

**INSTRUCTION IN APPLIED HEALTH SERVICES RESEARCH METHODS**

**A Review of IDRC-Suported Workshops**

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## SUMMARY

The overall purpose of this review was to evaluate the activities undertaken with regard to six IDRC-funded Applied Health Services Research Methodology Workshops, in terms of the Centre's Mandate, and to assess the extent to which the Centre's objectives for the workshops were met.

The source material for this review comprised all available and relevant Health Sciences and Fellowships and Awards Division files, as well as responses to questionnaires sent to participants and facilitators.

Constraints were encountered in the analysis of the data because of the incompleteness of some categories of information and because of a low questionnaire response rate. However, responder attributes did not appear to differ significantly from those of non-responders, a finding which may have a tendency to reduce the degree of possible distortion of the data as a result of responder bias. Some interesting observations were made.

The information at hand suggests that the workshops fulfilled a need and that most participants benefited. The information also confirms the gains reported by participants and facilitators regarding an appreciation of the value of applied health research, the development of abilities to identify priority research topics and to develop proposals. The most interesting gains observed, however, were with regard to the ability of a number of participants to actually undertake applied health research for the first time following participation in a workshop.

Facilitators appeared to benefit as well and, in turn, contributed freely to strengthening individual and institutional Health Services Research capacity in their own and other countries.

Constructive suggestions were offered by both participants and facilitators with regard to future workshops and, in particular, the need to revise and amplify the existing teaching materials.

The importance of rationalizing workshop activities in relation to country health priorities was expressed most succinctly by a facilitator:

The necessity to link Health Services Research to problem solving by Ministries of Health requires that such courses should be organized in settings where participants come with a definite problem identified by the Ministry of Health for which Health Services Research is needed for finding a solution on a scientific basis. This is crucial if the result of the study is to have a chance of being used. The participants must also be working in a setting where they can actually do research.

The review concludes by recommending the continuation of the Centre's support for the conduct of these workshops in selected cases and adaptation of the workshops to serve the particular needs of special 'target' groups. With this in mind, the review confirms the need for an in-depth review of the required teaching materials. It suggests, however, that other approaches to the provision of instruction in the Methods and Management of Health Research, should also be explored and evaluated.

# INSTRUCTION IN APPLIED HEALTH SERVICES RESEARCH METHODS

## A Review of IDRC-Supported Workshops

### INTRODUCTION

The Health Sciences and Fellowships and Awards Divisions (HSD, FAD) have since 1976 funded eight workshops (WSs) in applied health services research methods (AHSRM). These WSs are part of a world-wide response to the growing recognition of the importance of health services research (HSR) and the associated need for instruction in the required methods.

Centre staff have gained valuable experience in the conduct of these WSs but have, with others, begun to question the continuing appropriateness of the educational materials currently in use. The future role of the Centre in this kind of program activity has also been questioned. These developments, together with the number of requests for funding received by the Centre, prompted the HSD and FAD to undertake a review of the Centre's experience with the AHSRM WS activities. This report describes the main findings of the review.

### BACKGROUND

#### The Development of Workshops and the Related Teaching Materials.

The first of a series of Centre-funded training activities was held at the University Centre for Health Sciences (UCHS) at the University of Cameroon in Yaounde, Cameroon, in December 1976. This "Workshop on Applied Research in Public Health" was

organized as an initiative of the UCHS and IDRC, "to undertake operational research designed to obtain a continuous evaluation of the health situation and utilization of health manpower"<sup>1</sup>. It was aimed at providing teachers at UCHS and officials of the Ministry of Health with training in the methods of operational research. Teaching materials were specifically developed for this WS.

A similar WS for a group of nurses from the South East Asia region, was organized by IDRC in Singapore the following year. Other IDRC-supported WSs were subsequently held in Africa and Latin America. These latter WSs used the Applied Health Services Research teaching materials developed by the Project for Strengthening Health Delivery Systems (SHDS).

The SHDS Project was created by an agreement signed in 1975 between the World Health Organization (WHO) and the United States Agency for International Development (USAID). It was a ten year, twenty country, joint regional effort<sup>2</sup> aimed at collaborating with ministries of health in West and Central Africa in strengthening their delivery systems for primary health care. USAID provided the funding, the WHO regional office for Africa (WHO/AFRO) administered the program and Boston University was charged with the responsibility of implementing program activities.

Four general objectives were included in the original agreement. The fourth of these was modified in 1979, during the second phase of the Project (1978-1983), to respond to a need identified by the WHO/AFRO with regard to strengthening the applied research skills of health workers in Africa. The new objective was to provide for the Development of a Regional Applied Research Capability<sup>3</sup>. The hope was that through appropriate instruction in

applied research methods, the Organization (WHO/AFRO) and its member states would become more competitive in obtaining research funding for research by African researchers.

To meet the new objective, teaching materials had to be developed. This task was undertaken by Dr. Ann Brownlee - a member of the SHDS staff, together with Dr. Thomas Nchinda - a member of the UCHS staff and a co-organizer of the 1976 IDRC-supported WS in the Cameroon, and Dr. Yolande Mousseau-Gershman, an IDRC staff member at the time and co-organizer of the Cameroon WS. Dr. David French, Director of the SHDS unit in West Africa, provided the required coordination. Teaching materials were prepared in both English and French and were tested and modified during the course of a number of WSs held in French and English speaking countries in West Africa. The number and sequence of the HSR WSs originally organized are uncertain but available records indicate that they included national, sub-regional and regional WSs held in Burkina Faso, the Gambia, Central African Empire and at WHO Regional Training Centres in Togo and Nigeria (Table 1).

The teaching materials were published in two volumes in 1983.<sup>4</sup> The first volume provided an introduction to applied health research methods and the development of research proposals. The second volume provided information to the organizers and facilitators about the conduct of WSs. The manuals were reprinted in 1984. In 1987 the manuals were translated into Spanish at the University of Antioquia, Medellin, Colombia, for use at an IDRC-funded WS.

### The Centre's Support for SHDS-type Workshops.

Because of the participation of Liberians in the WSs held in the Gambia, the University of Liberia requested IDRC support for a similar activity in Monrovia. This WS was organized for 1983, and with regard to content, at first appeared to place emphasis mainly on epidemiological research principles. The SHDS manuals became available in March of that year, however, and were adopted for the course. They have since, without substantive change in content, formed the basis of instruction for all the WSs subsequently supported by IDRC, namely in Zimbabwe (1985), Mali (1986), Swaziland (1986), Colombia (1987) and Dominican Republic (1988).

The Zimbabwe WS was organized by a participant at the Liberia WS and the Mali WS was a first for the Sahelian group of countries, where Burundi also participated in the hope of organizing a similar WS in that country with IDRC funding support. An observer from Colombia was present at the Swaziland WS and funding was provided by the Centre to the University of Antioquia for the translation of the SHDS manuals into Spanish specifically for the WS which was to follow in Colombia in 1987. This Spanish version was later adapted for use in the WS held in the Dominican Republic in 1988.

### Formulation of a Teaching Strategy and other Workshop Developments

A teaching strategy of minimal coaching by facilitators, was adopted virtually from the outset (according to Centre files, at least since the Lome 1982 WS) and has been incorporated and used consistently as an integral part of the SHDS teaching approach.

