

TWENTY YEARS OF THE NATIONAL INSTITUTE FOR MEDICAL RESEARCH (1980 - 2000): A SYNOPSIS

J.K. Ikingura, V.P. Mvungi, A.J. Nkwera, K.P. Senkoro, M.N. Malecela and A.Y. Kitua

Formation

The National Institute for Medical Research (NIMR), established by the Parliamentary Act No. 23 of 1979 is the youngest parastatal organ of the Ministry of Health. It was formed after the breakup of the East African Community and its institutions in 1977. The Act mandates the Institute to promote, coordinate, monitor, evaluate, and undertake health research on behalf of the Tanzanian Government. The Institute is also responsible for the dissemination of health research results and promoting their use by policy and decision makers, researchers, and other research clients.

The Government of Tanzania recognizes the importance of research for development and has provided NIMR with the broad mandate in order to ensure that health development in Tanzania is guided by research. The Institute does not only ensure that research targets at solving National and regional problems, but also participates actively in research of global dimension.

Achievements

Twenty years is a short time in the life of an institution, especially to a health research institution. However, in spite of this and the persisting unfavourable economic situation during which NIMR was conceived and developed, there have been notable achievements.

Institutional Capacities

NIMR has implemented a commendable manpower recruitment and training program. Currently NIMR boasts of 11 scientists with *Ph.D.* in the specialties of epidemiology and diseases control (2), parasite immunology (3), medical sociology (1), vector biology and genetics (1), entomology (4).

In addition, NIMR has forty (40) scientists with *M.Sc.* in the following specialties: medical parasitology, parasite immunology, entomology; medical sociology; medical statistics; clinical epidemiology; information management, planning, and publishing. There are 15 first degree holders (*B.Sc.* or *B.A.*), and 27 Laboratory Technicians, 16 Laboratory Assistants, 31 Laboratory Attendants, 10 Clinical Officers. The institute had 151 supporting staff as at June 2000.

Research Activities

Research on malaria has generated knowledge which has been useful for community based malaria control activities, cases management and the control of epidemics such as those which occurred in Babati, Kigoma and recently in Kagera regions. Research studies on the behaviour of mosquito, the malaria vector, has provided useful information on better and safer use

of insecticides and the popular impregnated mosquito nets.

Research studies have revealed that chloroquine is no longer effective for malaria treatment and efforts have been made to identify alternative safe, effective and affordable drugs. After conducting efficacy tests on currently available drugs with the above properties, SP has been recommended as the first line drug to replace chloroquine while Amodiaquine is recommended as the second line drug.

Tuberculosis research continues to provide guidance on prevention and treatment. NIMR has contributed to the current treatment strategy for tuberculosis (TB-DOT) and is currently evaluating the effectiveness of the strategy in several districts in Tanzania.

Onchocerciasis (river blindness) and Filariasis eradication campaigns have resulted from research in which NIMR contributed substantially. The eradication campaigns and interventions are monitored and evaluated by NIMR.

NIMR has also contributed to improved diagnostic and treatment procedures for other diseases like sexually transmitted diseases, schistosomiasis, diarrhoea, onchocerciasis, trypanosomiasis intestinal worms and filariasis. More information on some of these achievements will appear as individual contributions in this issue.

Organization Structure

Figure 1 and 2 show the NIMR organization structures in early 1980s and late 1990s.

