Annex 4

REPORT OF THE TECHNICAL DISCUSSIONS ON HEALTH INFORMATION SYSTEMS WITH SPECIAL REFERENCE TO PRIMARY HEALTH CARE AND COMMUNITY DEVELOPMENT*

1 INTRODUCTION

The technical discussions were held under the chairmanship of Dr I.B. Khatri of Nepal, with Dr Sengupta and Dr Widodo Sutopo acting as rapporteurs. The discussions followed the lines given in the proposed agenda (document SEA/RC30/5 and Add.1) which had been adopted at the first session of the plenary. The group had before them the working paper on technical discussions (SEA/RC30/8) and information papers SEA/RC30/IP1 to SEA/RC30/IP9) and also the documents listed in SEA/RC30/IP2.

2 PRIMARY HEALTH CARE AND COMMUNITY DEVELOPMENT

2.1 Primary Health Care

With the development of health services in the countries, it was recognized that there had been definite shortcomings in the delivery of health services to the population which make it necessary to look for alternative approaches. Following the recommendations of the Executive Board's Organizational Study on Development of Health Services and the recommendations of the WHO/UNICEF Joint Study on Alternative Approaches to Meeting Basic Health Needs in Developing Countries, WHO and UNICEF had adopted primary health care as a feasible and effective alternative approach for meeting the minimum health needs of the people.

It was noted that there could be different ways of defining primary health care but for purposes of these discussions, the definition adopted at the Twenty-eighth World Health Assembly was accepted as a working definition. According to this definition primary health care is taken to mean a health approach which integrates at the community level all the elements necessary to make an impact upon the state of health of the people. Such an approach should be an integral part of the national health care system. It is an expression or response to the fundamental human needs of how a person can know of, and be assisted in, the actions required to live a healthy life and where a person can go if he or she needs relief from pain or suffering. A response to such needs must be a series of simple and effective measures in terms of cost, technique and organization, which are easily accessible to the people in need and which assist in improving the living conditions of individuals, families and communities. These include preventive, promotive, curative and rehabilitative health measures and community development activities.

The detailed contents of a primary health care programme may vary widely, depending upon the situation prevailing in individual countries.

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The primary health care approach can, however, be summarized in the following general principles which should be adhered to if efforts to provide primary health care are to be successful:

(1) Primary health care should be shaped around the life patterns of the population it should serve and should meet the needs of the community.

(2) Primary health care should be an integral part of the national health system, and other echelons of service should be designed in support of the needs of the peripheral level, especially as this pertains to technical, supply, supervisory and referral support.

(3) Primary health care activities should be fully integrated with the activities of the other sectors involved in community development (agriculture, education, public works, housing and communications).

(4) The local population should be actively involved in the formulation and implementation of health care activities so that health care can be brought into line with local needs and priorities. Decisions on what are the community's needs requiring solution should be based upon a continuing dialogue between the people and the services.

(5) Health care offered should place maximum reliance on available community resources, especially those which have hitherto remained untapped, and should remain within the stringent cost limitations that exist at present in each country.

(6) Primary health care should use the integrated approach of preventive, promotive, curative and rehabilitative services for the individual, family and community. The balance between these services should vary according to community needs and may well change over time.

(7) The majority of health interventions should be undertaken at the most peripheral practicable level of health services by workers most suitably trained for performing these activities.

While the development of primary health care is likely to be unique in each country, there are common features such as the utilization of local voluntary health workers, the closer links of health with general development, the orientation and adaptation of health service personnel to primary health care and the increasing involvement of the community in all aspects of programming, starting from planning and implementation to evaluation and feed-back.

Though the quality of service and level of skills of workers may vary widely depending upon the national situation, there would be common service components in the delivery of health care. The main service components of primary health care should include simple medical care,

maternal and child health or family health, nutrition, communicable-disease control and immunization, basic sanitation and health education. The actual contents of the programme and the activities of the primary health care worker would be guided by the political policy of the government, resources, health infrastructure, capabilities of workers and the response of the community itself, among many other factors.

2.2 Community Development

The institution-building potential of community development, based, as primary health care is, on community initiatives, community participation and community resources, may be exactly what is required for establishing the critical interface between available "health inputs" and their effective use by the community. The community development approach also meets the growing recognition that services directed to curing disease must take their proper place in relation to services directed to preventing disease and promoting health, which is another vital element of primary health care. Public health measures are rooted not so much in medicine as in living habits; also in the degree of development of agriculture, water, housing, marketing, and arrangements regarding who has claim to what.