The objectives of this strategy were to encourage reading, thinking and self-reliance among participants. Facilitators were not assigned to specific groups but remained available to assist all participants, depending upon the particular needs of the participants and the particular skills the facilitators had to offer. The training of facilitators or the 'training of trainers' was given special attention at a 1982 Lagos WS with a view to the preparation of teachers (facilitators) for the future.

Attention was also given from the outset to the development of WSs as integral parts of the planning and research activities of Ministries of Health. In addition, participants were encouraged to bring their own country priority research proposals to the WSs for review and discussion.

A variety of other, minor but special initiatives were introduced during the course of Centre-funded WSs. These included: the convening of a special meeting, attended by all participants and facilitators, to inform national policy and decision makers, as well as interested international donor agencies, about the projects that were developed during the course of the WS (Mali 1986); WSs specially organized for Ministry of Health and University personnel (Colombia); and an opportunity given to participants to develop presentation skills, by arranging for a defence of their proposals before a "review panel" brought together for the purpose (Zimbabwe 1985).

The Workshop as an effective tool for research and development was evaluated and endorsed following a WS at NDola in 1985<sup>15</sup>.

Although the WSs began as Operational Research and Institutional Strengthening activities, from the Centre's point of view, the

changing emphasis, under the influence of the SHDS program, to research proposal development and instruction in research methods, became reasonably well accepted, as support for these WSs continued. Instruction in research methods were made applicable to a broad range of research topics and activities variously referred to as Applied Health, Applied Health Services and Applied Health Systems Research. Emphasis on Health Systems Research per se, is of more recent origin.

#### Need for Revision and Development of Other Teaching Materials.

With time and accumulating experience with the SHDS teaching materials, it became evident that the teaching materials needed revision and that additional sections were required to deal with elements not previously included.

Revision of the SHDS manuals was first suggested by a group of prominent health researchers from West Africa who suggested the convening of a special working group. The first modified version of the original SHDS materials, however, was the result of collaboration between WHO/Geneva and the Royal Tropical Institute in Amsterdam (RTI). This version<sup>5</sup> was prepared in consultation with representatives from a number of countries in the Southern Africa region, with funding received from the Netherlands Ministry of Development. This new WHO/RTI version was further modified on the basis of experience gained with its use in a number of East African countries. WHO/G was considering the formal publication of the WHO/RTI manual, in response to an increasing demand for AHSRM training materials world-wide<sup>6</sup>.

The Spanish version of the SHDS manuals was modified after further experience with the material at the University of

Antioquia in Medellin, Colombia. It was used as the teaching material in the IDRC-funded WS in the Dominican Republic at the end of 1988. The preparation of teaching materials in Spanish, specially adapted to the needs of countries in Latin America, was also discussed at meetings on Health Services Research in Local Health Systems, convened by the Pan American Health Organization (PAHO) in Washington in April 1987<sup>7</sup> and September 1988<sup>8</sup>. At the latter meeting a Working Group was established to undertake a further review of the teaching materials required by the countries in the region.

In the European region of WHO the development of learning materials in health systems research was the subject of a two-week WS held in June 1988 in collaboration with INSERM, Paris. This material was introduced at WSs in Moscow and Alma-Ata<sup>9</sup>, and in Barcelona<sup>10</sup>. Learning material for qualitative research methods in public health was also developed in Sweden.

The SHDS Project, in the meantime, came to an end during the latter part of 1987 and the SHDS office at Boston University was closed. However, USAID, the original SHDS funder, retained an interest in the preparation and publication of a limited number of copies of a second edition of the SHDS manuals and indicated a willingness to underwrite the associated cost<sup>11</sup>.

#### Funding Support by Other Agencies

Since 1976, when health services research was identified as a specific component of the WHO research program, WHO in Geneva (WHO/G) has played a pre-eminent role in promoting HSR through national and interregional consultation, the development of training materials and the organization of training workshops.

WHO also established a Health Systems Research Advisory Group<sup>12,13</sup> and in 1986 published a Guide for the Planning of Training and Research Programs<sup>14</sup>. Much of WHO's HSR program activities depend, however, upon the availability of extra-budgetary resources which it has been able to secure from member countries such as Belgium, Denmark, Norway, Australia and agencies such as the Rockefeller Foundation and the Carnegie Corporation. In addition, WHO developed plans of action in collaboration with the International Network for Clinical Epidemiology (INCLLEN) and the International Health Policy Programme (IHPP), a joint initiative of the Pew Memorial Trust, the Carnegie Corporation, and the World Bank<sup>6</sup>.

#### More Recent IDRC Experience.

Requests for funding support for applied health or health services research WSs have increased in recent years, not only for the SHDS-type of WS, but increasingly for applied research training related to special subjects or "target" groups such as nutritionists (West Africa) and environmental health researchers (Latin America). In support of the latter request (3-P-88-0363) educational materials were specifically developed by the University of McGill.

The Centre is also accumulating useful experience with different modalities for applied research training of, for example, senior managers at the University of Toronto (Training in Health Management - Canada: 3-P-87-0200); the INCLLEN/McMaster project at McMaster University (Training in Priority Health Problems in Medical Education 3-P-87-0305); and research training for students at the Masters level as part of the McGill project in Ethiopia (Community Health Research - Ethiopia: 3-P-86-0283).

## REVIEW OBJECTIVES AND PROCEDURE

The overall purpose of the HSD/FAD review was to evaluate the IDRC-funded WSs and to determine the extent to which the Centre's AHSRM training objectives were met. The terms of reference for the review are presented in Appendix A.

Source material for the review of WS activities consisted of FAD and HSD division files, applicant information for the Liberia, Zimbabwe and Swaziland WSs, and the Liberia, Zimbabwe, Mali and Swaziland WS reports. A small IDRC publication on Applied Operational Research<sup>1</sup> was the only information available for the Yaounde, Cameroon WS. No information about the Singapore workshop could be found but addresses for participants and facilitators were later obtained from an autograph book through the courtesy of Dr. Yolande Mousseau-Gershman, the WS organizer.

A listing of the various WS activities reviewed in this report appears in Appendix B.

To review the extent to which the Centre's and the WS educational objectives were met a special questionnaire (Appendix C) was designed and pretested. A special questionnaire was also developed to obtain information and advice from the facilitators who took part in the IDRC-funded WSs (Appendix D). Both French and English questionnaires were used as appropriate.

## Review Constraints

Only the first six of the eight WSs funded by IDRC to date, were reviewed. The last two WSs were considered too recent at the time the review was initiated.

Information was not uniformly available from all sources e.g. post-WS evaluations were available for only the Liberia and Swaziland WSs. In addition, the available information often varied in degree of completeness.

Less than half of all questionnaires sent out were returned (51 out of 130). Among possible explanations for this relatively low response rate are: the extended interval in time following the WSs particularly the 1976 and 1977 WSs; the possibility that addresses had changed and that some of the participants were no longer working; inaccuracies that were introduced inadvertently in deciphering some of the addresses that were available for the 1977 WS; and a variety of possible extraneous factors that frequently contribute to not responding to surveys carried out by correspondence. The extent to which the WSs achieved their objectives could, therefore, not be examined definitively since it was not possible to control the potential biases that could have been introduced by the responding group.

## Evaluation Issues and Presentation of Information

The following "evaluation" issues were selected in the organization and presentation of the review material.

