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Operational Research on Reproductive Health

*Report of the Second Meeting of the
Scientific Working Group
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1. OPENING OF THE MEETING

Dr Utton Muchtar Rafei, Regional Director, inaugurated the Scientific Working Group on Operational Research on Reproductive Health. Deliberating on the concept of reproductive health, he emphasized that good reproductive health is a prerequisite for social, economic and human development. It not only influences the quality of life of the present generation but also of the next generation. It is therefore essential that people are able to have a satisfying and safe sex life and that they have the capacity to reproduce and the freedom to decide if, when and how often to do so.

Dr Utton deliberated on the major reproductive health problems. Over 120 million women in the developing countries, who would like to space or limit their family size, have no access to affordable, safe and effective contraceptives. Discrimination against women is still a major public health problem. Many women die every year due to complications of pregnancies and childbirth. He expressed concern that the overall burden of reproductive ill-health is very high in the countries of WHO's South-East Asia Region. Poverty and illiteracy, lack of access to essential health care services, inequality in the human rights enjoyed by men and women, marriage at a younger age and unwanted fertility are the factors contributing to the high burden of reproductive ill-health. Technologies for preventing unwanted births, maternal deaths, sexually transmitted diseases or maternal deaths are available. However, application of such knowledge and technologies is lacking. We must ensure that the technologies and services are accessible, available and acceptable to potential users. This could be done by utilizing evidence generated from operations research, addressing various operational problems and through developing innovations for increasing access to services.

He called for formulating an evidence-based country-specific Plan of Action which could be jointly implemented with the involvement of respective governments, professional bodies, national and international agencies including nongovernmental organizations and consumers. He assured the participants that WHO would continue to extend all possible support to the countries to

identify their reproductive health needs, reproductive health research needs, to execute research programmes and to enhance access to services and improve their quality.

Dr Uton reiterated that WHO greatly values the advice from the members of the various committees. He requested the members of the Scientific Working Group to identify and recommend tools, mechanisms and guidelines which could help in accelerating operational research aimed at increasing the access and utilization of integrated essential reproductive health services at the country level. (Full text of speech is at Annex 1).

Dr Chandravati, (India) and Dr Azrul Azwar (Indonesia) were appointed as Chairperson and Co-chairperson, respectively, for the meeting. Dr Dula de Silvia (Sri Lanka) was appointed as Rapporteur.

2. OBJECTIVES OF THE MEETING

The objectives of the meeting were:

- (1) To review progress in operational research in reproductive health and follow up the action taken from the first meeting of the Scientific Working Group, and
- (2) To identify and recommend a mechanism and guidelines for accelerating operational research aimed at increasing access and utilization of integrated essential reproductive health services at the country level.

The agenda of the meeting is at Annex 2.

3. INTRODUCTION TO OPERATIONAL RESEARCH ON REPRODUCTIVE HEALTH IN THE CHANGING CONTEXT

Dr Rita Thapa, Director, Department of Health Systems and Community Health, WHO/SEARO, welcomed the members of the Scientific Working Group (SWG). She reiterated that the meeting was an important milestone in WHO's continued and collective efforts to realize the universal right to

reproductive health. The outcome of this meeting should provide the desired impetus to operationalise WHO's joint commitment to the Programme of Action of the International Conference on Population and Development (ICPD), held in Cairo in 1994, and the Beijing Platform for Action of the Fourth World Conference on Women, held in 1995. The highlights of her presentation are as follows:

3.1 Reproductive Health Situation

WHO defines reproductive health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity in all matters relating to reproductive system and to its function and process. Reproductive health, therefore, implies the rights of women and men in three inter-related areas: (a) the right of women and men to have a satisfying and safe sex life; (b) the right to availability of a wide range of safe, effective, affordable and acceptable methods of family planning; and (c) the right of access to appropriate health care services that will enable every woman to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy child.