Looked at from another angle, the approach to rural development, which in the broad sense embraces and includes community development, could be understood to be aimed at three goals. One is the meeting of basic human needs, the second is the provision of power to the poor and the third is the maximizing of individual human growth and development. To meet the needs of the community and to enable them to reach the specific goals, the community may be developmentally ready to take the initiative itself; otherwise, it would be the responsibility of the authorities concerned, including the health authorities, to provide help. In such a situation the health authorities need to approach the community and tactfully offer for their consideration the principles of, and their ideas on, the provision of primary health care. A significant contribution to the wider objectives of community development will be made, geared towards further action in this direction,only if one is able to demonstrate the practical advantages of true community participation.

3 NATIONAL HEALTH INFORMATION SYSTEMS

3.1 Meaning, Scope and Content

Health information systems are an orderly approach to the production of statistics from all possible sources which have an impact on health, and the use of the information derived therefrom for the more efficient management of health services.

They are a tool for management and as such include quantifiable (as examplified by statistical data) and non-quantifiable knowledge (as examplified by health or health-related policies, legislation, procedures and techniques required by health managers).

3.2 Inter-relationships between Health Information Sub-systems and between Data Information and Information Sub-systems

Given a full range of pertinent data covering all aspects of health, the problem of establishing meaningful relationships between sets of data still remains. Different sub-systems form parts of a whole.

Many different types of health data are obtained from sources and processes not primarily intended for the provision of statistics, for example, the conventional vital registration system.

It is important to study all possible components of the health information system. While experience of a health information system coming from the needs of health services themselves is still limited, certain common characteristics of a national health information system can be recognized. These are set out below:

(1) It should be population-based. For example, in primary health care, some means must be available for identifying the individual - the actual or potential recipient of primary health care. All information pertaining to the individual should be linked.

(2) It should avoid unnecessary agglomeration. If possible, data should be retained in their original form. This form must be simple.

(3) The system should be problem-oriented so that it can detect and assess the significance of new or unexpected developments or changes in a situation. It should always be borne in mind that the purpose of a health information system is to assist in the management of the national health services which are needed by the population. For example, a sub-system dealing with communicable-disease control may give data which could be used to express the extent and magnitude of a health problem concerning a particular disease.

(4) The system should employ functional and operational terms, and data should be related primarily to persons, functional status and events.

(5) The system should have provision for feed-back information to producers of the data.

4 HEALTH INFORMATION SYSTEMS IN RELATION TO PRIMARY HEALTH CARE AND COMMUNITY DEVELOPMENT

4.1 Organization

In most of the countries of this region, primary health care or some aspects of it are being provided by primary health workers in government services and voluntary health workers selected by the community who work

in close relation with health centres or health service organizations. Depending on the educational background and the duties assigned, it would be possible to entrust them with the responsibility for collecting simple, essential and meaningful data related to their activities. Keeping in view the duties that these workers have to perform it is imperative that they should not be overloaded with the collection of too much data.

The information link between most peripheral units of government health services, e.g., a health centre and the primary health worker, can be effected through the village administration - village council or panchayat. By this process, the village council or panchayat would have control over the primary health worker. This control will necessarily help in getting the work from the worker to the desired extent and further relate his or her activities with other non-health activities in the pursuit of overall village development.

A conceptual model of the health management information system with emphasis on the local level, indicating linkages and utilization of information at different levels, is given in Appendix 1.

This model may be used as a basis for formulating a health information project for the local level, after making appropriate adjustments and adaptation to suit the local situation.

In order to make the system more effective, there should be a feed-back arrangement so that the health centre staff and the village council or panchayat can work with optimum collaboration and co-operation for the overall development of the community.

4.2 Information Requirement for Primary Health Care

The requirements of information for primary health care management are determined by:

- the objectives of primary health care,
- the activities to be carried out,
- the evaluation to be carried out in regard to these activities.

It is essential that the above elements be properly defined in order to develop a responsive management information system. Once this is carried out the following queries would need to be considered:

- who will collect the data?
- how will the data be collected?
- where, how and by whom will the data be processed?
- how accurate and reliable should such data be?
- what will be the frequency and timeliness of the report?
- who will use the information generated and how it will be used?

It was observed that while one function of the primary health workers would be the generation of information or data, their main function would be to improve and protect the health of the people.

4.3 Flow of Information

A two-way communication or exchange of information between the primary health worker, the village council or panchayat and the health team is essential for the effective direction and implementation of the various programmes. A further flow of information from this level to more central, higher levels is also needed. The possible information requirements and flow of information is given in Appendix 2. This would, however, require modifications in the light of the requirements of the various Member countries.