- Rationale - Did the program fulfil a need? Did it fall within the mandate of the Centre?

- Effects and Outputs - What has happened as a result of the program?
- Objectives Achievement - Has the program achieved what was expected?
- Alternatives - Are there better ways of achieving the results?

Information relating to the first two issues was retrieved from Centre files. Information with regard to objectives achievement was obtained largely by questionnaire. The discussion of alternatives is based on both sources.

## EVALUATION ISSUES AND MAIN REVIEW FINDINGS

### A. RATIONALE

The rationale of the WSs, as described in the material on Centre files, was reviewed in terms of the need for AHSRM training and the Centre's mandate, funding policies, objectives and expectations. Relevant file entries are summarized below.

#### Need for Applied Health Research Training

Centre staff clearly recognized that there was a need in developing countries, for researchers and policy makers to become more aware of the potentially important role of applied research in solving the major regional health problems. Most developing countries, however, suffer a scarcity of well trained researchers, a situation that was being exacerbated by the lack of opportunities for training in applied research methods. While existing medical training programs stressed the importance of instruction in the basic sciences and core medical and clinical courses, they seldom included instruction in applied research methods.

An additional factor was the fact that donor agencies usually required well-written and well-presented proposals. Very few of the health workers in positions to solicit these funds, had the required experience.

### Funding and the Centre's Mandate

In organizing support for WS activities, Centre staff focused attention on IDRC's mandate, as it relates to the ability "to support and fund research and research training activities in developing countries", and on the Centre's major funding policies. These relate to activities which, as stated in the records, were:

- most relevant to developmental problems (identified as priorities by governments and government supported organizations);
- directly fed into the improvement of the decision making process;
- were IDRC priority areas (Agriculture, Food and Nutrition Sciences, Health Sciences, Social Sciences, Fellowships and Awards);
- gave responsibility for organizing the activity to local scientists; and
- trained scholars and practitioners to manage, facilitate and teach this type of workshop.

The files also detailed the Centre's general and educational objectives for the WSs, as well as its expectations for the participants. Some of the recorded objectives were:

- to foster self-reliance by building national and regional capacities to do research (research and institutional strengthening, networking);
- to bring training activities to the people in the regions with a view to making training both relevant and cost-effective;

- to forge and/or strengthen links with identified researchers and their institutions and hopefully to receive from them research proposals; and
- South-South exchanges and cooperation.

WS participants, were expected to:

- appreciate the difference between basic and applied research;
- articulate the essentials of epidemiological methods and research design;
- adapt course content to circumstances within countries;
- perform operations relating to planning, implementation, monitoring and evaluation of applied research projects and programs;
- identify priority health problems of their own countries;
- explain the critical link between applied research and the solution of priority health problems;
- plan a research project; and
- construct and write research proposals and reports.

The extent to which these expectations were met is reviewed in section C.

## **B. WORKSHOP ACTIVITIES, EFFECTS AND OUTPUTS**

Workshop effects were reviewed in terms of results of workshop related activities (Appendix B), and course objectives (Appendix E). Attention was focused on WS administration; the selection of participants; the characteristics of applicants, participants and facilitators; WS outputs and WS evaluation procedures. Note was taken also of comments offered by participants and facilitators.

### **Workshop Organization/Administration**

All WSs were organized at the local level with varying but generally decreasing administrative inputs from Centre staff. Detailed WS reports are available and attest to the care that was taken in the organization and administration of the IDRC sponsored WSs. Nevertheless, not all comments were positive and unexpected difficulties did arise. Comments by both participants and facilitators (Appendix F) emphasized the importance of providing sound planning, good organization and attention to administrative detail; the need for adequate information about the WS beforehand; and for completing pre-WS arrangements in good time (timely dispatch of tickets, expense advances, etc.). Well chosen locale and facilities, as well as good interpersonal relationships were thought to greatly enhance the chances for a successful WS outcome. Involvement of participants in the day to day WS management decisions, at least on one occasion, proved to be a valuable experience.

Facilitators found pre-WS preparatory meetings particularly useful but WS reports reveal that facilitators at times, became too heavily involved in administrative detail.

## Participant Selection

Participant selection was a dual process. Countries were asked to nominate potential participants from which a selection was made at an appropriate time before the WS by the WS organizers. Selection criteria were not formalized, but generally centred on selection of applicants most likely to benefit from exposure to applied HSR methodology training and participants who, in turn, could be expected to contribute to the research efforts of the country. The work experience of the applicant, the level of the position held (an attempt was made to place emphasis on middle level personnel), and the potential for developing teamwork, were also taken into consideration.

Results of the selection process for the Liberia, Zimbabwe and Swaziland WSs, the only WSs for which application forms were available, are shown in table 2. A broad range of professional backgrounds, including officials from ministries of health, research and educational institutions is represented. While many nominees/applicants appeared to come from middle level positions, there were an almost equal number from more senior positions, often representing individuals with already significant health services and/or other research (including laboratory research) experience or with an extensive policy making and administrative background. The new element for those of the nominees/applicants who had already been exposed to research training and the conduct of research appeared to be the applied nature of the research methods being taught. Nurses and public health workers formed the bulk of the middle level applicants. Of special interest was the relatively large number of successful applicants coming from the teaching profession.

The characteristics of applicants who did not participate in the WSs did not differ appreciably from those of the participants.

Additional information about the participants is given in tables 3, and 4. Information about the facilitators who took part in the WSs is also presented.

#### Facilitators

Twenty-four facilitators took part in the IDRC-funded WSs under review (table 4). No information is available about how they were selected. It is presumed, however, that facilitators were selected, when possible, from previous participants who became "facilitators in training" or from researchers with significant health services research experience. One facilitator from Canada took a leading role in the organization of the first IDRC-funded WS as well as served as coordinator-facilitator in the other WSs under review. A facilitator from the Gambia and one from the IDRC took part in three WSs.

#### Workshop Outputs

Completed project proposals were considered to represent WS outputs. Sixteen (16) such proposals were prepared of which seven (7) were presented for consideration to IDRC. Of these one was funded [3-P-86-0004], one was withdrawn [4245-437] when it received support from WHO and five (5) were still being considered. Two additional projects, not included in the listing, were submitted by WS participants, one of which received funding support [3-P-83-0315].

In addition to the above, and in accordance with the instructions given to nominees prior to their arrival, several project proposals were developed and brought to the workshops. These proposals were discussed with facilitators at two of the WSs, but information by title is not available and, as far as is known, they were not used for demonstration or training purposes.

#### On-Site Workshop Evaluation

On-site post-WS evaluation of the WSs by participants revealed general satisfaction with the WSs and the teaching methods used (table 5). This impression was supported by the progress recorded for participants by the pre- and post-test evaluation procedures; almost all participants appearing to have benefited.

Comments offered by participants during the on-site evaluations indicated that the duration of the WS was a concern to some who found the time available insufficient for the theoretical and practical course requirements. Others wished a slower pace or found a three week WS too long. On the other hand field exercises were found especially useful in providing first-hand experience with interviewing techniques, the use of questionnaires, and with regard to cultural and ethical issues.