The population of the world has increased by 35 per cent between 1980 and 1995. The Region's population, which in 1995 was about 1.4 billion, is projected to grow to more than 1.8 billion by the year 2010. Such high population growth usually offsets the health gains, especially those of the poor. High population growth will also continue to put increased demands on the already overstretched health service delivery systems, including other services such as food water, sanitation and housing.

Although there is growing awareness about equal rights for women, discrimination against women is still a major public health problem in the countries of the Region. Socially determined gender roles have historically led to unequal relations between men and women with unequal access to the means of health, both within and outside the health sector. The health consequences of the existing gender discrimination are reflected in every aspect of women's lives. For example, they are reflected in the low health status of girls and women in the extent to which women have effective access to life -saving interventions from preventable maternal deaths, and in the extent to which women are empowered to make decisions affecting their own reproductive

health. In societies where women and men enjoy equal socioeconomic relations, women's survival ratio is found to be higher than men's during each phase of their life span. Men outnumber women in the South -East Asia Region with a ratio of 94 women to 100 men as against the global ratio of 106 women to 100 men.

Nearly 40 per cent of the world's poor are in this Region. Their numbers are increasing. Almost 40 per cent of the people in the Region do not yet have access to health care. Poverty and inequity reinforce each other.

WHO estimates that reproductive ill-health accounts for 33 per cent of the total disease burden in women, compared to 12.3 per cent for males of the same age. Complications of pregnancies and childbirth constitute the leading cause of death among women of reproductive age. The maternal mortality ratio in the South -East Asia Region is among the highest in the world – accounting for 40 per cent of the global total. Such unacceptably high maternal mortality ratios glaringly reflect the inequity in women's access, among others, to basic life-saving interventions. Most maternal deaths occur due to direct causes: haemorrhage (25%); sepsis (15%); toxemia (12%); obstructed labour (8%), and unsafe abortion (13%). Safe and affordable technologies to prevent such deaths do exist.

Over 60 per cent of pregnant women in the countries of the Region suffer from nutritional anaemia – a major contributor of maternal deaths.

An equally important issue in the Region relates to the existing high incidence of adolescent pregnancies. About 40 -50 per cent of girls in some countries of South Asia are married and become pregnant before they are 20. A pregnant girl below 18 is 2 -5 times more likely to die than a pregnant woman between 20 and 25 years. Such high-risk pregnancies are avoidable with equitable access to quality counseling and birth -spacing services.

Despite the impressive decline in infant mortality in all countries of the Region in the last decade, the decline in neonatal mortality has been slower. Available data indicate that over 50 per cent of infant deaths in the Region occur during the neonatal period. Nearly two -thirds of neonatal deaths occur within the first week of birth, largely due to maternal health problems.

The proportion of women attended to by skilled health care professionals during childbirth is as low as 9-15 per cent in some countries. The existing evidence indicates that women in countries with a higher proportion of deliveries attended by skilled personnel tend to have lower life-time risk of maternal death.

As maternal mortality is a reflection of injustice to girls and women as well as inadequacy of the health care system, WHO has recently launched a global movement on Making Pregnancy Safer (MPS), and maternal and neonatal ill-health. A joint statement of UN agencies involving WHO, UNFPA, UNICEF and the World Bank has been issued in support of MPS. The MPS strategy is to revitalize commitment, intensify actions and contribute to a stronger Safe Motherhood Initiative.

To this end, the MPS strategy calls on public and private interests within each country's health sector to:

- (1) ensure that a minimal range and acceptable standard of critical health interventions is available to all women, including the means for regulation of fertility and care at all stages of pregnancy;
- (2) help women to reach the care they need rapidly when they are in danger;
- (3) ensure that women, together with their families and friends are empowered appropriately with information on how to reduce the risks associated with pregnancy and childbirth. They should be enabled to be aware of the advantages of planning for birth and be able to recognize the danger signs of pregnancy; and
- (4) keep maternal health in different communities under review using standardized measures of maternal health care outcome, access to quality health care, costs of care, and health system performance.