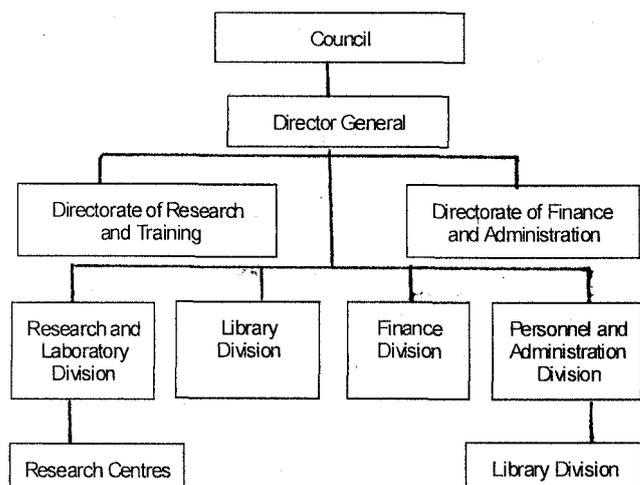


Fig. 1: NIMR Organizational Chart in 1980s

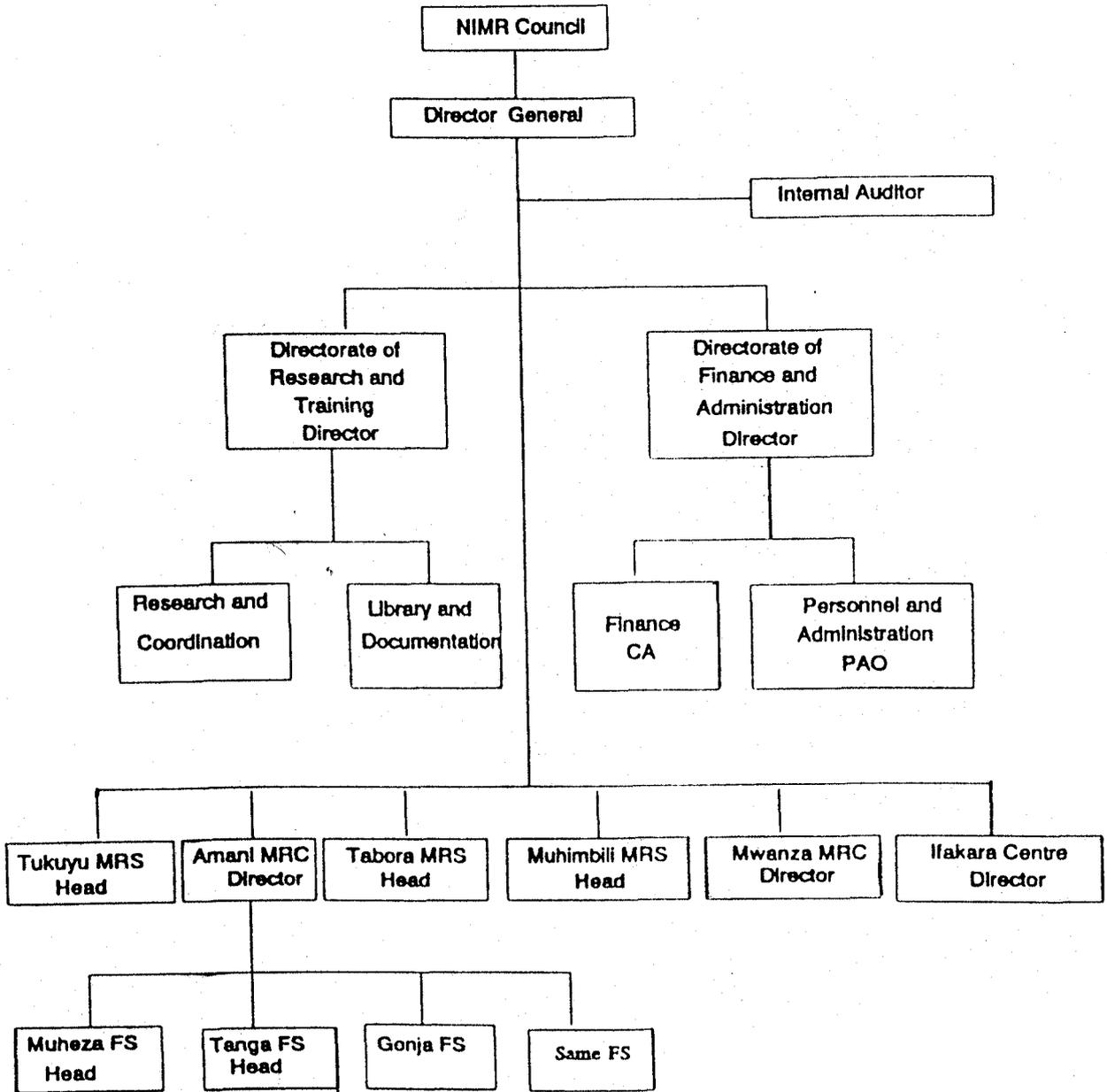


Fig. 2: Organizational Structure of the National Institute for Medical Research in the 1990s