Facilitator's comments generally appeared to reflect the opinion of a colleague that a three week WS can only succeed in sensitizing individuals to research and provide some knowledge on health research methods, but that "it is inadequate in preparing individuals to actually undertake research; for this reason, a follow-up visit is not only desirable, but essential if the participants are to benefit fully from the exercise (and if the

sponsoring agency is interested in maximizing the impact of training)".

Facilitators who thought the WSs useful in getting individuals started in research, nevertheless expected this to prove difficult in practice because of:

- a lack of administrative support from superiors and/or the institution;
- lack of confidence in actually originating and following through on a project; and
- inadequate availability of technical support in both preparation of proposals and later in the conduct of the study.

More detailed participant and facilitator comments are given in appendix F.

### C. ACHIEVEMENT OF OBJECTIVES

To review the extent to which Centre and the WS educational objectives were met, a special questionnaire was designed and sent to the 113 participants for whom addresses were available (table 6). In designing this questionnaire, special attention was given to eliciting as objectively as possible information about pre- as well as post-WS applied health research experience (e.g. with regard to HSR related duties/functions, identification of research priorities, proposal development, the conduct of research, and the eventual utilization and implementation of research results). Subjective questions were restricted to an assessment of how participants regarded the WS experience in terms of providing them with a better understanding of, as well as, the practical skills required for AHSR, and how, in their opinion, it influenced their career development.

The participant's questionnaire was pre-tested by soliciting comments and advice from the facilitators who took part in the IDRC WSs, at the same time as administering a questionnaire specially designed for the facilitators. An important objective of the facilitator's questionnaire was to obtain advice with regard to the organization, content and conduct of future WSs.

Thirty nine (39) or 34.5% of the 113 questionnaires sent to participants were returned. Very few were returned by participants who took part in the WSs held 11 and 12 years previously. All questions were answered appropriately with the exception of one question in the French version of the questionnaire (Question 30 relating to the desired ratio between participants and facilitators) which, in retrospect, appeared unclear.

### Responder Attributes

The majority (35) of the 39 responders came from the ranks of the health or health sciences professions (13 nurses, 13 MDs, 9 other HSc) and just less than half (18) had attained a doctorate level of education (including medically trained personnel). The teaching professions (19) and middle (19) to senior (15) level personnel were well represented. There were 16 female and 23 male responders.

In an attempt to determine the extent to which undue biases may have been introduced by the low response rate, responder attributes were examined and compared with those of non-responders for whom similar data were available, namely, participants to the Liberia, Zimbabwe and Swaziland WSs, - the WSs for which the available information was most complete.

No marked differences in attributes were observed between 28 of the 39 responders, who participated in the Liberia, Zimbabwe and Swaziland WSs - and the 30 non-responders from those WSs who had been sent a questionnaire (table 7). The response rate for this group is 48%.

### Post-Workshop Attainments of Responders

A review of the respective pre- and post-WS levels of skills, relating to applied PHC research, determined on the basis of the number of responses recorded on the questionnaires, suggests that skills had been acquired by participants either as a result of the WSs or following further training and/or work afterwards. Twenty-five (25) of the responders attributed their involvement

with PHC research activities directly to the IDRC-supported WSs while seven (7) referred to other courses.

The most impressive of the gains recorded was for individuals who indicated that they were doing PHC research for the first time, some time after attending a WS (table 8). This pertained to about half or 19 of the 39 responders. The number is small, however, and despite reasonable similarity in the characteristics of responders and non-responders, responder biases cannot be excluded.

Of the nine (9) responders who were active researchers prior to the WS, six (6) were no longer active at the time of the questionnaire survey, but all were still either managing research or teaching research methods. Eleven (11) individuals had not conducted research, not before nor after the WSs. Nineteen responders were successful in obtaining research funding, five applications were pending at the time of the survey and three applications were refused.

For a number of individuals there were no pre- or post-WS differences observed. These individuals belonged for the most part to a small group of continuing high performers working either at the management and policy making level, or who were doing research or holding senior teaching posts.

#### Attributes of New (First-Time) Researchers

Although the numbers are small the trends observable within specific sets of attributes such as basic training received, attained educational level etc., generally appear similar to those reported for other participants and the group of "other

responders". With regard to their post-WS PHC research performance it is notable (table 9) that the increase in numbers of post-WS responses for this group suggesting successful acquisition of new PHC research skills, differs markedly from the relatively stable before - and after-WS situation observed for the category "other responders".

The extent to which the responders and particularly the new researchers may have been motivated by their attendance at a WS or the extent to which the selection process and/or their personal interest in doing research determined the post-WS results or post-WS academic pursuits remains a matter for conjecture. Nevertheless, it should be noted that seven (7) of the 19 new researchers were working towards or had attained a higher educational level (Masters or Doctorate degrees) during the post-WS period, while only one in the 'other responder' group did so. However, the latter group included senior level participants, presumably also older participants, who demonstrated their post-WS gains in other ways, such as using the WS teaching materials as a source of reference (18 of 20 other responders) and adapting the material for teaching purposes (15 of 20 other responders).

The extent to which it was possible to impart a complete understanding of the research principles involved could also be examined in the light of the number of responders who felt in need of further instruction during the course of the research or other work which followed participation in a WS. Almost half of the responders (18 or 46%) expressed a need for further instruction. This related to such aspects as solving research design problems, data collection, data analysis and working with computers. Interpreting the data and writing papers or reports were also mentioned.

Selected other responses are presented in table 10.

#### Post-Workshop Personal Evaluation

To obtain information about the potential benefits individuals derived from attendance at the WSs, participants were asked to grade their responses relating to the usefulness of the WSs in providing them with a better understanding of applied PHC research, of the practical skills required for such research, and the usefulness of the WSs from the point of view of their professional activities and career development (question 16). Most of the responders considered the WSs to have been extremely useful in all three respects (55%, 58% and 45% respectively). Others considered the WSs quite useful. Only one responder found the WS not useful.

#### D. ALTERNATIVES

Many of the comments and suggestions, offered by participants and facilitators during on-site post-WS evaluations and in responding to the questionnaire survey, refer to how future WSs may be improved. These are briefly reviewed in this section in terms of the evaluation question dealing with alternatives. (More detailed information is provided about post-WS comments of both participants and facilitators in appendix G; about responses to the participant questionnaire in appendix H; and about the responses and suggestions of facilitators in appendix I).

##### The Content of the Teaching Materials and WS Emphasis

That the teaching materials in use were in need of revision, amplification and adaptation to local situations as well as special target groups, had been suggested on a number of occasions. Questionnaire responses confirmed this contention and contained useful suggestions about what to include and emphasize in this regard (questions 21 and 27, appendix H and question 12 appendix I). These suggestions covered all aspects of project design, development, implementation and management. Special mention was made of the need for further instruction in collection, analysis and interpretation of data, preparation of reports and working with computers.

##### WS Duration and Period of Instruction

While participants preferred a two or three week WS, facilitators were more firmly in favour of a WS of at least three weeks duration (table 11).

With regard to the question about periods of instruction (question 25, appendix H), a slight preference for one continuous training session was noted. The responses suggest, however, that a preference for two or more periods of instruction was often subordinated to considerations of cost and the ability to be absent from work. Two or more sessions were justified in terms of a need to provide a follow-through mode relating to design, implementation or data analysis phases. A facilitator also expressed the opinion that "to the extent possible future WSs (should) take into consideration the participant's needs and tailor the course contents and duration to meet those needs".

