HEALTH SCIENCES DIVISION

IN-DEPTH DIVISIONAL REVIEW, 1987/88

REPORT OF THE AD HOC BOARD REVIEW PANEL

BOARD REVIEW PANEL

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Ottawa
July, 1988
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The Panel that has reviewed the work, policies and programs of the Health Sciences Division is strongly supportive of the Division. The Division has weathered some vicissitudes since its foundation; now it is facing the future with confidence. The recent reorganization of the Division into three Program Clusters has been carried out in recognition of the need for a holistic approach to health research in developing countries, and is viewed by the Panel as a bold and imaginative step forward.

The Panel recognizes the complexity of health problems in relation to development, and the need for holistic approaches to their solution. Therefore the Panel approves and supports the concept of program clusters that has been implemented in the Health Sciences Division. (Ref. p.36)

This innovative approach does, however, require close scrutiny and careful evaluation in its early years.

Since the program clusters are newly established, it would be advisable for the Board to be given a special report in three years, summarizing projects supported by each cluster, analyzing the relationships between clusters, and evaluating the efficacy and efficiency of the program clusters by considering results achieved in relation to strategic intentions; any problems that have arisen should also be specified. (Ref. p.39)

The agenda for needed health research in the developing world is summarized in the strategic plan and in the accompanying position papers. This is an ambitious and wide-ranging plan, but it is realistic, provided it is pursued in full collaboration with other IDRC Divisions and with other agencies that are active in health research in developing countries. The holistic approach to health research explicitly recognizes that health problems cannot be solved by a one-dimensional one-discipline-at-a-time approach. The
holistic approach requires mobilization into a team of many scientific disciplines in the health and social science fields. It is especially effective in dealing with the "stripe" themes that involve working groups of program staff from more than one division, e.g. Women in Development, Refugee Health, Nutrition, Health Education.

The Panel approves the collaborative interdivisional approach that is embodied in the "stripe" concept and encourages its further development as the best way to meet evolving research needs. (Ref. p.20)

The emphasis of the Division's research support focuses upon people in their communities, rather than on institutions such as hospitals and laboratories. A special form of community-based research is participatory research, in which the people who have the problems actively participate in the research that aims to find solutions. There are some limitations on the validity of participatory research, however, and it may, albeit rarely, have political repercussions if empowerment is resisted by a ruling faction. The review of proposals for participatory research must therefore include careful consideration of the potential political implications. This review could be conducted by the committee that considers ethical aspects of research proposals.

The Panel recognizes the relevance of community-based health research, and approves of the concept of participatory research; but nevertheless, counsels caution in adopting this research method because it can lack objectivity, and it can occasionally have political repercussions. (Ref. p.37)

The strategic plan and supporting position papers describe the Division's intentions with respect to nutrition, health education, AIDS-related research, integrated support for research institutions, all of which implicitly and explicitly aim to build research capacity in developing
countries. The Panel approves and supports all these strategic intentions. The Panel also approves and supports the Division's continuing commitment to the "special programs" of WHO, UNICEF and the World Bank, i.e. tropical disease research, the human reproduction program and the diarrheal diseases research program.

The Division intends to strengthen regional office staff by placing a senior staff member with specialist qualifications (but acting as a generalist) in each regional office, ultimately, as person-years become available, supported by a program officer. Greater autonomy will be granted to staff in regional offices.

The Panel supports the Division's plans to strengthen regional office staff and to grant greater autonomy to regional offices; the implications for person-years and for costs are recognized and will have to be resolved. (Ref. p.13)

While the Panel approves the adjustments of staffing that will lead to a better balance of staff between the Centre and the Regional Offices, it recognizes also the need to retain in Ottawa a critical mass of senior staff capable of conducting analytic studies of projects and programs.

Based on the strategic intentions of the Division and the evident need for some staff increments, there is a strong argument to be made in favor of cross-appointing appropriately qualified program officers. These would have to owe primary allegiance to one division and hold an appointment at a secondary level in another.

The Panel encourages the Health Sciences Division to explore with other Divisions the possibilities for cross-appointing program staff with certain kinds of expertise and professional training, such as medical anthropology and micro-economics. (Ref. p.33)
For the first time, the Health Sciences Division has recently faced a demand for more research funds than are available; at the same time, priorities have been undergoing a critical review and reappraisal. Although seemingly inseparable from the IDRC tradition of responsiveness, the "first-come, first-served" procedure of project approval has had to be reconsidered. The Division has begun to experiment with review procedures that take into account both priority and scientific merit of project proposals.

The Panel encourages the Health Sciences Division's experiments towards initiating an orderly system of project review to replace the present system of review and approval on a first-come first-served basis. (Ref. p. 27)

Project review and approval must include consideration of other matters besides relevance, priority and scientific merit. In particular, ethical aspects of research proposals must be carefully appraised.

The Panel recognizes the importance of considering ethical, political, environmental impact and other aspects of research proposals that may lie outside the boundaries of conventional scientific appraisal. The Panel supports the ideals of the Ethical Review Committee. (Ref. p. 53)

Research should involve the academic community, but in the past the Canadian academic community has played only a limited and marginal role in the research activities of the Health Sciences Division. Recent efforts by the Division aimed at strengthening international health as a scientific discipline in Canadian universities, are welcomed by the Panel. The Division is strongly encouraged to continue these efforts.

This review has drawn attention to several Centre-wide issues. Prominent among these is the large amount of paperwork that scientific program staff must deal with. This erodes time that might better be devoted to project
development, monitoring and evaluation.

The Panel recommends that as a first step towards streamlining the paperwork operations, the Program and Budget document should in future be prepared at three-year intervals rather than annually as at present. (Ref. p.54)

The program staff of the Centre deserve opportunities for professional development, but there is uncertainty about the relative merits of tenured versus non-tenured appointments.

The Panel recommends that Centre management study the relative merits of tenured and non-tenured professional positions. (Ref. p.71)
1. The Panel approves the collaborative interdivisional approach that is embodied in the "Striped" concept and encourages its further development as the best way to meet evolving research needs.

2. The Panel encourages the Health Sciences Division to take steps towards delegation of greater authority and responsibility to regional office staff, as one way to reduce the impediments to "responsiveness".

3. The Panel recommends that IDRC maintain and if possible expand its role in the "Special programs" of WHO, UNICEF and the World Bank, i.e. programs aimed at controlling diarrheal diseases, tropical disease research and human reproduction.

4. The Panel encourages the Health Sciences Division's experiments towards initiating an orderly system of project review to replace the present system of review on a first-come first-served basis.

5. The Panel encourages the Health Sciences Division to explore with other divisions the possibilities for cross-appointing program staff with certain kinds of expertise and professional training, such as medical anthropology and micro-economics.

6. The Panel recognizes the complexity of health problems in relation to development and the need for holistic approaches to their solution. Therefore the Panel approves and supports the concept of program clusters that has been implemented in the Health Sciences Division.
1. The Panel recognises the relevance of community based health research, and approves of the concept of participatory research; but nevertheless, counsels caution in adopting this research method because it can lack objectivity, and it can occasionally have political repercussions.

8. The Panel approves and supports the concept of program clusters. The statement of mission and objectives that appears in Part I of the Divisional Statement does, however, need revision to make it congruent with the new program clusters.

9. Since the program clusters are newly established, it is not possible to define them by giving examples of projects selected for support. It would be advisable for the Board to give a special report in three years, summarizing projects supported by each cluster, analyzing the relationships between clusters, and evaluating the efficacy and efficiency of the program clusters by considering results achieved in relation to the specified strategic intentions; any problems that have arisen should also be specified in this special report.

10. The Panel approves the HSD initiative of support for the Independent Commission on Health Research for development; this Commission is performing a valuable service in defining priorities for future health research; its efforts deserve every possible encouragement.

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11. The Panel believe that closer collaboration between the Canadian academic and scientific community and ISBRC can be productive and valuable. Therefore, the Panel strongly supports and encourages the initiative of the Health Sciences Division in setting up the International Health (research and Training) network. This network has considerable potential for enhancing Canadian academic commitment to International Health; its continuing support is therefore encouraged.

12. The Panel supports the concept of integrated support for research institutions, agrees with the ideas expressed in the Health Sciences Division Position Paper, and encourages the Division to engage actively in further plans for ISBRI. This will entail working both with other divisions and with other donor agencies towards this important goal of institution-strengthening and networking.

13. The Panel agrees with the ideas and recommendations in the HSD Position Paper on nutrition, i.e. collaborative approaches, support for participatory research, support for nutrition research training, development and/or adoption of methods to identify and solve community-wide nutritional problems, etc. However, the research agenda outlined in the position paper is very extensive, and some priority-setting is called for. Recruitment of additional program staff (or consultants) with expertise in nutrition is a high priority.

14. The Panel recognizes the importance of research on health education, and the need for this to be multidisciplinary, requiring interdivisional collaboration. The Panel agrees with the topics and themes recommended for support in the Position Paper on health education that is part of the HSD Strategic Plan, and with the need to set some priorities among these. The Panel believes there may not be sufficient expertise among program staff now in post for all the necessary work of project development and supervision to be carried out; reinforcements may be required, and some support by outside consultants.
15. The Panel supports the Division's plans to strengthen regional office staff and to grant greater autonomy to regional offices; the implications for person-years and costs are recognized and will have to be resolved.

16. The Panel recognizes the importance of considering ethical, political, environmental impact, and other aspects of research proposals that may lie outside the boundaries of conventional scientific appraisal. The Panel supports the ideals of the ethical review committee.

17. The Panel supports the collaborative activities of the Health Sciences Division, but urges Centre management to recognize the administrative costs of certain components of these activities, both in time and in money.

18. The Panel recommends that as a first step towards streamlining the paperwork operations, the Program and Budget document should in future be prepared at three-year intervals rather than annually as at present.

19. The Panel notes with approval the plan of the Health Sciences Division, to strengthen regional office staff, and to develop stronger collaborative relationships with other Divisions and with other agencies, notably CIDA.

20. The Panel recommends that an analysis be made of the costs of the two approaches, in the context of the "70/30 ratio", i.e. the present regionalized approach, and the (theoretical) costs that would arise if operations were centralised; the findings of this analysis should be presented to the Board when the study is complete. Such analyses ought to be an ongoing activity of Centre management.
21. The Panel notes with interest the existence of the two contrasting regional strategies of HSD and AFNS. The relative merits, costs, benefits of each, should be evaluated, with a view either to preserving this diversity of approach, or of evolving to a uniform Centre-wide strategy.

22. The Panel recommends that the involvement on a greater scale than in the past of Canadian consultants should be studied by Centre management, who should report back to the Board of Governors on the findings of this study.

23. The Panel recommends that Centre management carry out a study of advantages, disadvantages, and relative costs of non-tenured versus tenured scientific staff appointments.
1. INTRODUCTION

An in-depth divisional review was conducted on the work, policies and strategic plans of the Health Sciences Division, International Development Research Centre, in 1987-88.

The members of the Board of Governors Panel were

Mr. Francis Keppel, Chairman
Dr. Anne-Claude Bernard-Bonnin
Professor M.O.K. Menon

Two consultants to the Board Panel were

Dr. K. Suna D. Bergstrom
Dr. John M. Last

Terms of Reference

The review followed the guidelines established in the Briefing Notes for Governors on Board Review Panels,¹ and the specific Terms of Reference for this review, approved in February 1987. These terms of reference appear in full as Appendix 1.

This large and ambitious set of terms of reference was addressed by the Panel, aided by the two consultants, mainly by reviewing documents and by interviews and site visits. In the event, not all the items listed on the terms of reference could be adequately dealt with in the available time and with the available resources.

This review was conducted during reorganization of the Division and preparation of the divisional statement and
strategic plan. This was a mutually advantageous conjunction of events, with a good deal of interaction, especially between the consultants and the Director and staff of the Division. The Panel members and the consultants had a unique opportunity to observe and participate in the work and thought of the Division. The contacts with the Panel members and the consultants may have helped the Director and staff of the Division to sharpen the focus of the strategic plan. Thus the review became part of a collaborative process, in which the interactions were synergistic.

