrogation en ligne. Il est en effet difficile actuellement de demander à chaque chercheur d'interroger la base directement.

On observe que les unités connectées traitent un nombre nettement plus important de recherches bibliographiques (60 à 100 par an) que celles qui s'adressent pour cela à l'IMA ou aux antennes régionales (2,5/an et 5/an respectivement).

La possibilité de pouvoir "télécharger" des fragments de bases de données bibliographiques sur microordinateur ou de disposer de diffusions sélectives sur disquette devrait encore accroître l'intérêt des chercheurs pour la documentation automatisée.

Les chercheurs estiment très important le fait de pouvoir disposer sur leur lieu de travail d'un fonds documentaire propre, directement accessible et leur permettant de suivre étroitement le progrès des connaissances dans leur domaine : les chercheurs aiment "feuilleter" de manière régulière quelques revues. Le nombre d'abonnement par unité est variable : de quelques unes à quelques centaines, en moyenne quelques dizaines. Ces abonnements concernent dans 4/5 des cas des revues étrangères, généralement anglo-saxonnes.

De fait, 76% des unités disposent d'une bibliothèque, mais 70% des chercheurs déclarent compléter leur recherche de documents en faisant appel à des bibliothèques extérieures :

- au CNRS	73%
- aux bibliothèques universitaires	69%
- au Service Signalement et Microfiches de l'INSERM	35%
- à des bibliothèques diverses	35%

La présence, à Paris, de nombreuses bibliothèques spécialisées apparaît comme un avantage certain pour les chercheurs de la capitale.

Des fonds documentaires peuvent être communs à plusieurs unités. L'autorisation de l'accès des bibliothèques d'unités à des personnes extérieures à l'INSERM demeure volontairement limité en raison du manque de personnel pour assumer les tâches de gestion correspondantes.

Dans l'ensemble, le nombre d'abonnements souscrits par l'organisme apparaît comme important, même si les unités ne peuvent pas se suffire à elles-mêmes.

Une meilleure connaissance des fonds documentaires existants devrait permettre de faire quelques économies en exploitant les échanges entre unités géographiquement proches. Le développement, au sein des unités, des bibliothèques de microfiches - d'un coût moins élevé que la documentation "papier" - permettrait d'accroître ces économies.

Les unités s'équipent progressivement en matériel informatique (au moins 50% d'entre elles en possèdent). Il s'agit le plus souvent de microordinateurs. Une grande disparité existe : certaines unités ont jusqu'à 8 microordinateurs, d'autres n'en n'ont aucun, quelques unes possèdent un mini ordinateur.

Ces équipements sont généralement achetés pour conduire des expérimentations scientifiques. Mais l'apparition, dans une unité, d'un microordinateur destiné à des travaux de recherche fait penser à d'autres applications telles que l'informatisation de fichiers bibliographiques manuels, ou la création de logiciels adaptés aux besoins de l'unité.

#### LES ACTIONS ENGAGEES AUPRES DES CHERCHEURS

Pour remédier au manque de temps dont se plaignent les chercheurs, il faut les encourager à faire davantage appel aux systèmes documentaires automatisés: ces systèmes demeurent, en effet, encore insuffisamment utilisés; ils sont encore méconnus de certains chercheurs. Or, ils sont appréciés par ceux qui les utilisent et jugés efficaces pour compléter l'information acquise par la lecture régulière de quelques revues spécialisées et par les contacts informels entre scientifiques.

Un effort tout particulier de sensibilisation des chercheurs, sur le lieu même de leur travail, a été entrepris en collaboration avec le CNRS.

En Ile de France, des sessions d'initiation à l'interrogation des bases MEDLINE et PASCAL sont organisées dans les laboratoires de l'INSERM et CNRS (8 sessions de ce type ont eu lieu en 1985).

De plus, les personnels (documentalistes ou chercheurs), qui se voient confier la charge de recherches bibliographiques dans les unités, sont largement invités à suivre les séminaires de formation à l'interrogation en ligne organisés par l'IMA.

Enfin, l'interrogation à brève échéance de MEDLINE par MINITEL sur un mode "convivial" ne nécessitant aucune formation préalable devrait être de nature à en ouvrir plus largement l'accès aux utilisateurs finals.

Le chercheur souhaite pouvoir disposer d'un fichier de références qui lui soit personnel et qu'il puisse régulièrement mettre à jour.

Pour aider les chercheurs à se constituer sur microordinateur des bases de données personnalisées, leur apprendre à extraire des grandes bases de données, par télédéchargement, les références souhaitées, à leur apporter des compléments originaux, des sessions de formation seront mises en place dans les mois qui viennent. IL est également prévu de diffuser des mises à jour périodiques (DSI) sur disquette.