#### Selection of participants

Other than the suggestion that facilitators should be involved in the selection of participants, comments and suggestions elicited referred primarily to the type of personnel that could/would benefit most from participation in the WSs (Question 26, Appendix H). Although a broad range of participants, mainly middle level health workers were proposed, the choices seemed to favour, as well, as reflect the interests of workers in the health and education fields. Some emphasis was placed on a multidisciplinary composition for future WSs.

Additional criteria suggested for participant selection (question 12, Appendix I) include: motivation and interest of applicants in the development of research projects and the conduct of research; presentation of a proposal; and the possibility of obtaining funds.

### Professional/Personal Qualities of Facilitators

Suggestions (Question 29, Appendix H) for the selection of facilitators emphasized the value of previous participation in a similar WS and the recognized technical competence of potential facilitators. Personal qualities such as the ability to communicate effectively and a good personal disposition were emphasized.

### Participant/Facilitator Ratio

The majority of both participants and facilitators favoured a ratio of four to five participants per facilitator (table 11).

### Role of Local Health and Educational Institutions

Most emphasis was placed on the role of Universities. These were encouraged to provide instruction in applied HSR methods, particularly at the undergraduate level (Question 32, Appendix H). It was recommended that institutions that could become reference or training centres should be identified. Ministries of Health were exhorted to become sensitized to the value of research and to support both training in research methods and the conduct of research.

### Other Suggestions

The need for follow-up support and communication with and between past participants was identified in some of the comments offered.

(Question 32); the difficulty of obtaining funds was isolated for comment by others.

On a number of occasions facilitators drew attention to the need for the special preparation of senior facilitators and a brief proposal was actually prepared following one of the IDRC-funded WSs. Other suggestions included the need for special orientation WSs to provide senior decision - and policy-makers, as well as heads of educational institutions, with an overview of the aims, procedures and requirements of applied health research. A proposal for the development of a course on project management had also been prepared and presented for the Centre's consideration. Facilitators, in addition stressed the importance of training the trainers and suggested the development or strengthening of a trainer institution.

## SUMMARY COMMENTS

Almost all the information available on Centre files (administrative details, on-site post-WS evaluations and comments) suggests that the WSs not only conformed to the Centre's mandate and funding policies, but that the WSs did, with reasonable effectiveness, impart the skills required for recognizing priority researchable health problems, developing research proposals and, perhaps to a limited extent, doing applied health research. This suggestion is strengthened by the information obtained by the questionnaire survey, although the value of the latter information could be questioned on the basis of a relatively low response rate.

The questionnaire survey information, nevertheless, appeared to be of interest. The most notable of the survey results was the number of responders who carried out applied health research for the first time following a WS. This number, even in the context of the total number of participants, may be of some significance as it relates to the achievement of the WS' educational objectives.

Comments offered by participants and facilitators, were generally constructive and dealt primarily with administrative aspects and suggestions for future WSs.

On the debit side it can be pointed out that there was a very limited funding success rate for project proposals developed at Centre-funded WSs, even though this type of outcome was not an agreed upon or a deliberate WS objective. The reasons for the low funding success rate are unclear but may include the fact that project themes were usually developed on-site as part of a specific WS exercise and that most of the Centre-funded WSs were

inter-regional in character. Under these circumstances, the selected themes did not reflect specific country priorities nor did they carry the desired degree of commitment to support the conduct of the proposed research. It is not certain to what extent an opportunity may have been missed in not reviewing and putting to better use the proposals brought to the WSs by participants, as they were instructed to do.

Whilst regional or inter-regional WSs would appear to have provided a good general orientation to applied health services research, it is possible that national WSs could offer better opportunities for the realization of WS activities in relation to specific country health priorities.

The importance of rationalizing WS activities in relation to country health priorities was expressed most succinctly by a facilitator as follows:

The necessity to link Health Services Research to problem solving by Ministries of Health requires that such courses should be organized in settings where participants come with a definite problem identified by the Ministry of Health for which Health Services Research is needed for finding a solution on a scientific basis. This is crucial if the result of the study is to have a chance of being used. The participants must also be working in a setting where they can actually do research.

Inherent in the above is the suggestion that WSs could benefit from a more focused approach and format. There is some suggestion also that WSs should be 'tailor made' to serve the needs of participants and that a format based on a follow-up, interrupted course mode (at least two sessions, to coincide with project

development, implementation and data analysis), would be a more efficient way of imparting the principles of applied health services research.

The review reported on the need to revise and amplify the SHDS documents (including the frequently mentioned elements of data analysis, report writing and working with computers). It was noted that attempts to modify these documents have already been made on a number of occasions and it now appears timely to effect a consolidation of these various efforts. Such a revision is supported by the increasing demand experienced for this material, as well as the likelihood that it would find a continued usefulness within the context of the Health Services Research activities of WHO and other agencies. WS teaching materials should, ideally, be made adaptable to the particular needs of special target or interest groups.

In conclusion and on the basis of the review findings, it has been noted that there was very little in the available information to gainsay a positive review of the Centre-funded WSs. It appears that they were successful in at least promoting an awareness of the value of applied health services research and that they, in a modest way, facilitated the actual conduct of applied health research. There is, nevertheless, sufficient indication that the impact of the WSs on health services research and the planning and development of health services can be strengthened by updating the teaching materials, sharpening the focus of the WSs on specific country priorities and introducing changes in the format to adapt the WSs more appropriately to field research conditions.

The Centre should give consideration to supporting activities to improve the effectiveness of the WSs, as well as the conduct of a

limited number of WSs, selected on the basis of their potential to impart the principles of applied health services research as efficiently as possible.

The Centre has accumulated very useful experience with other approaches to health research training and further developments or innovations in this regard are to be expected, as well as encouraged.