The basis of the Panel’s Report is the Divisional Statement and Strategic Plan, various Position Papers and a number of routine documents, notably the Program of Work and Budget (PWB) for 1986-87, 1987-88 and 1988-89, Program and Policy Reviews (PPRs), Annual Reports of the Centre, and the Internal Audit Review completed in January 1988. A sample of file documents dealing with current or recently completed projects was reviewed. Information was gathered by Governors during site visits to projects in the Caribbean and in West Africa, and site visits by Governors and consultants to projects in East Africa.

Interviews were conducted by the consultants with staff of the Health Sciences and other Divisions, and with key persons in related agencies. The review also utilizes information and documents relating to the In-depth Divisional Review of the Social Sciences Division -- because there are, as will be discussed, many areas of collaboration between the Health Sciences and other Divisions, especially the Social Sciences Division. A review of collaborative activities between the Health Sciences Division and the Social Sciences Division, prepared by Dr Frances Stewart, was
especially useful. A list of persons interviewed is available on file in OPE.

First Review of Health Sciences Division

This is the first In-depth Divisional Review ever carried out on the Health Sciences Division. For this reason alone, it is an important process, providing opportunities for detailed stock-taking and for development of long-range plans for the future scope of work of the Health Sciences Division.
2. HEALTH AND DEVELOPMENT

When we talk about health, we usually refer to individuals, but recent discussions identify health as a fundamental human resource that all communities as well as all individuals must possess if they are to fulfill their potential worth. This concept of health was implicit in discussions at the First World Conference on Health Promotion, held in Ottawa in 1986; it has been reviewed by Noack. The concept is made explicit in the Ottawa Charter on Health Promotion. A useful short definition of health, based on these concepts, appears in the Second Edition of the Dictionary of Epidemiology, as follows:

Health is a state of dynamic balance in which an individual’s or a group’s capacity to cope with all the circumstances of living is at an optimum level.

Healthy people are in a state of equilibrium with each other and with their physical, biological and social environment. Disabilities that sap the vitality of the economically active population and preventable diseases that cause premature death are among the greatest impediments to development.

In many developing nations there are multiple vicious circles of poverty, ignorance, poor nutrition, inadequate housing, and uncontrolled pathogenic organisms that together act as a barrier to enhanced economic and social wellbeing. Controlling these complex problems requires complex approaches. Malaria eradication, for instance, not only does not work in many environments, especially in Africa, but even if it did, such one-shot approaches will not by
themselves enhance the health status and living conditions of people in many developing societies.

The health problems of the developing world call for a multifocal attack in which the traditional biomedical model must be augmented by a variety of sociocultural and environmental measures. Health research in the developing world must become increasingly multidisciplinary if it is to respond to the complex needs of people in developing nations. Recognizing this, the Health Sciences Division has embarked on a policy that will guide its programs in these directions -- a substantial change in focus.

The World Health Assembly resolved in 1979, that by the year 2000, all the people of the world should attain a level of health that would enable them to lead a socially and economically productive life -- "Health for all by the year 2000." This reinforced the conclusions of the 1978 Alma Ata conference where the delegates agreed that the best way to improve health would be to ensure by the year 2000 the provision of primary health care for all the world's people. Primary health care includes not only personal medical and health-protection services but also such basic environmental measures as clean water and sanitary disposal of excreta. Since the late 1970s, there has been some progress, both in the developing and the industrialized world. Much, however, still remains to be done; further resolutions on multisectoral action to enhance health have been adopted at several annual meetings of the World Health Assembly since 1979. Experts in WHO and elsewhere recognize the need to tackle health problems on many fronts that have not traditionally been identified as within the domain of health services.
Health is influenced by many physical, biological and behavioral factors; it has been customary in the past to consider these factors separately, and to study their effects in isolation from one another as far as possible. It is now recognized that this is unrealistic: research and development increasingly does not attempt to separate these determinants of health, but tackles them together. For example, safe water can be supplied to rural villages in many developing countries using hand-pumps; but while hand-pumps deal with the physical problem of extracting water from sub-surface deposits, the problem of biological contamination must still be addressed; and people must be educated to adopt behavior change that will guard against unwitting contamination, e.g. of water that is stored after collection by hand-pumps.

Teamwork in International Health

By promoting research on a broad range of factors that help to determine health status of populations in developing countries, the Health Science Division makes an important contribution to "Health for All." This role is not conducted in isolation: IDRC and its Health Sciences Division are part of a large network, comprising many international, national, bilateral and other agencies that are all active in the international health field.

There are many important actors on the international health stage: UN agencies, e.g. WHO, UNICEF, UNDP, UNFPA; the World Bank; national and bilateral agencies that provide official development assistance, such as USAID, the Swedish International Development Authority, and the Canadian International Development Agency; and Foundations such as Rockefeller and Ford, many charitable organizations,
religious groups, private foundations, and non-governmental organizations.* IDRC is unusual, almost unique, in providing support for research by people in developing countries, in collaboration with Canadian and other advisers; this role is as important in the health field as in any other.

There is considerable interaction and communication among the principal donor agencies in international health, some of it formal but most of it through informal networks. These networks are especially important in community-based (in contrast to institutional) research. Community-based research is defined as research conducted in the community, by research workers in direct contact with the people.

Community-based research workers usually have efficient lines of communication to the grass-roots of the communities in which they are doing research, but they are less likely to know about related research going on elsewhere -- even though many others may be studying similar problems. In the absence of networks through agencies supporting their research, they could become very isolated. The networks established and maintained by program staff of the Health Sciences Division (and the Social Sciences Division, which often is involved also) play a major role in ensuring that community-based research workers are less isolated from one another.
3. HISTORY OF THE HEALTH SCIENCES DIVISION

The history of the Health Sciences Division is described in the Division Statement Part I. The division was originally known as the Population and Health Sciences Division, and at first it concentrated mainly on supporting research on methods of fertility regulation, demography and population policy, and the delivery of rural health services. In the early 1970s, rural water supply and sanitation became a focus of activity, followed by tropical diseases in the mid 1970s, occupational and environmental health in the late 1970s and health services research in the early 1980s. In 1976, the demography and population policy programs were transferred to the Social Sciences Division.

Over the years there have been a number of changes in terminology of sectors in the division and in their principal activities. Related to changes in leadership and management policy, at times these reorganizations may have had some impact upon morale of program staff. The changing emphasis on certain program areas preceded, rather than followed, the corresponding programmatic themes of major international agencies, e.g. WHO, the World Bank and UNICEF. For instance rural health care delivery was supported from the early 70s, well before the 1978 Alma-Ata Conference on Primary Health Care; and (Rural) Water Supply and Sanitation was supported from the mid-70s, before the WHO International Drinking Water Supply and Sanitation Decade, 1981-1990. Thus the Health Sciences Division demonstrates that it has long occupied a leadership role and has been a model for other agencies involved in development assistance.
Although there were no changes in the organization of the Division between 1983 and mid-1986, the mission, objectives and focus of the Division's programs were refined to make them more congruent with the Centre's mandate. The mission and objectives of IDRC were much discussed and reviewed at the policy and management seminar in 1986. This seminar was a sequel to and follow-up of the New Delhi meeting of the Board of Governors, at which the mission and philosophy of IDRC had been discussed, and the importance of themes and "connectedness" had been stressed.

At the 1986 policy and management seminar, there were important discussions about IDRC policies, notably relating to the issues of responsiveness, concentration of resources, coherence ("connectedness" or interdependence of the various elements of development), pursuit of thematic approaches, integrated support for research institutions, and evaluation. The Health Sciences Division participated fully in the discussions, and in its subsequent actions, has set about aligning its program with the restatement of the Centre's mission and objectives. Between 1983 until mid-summer of 1987, the Division was organized into five sectors, Maternal and Child Health, Tropical and Infectious Diseases, Health Systems, Water Supply and Sanitation, and Occupational Health and Environmental Toxicology. In the summer of 1987 it was reorganized into three Program Clusters, to reflect emerging ideas about health research needs for development.
4. HEALTH SCIENCES DIVISION MANDATE, MISSION AND OBJECTIVES

As one of the program divisions in IDRC, the Health Sciences Division shares the mandate of IDRC, that is, "to initiate, encourage, support and conduct research into the problems of the developing regions of the world and into the means for applying and adapting scientific, technical and other knowledge to the economic and social advancement of those regions, and in carrying out those objectives:

(a) to enlist the talents of natural and social scientists and technologists of Canada and other countries;

(b) to assist the developing regions to build up the research capabilities, the innovative skills and institutions required to solve their problems;

(c) to encourage generally the coordination of international development research; and

(d) to foster cooperation in research on development problems between the developed and developing regions for their mutual benefit."

The mission and objectives of the Health Sciences Division were expressed in PPR VIII (1987/88-1990/91) and were slightly revised in the Strategic Plan, reflecting reappraised priorities:

**Mission and objectives**

The Health Sciences Division's mission is to support research into all aspects of the development of effective community-based health systems that will contribute to improving the health and well-being of the rural and periurban poor.
Specifically, its objectives are:

(a) To identify health-related needs and priorities in communities and develop appropriate health (care) systems to meet those needs (health systems research).

(b) To develop and apply policies, programs and technologies to improve the health and well-being of women and children (maternal and child health).

(c) To develop new and improved methods of preventing, diagnosing and controlling communicable diseases (tropical and infectious diseases).

(d) To develop policies, practices and technologies to improve the physical environment of communities and the physical and social environment of individuals (water supply and sanitation, and occupational health and environmental toxicology).

These revised objectives are not congruent with the program clusters created by the reorganization of the Health Sciences Division (described later).

In PPR IX (1988/89-1991/92), the Health Sciences Division recorded its intent to maintain the emphasis on community-based research aimed at improving community health. Community-based research is understood to mean research directly involving people in their communities, in contrast to institution-based research. PPR IX confirms that the Division anticipates the evolution of three areas of concentration (program clusters), here called Health and Human Behavior, Health and the Environment, and Health
Systems (to replace the existing sectors). Moreover, efforts to concentrate on the world's poorest countries, particularly those in Africa, were expected to be enhanced by posting regional representatives to Dakar and Nairobi in 1986-87, and to Cairo in 1987-88.

At the Health Sciences Division Annual Staff Meeting, in May, 1987, a detailed review and discussion of the mandate, policies and organization of the Division took place, and some important decisions were made. These related to strategic planning; priority-setting; the definition of communities; the parameters that should be used by IDRC in supporting research; the organizational structure of the Division; administrative issues, such as procedures for project review and supervision; project development; and evaluation. These are all discussed later in this Review. The most visible outcome so far of the 1987 Annual Staff Meeting is the reorganization of the Health Sciences Division into three "program clusters" that replace the former sectors. This reorganization is crucial to the implementation of Health Sciences Division policies. (See Section 6)

The Health Sciences Division fulfills its mandate and mission, and achieves its objectives, in the manner that has become the hallmark of IDRC: the hands-on, reactive, approach to development research. The desired sequence is described in With Our Own Hands: First comes the idea, arising in the mind of a research worker; next comes contact between the aspiring research worker and an IDRC staff member, usually at program officer level. The idea is then considered, and several key questions are addressed:
* Is this a national priority, and a priority in IDRC?
* Does it make maximum use of local resources?
* Are there prospects of early human benefit?
* Are there similar activities with which this might be linked?
* Is the cost reasonable and are the funds available?