3.2 Research Priorities in Reproductive Health

The South-East Asia Advisory Committee on Health Research (SEA-ACHR) at its meetings held in 1998 and 1999 identified priority areas for operational research in reproductive health. The eight areas recommended by the two meetings of SEA-ACHR converged on the priorities relating to Safe

Motherhood including Care of Newborn, as recommended by the first SWG meeting. The recommendations of ACHR are as follows:

- (1) In view of the fact that most providers of reproductive health care consist of public health midwives, nurses and other categories of health workers, their capacity to participate in simple operational research should be supported.
- (2) Operational research is required on how best to deliver quality reproductive health care effectively at district health systems based on primary health care.
- (3) A holistic research approach should be applied in studying the linkages among several factors influencing women's reproductive health and their empowerment.
- (4) Operational research is needed to develop community-based surveillance of maternal deaths.
- (5) A study of ethical issues concerning research on reproductive health is needed.
- (6) Countries with a high proportion of low birth weight babies should undertake a critical review of the situation and conduct appropriate health intervention studies, in order to mitigate this problem.
- (7) Countries with high maternal mortality rates should carry out intervention studies to address this priority problem.
- (8) WHO/SEARO should form, before the end of the year, a task force represented by experts from the Region, with the purpose of reviewing the existing national ethical guidelines and developing a regional framework for the preparation of ethical guidelines, for use by the countries.

4. REVIEW OF REPRODUCTIVE HEALTH RESEARCH IN SOUTH-EAST ASIA REGION

Dr Suniti Acharya, Regional Adviser, Maternal and Child Health, WHO/SEARO, briefed the meeting about the regional strategy on reproductive health developed through an intercountry consultation. The regional strategy defines an essential package of reproductive health services

by levels of care for adaptation by the countries. The essential package consists of family planning, safe motherhood, prevention and management of complications of abortion, RTI/STD, prevention of infertility and adolescent health and also includes gender perspective. The regional strategy also focused on the development of strategic approaches on advocacy, training, IEC and operational research needed to implement the strategy.

On the recommendations of SEA-ACHR, which had met in Dharan, Nepal in 1996, the Regional Director constituted a SWG on Operational Research on Reproductive Health to review the situation and provide guidance on how to promote operational research in reproductive health. The SWG, at its first meeting in 1996, reviewed the developments and management of reproductive health programmes in the countries and identified areas for operational research and developed guidelines for WHO's promotion of and support to operational research. Many important activities have taken place since the last Scientific Working Group meeting and several follow-up actions have been taken.

4.1 Follow-up of the Recommendations of the first SWG held in New Delhi in 1996

There were five broad recommendations, e.g. Advocacy; Promotion of operational research; Networking; Information dissemination and Resources.

Many of the recommendations of SWG have been implemented. Some significant ones are as follows:

- (1) **Advocacy** for research in reproductive health is carried out by incorporating research in reproductive health in high-level advisory bodies of WHO, such as ACHR, MRC.
- (2) **Promotion of operational research** has been done through supporting research projects by WHO/HQ, Regional Office and country offices. These are focused on priority areas identified by SWG, RHR and the countries. Operational research supported by SEARO are as follows:

Within the resource constraints, the Regional Office has supported a number of research projects in high priority areas. These include the following:

- Situation analysis on adolescent reproductive health. - Indonesia, Myanmar and Thailand.
- Operational research to improve the accessibility of reproductive health services to adolescents - Indonesia and Thailand.
- Operational research on the development of a model for the delivery of essential reproductive health care - Indonesia.
- Field-testing of training modules for the management of essential reproductive health services by levels of care - India.
- Country-level assessment of adolescent reproductive health issues - Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka.
- Development of a reproductive health programme profile: The study is being conducted with support from national governments, WHO, NGOs and other agencies in Bangladesh, Bhutan, India, Indonesia, Myanmar, Nepal, Sri Lanka and Thailand.
- Field-testing and adaptation of SEARO Standards of Midwifery Practice: This is a very good example of participatory process used in operational research and utilization of operations research findings for improving the quality of national safe motherhood programmes. This was presented to the meeting by Dr Duangvadee Sungkhobol, Regional Adviser in Nursing. The standards for midwifery practices for safe motherhood were developed through a participatory process involving experts, WHO/HQ, SEARO and programme managers for safe motherhood. The protocols and procedures for field testing were agreed upon jointly. Field testing was done in four countries (Bhutan, Indonesia, Nepal and Thailand). After the field testing, the countries have adapted the standards locally and used them for improving the quality of safe motherhood programmes.

