

**COMMUNICATION PATTERNS AND INFORMATION SEEKING  
BEHAVIOUR OF HEALTH SCIENCE RESEARCHERS /  
SCIENTISTS – A STUDY OF ICMR INSTITUTES.**

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**1- INTRODUCTION :**

Health Sciences enjoy universal value and demand and for that reason the health care practices are identical in almost all countries of the world. Hence the health literature has to be transmitted across national boundaries. The proliferation of health literature at an accelerated speed throughout the world leads to the problem of exponential growth of knowledge. The information requirements of the users are also increasing day by day to have an access to the widest possible range of literature. In these circumstances the Health Science libraries have to play their role as real centres of intellectual activity and to disseminate knowledge. They act as channels for transmission of information, with a multitude of information services, to support Health Science research. This has led to a growing interest to know the functioning of Health Science Research libraries in recent times. The Indian council of Medical Research is an autonomous apex body responsible for the organisation and management of research and education in the field of medicine. The council was set up in 1950. The Head quarters of the ICMR is located in New Delhi.

As the apex autonomous body of India in the area of biomedical and health research, the Indian Council of Medical Research (ICMR) has evolved, over the years, research strategies for intramural and extramural research in identified thrust areas, which coincide with the national health

priorities. Research on thrust areas like communicable health, nutrition, environmental and occupational health, non-communicable diseases (like cancer, cardiovascular diseases, mental health problems, metabolic and degenerating diseases, etc.) and also research on indigenous drugs / traditional medicine has been under tajeen.

Intramural research is carried out by the council through 21 permanent research institutes in different parts of India, as also Regional Medical Research Centres. Extramural research is implemented through centres for Advanced Research and a large number of centrally co-ordinated multicentre projects as also through open-ended research in various medical colleges / hospitals, universities and non-ICMR research institutes.

Health Science Research Institutes aims at promotion of research for the better condition of the humanity. ICMR promotes research suitable to the health needs of the country. The Health Scientists produces important research findings which are applied in medical treatment. It is no exaggeration to state that libraries are one of the primary sources of knowledge that contributes to the development of medical research through dissemination of national and international health research information. So, the Health Science Research libraries have a crucial role to play directly in the promotion of Health Science research. An attempt has been made to examine how far the institute libraries of ICMR have been fulfilling this objective. A survey was conducted to find out whether these libraries are fully equipped to serve the user community. User satisfaction is an obvious measure to evaluate the performance of the libraries. Therefore, the present work seeks to study the "provision" of library services and the "utility" of the same by the health science scholars.

## **2. NEED FOR THE PRESENT STUDY :**

Library and information science literature reveals that attempts to know the information requirements of health science researchers at global level are few in number. The Indian context shows that the studies carried out were centered on availability of library facilities in health organisations and revealed their inadequacies. However, it is quality, rather than quantity, of information sources and services that makes the user successful in getting his required information. In India, reported studies on health science researchers have not yet taken up. Hence there is a dire need to study the user's attitude with the available library facilities. There has been a shortage of the studies on the information seeking behaviour of Health Science professionals of ICMR institute libraries. Without undertaking an in-depth survey, it is difficult to get a true picture of the strength and weaknesses of ICMR institute libraries and the aspirations of the users. Hence this is a premier attempt in this direction. The present study is intended to provide an in-depth analysis on the topic.

" Communication patterns and information seeking behaviour of Health Science Researchers / Scientists - a study of ICMR institutes."

## **3. PROBLEM SPECIFICATIONS :**

The present study examines the prevailing situation in ICMR institute libraries with reference to money, man power, material resources and information services.

It further intends to determine whether the facilities of the libraries are responsive to the needs of its users and to find out how far the users are putting the sources and services to the productive use.

#### **4. HYPOTHESES :**

The study has been taken up with the following two major general assumptions :

- a) Being advanced research institutes and having sound financial support from Government, it has been assumed, that ICMR institute libraries are well organised, well equipped and offers advanced information services. They have developed network links and acts as effective communication channels for the dissemination of health science research information available at global level.
- b) The Researchers / Scientists are making optimum utilization of library services. Also, they have been utilizing the online services provided locally, nationally and globally, as ICMR has established ICMR - NIC network. Hence, the researchers are fully satisfied with the existing library facilities and getting timely and speedy access to required information.