There usually follows a good deal of interaction between the potential researcher and program staff in IDRC before the idea evolves into a researchable project. Frequently this requires an interactive, sometimes a proactive approach by program staff, with one or more visits to the project site. Program staff in the Health Sciences Division, like program staff throughout the Centre, spend the greater part of their time on project development, mostly working interactively with project personnel in developing countries.
5. THE PAST AND PRESENT PERFORMANCE OF THE DIVISION

Since its establishment in 1971, the principal activities supported by the Division have fallen into several well-defined categories, briefly summarized in Section 3 of this review, and the emphasis on these has fluctuated, reflecting shifting priorities.12

There has always been a close working relationship between the Health Sciences Division and other donor agencies in the field of international health. No other agency has quite the same mission and objectives as ILRC, indeed most agencies, whether international, bilateral, non-governmental, or private foundations, have specific missions, objectives and agendas that differ from one another. It obviously makes sense, therefore, for these agencies to stay in close touch with one another. There are many informal lines of communication through which requests for assistance can be referred to the most appropriate agency, and by means of which senior staff and advisers can from time to time discuss and determine priorities and modify their plans. In addition, there are more formal vehicles for cross-fertilization and communication, some of which are discussed later.

Trends in Research Support

The Division's support for research has varied among the developing regions of the world, and no clear trends are discernable.13 The diversity of topics and themes that have been supported28,11 indicate that the Health Sciences Division has adopted the concept of "scatteration" -- spreading available funds as widely as possible, i
expectation that some at least will prove fruitful investments in research capacity building. The largest portion of HSD support has in the past been provided to countries in the "lower middle income" category, and a considerably smaller proportion has gone to the low income countries.\textsuperscript{22} As the Divisional Statement points out, this may reflect the relative weakness of research institutions and the practical difficulties of doing research in the world's poorest countries. Few of the low income countries have the necessary infrastructure, let alone established research institutions. The graphs and pie-charts produced for the 1988 annual HSD staff meeting show how funds have been distributed (Figures 1 and 2).

Certain countries have received 20 or more HSD grants, namely India (21), Korea (23), Malaysia (25), Kenya (26), Philippines (27), Indonesia (32) and Thailand (38). This represents almost a third of all HSD grants, and nearly a quarter of all HSD grant funds.\textsuperscript{23} At the opposite end of this scale, of the 72 developing countries that have received HSD grants, there are 25 countries to which three or fewer grants have been made. As the Divisional Statement points out, this indicates both the degree of responsiveness of the Division and the lack of coordinated country-level support. Questions arise, however, about the long-term value of one-shot research projects without follow-up, especially in very poor countries. The decidedly skewed distribution of support for projects in certain countries but not others, may be an indication that applicants in some countries may be better at "grantsmanship" compared to aspiring research workers in other countries with similar needs and resources.
The number of projects supported per annum rose sharply in and after 1983, with a corresponding though smaller decrease in the average size of grant. Relatively few projects have led to publications in peer-reviewed journals, although the proportion may have risen in recent years. Overall, projects have been small, time-limited, and have covered a very wide ranging area of health research.

"Scatteration" is based on the belief that some development assistance is bound to flourish, but this cannot be proved unless all projects are rigorously evaluated, preferably using standard protocols. This has never been done. Health conditions have improved in many developing countries since IDRC was established, but no cause-effect relationship can be inferred; the suspicion has grown that there may be relatively little to show for some past investment in health-related research in the third world. It is sensible to base research investment on carefully considered priorities, as is increasingly the rule.

The Divisional Statement further points out that until recently, most projects supported by the Division were one-dimensional, and problem (subject or discipline) oriented. They could be classified in a number of ways, as suggested in the Divisional Statement, by focus or theme. For the analysis presented in the Divisional Statement, 11 themes were defined, viz. technology/intervention, descriptive epidemiology, clinical epidemiology trials, managerial aspects of HS interventions, socio-economic/cultural aspects, evaluation of interventions, environmental assessment, health impact, research capacity building, training, and other. Some of these are repetitive or overlapping categories. Other ways to classify projects supported by the Division,
which would facilitate evaluation of completed projects (discussed in Section 8 of this Review) it would help to identify certain features of research projects. These could include the following:

(a) disciplines/themes involved

(b) institution-based - (i) university
   - (ii) government agency
   - (iii) NGO, etc

(c) community-based

(d) explicit capacity-building component

(e) explicit health policy linkage

(f) potential for publication/dissemination of results.

Themes and inter-divisional collaboration

The number of themes that can be identified per project, has increased. As the Division Statement puts it:24

"HSD projects have broadened their focus over time, and ... the Division as a whole has shifted its focus from technology/intervention development and field testing to an evaluation of these technologies and interventions, the development of health profiles, and the examination of the management aspects of interventions... a concerted effort has been made to support projects with broader frames of reference."

This, inter alia, encourages the main thrust of IDRC policy, research capacity building. It also accords with the
concepts that were emphasized at the New Delhi meeting of the Board of Governors and at the 1986 Policy and Management Seminar, that is, emphasis on themes and "connectedness."

In the past, most projects managed by the Health Sciences Division had relatively little or no collaborative input from program staff in other divisions, but increasingly in recent years there has been a move towards collaborative efforts in which program staff from two or more divisions have been involved. Interdivisional collaboration may have reached its maximum in a project on control of Chagas Disease in Paraguay, in which five Divisions are collaborating. Such teamwork is very much in accord with the thematic approach discussed at the New Delhi meeting of the Board of Governors, and decided upon at the Policy and Management Seminar in 1986, and although it may be too early to evaluate this approach in detail, initial impressions are positive.

Certain activities cannot be confined within the boundaries of a single division. In IDRC jargon, the word "stripe" has been used to describe themes that cut across conventional divisional boundaries, requiring the expertise of program staff in several divisions for project development and management. Examples include research on women's health in developing countries, in which the expertise of program staff in Health Sciences and Social Sciences Divisions play equally important parts; and problems of populations on the move, whether they be rural-to-periurban migrants or refugees, where the socio-cultural aspects cannot be considered separately from those directly affecting health. As understanding of these problems grows, we are becoming increasingly aware that it makes no sense to segregate
attempts at solutions within conventional disciplinary boundaries. The rationale for a fresh, multidisciplinary approach to problems of health and development is more fully discussed in relation to the reorganization of the division (See section 6).

A criticism of collaborative projects involving staff in two or more divisions, mentioned by several program staff members of IDRC, is that it can lead to duplication of paperwork and other "bureaucratic" aspects of project management. If this is so, a solution should be found, because in terms of research productivity, it is obviously desirable to deploy the most appropriate skilled help and expertise, regardless of the division in which this is located. At the same time, it is undesirable for these dedicated and overworked professional staff members to be obliged to work with an eye over their shoulder to performance appraisals that require them to duplicate paperwork already done by colleagues. New procedures in the Health Sciences Division may help to eliminate duplication of paperwork.

Dr. Frances Stewart, a consultant to the Panel responsible for the IDDR of the Social Sciences Division, who also helped this Panel, suggested creation of new special groupings, e.g. for Nutrition, Health Education. An alternative is to retain and encourage the proliferation of specialized working-groups that cut across existing divisional boundaries (i.e., the "stripe" concept); but not to encourage further compartmentalization of groups within the Centre. Probably the present collaborative arrangements between program staff in different divisions -- which have evolved as research needs have evolved -- are the best
approach to this situation. The "stripes" that cut across the divisional structure and bring together working groups that are dealing with such issues as Women in Development, Nutrition, and Refugee Care, seem to be working well.

The Panel approves the collaborative interdivisional approach that is embodied in the "stripe" concept and encourages its further development as the best way to meet evolving research needs.

Assessing the Work of the Division

To examine the work of the Division in more detail, a sample of current and recently completed projects was analyzed, by reviewing the project files, and by means of site visits conducted by Governors on the Board Review Panel and by the consultants. These reviews and analyses throw a little light on the Division's record in research capacity building, and suggest that the new approaches outlined in the Strategic Plan (described in Section 7) may be more effective in research capacity building than "scatteration" has been.

The files of 16 recently completed or ongoing projects were reviewed with special attention to how the project was initiated, the relevance of the project, and the likely contribution to local research capacity building. This review yielded overall a positive impression. The file documents suggested considerable adaptability by program staff in the Division to meeting diverse regional and local needs; the processes used to develop and review project proposals appear to work well. The review did lead to suggestions for more systematic use of external reviewers and of suitably qualified local and foreign consultants, as well
as reinforcing the importance of cooperation among international health agencies.

Some projects that were reviewed in this way, and others, in Jamaica, West Africa and East Africa were visited by members of the Panel and by the consultants. The overall impression again was positive. In the case of some of the projects in West Africa, there were some discrepancies between what was on the file in the centre and what was happening in the field. The considerable distances and poorly developed lines of communication and transportation in West Africa pose formidable challenges, stretching the capacity of the energetic program officer to the limit.

In Jamaica, overall impressions were more positive. The interaction between researchers in Jamaica and the program staff of IDRC were regarded by the researchers as strongly supportive, constructive and helpful, although there was some concern that a successfully completed project would not lead to continuing support for further related work. This may reflect a partial failure on the part of program staff to explain fully the way IDRC works.

In East Africa, virtually all project staff who were interviewed spoke very positively about their interaction with IDRC program staff. Lines of communication appear to be working smoothly and there is excellent understanding between researchers and IDRC staff about the ways in which IDRC can help best to develop research capacity. Only rarely have decisions been slow (e.g., about whether projects will be supported). Sometimes a long period elapses between requesting and receiving financial support, and this can present problems, especially when support staff have to be
paid because a commitment has been made to them. There have been some mistakes. For example, in a country with strict currency control, funds for a project that required purchase of a vehicle were converted into local currency when they ought to have been sequestered in an external account to pay for this expensive imported item that could not be purchased with local currency.

These reviews, in short, have demonstrated that the Health Sciences Division approach has been productive and pertinent, although there is little evidence of research capacity building or of establishment of strong networks among research workers. At the same time, some weaknesses are revealed, notably the problems that arise because of attenuated lines of communication between projects in the field and program officers in remote locations not readily accessible to field workers (whether remote means a regional office or the Centre in Ottawa). Another weakness is that at times there can be lengthy delays between making specific requests and the arrival in the field of the requested assistance. (Sometimes these delays are due to procedures for which governments in developing countries are responsible.) Given the realities of geography and lines of communication, some of the problem of poor access and delay may be insoluble, but its impact could be minimized by reducing the paperwork and the number of steps involved in decision-making.

There is a perception among staff members in some other development aid agencies, that IDRC requires more memoranda and other documentation in comparison to the scale of its support, than other aid agencies, and that the decision-making process is more cumbersome. Nonetheless, IDRC has an
enviable reputation among these same aid agencies for its hands-on approach and for its responsiveness. Insofar as the problems attributable to the "bureaucracy" relate to slow turn-around of decision-making between regional offices and Ottawa, one obvious step to improve matters is delegation of greater decision-making responsibility to the program staff in regional offices -- which is already happening and should ameliorate this problem.

The Panel encourages the Health Sciences Division to take steps towards delegation of greater authority and responsibility to regional office staff, as one way to reduce the impediments to "responsiveness".

International "Research Councils"

IDRC, through its Health Sciences Division, has contributed to several major international collaborative efforts in the health field, including provision of support for the "Special Programs" of WHO, UNICEF and the World Bank. To take one example, IDRC support for the development of methods to control human fertility, e.g., Norplant, has been an outstanding success.

IDRC has played a decisive role in the development of Norplant by the Population Council (approximately 50%) during the past decade. This successful development is now being followed up by research on acceptance and distribution. An ongoing project strongly supported by IDRC is the antifertility vaccine being developed in India. Neither of these projects would have been undertaken by the pharmaceutical industry under traditional forms, i.e., expecting a reasonably certain payback.
A similar situation exists concerning drugs and vaccines that are mainly to be used in developing countries. This is the background of the organization of the WHO "Special programs" aimed at research and development of drugs and vaccines in the field of the tropical diseases\(^*\) (TDR) diarrheal diseases\(^*\) (CDD) and human reproduction\(^*\) (HRP) programs. These three programs are truly international research councils governed by groups in which a majority of the members are representatives selected by governments of developing countries and that are scientifically controlled by international groups of scientists. All three programs have brought several new products through extensive clinical trials that are in various stages of registration and implementation.