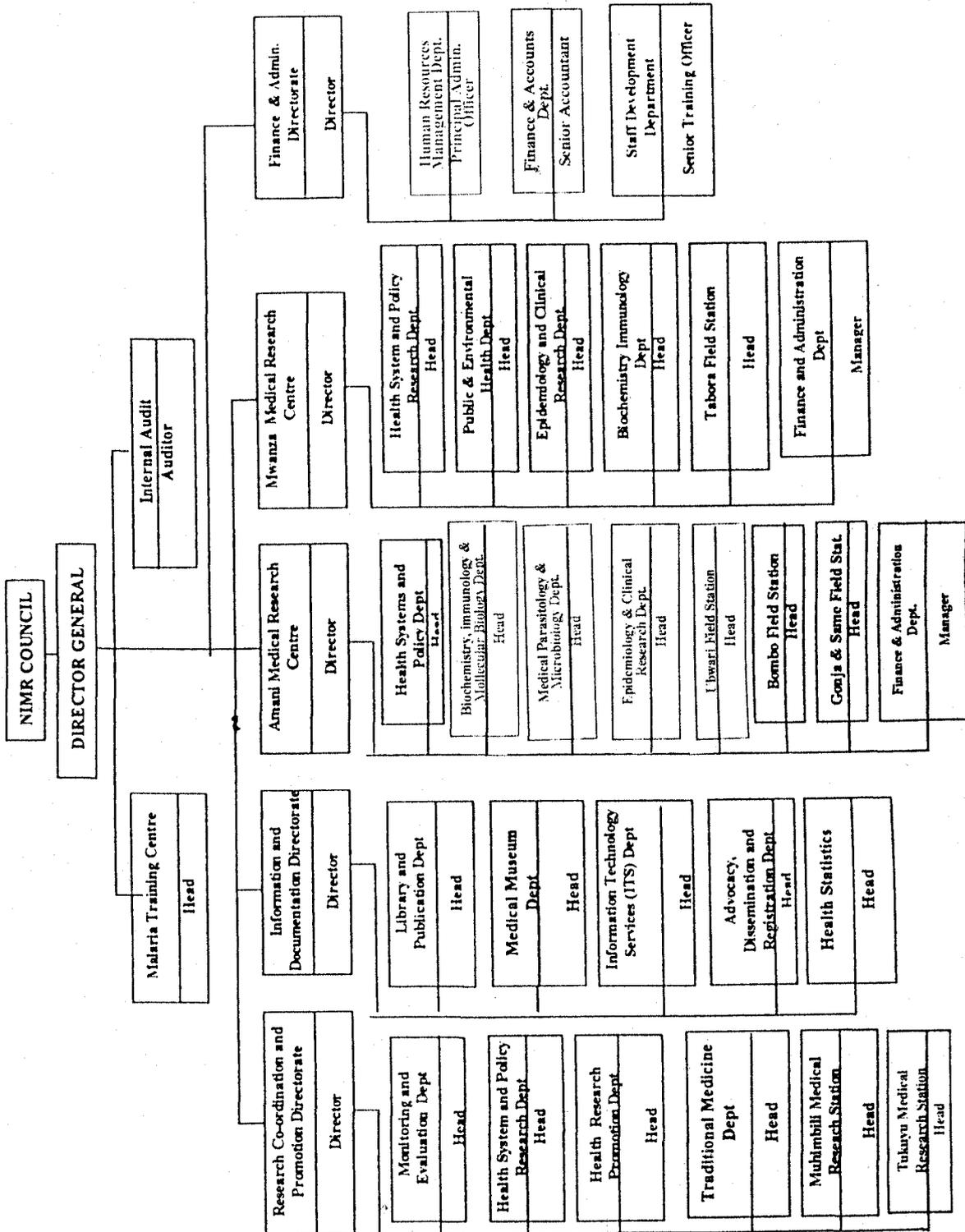


Fig. 3: Proposed Organization for National Institute for Medical Research

In order to enhance efficiency in its functions and accelerate the rate of generating outputs from its performance, NIMR has proposed some modifications in its organization structure (Figure 3). In the new structure, the centre directorate positions will be elevated to the status of substantive posts from duty posts, and the total number of directorates will be increased to five from three. The new structure provides NIMR with the capacity to fulfill its mandate efficiently while at the same time creating an enabling environment for sustaining the existing capacities.