Les services de documentation de l'Institut affirment aussi leur volonté d'amorcer une meilleure communication avec leurs utilisateurs privilégiés que sont les chercheurs de l'Institut, afin de mieux les informer, de mieux connaître leurs exigences et de mieux répondre à leur attente. Plusieurs initiatives ont été prises dans ce sens :

- Un journal interne, "La Lettre de la Documentation", est envoyée tous les deux mois aux unités. Ce journal est le support d'informations sur les bases de données en médecine et en biologie, l'accès aux documents primaires, les logiciels documentaires. C'est aussi le moyen d'échanger régulièrement des idées et des expériences par la tribune libre.
- Un annuaire des personnes désirant participer à des échanges (documents logiciels, expériences documentaires) a pu être établi.
- Plusieurs "Journées Nationales de la Documentation à l'INSERM" ont eu lieu (une chaque année depuis 1983). Elles ont permis aux équipes de recherche de s'exprimer sur leurs projets et réalisations documentaires, par exemple
  - . messagerie inter-bibliothèques sur MINITEL
  - . télédéchargement à partir de l'interrogation de MEDLINE et d'autres bases permettant de constituer des bases de données personnalisées avec enrichissement des données télédéchargées (mots-clés spécifiques, commentaires, localisation du document...)
  - . catalogage des publications reçues par les unités INSERM localisées sur un même site géographique
  - . logiciels documentaires conçus localement.

Ces réunions - véritables carrefours d'échanges - ont été suivies avec un intérêt grandissant.

En fait, les unités prennent conscience de l'évolution qui s'opère par la mise en place des grands réseaux documentaires.

Les actions de coopération nationale ou internationale, déjà nombreuses dans ce domaine, ont permis, sans conteste, que l'information publiée de par le monde soit devenue plus accessible au chercheur. Paradoxalement, les relations entre unités ou services d'un même organisme ne sont pas toujours aussi bien organisées. Or, que faut-il pour que naisse ou fonctionne un réseau ? Il faut que soit ressenti, au sein d'une communauté, le besoin de partager des ressources, des tâches ou des expériences. La nature des produits d'un réseau, liée aux ressources mises en commun peut être variée, annuaire de personnes, catalogues de documents permettant de résoudre le difficile problème de l'accès à une publication, interconnexion à des bases de données, messagerie électronique.

Les réflexions développées à ce sujet ont conduit à la création d'un "Club Information et Documentation INSERM" qui aura pour mission de développer un tel réseau au sein de l'INSERM, réseau interconnecté avec les Centres de Documentation qui restent les agents essentiels du transfert de l'information et avec les réseaux extérieurs.

Le Club Information et Documentation, qui a tenu sa première assemblée générale en juin 1986, fera aussi porter sa réflexion sur la formation, l'information, le conseil technique destiné aux personnels, le réemploi des fonds documentaires ayant appartenu à des unités qui ferment et la mise en commun d'équipements.

L'INSERM s'engage résolument dans une nouvelle étape : les chercheurs, utilisateurs des services d'information deviennent eux-mêmes des acteurs, les Centres de Documentation jouant le rôle d'animateurs. Ceci pourrait être à l'origine d'une progression significative de l'accès de la communauté scientifique à l'information.

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## ACCESS TO DATA IN A BIOMEDICAL RESEARCH INSTITUTE : NEW PERSPECTIVES

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The Institut National de la Santé et de la Recherche Médicale (INSERM) is entrusted, as a public research agency, with the task of transferring scientific knowledge to the entire biomedical community and, as a priority, to its research workers.

Information is today, more than ever, essential for the researcher. The number of sources available is increasing. The researcher is quite often isolated and little aware of the new methods available. The researcher is often obliged, for reasons of time and priority, to turn this essential information into a supplementary activity.

This situation has given rise to specific initiatives in order to complete the traditional services that were carried out by the people in charge of the Task Force on Information, Communication and Documentation Services.

The emphasis is placed on the search for better communication, taking into account the dispersion of about 270 INSERM laboratories on French territory and better use of the resources available within these units (documentation resources, equipment, etc.). The need to create closer links with the researchers is felt: the users can also be players who enrich the community with their experiences and reflexions. The use of microprocessing, for example, has revealed interesting local experiences including some in the documentation field. The documentation services have to create a structure to bring these initiatives to light and allow the whole community to benefit from them.

The advantage of an internal INSERM network for resource sharing and the indispensable inter-connection with the Documentation Centres that remain the essential agents for the transfer of data as well as with the networks outside of INSERM seems obvious. Several new actions go in this direction: organization of "Documentation Days", creation of a liaison bulletin, lists enabling the organization of exchanges and, more recently, a Documentation Club. All we have to do is measure the impact.