The importance of these programs for the health services of the developing world now and in the future can scarcely be overestimated. IDRC has played a crucial role in their creation — many developing countries are making symbolic contributions as a token of their appreciation. They also represent very important international forums for following and influencing the frontline of biomedical research in fields of central importance for health care in developing countries. In the future, both HSD and SSD will continue to play an important role in supporting research on acceptance and use of these new products.

The Panel recommends that IDRC maintain and if possible expand its role in the "Special programs" of WHO, UNICEF and the World Bank, i.e. programs aimed at controlling diarrheal diseases, tropical disease research and human reproduction.
Assessment and review of projects

Assessment, review and monitoring of projects adhere to well-defined procedures. A project summary form is used and a formal set of information is gathered about every proposal supported by the Division. A system of project review has been established, whereby program officers and/or associate directors, with help as necessary from qualified experts, carefully consider scientific merit, feasibility and project staff competence. Monitoring requires the continuing involvement of program staff, and this appears to be working smoothly, to judge from the file material that has been examined. Greater use of outside consultants, especially from the Canadian research community, would enhance the review process and at the same time would raise Canadian academic consciousness about international health, as discussed later. Such consultant advice may be especially desirable when assessing statistical and epidemiological methods and projects involving economic analyses.

Some modification of the time-honored approach by IDRC to project review procedures may, however, be required in response to changing circumstances in the health research field. There has long been an exponential growth-rate in biomedical sciences in the industrial nations. Similar trends are now appearing in the developing countries, where an increasing number of worthy proposals for research must compete for limited research funds. The first-come, first-served method has always been an integral part of IDRC's concept of "responsiveness" but this can be unfair to investigators whose ideas may take longer to develop than those of their peers. Virtually every other funding agency in the health research field uses a system of project review
in which proposals are considered in batches, priorities are assigned, and funds are allocated as available to the research proposals that achieve the highest priority ranking at a particular funding cycle.

For the first time, the demand for support has outstripped available funds within the past fiscal year; so the Health Science Division may find it advisable to adopt the same approach as other funding agencies. It is manifestly unfair to allocate funds only on a first-come first-served basis, if this means that applications coming in towards the end of a financial year will have to wait till the following year to be considered for support. Moreover, this leads to a "snowballing" effect, with proposals accumulating on a waiting-list that has no end. It is fairer to everybody, and scientifically more objective, to consider proposals in batches. This should in no way erode IDRC's reputation for responsiveness, because in all other respects, the interaction between potential researchers and the program staff, and the monitoring of ongoing projects, and the responsiveness would remain the same. All that would change would be the accumulation for brief periods of small numbers of projects that would be considered (preferably by HSD staff plus outside advisers) at regular review meetings. The Division has, in fact, begun to experiment with review procedures that take into account the priority and scientific merit of project proposals, and this may prove to be a satisfactory compromise between past efforts to ensure "responsiveness" and constraints imposed by limited funds.
The Panel encourages the Health Sciences Division's experiments towards initiating an orderly system of project review to replace the present system of review on a first-come first-served basis.

It follows that there would be deadline dates for submission of research proposals, and that proposals which miss a deadline date might have to wait till the next review cycle before being considered. This proposed review procedure should apply to all projects above a specified funding ceiling. In view of the seeming conflict this presents to the IDRC tradition of "responsiveness" this procedure should be carefully evaluated; evaluation will be likely to demonstrate that responsiveness is unimpaired.

**Research Findings and Health Policies**

It is not easy to assess "the linkages between projects and agents of change" -- that is, the relationship of research results to health policies and practices. Project completion reports (PCRs) give some information on outcome of projects, but little or nothing on publication of results or on their application or implementation in local or regional health policies. Moreover, as already noted, only a comparatively small proportion of projects funded in the past have led to published results, although the proportion does appear to have risen in recent years, if the details recorded in the IDRC Annual Reports can be relied upon.

There can be many impediments to communication of research results to potential users of these results. Examination of file material sheds no light on this and interviews with project staff add little more insight. More
information is needed on this and related aspects of project outcomes, especially on the extent to which successful projects have influenced health policies; very little such information exists in anything other than the most superficial anecdotal form, in the affluent industrial nations as well as in the third world. Evaluative studies of the impact of research results on health policies are a high priority.

**Collaborative activities**

As already mentioned, there is interaction within IDRC between professional staff in the Health Sciences and other Divisions. This interaction is increasing, particularly between the Health Sciences and Social Sciences Divisions. Interviews with program staff in Health Sciences and Social Sciences Divisions have contained many allusions to fruitful informal collaborative relationships. Some program staff members have mentioned the inconvenience of being on different floors, and not having a common area in which to circulate. There is a case for mixing staff from these two Divisions on the same floors, to facilitate their informal interaction.

The Directors of these two Divisions recognize many areas of mutual interest where their joint activities can enhance the efficacy of research. Collaboration especially with the Social Sciences Division is conspicuous in the "stripe" theme areas: Women, Health and Development, Refugee Care, Nutrition, Health Education, Occupational Health in Agricultural Settings. Other themes requiring inter-divisional collaboration include the development of health information systems, which involves the Information
Sciences Division, and dissemination of research results, which involves the Communications Division. Not only is interdivisional collaboration essential for these and other categorical themes, it is also desirable in methodologic aspects of research. Interdivisional collaboration has also been fruitful with the Fellowships and Awards Division, in supporting training programs, e.g. for a contingent of epidemiologists from China; in this instance, the training program was administered by FAD, and the funds came from the HSD budget.

IDRC has not supported national or regional health information systems. Some research projects, however, have used health information systems as a data-base. Some collaborative projects between Health Sciences and Information Sciences have supported specific types of information system, e.g. a poison information system in Sri Lanka. It would be inappropriate for IDRC to support national or regional health information systems, since this would require a perpetual commitment; but it is desirable to encourage developmental and experimental health information systems, given the high priority of these on the agenda for "Health for All by the Year 2000."

The increasing range of collaborative approaches, both in categorical theme areas and in research methods, is Centre-wide and deserves strongly favorable comment in this review. The collaboration between Health Sciences and Social Sciences has been most conspicuous, especially in the "stripes." There is equally close collaboration with the Fellowships and Awards Division, in respect of training grants in the health field, and with Information Sciences in relation to developing technologies for health information.
The consultant who has interviewed Division Directors and program staff in most parts of IDRC is left with a very positive impression of a large and complex organization in which collaboration is harmonious and productive, and in which there is no evidence of "territoriality."

Nonetheless, staff performance assessments that "reward" program staff in recognition for the number of projects that they develop and for which they are responsible each year, could have a detrimental effect on inter-divisional collaboration, and, for that matter, on collaboration between sectors in a division that has clearly demarcated sectors of activity. The "program clusters" of the Health Sciences Division were created in recognition of the realities of multifaceted health problems, but as a useful by-product, this reorganization should minimize tendencies to "territoriality" between sectors, since sectors as such no longer exist.

"Territoriality" is less likely to be a problem when professional staff have a broad, as opposed to a narrow vision of development problems. This breadth of vision is maximized by recruiting staff with extensive training and rich experience, including extensive field experience, in international health; this has generally been the recruitment policy of the Division, and program staff now in the division illustrate the success of this policy.

It is equally important to provide in-service educational opportunities for staff already in position, that will enhance and broaden their existing skills. The Report of the Working Group on Training and Development recommends several initiatives that would contribute to
enhancing program staff competence: orientation, upgrading, retraining, and for long-term staff, greater mobility, secondments, career counselling, leave opportunities (study leaves, sabbaticals, etc). See page 57.

Are the Division Boundaries Right?

It could be argued that the time is ripe for reappraisal of the divisional structure of IDRC, given the range of "stripe" themes that require collaborative or multi-disciplinary approaches and cannot be constrained within the conventional boundaries of the established Divisions. Other interface areas between the existing Divisions also might work more efficiently in different organizational arrangements from those now existing. Some divisional structure is clearly essential in such a large and diverse organization as IDRC; yet as research needs evolve, the divisional structure should evolve in step.

The existing split between Health Sciences and Social Sciences whereby some socio-demographic and health related social science research work is supported out of the Social Sciences Division, makes sense when one recollects that health scientists and social scientists who work closely together are sometimes at odds over their professional status and roles. Prevailing salary differentials between medically qualified and non-medically qualified scientists are often at the root of these tensions between the two classes of health scientists. [Law and computer science are other professions with disparate salary levels].

Other factors potentially contributing to tension include mutual reservations about the extent to which each
other's work is "scientific"; the medical course does not include research training, whereas a PhD, by definition, does. In many academic settings, it has been found that medical and social scientists work most effectively together when in separate faculties respectively of biomedical and social sciences.

It thus makes sense to preserve the existing divisional arrangement between Health Sciences and Social Sciences. Any realignment which placed a large part of the existing social science professional staff in the Health Sciences Division could have detrimental consequences. Given the good working relationships between Health Sciences and Social Sciences in the interface areas of research that concern both divisions, any change in this arrangement such as a relocation of the socio-demographic and health educational components of Social Sciences in the Health Sciences Division might have adverse consequences out of proportion to any gains that might result from such a move. Dr. Frances Stewart's examination of projects in the health field for the Social Sciences Division, revealed that at times even when in separate divisions, there has been tension between program staff; such tensions would likely be greater if the individuals concerned were in the same division.

Cross-appointed Staff

Nonetheless, other approaches to staffing should be considered. There is a strong argument in favor of cross-appointing appropriately qualified program officers between divisions. For example, several theme areas would benefit from the expert advice of a medical anthropologist, and others would benefit from the input of an expert in
cost-benefit and cost-effectiveness analysis. Such professional staff would be useful additions to more than a single division. Cross-appointed staff would have to owe primary allegiance to one division and hold an appointment at a secondary level in another, in order to make explicit the lines of reporting responsibility, but this is a technical detail that should not be difficult to resolve.

Many problems in fields beyond those loosely identified with health have root causes and consequences that may make traditional approaches within conventional disciplinary boundaries less effective in achieving solutions than radically different approaches that might follow from a realignment of the professional activities of the Centre. For example, some agricultural development projects which involve people in innovative approaches to animal or plant husbandry resemble conceptually the people-oriented approaches to community health problems that are attracting attention in the Health Sciences Division. Development requires changes in community attitudes that have deep cultural roots, and this transcends existing divisional structure; it calls for new approaches to problem-solving -- in the world as a whole not just in developing countries.

The Panel encourages the Health Science Division to explore with other Divisions the possibilities for cross-appointing program staff with certain kinds of expertise and professional training, such as medical anthropology and micro-economics.
6. THE HEALTH SCIENCES DIVISION REORGANIZATION

The rationale for Health Sciences Division priorities and for the reorganization of the Division from the previous sectoral approach into the new "program clusters," is the prevailing view of health problems and their complicated underlying causes in the developing countries. This view of health problems has been briefly described in Section 2 of this report, and has been much discussed.\textsuperscript{38,39,40,41} The Divisional Statement\textsuperscript{42} contains an eloquent analysis of the interlocking set of factors -- poverty, ignorance, inadequate resources, physical and biological environmental dangers such as vector-borne diseases, demographic pressures such as overpopulation, lack of family planning, rural-urban shifts, and aging as a demographic force, together with absence of health service infrastructures, and other factors -- all of which have a cumulative effect upon each other. Another factor that, unhappily, has to be considered is the influence of war and civil unrest, which in some parts of the world may be more important than any of the others.\textsuperscript{43}

The phrase "holistic approach," meaning an all-encompassing as opposed to narrowly biomedical strategy, summarizes the modern way to tackle these cumulative causes and effects if developing countries, especially those in most dire need, are ever to break out of the multiple vicious circles that impede their progress at present. It is necessary to acknowledge the impossibility of solving health and development problems using traditional biomedical methods, that is dealing piecemeal and one discipline at a time with single, even comparatively simple, diseases such as infant diarrhea. While it is true that infant diarrhea can be controlled by providing clean water and sanitary
disposal of human excreta, the reality is that mothers and older children also have to be educated about the causes and control, food has to be safely stored and properly prepared, and infants who get diarrhea have to be cared for in a way that not only ensures their own survival but also minimizes the risk of transmitting their infection to others. With vector-borne diseases such as malaria and schistosomiasis, control requires more complex approaches, and with many other health problems in developing countries, the interactive causal factors are even more complex. A multi-sectoral approach, as advocated by WHO in the Health For All strategies, is a sine qua non of health enhancement for development.\textsuperscript{43}

It could be argued that health promotion is the highest priority, for only with enhanced health do other aspects of development become possible; health promotion is defined as the process of enabling people to gain control over and improve their health. It involves the population as a whole in the context of their everyday lives, rather than focusing on people at risk for specific diseases, and is directed towards action on the determinants or causes of health.\textsuperscript{43} But for health promotion to succeed, there must be a parallel improvement of nutritional, educational and economic status. Health enhancement for children requires better education and higher rates of literacy, especially for women, together with reduction of the burden of domestic labor, less arduous collecting of fuel and water, improved cooking facilities, etc. The deeper one probes for a "fundamental underlying cause" of health problems in developing countries, the more complex the web of causation is discovered to be; holistic, multidisciplinary approaches to problem-solving must be
employed. The same is true, of course, of health problems in the industrial nations.