Publications

NIMR has over time, generated enormous knowledge on Tanzania's major communicable diseases. NIMR now has 1200 publications and reports on health, health system and diseases which provide good dissemination of research results. Among these publications are NIMR Annual Reports, since 1982 to present, NIMR Research Development programs (first to fifth), Tanzania Health Research Bulletin Volumes 1.No.1.(1997), Volumes 1. No. 2 (1998), Volume 2 No.1 (Jan. 2000), Vol. 2 No. 2. (Jun. 2000), and Annual Joint Scientific Conference Proceedings (10th to 18th AJSCS). These publications have been disseminated widely in Tanzania.

NIMR scientists have also been publishing scientific papers in peer reviewed international, regional and national journals.

In order to keep pace with the current global development trends, NIMR has developed a First Strategic Plan for 1999 –2000, and an Institutional Action Plans of Operation for the period 2000 – 2002, which is based on this strategic plan.

Research Ethics

The scope of medical research ethics is wide and encompasses research expertise of the investigators, scientific soundness of the proposed study, its financial arrangements, and its compliance with national and international research regulations. In Tanzania institutions undertaking health research and NIMR have the obligations of constituting institutional ethics review committees. These Committees are required to have in place standardized guidelines to ensure objective reviewing of proposals, and supervisory mechanisms of research for adherence to ethics. The Committees have also the responsibilities of monitoring and supervising the implementation of research.

Any researcher wishing to conduct research in Tanzania has the obligation to provide a research proposal, which is then appraised by institutional and national research ethics committees. For each study granted ethics clearance, the principal investigator is required to submit to NIMR progress and final reports including all publications arising from the study.

The NIMR's Medical Research Coordinating Committee has been operating as the National Health Research clearing house along the line specified above since mid 1990. According to our register, 380 research proposals have been received, reviewed and approved by this committee since its conception. Currently, this Committee is supported and complemented in its

research coordination activities by the Tanzanian National Health Research Coordination and Collaboration Committee, an arm of the Tanzanian National Health Research Forum (TANHER-Forum). Its health research clearance activities are complemented by the Tanzania National Health Research Ethics Committee.

Collaboration with the Ministry of Health

NIMR works in close collaboration with the Ministry of Health. It has played an active role in implementing the ministry's directives and serves as an advisory body to the ministry on urgent matters requiring research or resulting from research results. The ministry was recently advised to change the current antimalarial drug policy by a Task Force, in which NIMR is a main key player.

Consequently, NIMR is currently actively involved in ensuring the implementation of the policy and is contributing towards production of the policy guidelines, educational materials, and sensitization of the providers as well as targeted recipients of health services.

An exemplary collaborative research project which has made great impact on prioritization of intervention strategies in health is the 1991/92 STD study done in collaboration with AMREF on: The impact of improved treatment of STDs on HIV. The study demonstrated that improved STDs case management could lead to a reduction in the incidence of HIV by 39%.

A lot of information on the magnitude of health problems has been acquired from NIMR research work. Currently it is estimated that the Ministry of Health (MoH) uses 30% of the research results provided by NIMR. Efforts to increase the consumption and use of research results by the Ministry of Health are being made.

Health Research Users' Trust Fund

In February, 1997 the Institute established the Health Research Users' Trust Fund, with the goal to fund priority demand driven research, as expressed by policy/ decision makers, health care providers and communities at large.

Rationale for establishing this fund was to ensure that priority health problems are identified and research for solving them are conducted timely. This fund is therefore especially set to target national health priorities as identified by the users of health research and health providers at national and district level.

To ensure that this goal is achieved, the fund is operated through advertising priority health problems for which the Ministry of Health policy and decision makers and health providers demand solutions. The best proposals are funded and the research results are provided to the Ministry of Health for action immediately following completion of the research work. A National Technical Advisory Committee oversees that research funded by this fund is scientifically and ethically sound.

National Health Research Forum

The Tanzania Health Research Forum is a mechanism composed of partner institutions in health research and their representatives. It is an inclusive body which

ensures that each partner institution has a clearly defined role, is considered an asset and shares in the ownership of the mechanism. Its functions are based on the Essential National Health Research (ENHR) Strategy which ensures that evidence-based information is utilized correctly in the policy and decision making process, enhancing the provision of better and equitable health to the population.