Country-level actions to promote operational research:

- Countries (India, Indonesia and Nepal) have established National Committees on Research in Reproductive health and have identified research priorities on reproductive health. These committees provide policy framework for identifying research priorities within the broader context of RH programmes, and coordinating and supporting research at the national level.

(1) **Networking and Collaboration**

- (a) Collaboration between RHR and SEARO has improved through representation of SEARO as a formal member of the Regional Advisory Panel of RHR for Asia and the Pacific Region. The Regional Advisory Panel reviews proposals received from the regions and provides funding and decides on technical support.
- (b) The Regional Adviser responsible for reproductive health in SEARO is also the focal point for RHR in SEARO, which has facilitated follow-up and understanding of communications.
- (c) A joint planning exercise between SEARO and WHO/HQ, including RHR, was arranged, which identified research to be carried out jointly.

- (2) **Information dissemination:** There was a recommendation to publish a quarterly Reproductive Health Research Bulletin. This recommendation was discussed by WHO/SEARO but it was felt that reproductive health issues should be published in existing WHO publications. A separate bulletin might not be cost-effective and raised the question of sustainability. Instead, the use of internet and website for dissemination was suggested as better options.

- (3) **Resources:** Some countries e.g. Nepal, have utilized UNFPA resources to conduct maternal mortality surveillance studies. Several NGOs and bilateral agencies are supporting operational research in reproductive health in Bangladesh. Government of India has allocated substantial amount of funds to finance 16 studies in reproductive health.

4.2 Meeting of WHO Collaborating Centres in SEAR Countries

One of the recommendations of the SWG was to encourage technical collaboration among developing countries, particularly involving the network of WHO Collaborating Centres. Accordingly, a meeting of all the ten WHO Collaborating Centres in the area of Reproductive Health was convened in SEARO in September 1997. The meeting facilitated the exchange of

experience and information. It also recommended areas for networking in training and research.

4.3 Asian Pacific Symposium in Reproductive Health Research

A symposium on Intra-regional Cooperation in Reproductive Health Research was held in China in October 1998. This symposium identified twelve key areas as priority for support from WHO/HQ. The areas identified were: (1) fertility regulation, (2) unsafe abortion, (3) maternal and perinatal health, (4) adolescent reproductive health, (5) reproductive health in ageing, (6) RTIs, STDs, HIV/AIDS and cervical cancer, (7) infertility, (8) male involvement in reproductive health, (9) planning and programming for reproductive health, (10) environment and reproductive health, (11) goal-oriented basic research: implantation and sperm biology, (12) a holistic approach including cross-cutting issues of gender, ethics and integrated reproductive health services. Other cross-cutting issues considered were male involvement and gender equity. This symposium provided a good opportunity for researchers from WPRO and SEARO to exchange information.

5. FROM FORMATIVE TO OPERATIONAL RESEARCH IN REPRODUCTIVE HEALTH: EVIDENCE FROM COUNTRIES IN SOUTH-EAST ASIA REGION

Dr Michael Mbizvo, Coordinator, Technical Support to Countries, Department of Reproductive Health and Research (RHR), WHO headquarters, highlighted the work carried out by the Department. RHR is one of the four departments which constitute the cluster of Family and Community Health, within the reorganized structure at WHO headquarters. Other departments are HIV/AIDS/STI, Child and Adolescent Health and Development and Women's Health.