The new "program clusters," by removing the rather rigid structure of the former sectors in the Health Sciences Division, are explicit recognition of the need for a holistic approach to health problems in developing countries. In this context, the reorganization of the Health Science Division is clearly an appropriate response to the present challenges of health problems in developing countries.

The Panel recognizes the complexity of health problems in relation to development and the need for holistic approaches to their solution. Therefore the Panel approves and supports the concept of program clusters that has been implemented in the Health Sciences Division.

Participatory research

Another important feature of modern approaches to problem-solving in the health and development field, long an integral part of IDRC's philosophy, is to involve people directly in developing, testing and evaluating solutions to their health problems. This theme underlies the concept of participatory research. Participatory research is defined in terms of three elements -- the researchers are close to the problem and are able to implement solutions; the researchers control all pertinent aspects of the study; and research leads to action. In short, people who have the problem do the research on it themselves. There are some limitations on objectivity and reproducibility associated with participatory research, but its strengths, which include the benefits of problem-solving by people themselves, thus
giving people strong motivation to implement solutions, more than make up for the weaknesses. Paul emphasizes the strengths of community participation in terms of empowerment, capacity-building, effectiveness, cost-sharing and efficiency, and considers these to outweigh greatly any weaknesses of this approach.

Because participatory research involves people directly in decisions about their own life and health, it can have important political implications and perhaps repercussions. In some countries, the ruling faction may not welcome the idea that people take control of their lives in this way, making their own decisions rather than having decisions made for them by the government or other authorities. IDRC must not be seen as an agency that promotes or encourages revolutions. An important step before approval of participatory research projects therefore is the ethical review which must address the question of possible political or ideological implications of participatory research projects.

The Panel recognizes the relevance of community-based health research, and approves of the concept of participatory research; but nevertheless, counsels caution in adopting this research method because it can lack objectivity, and it can occasionally have political repercussions.
7. STRATEGIC INTENTIONS

The Strategic Plan for the Health Sciences Division is summarized also in the Program of Work and Budget, 1988-89. The operation of the Division is guided by IDRC's mandate and mission, and by the belief that health is an integral part of development. The Strategic Plan contains cogent statements about the problem of poverty as an impediment to health, and the relationship of health to development. Reviewing the evidence, the Division has decided to focus its research programs on the community, and has adopted a holistic model of the ecology of health (Figure 3).41

In this perspective the three program clusters of the Division, i.e., Health and the Community, Health and the Environment, and Health Systems, are a rational way to approach the complex problems of health research in the developing world (Figure 4).42 The transition from the former subject- and discipline-oriented approach is relatively straightforward: most existing projects and programs can be accommodated in one or other of the new program clusters without difficulty. All that has changed is that now there is a broader and more realistic vision of the scale and scope of action needed to ensure that the research actually works, and, along with this, greater flexibility and responsiveness.

The Panel approves and supports the concept of program clusters. The statement of mission and objectives that appears in Part I of the Divisional Statement does, however, need revision to make it congruent with the new program clusters.
Nevertheless, the Panel sounds a cautionary note; the program clusters are a radical departure from established sectoral organization, and the performance of the Division under these new arrangements should be carefully monitored.

Since the program clusters are newly established, it is not possible to define them by giving examples of projects selected for support. It would be advisable for the Board to be given a special report in three years, summarizing projects supported by each cluster, analyzing the relationships between clusters, and evaluating the efficacy and efficiency of the program clusters by considering results achieved in relation to the specified strategic intentions; any problems that have arisen should also be specified in this special report.

It has been suggested that the vague terminology of titles for the new program clusters may confuse some potential applicants for grants, but if this were to happen (and there is no evidence that it has) the concepts are easy to explain. The new program clusters have absorbed the old sectors; and the Division's previous subject and discipline-based structure is being reoriented towards people and communities. Each program cluster seeks to assist developing countries to build and maintain indigenous research capabilities, and to this end, the Division will promote and support divisional and interdivisional capacity-building initiatives.41

Health and the community

The holistic approach is well illustrated by the priority topics to be supported in the Health and the
Community program cluster. Factors that crucially influence health include human behavior and the demographic profiles of communities, notably such modern phenomena as rural-urban migration, overcrowding and proliferation of refugee communities.

Community participation is essential in any approach to problem-solving, and many new initiatives illustrate how this is working.\(^{47,48,49}\) The Health and Community program cluster will give priority to projects that examine how economic and social conditions and human behavior affect health. Research will be supported dealing with factors influencing communities' acceptance or rejection of information about behavioral traits that modify health; methods of health education; relationship of community organization to identification of health needs and research responses.

This program cluster incorporates projects dealing with community participation, participatory research and health education; and it will often support multidisciplinary projects developed in collaboration with other IDRC program divisions. The collaborative approaches will include the following themes: appropriate use of technologies; behavioral influences upon communicable diseases; methodologies for participatory research; the role of women and children in health promotion within the family and in the community; improved techniques for exchanging health information; and nutritional improvement. All are recognized by many development aid agencies (including, for example, WHO and UNICEF) as high priorities, and all will benefit from IDRC's unique approach to development assistance.
This is a wide-ranging and ambitious set of topics and themes. The recognition that holistic approaches are essential is clear and forthright. Responsiveness, the hallmark of IDRC, is preserved. "Connectedness" is enhanced -- this program cluster explicitly reduces compartmentalization, and encourages intersectoral, interdivisional collaboration. The program cluster is inherently flexible, can react rapidly to changing needs; and it is innovative, rather than stereotyped and traditional, thus enhancing another IDRC tradition; to lead and set trends, rather than copying and following others.

In short, this approach is in step with the philosophy that prevails among leaders of public health thought in the late 1980s, and it places the Health Sciences Division in the vanguard of international health agencies. Furthermore, it encourages an eclectic approach by IDRC program staff, in which a superspecialized response to ideas for superspecialized projects, is unlikely to occur. It does, of course, impose new demands on program staff, and will present new challenges, discussed in the next paragraph. It will offer considerable stimulation and opportunity for creativity, thereby enabling program staff to fulfill their professional potential.

The concept of program clusters, and perhaps in particular the Health and Community program cluster, offers some challenges to program staff:

(a) In relation to multidisciplinary research, some questions remain unaddressed, about how this will actually work, who will provide leadership, how the Centre will administer it;
(b) In relation to participatory research, there are unanswered questions about how this is done, whether there are researchers qualified to undertake projects, who among program staff has the necessary expertise to develop and monitor projects, whether it is valid, and, perhaps most difficult, the ethical, i.e. political/diplomatic dilemmas that it may occasionally present.

(c) In relation to Integrated Support for Research Institutions, discussed in detail later in this review, there are questions about how and by whom decisions can be made as to which institutions should receive support -- how will the priorities be decided?

(d) With respect to the "stripe" themes, there will be challenges to staff and to the Centre management, with respect to project and program administration, for instance relating to performance appraisals of program staff;

(e) Other ethical questions may from time to time arise.

The Health and Community program cluster, like the other two program clusters but probably to a greater extent, also demonstrates some weaknesses. In particular, the plan seems over-ambitious, covering an extremely wide field of health research. The program staff and the financial resources of the Division will have to be spread very thin if all that is envisaged here is to be attempted, let alone accomplished. Another potential weakness is an image problem; it is not very clear what is encompassed by "health and the community," beyond the general statement that this is a very broad research field. Furthermore, some important
professional expertise is lacking, in particular, in the field of behavioural sciences in relation to health: program staff qualified in medical sociology and medical anthropology especially are needed.

Health Systems

The Health Systems program cluster plans to develop and monitor projects dealing with social, physical and environmental variables as well as conventional health services research themes; it requires application of several disciplines, e.g. epidemiology, sociology, economics, demography, and encompasses policy formulation, planning, administration and management; it will examine existing and alternative health care systems, including cost-benefit, cost-effectiveness and equity. Priority is to be given to increasing information exchange between communities and health facilities. This program cluster will be promoting many of the goals of the WHO "Health for All" strategies, by research in health policy analysis, health services planning, management and delivery, application of health technologies, methodologic developments, and health systems research training.

Many of the comments made above apply also to this program cluster. In particular, the program staff at present may lack sufficient professional expertise in health policy analysis and in methods of economic analysis. A priority for the Health Sciences Division is to recruit staff, or identify and use suitably qualified consultants with these skills.
Health and the Environment

The Health and the Environment program cluster plans to adopt a holistic approach to physical, chemical and biologic factors in the environment. The priorities include water, living and working environments, vector-borne and infectious diseases, pesticide use and appropriate technologies. Strong emphasis is to be given to health problems posed by indiscriminate disposal of industrial and agricultural effluents, an increasingly urgent problem in many developing countries that are industrializing rapidly. The problems of environmental health and occupational toxicology are discussed in a Position Paper that accompanies the Strategic Plan of the Division. The health consequences of macro-development schemes such as water resource development, deforestation, migration and human resettlement, and the associated ecological disturbances, will get high priority.

People get infectious diseases as a result of interaction with the biologic environment, so this program cluster will work closely with the Health and Community cluster, and with the Social Sciences Division, notably in research on sexually transmitted diseases, including AIDS. Emphasis will continue on research into health problems in the working environment, including accidents, occupational lung diseases and chemical intoxications, both pesticide-related and other. Support for research on vector-borne diseases will also continue.

This program cluster comes closest to the previous sectoral alignment, so adjustment of working styles to strategies may be easier than for program staff in the other two clusters. Moreover, the necessary expertise is in place.
The boundaries of the work envisaged for this program cluster, although wide, are relatively circumscribed. This cluster is the logical place for ongoing monitoring of existing environmental health projects, e.g. dealing with water supply and sanitation. The Associate Director most closely identified with environmental projects is responsible for the Health and Community program cluster; by placing responsibility for future environmental projects in the hands of an Associate Director with a different although equally rich prior experience, the Division is demonstrating its confidence in the ability of senior staff to lead research initiatives regardless of the field involved. Careful evaluation of this innovative approach to research is obviously desirable. Perhaps to a greater extent than the other two program clusters, this one will require considerable interaction between program staff and the researchers who are being supported -- raising the question of staffing ratios, discussed later; to fulfill its mission and objectives, the Health Sciences Division will surely need more program staff, especially in the regions.

Special Initiatives

The Division is pursuing some "special initiatives." These include support for the Independent Commission on Health Research for Development, and the International Health (Research and Training) Communications Network in Canada.