The Forum is a consultative and advisory body to policy and decision-makers as regards to health research co-ordination, undertaking, collaboration, and dissemination of health research results and enhancing utilization of research results for policy and decision making. It is a non-political, non-religious body dealing with issues of health research and development in the country.

The National Health Research Forum (NHRF) was inaugurated in Arusha, in February 1999, by Honourable Dr Aaron Chiduo (MP) and Minister for Health. The Forum will be celebrating its second year in February 2001.

Future Prospects of NIMR Library in Relation to LAN and Internet Connectivity

Among the major functions mandated to NIMR by the establishing Act is to conduct high quality research and to disseminate generated research results as widely as possible. Both require the availability and easy accessibility of literature relating to specific research areas as well as means to disseminate information effectively.

The Institute has been running a stand alone CD-ROM (MEDLINE) service for some time now, and had only one PC for internet service provision where researchers could access. This has had considerable limitations to researchers in their quest for knowledge in their respective research areas. Under these limitations, NIMR health professionals were unable to address public health questions effectively. NIMR has made deliberate efforts to correct this anomaly and has successfully obtained donor support for the installation of VSAT Internet connectivity at Headquarters, Amani Centre and Ifakara. Through LAN at their Centres, NIMR researchers will be able to share available resources such as data, programs, disk storage, peripheral devices among multiple users such as printing facilities, communication with collaborating institutions on health research, etc.

Easy access to health research journals is another problem which has been facing NIMR scientists. The situation will certainly change after the installation of the VSAT Internet connectivity which will allow for exchange of e-mails, participation in discussing groups, file transfers and browsing the World Wide Web (www). The www is the most resourceful information tool due to its friendly interface and easy of navigation and is emerging as the most powerful medium for mass communication this century and it can be harnessed to dispense global cost effective, high quality multimedia health research materials. Researchers will be able to access current and real time health research information from all over the world.

NIMR is grateful to the National Institute of Health (NIH), National Library of Medicine and WHO/TDR for their

contributions towards this connectivity. Additional support from the United Nations Millennium Programme and WHO initiative for improving access to information comes at a very opportune moment and will enhance this connectivity by providing hardware, wide band connectivity, full access to several databases, and to more than a hundred medical journals via web in addition to onsite training.

Future Plans

While celebrating twenty years, and entering the new millennium, we take pride to note that NIMR has evolved from an institution founded on disease specific approaches to research, into widening its scope to include all health research. It is the desire that NIMR functions as a health research institution in the future, and that it fulfills the whole of its broad mandate.

Vision

In order to achieve that desire, a First NIMR Strategic Plan 1999-2002 has been developed. This plan describes how NIMR intends to operate in order to achieve the intended objectives and also provides an assessment on the level of achievements of the objectives.

The purpose of the Strategic Plan is to ensure that Tanzanian populations experience improved health through the provision of better health services and health related interventions. Such services can only be improved through good research and the provision of evidence based information to health planners, policy and decision makers at all levels as well as the provision of relevant health information to the public.

It is our sincere aim NIMR research contributes substantially to the improvement of the health and well being of Tanzanians and Africa at large.

References

- The National Institute for Medical Research Act of Parliament No. 23 of 1979. *Government Gazette*, 1979.
- NIMR Research Coordination Documents and Register 1990- current (unpublished).
- Malecela MN et al, (2000). NIMR's 20th Anniversary: An Organizational Analysis of NIMR; Narrowing the Gap Between Objectives and Achievements, *Tanzania Health Research Bulletin Vol.2:2 June*.
- Rugemalila J.B.(1997). Supervision of Medical Research Ethics in Tanzania, *Tanzania Health Research Bulletin Vol.1:1, June*.
- Kitua, A.Y.(1999) Antimalarial drug policy: Making a systematic change. *Lancet*.2000. 354. Dec.
- NIMR Fifth- Three Year Development Plan, 1996-1998.
- NIMR First Strategic Plan 1999-2000.
- NIMR Institutional Action Plans 2000-2002.
- Evaluation of the Malaria Situation in Babati and Hanang Districts, Arusha Region, **Report** by K.J. Njunwa, F.M. Salum and A.Y. Kitua
- NIMR Scheme of Service, 1997.
- Tanzania Essential National Health Research Priority Setting Workshop, **Final Report** AICC, Arusha, Tanzania 15-21st February, 1999.