#### **5. OBJECTIVES:**

The aim of the present study is to examine the above stated problem on the basis of survey of ICMR institute libraries and also users. The objectives of the present survey are as under :

- i) To identify the degree of development of ICMR institute libraries in terms of
    - a) Physical facilities, b) Finance, c) Information Resources, d) Manpower, e) Services and f) Utilisation of libraries.
  - ii) To evaluate the existing system of ICMR institute libraries in accordance with the norms laid down by experts within and outside the country.
- Hi) To identify the defects or deficiencies of ICMR institute libraries in collecting, organising and disseminating health science knowledge.

- iv) To assess the communication patterns of health science researchers / scientists working in ICMR institute.
- v) To findout how extensively the information sources and services are used and / or unused,
- vi) To sought the opinion of users on the adequacy of resources collection and information services of their institution library.
- vii) To guage the awareness of users about the online facility and to assess the extent of their utility.
- viii) To ascertain the expectations of health science researchers on the existing health science library systems.
- ix) Finally to suggest measures to improve the existing facilities and services to achieve user satisfaction.

## **6. METHODOLOGY :**

It was decided to employ the survey method, using the questionnaire as the main data collection method to carryout the survey. *i*

The study consists of two aspects a) study of the selected ICMR intitute libraries, to findout the provision of facilities and services, b) study of the communication patterns and information seeking behaviour of scientists working in ICMR institute libraries to traceout the use pattern of information sources and services.

### **6.1 SCOPE :**

The ICMR comprises of 21 permanent, 6 regional and 11 advance research institutes. However, the scope of the study ha sbeen restricted to the permanent research institutes of ICMR. Further it has been geographically

limited to nine selected ICMR permanent research institutes present in Southern and Western regions of India. The selected permanent institutes are as under :

- 1) National Institute of Nutrition, Hyderabad (NIN)
- 2) Food & Drug Toxicology Research Centre, Hyderabad (FDTRC)
- 3) Laboratory Animals Information Service Centre, Hyderabad (LAISC)
- 4) Tuberculosis Research Centre, Chennai (TRC)
- 5) Institute of Research in Medical Statistics, Chennai (IRMS)
- 6) Vector Control Research Centre, Pondicherry (VCRC)
- 7) Centre for Research in Medical Entomology, Madurai (CRME)
- 8) Institute of Research in Reproduction, Mumbai (IRR)
- 9) Enterovirus Research Centre, Mumbai (ERG)

However, the scope of the user survey includes all kinds of researchers / scientists associated with the advancement of health science research in India, working under the aegis of ICMR.

## **6.2 SELECTION OF THE SAMPLE :**

It is difficult to study the entire population due to the general constraints such as time, money, lack of research facilities etc., The nine selected ICMR permanent research institutes have a total population of 272. For giving equi-importance, each institute library is taken as a unit and a 40% sample is drawn by simple random sampling. Since there is a career difference in the use of library among various Health Science researcher / Scientists, the stratified random sampling technique is used. The population has been stratified as, senior researcher officers and Junior researcher officers and analysed.

### **6-3 METHOD OF DATA COLLECTION :**

To collect the required data, after careful thinking, it was decided to adopt a survey method with questionnaire as a tool, inspite of its limitations, for the study.

Two questionnaires have been prepared. One for the librarians to know the existing library facilities and services and the other to the researchers / Scientists to seek their opinions regarding the use of their institute library.

The questionnaire which was served to the ICMR institute librarians incorporates the aspects such as a) Physical facilities, b) Organisational structure, c) Structure of Man power, d) Financial management, e) Information resources, f) Information services, g) Equipment etc.

The questionnaire which was served to the researchers / Scientists includes aspects such as :

- a) Priorities of researchers / scientists regarding communication patterns ie. formal or informal.
- b) The Priority of informations sources and how they locate information
- c) Utility of their libraries
- d) adequacy of sources and services available in the institute library,
- e) Users access to online services and their experiences.
- f) Suggestions in order to improve their institution library.

The investigator made personal visits to the selected nine ICMR

institutions to distribute the questionnaires and to observe the prevailing conditions of these libraries. The response rate from the librarians is hundred percent, an encouraging factor of personal visits. All the librarians were cooperative and filled-in the questionnaire. With regard to the users survey, the questionnaires were distributed and responses were collected during the period ranging between January to April 1996.