The Independent Commission on Health Research for Development is a consortium of senior authorities on development research from many countries and from international, national, NGO and Foundation backgrounds, that is conducting a critical review and reappraisal of health
research needs and priorities in developing countries. Two members of the Board of Governors are members of this Commission, and so is one of the consultants for this review. The Chairman is Dr. John Evans of Toronto. The Independent Commission is funded by some dozen agencies in the International Health field. It is carrying out some special studies, and is expected to complete its work and produce a report by 1990.

The Panel approves the HSD initiative of support for the Independent Commission on Health Research for Development; this Commission is performing a valuable service in defining priorities for future health research; its efforts deserve every possible encouragement.

The International Health (Research and Training) Communications Network has been established to promote increasing involvement of Canadian health researchers and institutions in research in developing countries. The Network publishes a quarterly newsletter, Synergy, to inform Canadian health researchers about work in international health, and encourages communication and cross-fertilization among these researchers in various other ways. One of its aims is to enhance opportunities for researchers from developing countries to obtain training and experience in Canada, and another is to strengthen Canadian capacity to provide such experience that is relevant to the needs of researchers in the third world.

A Canada-wide study of research interests in international health, both in academia and in the private sector, has been sponsored by the Division. Joint funding of international health projects in Canada, with the Medical
Research Council and the National Health Research and Development Program has been explored. The Division is committing funds to this activity and to the International Health Exchange Program which brings visiting scholars to Canada and pays for young Canadian scholars and students who seek third world experience preparatory to a career in international health.

The Panel believe that closer collaboration between the Canadian academic and scientific community and IDRC can be productive and valuable. Therefore, the Panel strongly supports and encourages the initiative of the Health Sciences Division in setting up the International Health (Research and Training) network. This network has considerable potential for enhancing Canadian academic commitment to International Health; its continuing support is therefore encouraged.

Integrated Support for Research Institutions

The Health Sciences Division plans to play a role in integrated support for research institutions (ISRI). The Office of Planning and Evaluation's paper on the subject emphasized the advantages of this approach to research capacity building, and the HSD Position Paper elaborates on this theme. Two types of ISRI are envisaged, Centre-wide initiatives that involve several divisions ("big ISRI", in IDRC jargon) and those confined to the health field, but embracing a range of health disciplines ("little ISRI") an example of this is the development of health services research training in Sri Lanka. In suitable settings, ISRI is the best way for IDRC to fulfill its mission of research capacity building. Both applied and fundamental research can benefit. Suitable institutions, after
strengthening, can become the venue for training programs in such important fields as epidemiology, health services research and health policy planning and analysis.

The Health Sciences Division Position Paper raises some questions about mechanisms and selection processes. Since large sums of money will be required, a partnership between IDRC and other agencies is the logical way to develop ISRI. Some Centre-wide projects already under way illustrate how this can work; the Bharatiya Agro-Industries Foundation (BAIF) in India is a good example. The Position Paper offers some suggestions on selection criteria. These include the context in which the institution functions, orientation towards people in their communities rather than towards technology, presence of credible leaders, existence of linkages to other institutions. Not all the criteria listed in the Position Paper are equally important, nor should all be expected to exist in any single institution. A corollary of ISRI is creation and strengthening of networks within and among research institutions, and donor agencies can help in this regard also. The HSD Position Paper suggests elements in ISRI support, discusses activities in relation to IDRC’s regional plans, and emphasizes the importance of evaluation.

The Panel supports the concept of integrated support for research institutions, agrees with the ideas expressed in the Health Sciences Division Position Paper, and encourages the Division to engage actively in further plans for ISRI. This will entail working both with other divisions and with other donor agencies towards this important goal of institution-strengthening and networking.
Nutritional Research

The In-depth Division Review of the Agriculture Food and Nutrition Sciences Division referred to "the silent N in AFNS" implying that nutrition sciences receive low priority in IDRC. In fact, research on nutrition, especially on the public health aspects, is a neglected field almost everywhere, a strange situation when one considers the fundamental importance of nutrition for human health and wellbeing. The HSD Position Paper on Nutrition emphasizes the importance of nutrition in development. It describes the past record of the Centre, showing that collaborative approaches, both among divisions in IDRC and between IDRC and other agencies, have been successful. There is a vigorous interdivisional working group on nutrition, but its work may be somewhat hampered by the limited number of nutrition scientists among program staff in the Centre.

The Position Paper recommends that HSD should continue to be involved in and support the work of the interdivisional Nutrition Working Group. It advocates participatory research, application of existing knowledge, response to identified national and local priorities, and multidisciplinary approaches. It recommends encouragement of submissions aimed at regional strategies for improved nutrition, preferably developed in collaboration with other divisions. It recommends support for nutrition research training, development and/or adoption of methods to identify and solve community-wide nutritional problems; pooling experiences with nutrition interventions; and investigation of research capacity in nutrition.
The Panel agrees with the ideas and recommendations in the HSD Position Paper on nutrition, i.e. collaborative approaches, support for participatory research, support for nutrition research training, development and/or adaption of methods to identify and solve community-wide nutritional problems, etc. However, the research agenda outlined in the position paper is very extensive, and some priority-setting is called for. Recruitment of additional program staff (or consultants) with expertise in nutrition is a high priority.

Health Education

Health Education is the subject of another Position Paper. This paper describes and defines health education, emphasising the recent developments in health promotion strategies, and offers a critical review of health education research in developing countries. Health education research has been supported by several divisions, but mainly by the Health Sciences Division.

In her paper prepared for the Social Sciences Division in-depth review, Dr. Frances Stewart raised questions about the best way for the Centre to support multidisciplinary research, in fields such as nutrition and health education. She elaborated on these ideas in a report prepared for this review. She emphasizes the necessity for HSD and SSD to work together on such research themes; in the past the evidence suggests that neither formal nor informal collaboration were as close as is desirable. Nonetheless, the Position Paper on Health Education lists past research projects, many involving collaboration, that have covered specific topics such as sexually transmitted diseases, diarrheal diseases, and technology, as well as more
general themes. The position paper identifies some priority areas for future work: evaluation, training, regional differences, development of resource materials, community involvement, multi-disciplinary emphasis, communication between researchers, and organizations involved in health education research. It makes further recommendations, including support for community or "popular" health education research; research on evaluation methods; research on AIDS-related health education; and on women's health; encouragement of regional networks for information exchange; support for training in health education; interdivisional collaboration; an inventory of health education researchers; and establishment of a health education consultative group.

The Panel recognizes the importance of research on health education, and the need for this to be multi-disciplinary, requiring interdivisional collaboration. The Panel agrees with the topics and themes recommended for support in the Position Paper on health education that is part of the RSD Strategic Plan, and with the need to set some priorities among these. The Panel believes there may not be sufficient expertise among program staff now in post for all the necessary work of project development and supervision to be carried out; reinforcements may be required, and some support by outside consultants.

AIDS

The acquired immunodeficiency syndrome (AIDS) is an epidemic problem of the utmost concern in some areas of the third world, especially parts of Africa. CIDA is contributing to the WHO Global Program on AIDS (GPA). The primary focus of GPA is technological, i.e., development of
screening procedures for the human immunodeficiency virus (HIV), establishment of diagnostic laboratory facilities, etc. Another great need is for accurate epidemiologic data, and a third need is for health education to contain the spread of AIDS. The HSD Position Paper on AIDS¹ suggests several areas for support by the Health Sciences Division:

- Studies on the nature and magnitude of the problem;
- Studies on technologies for diagnosis and prevention;
- Studies on behavioral patterns and their effects on transmission, prevention and control;
- Studies on strategies and methods for prevention;
- Studies on methods to identify, monitor and care for victims of AIDS.

Some of these studies could be managed by each of the program clusters in the division.

AIDS research has high priority, and is attracting support from many donor agencies. It is essential to coordinate the many research endeavours, to avoid duplication, and to confer among experts to reach consensus on priorities. The Health Sciences Division should focus on aspects of AIDS-related research, that complement the efforts of other agencies, concentrating on aspects that can make the best use of available expertise, and above all, avoiding duplication.
**Regional strategies**

All activities of the Division are conducted both on a global and regional scale. The Division aims to have at least one senior professional staff member with specialist qualifications, acting as a generalist, in each region. This senior staff member will, when person-years become available, be complemented by a regional program officer. The regional strategy will lead to substantial decentralizing of planning, development and management of the Division’s programs. This is in line with the recommendations in the Winegard Report on Canadian Official Development Assistance," but it is costly, and could alter IDRC’s present low ratio of administrative costs compared to research support.

The Panel supports the Division’s plans to strengthen regional office staff and to grant greater autonomy to regional offices; the implications for person-years and costs are recognized and will have to be resolved.

The balance between the Centre and the Regional Offices needs constant review and reappraisal, rather than being regarded as a fixed formula.
8. EVALUATION

A weakness of IDRC in the past was the absence of adequate outcome evaluation of projects. Project completion reports (PCRs) record systematically some administrative details, but seldom reveal whether the work led to any publications, whether the results have influenced health policy, or whether the research workers who were supported went on to further research endeavors. Some program staff have mentioned that they have not evaluated the outcome of the projects that they developed and monitored. This is regrettable, because program staff could learn a great deal from critical evaluation of completed projects. Development of valid evaluation methods and procedures is a priority, and is envisaged in the Division's strategic plan.

A conventional approach to evaluation of health services is to consider structure, process and outcome. This is a useful conceptual framework for evaluating research results, as the research design, the methods and procedures, and the findings can each be critically appraised; indeed this is standard procedure, e.g. when conducting peer reviews of research proposals and of papers arising from research work. Other conceptual frameworks and approaches have been suggested. These include systems analysis, management by objectives, professional (peer) review, and various models that can be used to evaluate efficiency, productivity, effectiveness, social utility, social acceptance and various other qualities. It is also possible to evaluate (or at any rate to assess) relevance, the progress of a program, its impact, etc. Methods vary according to the parameters under examination. Cost-benefit and cost-effectiveness analysis may be especially important, and have in the past been
neglected aspects of evaluation in IDRC generally and in the Health Sciences Division in particular. This deficiency relates to the fact that many staff members in the Division lack the necessary expertise. This deficiency should be corrected, either by recruiting someone who possesses these skills, or by in-service education for some of the program staff.

The strategic plan contains a description of proposals for evaluation that are based mainly upon the ideas of Rundall; five dimensions of evaluation are proposed, i.e. relevance, progress, effectiveness, impact and efficiency. Ideas about implementing these methods of evaluation are expanded upon in a Position Paper. These aspirations are to be commended and encouraged, but a cautionary note is in order. Not all of these five dimensions will be feasible in all circumstances, and some can at best produce only value judgements rather than objective data; other evaluation strategies and tactics should be considered as alternatives. More thought needs to be devoted, moreover, to the definition of measurable criteria for evaluations at all stages in the life of projects, and of related themes. How, for instance, will themes and connectedness be evaluated?

In evaluating research outputs, one would like to be able to rely on the production of original publications in peer-reviewed journals. But many journals in developing countries are not peer-reviewed or if they are, are not recognized as such in the research community in countries such as Canada and the United States. Publications may not appear until some time after the research grant has ended; moreover, tracing these requires diligent searches of computer-based abstracting systems, which is expensive and
tedious, and leaves unanswered the question. Whether the work was peer-reviewed -- aside from the issue of what peer-review actually means. It can mean rigorous scrutiny by scientific peers who confirm that the methods, procedures and findings are valid, or conformity with criteria of acceptability for a journal, a school of thought, or even a political system; or it may be virtually meaningless, depending upon the rigor with which standards of acceptability are applied by editors and reviewers. Reports to government which may not circulate widely, may have more impact anyway, but unless specifically requested, may not reach the Centre. An additional problem already noted is that publication of research findings, whether in peer-reviewed journals or elsewhere, has been by no means the rule, at any rate in the past.