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TABLE 1

**AVAILABLE INFORMATION RELATING TO APPLIED HEALTH SERVICES RESEARCH  
METHODOLOGY WORKSHOP**

<b>YAOUNDE</b>	<b>Cameroon</b>	<b>N**</b>	<b>1976</b>	<b>IDRC/UCHS</b>
<b>SINGAPORE</b>	<b>Singapore</b>	<b>I-C</b>	<b>1977</b>	<b>IDRC</b>
<b>OUAGADOUGOU</b>	<b>Burkina Faso</b>	<b>?N</b>	<b>1980</b>	<b>SHDS-WHO/AFRO</b>
<b>BAMAKO</b>	<b>Mali</b>	<b>?N</b>	<b>1980</b>	<b>SHDS-WHO/AFRO</b>
<b>BANJUL</b>	<b>The Gambia</b>	<b>?N</b>	<b>1981</b>	<b>SHDS-WHO/AFRO</b>
<b>BANJUL</b>	<b>The Gambia</b>	<b>?N</b>	<b>1982</b>	<b>SHDS-WHO/AFRO</b>
<b>LOME</b>	<b>Togo</b>		<b>1982</b>	<b>WHO Reg. Tr. Centre</b>
<b>LAGOS</b>	<b>Nigeria</b>	<b>TOT</b>	<b>1982</b>	<b>SHDS-WHO/AFRO</b>
<b>DAKAR</b>	<b>Senegal</b>	<b>TOT</b>	<b>198?</b>	<b>SHDS-WHO/AFRO</b>
<b>DAKAR</b>	<b>Senegal</b>	<b>N</b>	<b>1982</b>	<b>MoH/Senegal</b>
<b>LOME</b>	<b>Togo</b>	<b>TOT</b>	<b>1983</b>	<b>SHDS-WHO/AFRO</b>
<b>DAKAR</b>	<b>Senegal</b>	<b>?</b>	<b>1983</b>	<b>SHDS-WHO/AFRO</b>
<b>MONROVIA</b>	<b>Liberia</b>	<b>I-C</b>	<b>1983</b>	<b>IDRC/U o L</b>
<b>BANJUL</b>	<b>The Gambia</b>	<b>?</b>	<b>1983</b>	<b>Fam. Hlth. Int.</b>
<b>BAMAKO</b>	<b>Mali</b>	<b>TOT</b>	<b>1984</b>	<b>SHDS-WHO/AFRO</b>
<b>ABIDJAN</b>	<b>Ivory Coast</b>		<b>1984</b>	<b>SHDS-WHO/AFRO</b>
<b>BENIN CITY</b>	<b>Benin</b>	<b>TOT</b>	<b>1984</b>	<b>SHDS-WHO/AFRO</b>
<b>BRAZZAVILLE</b>	<b>Congo</b>	<b>TOT</b>	<b>1984</b>	<b>SHDS-WHO/AFRO</b>
<b>JULIASDALE</b>	<b>Zimbabwe</b>	<b>I-C</b>	<b>1985</b>	<b>IDRC/UoZ/MoH</b>
<b>LOME</b>	<b>Togo</b>	<b>TOT</b>	<b>1985</b>	<b>SHDS-WHO/AFRO</b>
<b>DAKAR</b>	<b>Senegal</b>	<b>?N</b>	<b>1985</b>	<b>USAID/Senegal</b>
<b>OUAGADOUGOU</b>	<b>Burkina Faso</b>	<b>?N</b>	<b>1985</b>	<b>USAID/Burkina Faso</b>
<b>BANJUL</b>	<b>The Gambia</b>		<b>1985</b>	<b>SHDS-WHO/AFRO</b>
<b>?MAPUTO</b>	<b>Mocambique</b>	<b>?N</b>	<b>1985</b>	<b>?WHO</b>
<b>?GABORONE</b>	<b>Botswana</b>	<b>N</b>	<b>1985</b>	<b>WHO</b>
<b>ABIDJAN</b>	<b>Ivory Coast</b>		<b>1986</b>	<b>WHO/AFRO</b>
<b>GAO</b>	<b>Mali</b>	<b>I-C</b>	<b>1986</b>	<b>IDRC/INRSP</b>
<b>MBABANE</b>	<b>Swaziland</b>	<b>I-C</b>	<b>1986</b>	<b>IDRC/MoH</b>
<b>NAIROBI</b>	<b>Kenya</b>		<b>1986</b>	<b>U o N</b>
<b>HARARE</b>	<b>Zimbabwe</b>	<b>I-C</b>	<b>1986</b>	<b>WHO/RTI/Neth</b>
<b>HARARE</b>	<b>Zimbabwe</b>	<b>I-C</b>	<b>1987</b>	<b>WHO/RTI/Neth.</b>
	<b>Botswana</b>	<b>N</b>	<b>1987</b>	<b>WHO/RTI/Neth.</b>
	<b>Zimbabwe</b>	<b>N</b>	<b>1987</b>	<b>WHO/RTI/Neth.</b>
	<b>Mauritius</b>	<b>N</b>	<b>1987</b>	<b>WHO/RTI/Neth.</b>
	<b>Malawi</b>	<b>N</b>	<b>1987</b>	<b>WHO/RTI/Neth.</b>
	<b>Lesotho</b>	<b>N</b>	<b>1987</b>	<b>WHO/RTI/Neth.</b>
	<b>Kuwait</b>	<b>N</b>	<b>1987</b>	<b>WHO/MERO</b>
	<b>Iraq</b>	<b>?N</b>	<b>1987</b>	<b>WHO/MERO</b>
	<b>Pakistan</b>	<b>?N</b>	<b>1987</b>	<b>WHO/MERO</b>
	<b>Qatar</b>	<b>?N</b>	<b>1987</b>	<b>WHO/MERO</b>
	<b>Saudi Arabia</b>	<b>?N</b>	<b>1987</b>	<b>WHO/MERO</b>
<b>MEDELLIN</b>	<b>Colombia</b>	<b>I-C</b>	<b>1987</b>	<b>IDRC/UoA</b>
<b>BUENOS AIRES</b>	<b>Argentina</b>	<b>N</b>	<b>1987</b>	<b>PAHO/ESP Arg.</b>
<b>CUERNAVACA</b>	<b>Mexico</b>	<b>N</b>	<b>1987</b>	<b>PAHO/INSP Mex.</b>

KUALA LUMPUR	Malaysia	I-C	1988	WHO/WPRO
	Papua N.G.	N	1988	WHO/WPRO
	Malawi	TOT	1988	WHO/RTI/Neth.
	Seychelles	TOT	1988	WHO/RTI/Neth.
MEDELLIN	Colombia	N	1988	U of A/PAHO
MEDELLIN	Colombia	N	1988	U o A/MoH (Several)
SANTO DOMINGO	Dom. Rep.	I-C	1988	IDRC
BRAZIL			1988	BR/PAHO

\*List Tentative and not complete

\*\* N=National; I-C=Inter Country; TOT=Training of Trainers

Table 2. PROFILE OF APPLICANTS TO LIBERIA, ZIMBABWE AND SWAZILAND WORKSHOPS.

	BOTSWANA	CAMEROUN	GAMBIA	LIBERIA	LESOTHO	MALAWI	NIGERIA	SWAZILND	ZAMBIA	ZIMBABWE	Totals
<b>BASIC TRAINING</b>											
Nursing	5	1	1	2 (1)	2 (1)	3	1 (1)	7		2	24 (3)
Medical	1	1	1 (1)	7 (2)	2			1	2	2	17 (3)
Other H Sc	1	2 (2)	2 (2)	1	3 (1)	1		5 (1)	1	6	22 (6)
Other Non-HSc					6 (2)			2		2	10 (2)
<b>ATTAINED EDUC.</b>											
Bach.	3		2 (2)		4 (2)		1 (1)	7 (1)		3	20 (6)
Mast.	3	1		2 (1)	4 (1)	4		6	1	3	24 (2)
Doct.	1	3 (2)	1 (1) 1*	8 (2)	5 (1)			2	2	6	28 (6) 1*
<b>EMPLOYER</b>											
Moh/Govt	5	1	4 (3)	3 (2)	6 (2)	1		8	3	10	41 (7)
Educ/Inst	2	3 (2)		5 (1)	7 (2)	3	1 (1)	6		2	29 (6)
Res/Inst				1 1*				1 (1)			1 2 (1)
<b>POSITION LEVEL</b>											
Jr		3 (2)	1 (1)		2			4 (1)			16 (4)
Middle	4	1	1 (1)	6 (1)	5 (2)	1		7	1	6	32 (4)
Sr	3		2 (1)	3 (2) 1*	6 (2)	3	1 (1)	4	2	6	30 (6) 1*
<b>MAIN FUNCTION</b>											
Services	2		3 (2)	6 (3)	5 (1)	1	1 (1)	6	1	3	28 (7)
Research	2		1 (1)	1				1	1	5	11 (1)
Teaching	3	4 (2)		2	8 (3)	3		7	1	3	31 (5)
Other				1*				1 (1)		1	3 (1)
<b>PREVIOUS RES. EXPERIENCE</b>											
Nll	2	1		1 (1)	5 (1)	3		8 (1)	1	1	21 (3)
HSR	5	1	2 (1)	1 (1)	5 (2)			5	1	3	23 (4)
Other		2 (2)	2 (2)	6 (1) 2*	3 (1)	1	1 (1)	1 1*	1	8	26 (7) 3*
<b>SEX</b>											
F	5	2 (1)	2 (1)	2 (1)	6 (2)	3	1 (1)	11 (1)		5	37 (7)
M	2	1 1*(1)	2 (2)	7 (2) 1*	7 (2)	1		4	3	7	34 (6) 2*(1)
<b>Participants</b>	7	4 (2)	4 (3)	10 (3)	13 (4)	4	1 (1)	15 (1)	3	12	73 (14)