## **7. PLAN AND DESIGN OF THE STUDY :**

The study has been divided into six chapters.

Chapter -- I deals with Health Science research: its definition, Scope, Objectives etc.

Chapter - II deals with the development of Health Science research and research libraries in the developed and developing countries with specific emphasis on Health Science research and research libraries in India.

Chapter - III deals with the review of previous studies, justification of the present study and methodology adopted to carry out the present study.

Chapter - IV deals with the survey of the ICMR institute libraries

Chapter - V deals with the analysis and findings of users survey at ICMR permanent research institutes.

Chapter - VI deals with the findings and conclusions drawn from the study. It also includes some recommendations relating to the library services and area of further research, followed



by a select bibliography and appendices

## **8 MAJOR FINDINGS :**

- i) None of the libraries have independent building and are suffered with inadequate accomodation. However, almost all libraries have been provided with communication facilities such as telephone, telex etc.
- ii) The manpower in these libraries, compared to the existing recommendations made by the professional bodies, is highly deplorable. The libraries have not fulfilled the standard requirements especially with respect to professionals and semi-professionals.
- iii) There is no uniformity of budgetary sanctions. Indeed the sanctions are arbitrary without following any criteria such as number of users, or projects on hand etc.
- iv) The acquisition of books and other monographic material is by no means comprehensive. The periodical collection are particularly sparse and the microform and audio-visiual collection are also scanty. Hence the libraries are not upto the standard in their collection building. The financial crunch has lead these libraries towards slump in documentary collection development.
- v) Organisation of information sources also varies from library to library though they are working under the same parent organisation ie. ICMR.
- vi) The picture regarding the information services offered is also not rosy. Lending and consultancy of documents and references are the only services being provided by the institute libraries surveyed. CAS is being offered in five of the libraries while the

preparation of subject bibliographies are maintained by only two libraries. Further, these libraries are not able to utilise a magnitude of services available at national and international level to cater the information requirements of researchers / scientists.

vij) Another obvious finding is the absence of cooperation among these libraries. A strange feature is that even inter-library loan facility is not in practice. It is expected that there could be minimum of linking among the sister institutions, just like in CSIR laboratories (India), which are networked through SIRNET to communicate research information.

viii) A startling revelation is that these libraries are not functioning as per the recommendations made and their services are sub-standard compared with recommendations developed around 15 years ago by professional organisations. Neither the ICMR nor the Government of India has developed any norms or guidelines for efficient functioning of these research libraries.

The findings of user survey also reveals certain of startling findings.

a) About 60% of the scientists prefer formal means of communications instead of informal.

b) About 80% of the scientists communicate their research progress through printed publications and the rest through peer group discussions and conference papers, This again emphasises the

scientists inclination towards formal means of communications.

- c) 50% of the scientists are aware of the existence of invisible colleges among the health science researchers and are making use of them for informal communication of current research information.
- d) More than 70% of the scientists locate retrospective literature through scanning primary sources and abstracting / Indexing Periodicals. Most of the scientists locate current information through physical scanning of current journals and current contents. However, the use of online search is also in practice.
- e) Almost all the scientists recognised the importance of abstracting journals for their research work. The most commonly used abstracting / Indexing periodicals among the scientists are Index Medicus, Tropical Disease Bulletin, Biological Abstracts, Chemical abstracts, Excerpta Medica, etc.
- f) Regarding the utility of library facilities, the figures are very much encouraging. The library is being used by about 60% of the scientists once a week and by 40% daily.
- g) About 80% of the scientists have been depending on other libraries for their information. Some of the libraries used by them includes Medical College library, British Council Library, National Medical Library, New Delhi, Haffkine institute library, Mumbai etc.
- h) The Scientists do not seek help from the librarians to identify and locate required documents, rather they prefer self search. About 60% of the scientists locate information from the library by using library

catalogue and about 40% through Abstracting / indexing periodicals.

i) The measurement of satisfaction, about the library facilities, however varies. About 50% of the scientists have said that the library collections is adequate and about 30% said that it was fair while 20% said that it is inadequate.

j) For most of the scientists journals are considered to be the most adequate collection in their library.

k) About 70% of the scientists have been utilizing the online services offered by the ICMR - NIC through their own institution library.