More significant than publications, whether peer-reviewed or otherwise, is the impact of the work on health and social policy. Even original and widely admired research may have little or no impact on policy for long periods after the work becomes known and accepted in scientific circles. Clearly the whole topic of evaluation is complex and difficult. There are, of course, many anecdotal accounts of successful projects, including some impressive publications. See, for example, With Our Own Hands, which gives details of many projects supported by IDRC in the period 1970-85.
9. PROMOTING CANADIAN INTEREST IN INTERNATIONAL HEALTH

Senior professional staff in Foundations have commented on the failure of IDRC to promote, support or, evidently, even to encourage other agencies to support the training of young Canadians in international health. In the Canadian academic community, it is difficult to find a sponsoring agency prepared to support the career aspirations of promising young physicians interested in international health. Many are lost to the specialty, lost to Canada, or both. There is an impression of indifference to this field of work, both in pertinent funding agencies such as the Medical Research Council and the National Health Research and Development Program and among the leaders of the academic community more generally. This is especially regrettable, given the strongly positive image that Canada has throughout the developing world. It is therefore encouraging to see that the Strategic Plan for the Health Science Division includes increased emphasis on involvement of Canadian researchers and Canadian institutions in health research of high priority to developing countries.

The IDRC initiative being taken with the Canadian Society for Tropical Medicine and International Health will help to bring the academic community and IDRC a little closer together. In collaboration with the Fellowships and Awards Division, a successful Health Exchange Program has been operating for several years; this provides support for young Canadians to gain experience in developing countries, and for health professionals from developing countries to get short periods of training and experience in selected Canadian institutions.
A caveat must be added, however. The present involvement of some Canadian universities in developing countries has been criticized on the grounds that it has exported inappropriate technologies. "Disease palaces", i.e. expensively equipped western-style tertiary care hospitals, have been set up in places where rural primary care is depleted to provide staff; and sophisticated randomized epidemiologic trials have been mounted in communities that lack basic health information systems. IDRC has not supported such activities, but these forms of "academic imperialism" should be discouraged. They have occurred, presumably, because the Canadian university staff who have been involved, however well-meaning, have lacked basic training in international health.

The meaning of the word "research" is worth discussing. To some, it may mean aspiring to the highest level of scientific creativity. Another meaning is simply concerned with the art of asking questions and testing hypotheses about the most basic needs of developing countries. When this is done, those involved are starting on the pathway that leads to enhancement of the human condition in their country. It is in this sense that the word "research" appears in the title of IDRC. Even so, the professional staff of the Health Sciences Division, indeed all professional staff in IDRC, should aspire to what the late John Knowles called "scholar activism;" that is the promotion of innovative, creative endeavors, especially those that will enhance the human condition.

The Health Sciences Division has recently helped to reactivate an Ethical Review Committee. A number of important ethical issues arise in health research. One that
relates to participatory research which is a political as well as an ethical concern (at any rate potentially) has already been referred to. In any research involving human subjects, issues arise about informed consent and proper protection against misuse of invasive procedures. These issues need to be objectively examined by an impartial review group which is distinct and separate from the group responsible for scientific review. Such a review group does exist although at present its membership includes staff in the Health Sciences Division who may also be responsible for at least part of the scientific review of projects. This creates a potential (though not an actual) conflict of interest.

Other ethical questions may arise from time to time depending upon the nature of the project. For instance, projects which involve attempts to modify tradition, culture or custom have to be very carefully examined. This of course is as true of projects in the field of agriculture as in health or social sciences. The environmental (ecological) consequences of projects must also be considered. Water supply and sanitation projects in the Health Sciences Division may at times have unanticipated environmental consequences.

The Panel recognizes the importance of considering ethical, political, environmental impact, and other aspects of research proposals that may lie outside the boundaries of conventional scientific appraisal. The Panel supports the ideals of the ethical review committee.

This committee, however, should comprise for the most part a group of experts on aspects of ethics, and should
stand at arm's length from Centre staff, although it needs to have members from among Centre staff who can answer specific technical questions that relate to projects undergoing ethical review. The ethical review committee could and should be one of the venues for direct interaction between IDRC and the Canadian academic community. There has been a considerable increase in interest in ethical aspects of biomedical science in recent years, so there are quite large numbers of persons with the necessary knowledge and competence, who could be asked to serve on ethical review panels, sharing this responsibility with Centre staff.
10. COLLABORATIVE RELATIONSHIPS

Collaborative relationships between IDRC and other aid agencies can be of several varieties. Some agencies are constrained by political or other considerations from supporting certain types of research or research in certain countries. When an application for research in such a field comes to one agency which for whatever reason cannot support it, that agency can refer the request to another agency. This works in multiple ways and leads to one kind of collaboration between IDRC and other international aid agencies such as certain American Foundations, non-governmental organizations and at times, UN agencies.

Over the years, several varieties of collaborative arrangements have developed in which IDRC and other agencies have entered into dialogues for the purposes of planning, priority-setting and so forth. The present vigorous interactive relationship between IDRC and these other agencies has resulted from their common interest in development and related research and capacity building. Many of these collaborative relationships have arisen as a result of formal ties between IDRC and the other agencies concerned, i.e. in response to official requests.

Others come about informally because professional staff in the agencies concerned are members of loose networks of colleagues who attend the same meetings, serve on the same international advisory bodies, or in other ways come into contact with one another and use these opportunities to extend the range of their activities. For example, in the management structure of the Tropical Disease Research Program (to which IDRC contributed $2.35 million in the period
1971-88) several levels of interaction exist between IDRC staff and their counterparts in other agencies; these provide opportunities for both formal and informal communication between IDRC staff and these counterpart professionals in other agencies. Several senior staff members have mentioned the value of informal lines of communication as a means to reach agreement on such otherwise difficult questions as which agency might be the best to provide assistance for specific purposes in certain countries. It should be emphasized that collaborative activities take time, and therefore have inherent administrative costs that should be taken into account when calculating the ratio of research funds to administrative overhead costs; this has probably been overlooked in calculating the costs in both time and money of some collaborative activities in the past.

The Panel supports the collaborative activities of the Health Sciences Division, but urges Centre management to recognize the administrative costs of certain components of these activities, both in time and in money.

To a considerable extent, the advisory groups that supervise the Tropical Disease Research (TDR), Diarrheal Diseases (CDD) and Human Reproduction (HRP) programs, provide a forum for both official and semi-official exchanges between professional staff in IDRC and their counterparts in other agencies that share sponsorship of these and other programs. As already noted, these groups function as true international research councils, on which many members serve both as representatives of their agency and/or government, and also as representatives of their branch of biomedical science.
As yet, nothing comparable to these international advisory groups has developed for community-based or participatory research; in view of the difficult challenges presented by these forms of research, such an advisory international group would be useful. Perhaps IDRC, through its Health Sciences and Social Sciences Divisions, should take the initiative.

The International Commission on Health Research for Development has evolved out of these semi-official networks. As already mentioned, this Commission has financial support from IDRC among other donors. Its task is to define and set the agenda for health research priorities in developing countries over the next decade or so.
11. CENTRE-WIDE ISSUES AND PROBLEMS

From within IDRC, and to a greater extent from outside, both from recipients of support and from staff in other aid agencies, comes the charge that IDRC is excessively bureaucratized. Busy and dedicated program staff have to spend a great deal of time preparing routine documents; in the last 1-3 years, great effort has gone into preparation of other documents dealing with Centre processes. The resulting volume of paperwork often appears to be repetitive, sometimes redundant. And there are complaints from recipients of support that at times the processing of requests for help may be excessively slow. At times there are also problems related to the fact that conflicting signals are transmitted to project personnel. It should be possible to streamline operations in several ways.

The Panel recommends that as a first step towards streamlining the paperwork operations, the Program and Budget document should in future be prepared at three-year intervals rather than annually as at present.

The highest priority for program staff should be productive activities such as enhancing the scientific rigor of projects, by actively working with aid recipients. This is not to say that self-examination and review of policies and procedures by program staff should be neglected, but merely to suggest that these activities have lower priority and should therefore absorb less time and effort than project management. There appears also to be a subterranean level of financial surveillance that requires needless detail in submission of claims for reimbursement of expenses. (For instance, instead of a flat rate per diem, actual expenses
must be submitted with supporting receipts. This method is tedious and more expensive to administer than flat rate payment methods that are used by many comparable agencies. If IDRC used that method, the clerical workers who now spend many hours checking all the documents relating to reimbursement of travel expenses could be deployed on clerical tasks directly related to projects.

The issue of centralized versus regionalized program staff has arisen in discussions with program staff in the Division, and in discussions with comparable staff in other aid agencies. The Ford Foundation, like IDRC, maintains regional offices, in most instances in the same locations; the Rockefeller Foundation on the other hand, does not. A case can be made for both approaches.

IDRC's "hands-on" approach requires regional office program staff, indeed requires the highest level of professional expertise among program staff in regional offices; only in this way can the commitment to responsiveness and interactive research capacity building be maintained and made credible. The issues are addressed in a Position Paper. This paper describes the evolution of the Health Sciences Division approach to regionalization, and outlines future plans. These are that the remaining gaps are to be filled as quickly as feasible, considering how newly appointed staff will complement existing regional office staff; lines of communication and reporting responsibilities will be clarified; the emphasis will be on collaboration, not only with other Divisions, but also, in light of the Wisegard Report recommendations, with regional CIDA staff.
Reporting responsibilities have varied among Divisions. APNS program staff report to an associate director who may be based in a regional office; it is proposed that HSD program staff in regional offices (if and when obtained) should report to the regional representative who would report to the deputy director in Ottawa.

The Panel notes with approval the plan of the Health Sciences Division, to strengthen regional office staff, and to develop stronger collaborative relationships with other divisions and with other agencies, notably CIDA.

It must be recognized, however, that it is more expensive to maintain high quality staff in regional offices than at the Centre in Ottawa. A balance must be struck in the allocation of IDRC's total budgeted funds, between money available for projects and programs, and money for IDRC staff; in general, a rough rule of thumb is that 70% of the total should be devoted to projects and programs, 30% to staffing and administration. While this might be the best overall ratio, in some regions and in relation to some programs, it is unrealistic. As already noted, collaborative activities are more costly. Another fact of life is that, other things being equal, salary levels for medically qualified staff are higher than for other professional staff. Even so, there are ways in which the allocation for management could be reduced, for instance by eliminating the dual (or even multiple) project review and management that takes place when projects involve more than one Division.

Other pros and cons are worth summarizing and briefly discussing. In favor of centralized operations is reduction
in overhead costs -- to maintain professional staff in
regional offices costs at least double the cost of the same
staff in Ottawa. It has also been pointed out that regional
office staff may be as inaccessible to project fund
recipients as they would be if they were based in Ottawa,
given the difficulties of transport and communications in
some areas, such as West Africa. On the other hand, a
conscientious and capable regional office professional staff
member prepared to travel extensively can greatly enhance the
efficacy of projects in that region, can ensure that the work
gets done and is of high standard -- in other words, can
contribute powerfully to continuation of IDRC's unique and
valuable role. This is a difficult dilemma, but IDRC has
made a clear decision in favor of regionalization. The
Health Sciences Division aspires to having a senior
generalist in every regional office; this would be in line
with the recommendations of the Winegard Report. Yet, given
the diversity of projects and the impossibility of regional
office professional staff being such polymaths as to be able
to deal with the whole diverse range of projects adequately,
the dilemma remains.

The Panel recommends that an analysis be made of the
costs of the two approaches, in the context of the "70/30
ratio", i.e. the present regionalized approach, and the
(theoretical) costs that would arise if operations were
centralized; the findings of this analysis should be
presented to the Board when the study is complete. Such
analyses ought to be an ongoing activity of Centre
management.
The different regional strategies of the HSD and AFNSD deserve comment in this context. HSD aims to have a senior program officer with specialist qualifications, acting as a generalist, in every regional office. This program officer will report to the Deputy Director in Ottawa, where a nucleus of senior staff will remain, among other reasons, to carry out analytic studies. AFNSD, on the other hand, has disposed its senior staff among the regions.

The Panel notes with interest the existence of the two contrasting regional strategies of HSD and AFNSD. The relative merits, costs, benefits of each, should be evaluated, with a view either to preserving this diversity of approach, or of evolving to a uniform Centre-wide strategy.