## COOPERATION BETWEEN MEDICAL LIBRARIES IN BELGIUM

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This article describes the origin and objectives of structured cooperation between medical libraries in Belgium in the period 1983-1986. So far the main realizations of the newly founded Belgian National Committee of Medical Libraries are a project for resource sharing of journals and the production of a union catalogue of bio-medical journals, called: Biomed. Projects have been formulated to improve interlending between medical libraries by using new technologies as e.g. the electronic mailbox system and telecopiers.

### 1. INTRODUCTION.

Structured cooperation between medical libraries in Belgium is of recent date and has grown out of pure necessity. Indeed in 1983 Dr.M.Walckiers, director of the medical library of the Catholic University of Louvain, took the initiative to call upon his colleagues to create the Belgian National Committee of Medical Libraries. Objectives, realizations, difficulties encountered and future plans of this committee will be discussed in this paper.

#### 1.1 ORIGIN AND OBJECTIVES.

In 1983 the Belgian National Committee of Medical Libraries has been founded under the auspices of the Belgian National Fund for Scientific Research. This committee has grown out of the concern for the increasing number of periodical cancellations in biomedical libraries in the early eighties. In less than 3 years some 25% of all periodical titles had to be discontinued due partly to a reduction of university funding by the government but mainly to the steeply rising prices and the rise of the Dollar and some other foreign currencies in respect to the Belgian franc. Coordination and rationalization of the acquisition and cancellation policies towards biomedical journals was seen as an extremely important factor for maintaining an appropriate level of scientific documentation in our medical libraries and so became the prime objective of the newly founded committee; the second objective being the improvement of interlending between medical libraries.

At present the committee is limited to medical libraries in universities and national health care institutions. The librarians of several major pharmaceutical firms have shown great interest for the activities of the committee and probably will join it soon.

## 2. REALIZATIONS.

### 2.1 Resource sharing.

Facing the problem of vast numbers of journal cancellations in the biomedical libraries the committee aimed to assure the presence in the country's libraries of at least one copy of every important biomedical periodical. To prevent the cancellation of valuable unique titles it was felt necessary to create a union catalogue of all current periodical titles in biomedical libraries and to check annually the proposals for discontinuing titles against the holdings of this union catalogue. The first edition was published early 1985 and updated by the end of the same year. This second edition counts 341 pages, ca. 3.250 periodical titles and 6.719 holdings in 33 biomedical libraries (ratio titles-holdings 1: 2.07). The average title-holding ratio (an average of 2 copies per title) clearly illustrates the need for a cooperative action to ascertain the very existence of important periodical titles in the country.

Then indeed it was not felt necessary to protect every periodical title. Titles of less importance can easily be found in the libraries of the surrounding countries. Unlike the project of defensive subscription policy formulated in 1982-1983 by the VLLR (Flemish Interuniversity Council) that made use of the ISI-Journal Citation Reports and the price per citation to identify important journals for pure sciences and medicine, the Belgian National Committee of Medical Libraries just uses good sense and the members' knowledge or impression of the use of certain journals. This strategy has already led to the rescue of some important biomedical journals. Moreover the owner-institution of a unique title (title with only one holding in the union catalogue), well aware of the fact that it has got the last copy in the country, will not easily cancel such a title. If for whatever reason this happens the committee will be notified and, in the case of a valuable title, may try to find another library willing to take over this threatened journal. An attempt to obtain extra national funding for subscribing to unique titles in way of cancellation proved not to be successful.

In the future the committee should pay attention not only to the factor of presence of a title in the country's libraries but also to the factor of real disponibility for interlending purposes in the form of a quick delivery service for photocopies of journal articles.

### 2.2 Union catalogue, called BIOMED.

Although created for the purpose of collection management the union catalogue of 33 biomedical libraries soon became a tool for interlibrary lending and photocopying between medical libraries (1). This situation raised the more fundamental problem of general interdisciplinary union catalogues versus partial union catalogues on a regional or interdisciplinary basis (2).

Belgium has two main interdisciplinary union catalogues of current periodicals.

- a. A union catalogue produced by the Royal Library in Brussels and published in 1965 with 2 supplements on COM-fiches in 1975 and 1979 (3). This union catalogue doesn't include Belgian periodical titles and the holding statements of the main part (1965) have not been updated. Both factors are reducing the usefulness of this older union catalogue.

## b. Antilope.

This catalogue (29.000 titles, 40.000 holdings) has its roots in a local Antwerp union catalogue. (4) After the affiliation of this catalogue with the Council of University Librarians it became in 1981 (4th edition) a new national catalogue of current periodical titles. The publication of the fifth edition however encounters some difficulties and had to be postponed till 1987.

University librarians tended to support the idea of an interdisciplinary catalogue like Antilope, hereby stressing the point that medical libraries themselves need a multidisciplinary catalogue as ca. 30% of all interlending by medical libraries goes for non-medical titles as e.g. psychology, sociology, computer sciences, engineering sciences etc. Moreover they were anxious about the very existence of the printed edition of Antilope if the important medical libraries (in terms of numbers of interlending requests) would withdraw their support from Antilope.