Some of the specific issues which were stressed during the discussions are given in the section below.

5 SPECIFIC ISSUES

5.1 Problem Areas in the Development of Health Information Sub-system at Primary Health Centre Level

During the discussions, the problems set out below were identified as those which should be taken into consideration while planning, implementing and evaluating the health information systems at the primary health care level.

(1) In many countries the primary health care workers at the local community level have very limited formal education and have practically no idea of information concepts. These health workers, although being the primary agents for collecting, recording and transmitting information, have difficulty in understanding their functions in respect of information collection and recording as well as in interpreting feed-back information. This limitation should be kept in mind while defining their functions in respect of the information systems at that level.

(2) The accuracy of data at the primary health care level will depend not only on the capacity of the primary health care worker to understand the exact nature of the data to be collected, but also on an efficient and practical means of recording them right at the place and time of origin. Owing to the existing background of the primary health worker as found in many situations, appropriate and timely recording sometimes becomes difficult and delayed, leading to distortion and consequent inaccuracy.

(3) All information generated at the primary health care level should be measurable for the purposes of analysis and comparability. These measures may be either quantitative or qualitative so that the information may be classified. Such measures are either not clearly defined or not comprehensible to the primary health worker. Simplicity of the classification scheme and comprehensibility of the measure are essential to ensure correct entries by primary health workers. Examples of lay reporting were given.

(4) Storage of information is not infrequently a problem at primary health care level, and sometimes the channel of transmission is either not defined or too confusing for the upward and downward movement of information.

(5) The capacity for data processing and analysis is often not taken into consideration while defining the list of data to be collected. Although this may not be important at the primary health care level, its importance for the system cannot be denied. Whatever data are collected, the information derived from them, if not processed in due time, cannot be available at the right time for decision-making.

(6) The present problem in most countries in this respect is that there is no arrangement for the adequate and timely processing of data, and this situation leads to failure in taking timely decisions, and lack of feed-back. Without an appropriate feed-back, the health workers at the primary health centre level feel frustrated, and their function as agents for information becomes meaningless to them. This lack of feed-back is probably one of the most important problems in the development of primary health care information systems.

5.2 Possible Steps for the Development of the Health Information Sub-system at the Primary Health Care Level

Steps may include:

(1) A review of the existing and planned health services and the health information systems to identify the areas of weaknesses in the primary health care information system which might need changing.

(2) The identification of decision-making points within the health services as applied to primary health care.

(3) The identification of the information needed for decision-making at different levels in respect of the management of primary health care services.

(4) The identification of sources of needed information at primary health care level (intra- and inter-departmental).

(5) The definition of channels of transmission from the periphery to end-users, and appropriate feed-back.

(6) The development of methods and facilities for data processing and analysis at appropriate levels.

(7) The evaluation of the information sub-system in terms of its usefulness and adequacy for the required decision-making.

5.3 Possible Line of Action for WHO in this Field

The development of information systems in the countries of the Region, be they entire national health information systems or sub-systems within

them, such as the primary health care information sub-system, will require the technical support of experienced information specialists for planning, implementation and evaluation. There is a need for developing a simple technology for the recording and processing of data suitable for the situation in the countries of the Region. There is also a need for training personnel in this field. WHO should provide technical and material support in these areas.

6 RECOMMENDATIONS

These are:

(1) High priority should be given to the development of appropriate health information systems in general, and at the primary health care level in particular, to support a systematic management of health services and health development efforts at all levels.

(2) The design of a primary health care information sub-system in the context of a national health information system should take into account the existing and planned organization of the health services at relevant levels for the purposes of data collection, collation, analysis and feed-back.

(3) The data generated at the primary health care level should correspond to that actually needed for management purposes, including planning, programming, formulation of activities, implementation, monitoring, evaluation and replanning of primary health care services.

(4) The necessary links between the various sub-systems of the national health information system, and the information systems of the other health-related sectors on the one hand, and with the primary health care sub-system on the other, should be given due attention.

(5) An appropriate mechanism should be established in order to link the voluntary health workers and panchayats or village councils or similar organizations with the primary health worker at the most peripheral level of the national health services, so that the necessary information flows and feed-back pathways are established.

(6) An appropriate technology and methods for the processing and simple analysis of basic data by the supervisors of primary health workers should be developed urgently, and the training of these primary health workers should be organized so that they can understand the implications of the processed information and take appropriate action through feed-back, whenever feasible, instead of playing the role of passive transmitters of data.