( ) Figures in brackets refer to applicants who did not participate in the Workshops.

\* Information incomplete. (Five other applications were on file, two from applicants in Liberia, two from the Cameroun and one from Zimbabwe. The information available, however, was insufficient for analysis. No information was available for a few participants who 'filled-in' for late cancellations).

Table 3. IDRC-SPONSORED WORKSHOPS and PARTICIPATING COUNTRIES  
with NUMBERS of PARTICIPANTS and FACILITATORS

	PARTICIPANTS	FACILITATORS
I. CAMEROUN (Yaounde) 6 - 11 December 1976	Cameroun (17) Canada (1)  [18]	Cameroun (1) IDRC (2)  [3]
II. SINGAPORE(Singapore) ? - ? 1977	Indonesia (5) Korea (3) Malaysia (2) Nepal (1) Unknown (1) Philippines (2) Sri Lanka (1) Thailand (4) [19]	IDRC ? Other?  [?]
III LIBERIA (Monrovia) 25 Jul - 6 Aug 1983	Liberia (7) Zambia (2) Cameroun 2) The Gambia (1) Lesotho (2) Malawi (1) Zimbabwe (2) [17]	Canada (1) The Gambia (1) Nigeria (1) Liberia (2) IDRC (1) [6]
IV. ZIMBABWE(Juliasdale) 13 Jan - 1 Feb 1985	Zimbabwe (14) Botswana (4) Swaziland (2) Lesotho (2) Zambia (1) Malawi (1) [24]	Canada (1) The Gambia (1) Liberia (1) US (1) Zimbabwe (1) IDRC (2) [7]
V. MALI (Gao) 13 Oct - 28 Oct 1986	Mali (18) Burundi (1) Chad (1) Burkina Fasso (1) [21]	Canada (1) Togo (1) Mali (5) [7]
VI. SWAZILAND (Ezulwini) 16 Nov - 5 Dec 1986	Swaziland (12) Botswana (3) Lesotho (5) Malawi (2) Colombia (1)* * Observer [23]	Canada (1) Liberia(1) The Gambia (1) Swaziland (1) IDRC(2) Zimbabwe (1) Kenya(1) Botswana (1) Lesotho (1) [10]

**Table 4. COUNTRIES PARTICIPATING with NUMBERS OF PARTICIPANTS  
and FACILITATORS (6 Workshops)**

COUNTRY	PARTICIPANTS	FACILITATORS
Botswana	7	1
Burkina Fasso	1	
Burundi	1	
Cameroun	20	1
Canada	1	1
Chad	1	
Colombia	1	
The Gambia	1	1
Indonesia	5	
Kenya		1
Korea	3	
Lesotho	9	1
Liberia	7	3
Malaysia	2	
Malawi	4	
Mali	18	5
Nepal	1	
Nigeria		1
Philippines	2	
Sri Lanka	1	
Swaziland	14	1
Togo		1
Thailand	4	
US		1
Zambia	3	
Zimbabwe	16	2
IDRC		4
	<hr/>	<hr/>
	122	24

Table 5. WORKSHOP EVALUATION SUMMARY

	OVERALL ASSESSMNT	CONTENT	PRESENTATION	PRE-POST TEST	DURATION OF WS
LIBERIA	Quite Satisfied	Adequate	Quite Satisfied	8.0 / 13.6	Inadequate - Needed Slower Pace
ZIMBABWE	Useful	Adequate	Quite Satisfied	7.0 / 18.3	More time required for Selection of Topics
MALI	Adequate	Adequate	Very Good	25 / 53	More time required - up to 30 + days
SWAZILAND	Quite Satisfied	Adequate	Quite Satisfied	8.9 / 11.4	More time; slower pace for research design etc

Table 6. NUMBERS OF APPLICANTS, PARTICIPANTS AND FACILITATORS IN IDRC-SUPPORTED WORKSHOPS, BY WS, NUMBERS OF QUESTIONNAIRES SENT AND RESPONDERS

Workshop	Known Applicants	Number of Participants	Participant Questionnaires	Number of Responders	Ratio % R/Q	Number of Facilitators	Ratio % R/Q
Cameroon 1976	?	16	16*	1	6.3	3 (2)**	1/1
Singapore 1977	?	14	18***	4	22.2	?	?
Liberia 1983	27	17	13	7	53.8	6 (2)	2/4
Zimbabwe 1985	25	24	23	12	52.1	7 (3)	2/4
Mali 1986	?	21	21	6	28.6	7 (1)	4/6
Swaziland 1980	21	23	22	9	40.9	10 (4)	4/6
Total	73	115	113	39	34.5	22 (5)	12/17 70.6%

\* Questionnaires were not sent to Directors/Coordinators. Addresses were not available for all participants.

\*\* Figures in brackets refer to IDRC personnel who did not receive questionnaires.

\*\*\* Original file data referred to 14 participants, but 19 names were obtained from an autograph book of which 18 were reasonably legible. The facilitators among them were not identified.

Table 7.

**PROFILE OF QUESTIONNAIRE RESPONDERS COMPARED WITH NON-RESPONDERS\***

	<b>Responders</b>	<b>Non-Responders</b>	<b>Total</b>
<b>Basic Training</b>			
Nursing	8	14	22
Medical	7	8	15
Other Health Sciences	9	5	14
Other Non-Health Sciences	4	3	7
<b>Educational Level</b>			
BA	7	7	14
MA	10	11	21
Doctorate	11	10	21
N.K		2	2
<b>Position Level</b>			
Junior	3	3	6
Middle	14	18	32
Senior	11	9	20
<b>Main Function</b>			
Services	8	12	20
Teaching	16	12	28
Research	3	5	8
Other	1	1	2
<b>Sex</b>			
Female	11	20	31
Male	17	10	27
<b>TOTAL</b>	<b>28</b>	<b>30</b>	<b>58</b>

**\*Based on data available for the 58 participants at Liberia, Zimbabwe and Swaziland workshops to whom questionnaires were sent.**

**Table 8. PHC RESEARCH RELATED EXPERIENCE OF 39 RESPONDERS**

	Never	Pre-WS	Post-WS		Post-WS Total
			Continuing	New*	
Identifying Priorities	1	24	21	14	35
Developing Proposals	6	14	11	19	30
Doing Research	11	9	3	19	22