This conflicting situation seems to near a solution. It is hoped that all titles listed in the BIOMED-catalogue will be inserted into Antilope, out of which they can be selected for collection management purposes. As however the fifth edition of Antilope will not be published before the end of 1987 this allows for an other separate edition of the biomedical union catalogue. The new edition will contain the titles of the 3 universities that so far were not listed in the previous editions and will therefore give full coverage of current periodicals in the biomedical libraries in Belgium. This edition will be published as a paper edition, but libraries capable of using the database in an electronic way will be given the opportunity to acquire the database on a floppy disc for use with an IBM(-compatible) personal computer.

## 2.3 Interlending.

Interlending in Belgium in general has 3 main characteristics.

## a. Low volume of interlending requests.

Compared to some other countries Belgium has a rather low volume of interlending requests (200.000 requests per year or 20 requests per 1.000 heads of population).

Table 1: Number of annual IL-requests per head of population

	Annual requests (in millions)	Population (in millions)	Requests per 1.000 inhabit- ants
USA (McDonald, 1981)	24.8	217	114
USA (Stevens, 1979)	17.3	217	80
Netherlands (1982)	0.725	14	52
UK (1985)	2.67	56	48
Norway (1981)	0.19	4	48
Germany, BRD (1981)	1.8	61	29
Germany, DDR (1982)	0.37	16.5	22
Belgium (1986)	0.2	9.8	20
France (1976)	0.6	53.5	11



## b. Rather low satisfaction rate.

Belgian research libraries report an average satisfaction rate of 71-73% of all requests issued, whereas other Western-European countries report rates of 80-96%.

## c. High dependance on foreign libraries.

Belgium ranks among the heaviest overseas users of the British Library Document Supply Center. To a certain extent this is not unusual. Smaller countries always will have to rely on libraries in the surrounding countries (5). But looking at the interlending figures for individual libraries one immediately sees that some libraries prefer to access good (i.e. rapid) delivery centers outside the country, even if the material requested can be located via a Belgian (union) catalogue.

The Council of University Libraries has been promoting interlending since the early seventies by creating a uniform pricing system (1977): presently 150 BF per article of maximum 30 p. and per loaned item, a van delivery system between the major libraries (1980) and interlibrary lending rules (1981) that pay much attention to the speed of supply (supply in 48 hours, exclusively the transmission time, no more than 3 libraries to be searched). At present no such system as the Dutch PICA-NCC/IBL system for interlending exists in Belgium (6).

Based upon statistics from the Universities of Leuven and Antwerp medical titles account for ca. 30% of all interlending requests (ca. 65.000 requests per year). A rather substantial part of these titles (up to 25% in some libraries) are provided for by foreign libraries as e.g. the British Library Document Supply Center, the Royal Academy of Sciences in Amsterdam, the Central Medical Library of Cologne, the CDIST in Paris and some Swiss libraries. Intercontinental borrowing/photocopying is rather exceptional. Indeed some biomedical librarians avoid sending requests to Belgian libraries that are reputedly slow in supplying photocopies and prefer instead sending requests to foreign libraries with better supply times, even if this implies a substantial price increase. It will therefore not surprise that the overall supply time of biomedical literature is far higher than the theoretical 6 to 8 days that could be expected by observing strictly the rule of 48 hours internal supply time in the receiving library.

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Table 2: Theoretical supply time by strict observance of the 48 hours' rule

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post	internal supply time	post	weekend
2 days	2 days	2 days	2 days

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According to statistical evidence from the University of Antwerp the median supply time of biomedical literature, taking into account national and international supplies is 12 days. (7)

Table 3: Supply times of interlending in the University of Antwerp (1983)

		biomedical titles	all titles
25%	after	9 days	9 days
50%	after	12 days	14 days
75%	after	18 days	26 days

These supply times for medical literature are only slightly better than the overall figures and surprise somewhat because as a general rule biomedical titles are easier to locate than titles in e.g. the human sciences.

Projects have therefore been formulated to improve the speed of supply among biomedical libraries.

1. Use of an electronic mailbox system to transmit requests quickly to participating libraries.
2. Use of telecopiers to avoid the postal delays; a project however to be studied with great care as indicates recent literature (8).

One may however not forget that so far the main source of delay does not lie in the transmission of requests and photocopies but in the internal transaction time both in the sending and receiving libraries. A better library structure and faster internal procedures in all libraries and especially in those with an ill reputed speed of supply are necessary to speed up the overall supply time and to avoid excessive foreign interlending.

The projected use of new technologies for transmitting requests and photocopies between libraries could be made less promising by the advent of electronic document storage and delivery systems like Adonis, provided the charges for these international commercial systems, remain at a reasonable price (9).

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