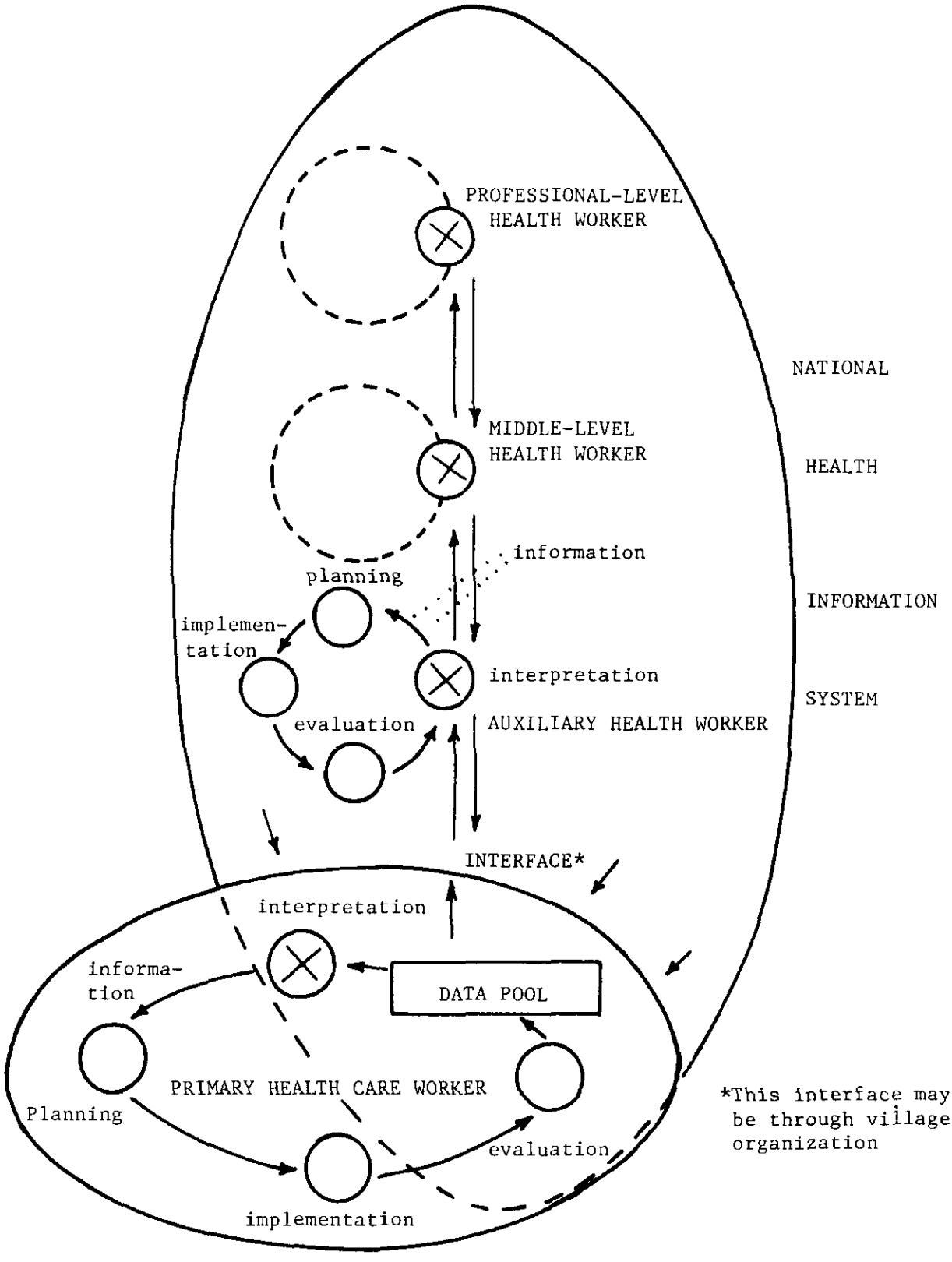
(7) WHO should endeavour to provide adequate technical and material support to Member countries, whenever required, in designing,

implementing and evaluating their primary health care information system, in developing an appropriate technology, and in training personnel for the information system.

(8) Exchange of experience and expertise in the field of information systems for primary health care should be encouraged among countries of the Region whenever feasible and co-ordinated by WHO as necessary.

Appendix

A CONCEPTUAL MODEL OF THE HEALTH INFORMATION SYSTEM WITH SPECIAL EMPHASIS ON THE LOCAL-COMMUNITY LEVEL



PRIMARY HEALTH CARE SYSTEM

POSSIBLE INFORMATION FLOW FROM AND TO DIFFERENT DECISION-MAKING LEVELS OF THE HEALTH SERVICES