A related matter is the use of consultants — whether Canadian or suitably qualified experts from closer at hand to the project in question. Review of project files leaves the impression that in the past, the Health Sciences Division has not made as much use of such consultants as it might have. It is encouraging to see that the strategic plan calls for greater use of consultants in the future. Consultants can review project proposals, work with project staff, and evaluate results of completed projects. There may be greater inherent flexibility in this approach, as the pool of academic talent is being constantly replenished. However, there may be a shortage of Canadian experts in some essential fields of international health, a subject that has already been discussed.

The cost implications of using Canadian consultants have to be considered in relation to the scientific benefits to the projects in question, and in relation to enhancement of
awareness about international health among the Canadian scientific community -- and the latter is not easy to measure. Nonetheless, the use of Canadian consultants, both actual and potential, should be studied.

The Panel recommends that the involvement on a greater scale than in the past of Canadian consultants should be studied by Centre management, who should report back to the Board of Governors on the findings of this study.

Professional Development

The quality of project management by program staff will clearly vary depending upon the professional quality of the program staff and in turn that professional quality will be influenced by many factors of which motivation for professional development is just one. Professional development is clearly an important issue for IDRC, a fact that was recognized by the Human Resources Division which produced a thoughtful paper on the issues and problems involved. This paper was concerned mainly with such issues as "sabbaticals" and other aspects of career development.

Professional staff of IDRC were recently described as "a University in Exile." Many staff members could undoubtedly hold down academic posts. Yet few have cross-appointments to academic departments in either of the universities in Ottawa or elsewhere, and there seems to be relatively limited opportunities for professional development of staff once they are in post: there are no formal arrangements for "sabbatical" leave or even for short-term study leave to participate in pertinent courses. There are, for example, a number of annual summer courses on epidemiology, ranging in
length from two to six weeks, and at varying levels of sophistication. Program staff would benefit from attending such a course every few years. Other themes of short courses include such fields as evaluative research, cost-benefit and cost-effective analytic methods, survey methods, etc. The Centre has a responsibility to maintain high levels of professional skills among staff members, so attendance at such courses should be encouraged.

While professional career development is always desirable, it may be equally desirable for program staff to keep open their options for alternative employment, perhaps implicitly looking upon their service for the Centre as a single episode in a lifetime career only part of which may be spent working for IDRC while other parts may be spent in other government service, the academic community or elsewhere. Depending upon the professional background of program staff, mobility into other professional positions may be easy or difficult. At the very least, the Centre should provide career counselling for staff members and at the most it should probably provide better opportunities for professional development of staff who remain in post in the Centre for prolonged periods. Whether senior program staff should look forward to the possibility of promotion, e.g. to a position as Associate Director, is a more difficult question.

Certain other research funding agencies such as the Ford Foundation have an explicit policy of not providing prolonged tenure for program staff. In the past, IDRC has not had any policy either implicit or explicit about long-term tenure. Many program staff members have been recruited while young but experienced and fully trained and while possessing
enthusiasm, altruism and expertise in very high concentration. In some instances, over the years, these qualities may have been blunted a little. It is not in the best interests of IDEC to retain such staff in post permanently. Others, however, retain enthusiasm, competence and expertise and deserve opportunities for professional development. Probably it would be unwise for the Centre to set a rigid policy about professional development although of course as an employing agency it must be seen to be impartial and fair to all. In general, if a policy has to be set it may be best for this to be a policy of non-tenured appointments at program staff level. Yet the disadvantage of this would be that recruits to junior program staff level of the necessary quality may not then be attracted.

The Panel recommends that Centre management carry out a study of the advantages, disadvantages, and relative costs of non-tenured versus tenured scientific staff appointments.

The intellectual life of staff in the Centre, and in the Health Sciences Division in particular, would be enhanced if there were more frequent informal seminars and other opportunities for "brainstorming" varieties of intellectual cross-fertilization. To some extent, the architecture of the new building may inhibit casual informal contacts. Such contacts would be enhanced if program staff were encouraged to share lunch breaks and coffee breaks, which would provide opportunities for such casual and informal exchanges. Internal seminars are a slightly more formal way of accomplishing the same ends; another form of exchange might be regular communal coffee breaks at which staff deliberately set aside a small period, say from 10.30 to 11.00 one or two mornings each week, to drink coffee
together, and talk informally to one another. Such conversations, perhaps especially if leadership is provided by senior staff, can become a fruitful setting for intellectually stimulating discussions of professionally relevant ideas. A good way to "institutionalize" this process, used in many academic and service departments resembling the Health Sciences Division, would be to establish a Journal Club. This might meet for 1 - 2 hours once or twice each month, preferably at lunchtime. Program staff could present to each other some highlights from recent articles in professional journals, and discuss these articles. A system such as this could go far towards alleviating the sense of professional isolation that some program staff have complained about. An initiative by two HSD program staff members has anticipated this proposal; beginning in the late summer of 1988, regular seminars are to be conducted in the division.

The review, and even more to the evaluation of completed projects, can provide the best of all opportunities for stimulating intellectual debate — especially if this is also the setting for interchange of ideas between IDRC program staff and suitably qualified member(s) of the Canadian academic community who are acting as consultants.
ACKNOWLEDGEMENTS

This review would not have been possible without the willing and friendly collaboration of many Centre staff members and others; a list of these people is annexed. In particular, the help of Andrea Young and her colleagues in arranging many of the details, is acknowledged with gratitude. The review of projects referred to on page 2 was carried out by Dr. Josef Decosa.

John Last
1988.06.30
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APPENDIX I

TERMS OF REFERENCE

HEALTH SCIENCES DIVISION IN-DEPTH DIVISIONAL REVIEW

PURPOSE

To review the division’s mandate, past and present performance, and strategic intentions, as documented in the statement prepared by the division and according to information obtained by such other means as the Panel may deem appropriate.

SCOPE OF THE REVIEW

The review Panel is requested to give particular attention to the following.

I. Mandate of the Division

Taking into account the broad policy intentions of the Centre in the direction of corporate coherence and an integrated response to development needs through the medium of research, review the mandate of the division and the corresponding statements of its mission and objectives.

II. The Past and Present Performance of the Division

(a) Assess the division’s program development, delivery, management and impact, with reference to:

(i) priorities assigned to different program areas;

(ii) the de facto priorities accorded to Third World countries and regions;

(iii) the scale of projects, in terms of duration and size of grant, and the implications of this for monitoring;

(iv) the modes of support used in response to various circumstances in the research environment;
(v) the evaluation and monitoring of projects;

(vi) the present activities of other donors and their strategic plans for future activities.

(b) In relation to the mission and objectives of the division and the Centre, evaluate the program activities of the division over the past several years and currently, with particular reference to:

(i) the outcomes and results of the activities that have been supported;

(ii) the correspondence between program content and the assessment of development needs used by the division to guide its resource allocations;

(iii) the linkages in projects with agents of change;

(iv) the interaction with other scientific disciplines both at the project level and within the Centre.

III. Strategic Intentions

(a) Review the development issues, research needs and opportunities identified by the division to guide its strategic plans.

(b) Review the strategic plans of the division and the priorities it has assigned for the next four years in the context of the first and second order resource boundary system.

(c) Review and propose modifications as appropriate to the modus operandi of the division, with particular respect to its effective contribution to all Centre programs including its own, and to the Centre's overall mandate.

IV. Recommendations

(a) Provide comments on the division's mandate, mission and objectives and suggest modifications as appropriate to improve the effectiveness of the Centre's response to Third World development needs through health science research.

(b) Comment on the program areas currently funded by the division and suggest changes as necessary.
(c) Comment on any constraints that might impede the division from meeting its objectives and suggest, if necessary, any major management issues which impinge on the effectiveness of the division's activities in fulfillment of the Centre's mission and objectives.
APPENDIX II

FIGURES
(Source: HSD Divisional Statement)

FIGURE I  Health Sciences Division Number of Grants by Type of Country

FIGURE II  Health Sciences Division Appropriations by Region

FIGURE III  The Ecology of Health and Development: The Health Sciences Division Model (Reference #49.)

FIGURE IV  Health Sciences Division Research Programs (Reference #50.)
### TABLE 3

**HEALTH SCIENCES DIVISION**

**GRANTS BY COUNTRY CATEGORY**

**1971 - 1987 (Note 1)**

<table>
<thead>
<tr>
<th>1987-88 Grants</th>
<th>Total Number of Grants</th>
<th>Total $ Value of Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1. Low-Income Countries (LICs)</strong> - (Note 2)</td>
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</tr>
<tr>
<td>Bangladesh</td>
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**Note 2:**

- **Note 1:** The table includes grants data for the period 1971-1987, specifically focusing on Low-Income Countries (LICs) as defined by the World Bank.

**Note 2:** The table includes grants data for the period 1971-1987, specifically focusing on Low-Income Countries (LICs) as defined by the World Bank.
<table>
<thead>
<tr>
<th>Country</th>
<th>1987-88 Grants</th>
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<th>Total $ Value of Grants</th>
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<td>Mauritius</td>
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<td>Total $ Value of Grants</td>
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<td>------------------------</td>
<td>----------------</td>
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<td>2</td>
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<td>Venezuela</td>
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<td><strong>Total Upper Middle-Income Countries</strong></td>
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4. Other Countries

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<tr>
<th>Country</th>
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<tr>
<td>Switzerland (Note 3)</td>
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<tr>
<td>United Kingdom</td>
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<td>USA (Note 4)</td>
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<td><strong>Total Other Countries</strong></td>
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<td>127</td>
<td><strong>25,504,814</strong></td>
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<tr>
<td><strong>Total all Countries</strong></td>
<td>71</td>
<td>683</td>
<td><strong>93,883,102</strong></td>
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</table>
### TABLE 3 (Cont'd)

#### HEALTH SCIENCES DIVISION

**GRANTS BY COUNTRY CATEGORY: 1971 - 1982**

**Note 1:** Includes grants from 1971 to March, 1988.

**Note 2:** For purposes of grouping countries, we have used the World Bank classification system as per the World Bank's 1987 World Development Report, pp. 202-203. This report groups countries according to GNP per capita, as follows:

- **LICs** - 1985 GNP per capita less than $400 US
- **LMICs** - 1985 GNP per capita between $400 - $1,600 US
- **UMICs** - 1985 GNP per capita between $1,600 - $7,500 US

**Note 3:** Most projects in Canada are in fact the Centre-Administered portion of research projects, often multi-country projects. Actual Canadian projects include a series of activities with the University of Waterloo in the preliminary stages of handpump design, epidemiology training for Chinese researchers in Canada and health research and management courses for developing-country researchers given at McMaster University and the University of Toronto.

**Note 4:** Grants in Switzerland are HS grants made to WHO, i.e., primarily to the WHO Human Reproduction, Tropical Disease Research and diarrheal Diseases Control Programmes.

**Note 5:** Grants to the United States include grants to the Population Council, PATH, etc. In these instances, because the recipient organization is in the United States, the grants are nominally shown as US grants, but in most cases the funds were actually provided for research to be performed in developing countries. The $13,924,092 shown as US grants includes grants to the Population Council relating to Norplant and the development of an Anti-Contraceptive Vaccine, as well as grants to PATH. In total, to date the Division has invested $6.1 million in the development of Norplant and $5.3 million in the development of the vaccine.
Health Sciences Division
Appropriations by Region (dollars)
fiscal years 1983-1987

![Bar chart showing appropriations by region from 1983 to 1987.]

- Asia
- Africa
- Latin America
- Other

Appropriations by Region (percentage of total) fiscal years 1983-1987
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<td>10,111</td>
<td>11,405</td>
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The Ecology of Health and Development: The Health Sciences Division Model

The width of the four ... input-to-health arrows indicates ... assumptions about the relative importance of the inputs to health.

Adapted from H.L. Blue, Planning for Health, Human Sciences Press, 1974, p. 3.