\* Reported for the first time post-WS

**Table 9.**

**PHC RESEARCH RELATED EXPERIENCE OF FIRST-TIME (NEW) RESEARCHERS (19)  
COMPARED WITH OTHER RESPONDERS (20)**

		<b>New Researchers</b>	<b>Other Responders</b>	<b>Total</b>
<b>Identified Research Priorities:</b>	<b>Pre-WS</b>	<b>9</b>	<b>15</b>	<b>24</b>
	<b>Post-WS</b>	<b>19</b>	<b>16</b>	<b>35</b>
<b>Developed Research Proposals:</b>	<b>Pre-WS</b>	<b>13</b>	<b>11</b>	<b>14</b>
	<b>Post-WS</b>	<b>18</b>	<b>12</b>	<b>30</b>
<b>Conducted Research:</b>	<b>Pre-WS</b>	<b>0</b>	<b>9</b>	<b>9</b>
	<b>Post-WS</b>	<b>19</b>	<b>3</b>	<b>22</b>
<b>Taught Research Methodology:</b>	<b>Pre-WS</b>	<b>4</b>	<b>9</b>	<b>13</b>
	<b>Post-WS</b>	<b>8</b>	<b>12</b>	<b>20</b>
<b>Monitored/Evaluated Research:</b>	<b>Pre-WS</b>	<b>4</b>	<b>9</b>	<b>13</b>
	<b>Post-WS</b>	<b>15</b>	<b>8</b>	<b>23</b>
<b>Involved at Policy Research Level:</b>	<b>Pre-WS</b>	<b>3</b>	<b>7</b>	<b>10</b>
	<b>Post-WS</b>	<b>7</b>	<b>8</b>	<b>15</b>

**Table 10. SUMMARY OF SELECTED OTHER RESPONSES (39 RESPONDERS)**

<b>Participants bringing draft proposals to WS</b>	<b>21 (11)*</b>
- self-selected subjects	17 (10)
- subject proposed by health authorities	7 (3)
- draft proposal discussed with facilitator	16 (8)
- research subsequently carried out	10 (8)
<b>Post-WS use of teaching materials: as reference</b>	<b>37 (19)</b>
- adapted for teaching	27 (12)
- considered revised/additional material needed	20 (12)
<b>Researchers with: completed projects</b>	<b>18 (11, 5 not yet)</b>
results implemented	17 (11, 5 not yet)
results published	15 (11, 2 not yet)
<b>Participants needing further instruction post-WS</b>	<b>18 (10)</b>
<b>Collaborated with other colleagues/institutions post-WS</b>	<b>28 (16)</b>
<b>Organized other Research Methodology WSs</b>	<b>14 (3)</b>

**\* Refers to 19 first-time AHG Researchers**

**Table 11.**

**PARTICIPANT AND FACILITATOR SUGGESTIONS RE WORKSHOP DURATION**

	<b>Participants</b>	<b>Facilitators</b>
<b>Preferred duration of future WSs:</b>		
- one week	4	--
- two weeks	13	4
- three weeks	13	11
- > 3 weeks	9	--
<b>Preferred Continuous Training Sessions:</b>		
- More than one session	24	10
	16	2
<b>Preferred Participant/Facilitator Ratio:</b>		
- < 5	7	7
- 5-6	22	4
- > 6	5	1

To facilitate distribution of this report, we have omitted the appendices. We shall, however, be pleased to make them available upon request.

# A MILESTONE IN THE FIELD OF HEALTH SYSTEMS RESEARCH

## Feedback from the field

Prior to formal publication, the materials were tested in the field. Here are some of the comments from those who have already experienced the series.

*"....an important milestone in the development of the field of health systems research.... These materials will have many uses in all sorts of training programs...."*

Gordon H. DeFriese, PhD  
Director, Cecil G. Sheps  
Center for Health Services  
Research  
University of North Carolina,  
USA

*"....the training modules could be considered one of the most powerful tools in training current and future physicians in population-based research."*

Dr. Essmat Ezzat,  
Former Dean of the Faculty of  
Medicine, Suez Canal  
University, Egypt  
Member of the Task Force on  
Health Research for  
Development

*"....useful and relevant for our reality in the health services. All the volumes will be used to support different activities within our institution and in our relation with the health system."*

Julio Frenk, MD, MSPH, PhD  
Director General, National  
Institute of Public Health,  
Mexico

Health systems research (HSR) aims to improve the health of individuals and communities by solving practical problems, targeting resources on high-priority areas, increasing the efficiency and effectiveness of health policies and programs, and reducing the cost of health care. It invites the community, academic institutions, and government decision-makers to collaborate with health professionals in a process that is participatory, action-oriented, and multidisciplinary. The emphasis is on finding and evaluating solutions that are cost-effective, practical, and timely.

By its very nature, HSR requires a new approach to health research. Previous attempts to increase the capacity for HSR in the developing world have been limited by the lack of comprehensive training materials. Now IDRC, in collaboration with WHO, has published a five-volume set of training guides providing instruction for all levels of health professionals, research personnel, and managers in the concepts and approaches that define HSR.

The five volumes were prepared and field-tested over a two-year period in different parts of the world by a technical working group. They are action-oriented and will have many uses: in a wide range of training programs, workshops, and seminars for health agency staff; in formal university courses; and to provide decision-makers, research managers, and community leaders with a better understanding of HSR and an appreciation of its importance in improving health care.

For ordering information, please see other side. For additional information about HSR, as well as advice on organizing HSR training activities, please contact

IDRC, Health Sciences Division  
PO Box 8500, Ottawa  
Canada K1G 3H9  
Tel: (613) 236-6163  
Fax: (613) 238-7230  
Telex: 053-3753

WHO, Health Systems Research Programme  
CH - 1211, Geneva 27  
Switzerland  
Tel: 22-7912525  
Fax: 22-7910746  
Telex: 415416



*For decision-makers....*

### **Vol.1 Promoting Health Systems Research as a Management Tool**

Based on an analysis of a decade of experience in developing countries, describes how to develop an effective national research program, and demonstrates how HSR can lead to better decisions on health care programs. Includes specific strategies for promoting HSR at the policymaker level.

*"....provided an excellent forum for developing a collaborative atmosphere between participants of the various university departments and district health officials."*

Dr. Kari Luanlala,  
Senior Advisor, National  
Capacity Building Programme  
for CSD, Unicef

*The core course....*

### **Vol.2 Designing and Implementing Health Systems Research Projects**

Involvement is the key to successful HSR projects. This essential two-part volume provides the basis for a training course designed to involve community members, health workers, researchers, and decision-makers in the specifics of developing and implementing participatory research proposals. The first part describes techniques for selecting local priorities and developing proposals, while the second deals with the analysis and dissemination of results.

*For senior researchers and academics....*

### **Vol.3 Strategies for Involving Universities and Research Institutes in Health Systems Research**

How to integrate HSR concepts into health and social science degree programs. Important guidance for those in the research community who want to involve their institutions in multidisciplinary HSR programs.

*"....helps transform the concept of health systems research into a realistic involvement of universities, research institutions, government, and people's organizations...."*

Chitr Sithi-amorn, MD, PhD  
Faculty of Medicine,  
Chulalongkorn University,  
Thailand

*For research managers....*

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