The four main components of RHR Department are: Research and Evidence; Technical Support to Countries; Norms, Tools and Standards; and Advocacy and Human Rights. The mission of the Department is to help people to lead healthy sexual and reproductive lives. Its objectives are to: (1) promote,

facilitate and conduct research to improve reproductive health; (2) support countries with knowledge and tools to formulate policies and strategies to implement appropriate interventions to improve reproductive health; and (3) support countries to strengthen the capacity of communities to make informed reproductive health choices and participate in making improvements in reproductive health. The priority areas of work of the RHR Department include planning and programming for reproductive health; sexual development and maturation; fertility regulation; maternal and newborn health; unsafe abortion; RTIs including cervical cancer; female genital mutilation and other harmful practices.

Research provides evidence on which knowledge is generated to develop norms and to advocate for policy changes including the application of effective reproductive health interventions. It provides a basis for the development of new technologies or the modification of existing technologies. The Department has continued to support a number of studies in the Region, either as formative research to operations research and policy making, or as operations research to test the introduction of new contraceptive technologies and method mix. Towards the goal of attaining healthy sexual development and maturation, twelve studies have been supported as follows: six on sexual behaviour (India, Indonesia and Thailand); and six on adolescent sexual and reproductive health (India, Indonesia, Myanmar and Nepal).

In response to the goal of helping communities to achieve their desired number of children safely and healthily, when and if individuals decide to have them, through fertility regulations, at least 30 studies have been supported as follows: The context of abortion (n=8, in Bangladesh, India, Indonesia, Myanmar, Nepal and Sri Lanka); Contraceptive use dynamics and factors affecting contraception (n=13, in Bangladesh, India, Indonesia, Maldives, Myanmar and Thailand); Birth spacing (n=4, Myanmar and Thailand); Maternal health (n=4, in India and Sri Lanka); and Men's roles in reproductive health including responsible parenthood (n=1).

Case studies conducted in these countries for which results are available include (1) the study from Bangladesh to "Assess the determinants and consequences of abortion", (2) the study from India on "Induced abortion in rural western Maharashtra"; (3) Indonesian study on "Health and family planning service providers and their attitudes towards abortion; (4) "Factors

determining induced abortion: A case control study”, in Myanmar; (5) Determinants of induced abortion and subsequent reproductive behaviour among women in three urban districts of Nepal; and (6) Induced abortion in Sri Lanka: Opinions of reproductive health care providers, in Sri Lanka. The main findings from these studies, which have implications for operations research, include:

- that women experience high rates of complications following unsafe abortion.
- that health care decision-making is not always prompt or autonomous.
- that there is a need for counseling and provision of modern contraceptive methods following abortion.

Overall, the research recognizes that sexual and reproductive behaviour and ill-health have social and cultural antecedents, in addition to their biomedical make-up. In the social science area described above, operational research projects are either underway or about to begin.

The RHR component on Technology Introduction and Transfer has been working with its many partners over the past six years to develop, test and refine a strategic approach to the introduction of contraceptive technologies. This comprises a first “assessment” stage, a second “testing intervention” stage and a third “scaling-up” stage. The assessment stage answers strategic questions on whether there is a need to introduce a new method, or whether there is a need to promote or improve the provision of available methods or the need to remove an unsafe or inappropriate method. Stage two involves operational research to design and test optimal models for introducing new or underused technologies, while improving the quality of care in service delivery. A comprehensive operations research study has been undertaken in Myanmar, which tested a model for improving the quality of reproductive health services.

Dr Mbizvo expressed satisfaction that the meeting of SWG provides a forum through which the Department of RHR and SEARO can continue to collaborate in an effort to enhance their ability to respond effectively to the reproductive health needs and issues expressed by the countries of the Region

6. PROGRESS IN OPERATIONAL RESEARCH IN REPRODUCTIVE HEALTH IN SEAR COUNTRIES SINCE THE LAST SWG MEETING: PRESENTATIONS BY MEMBERS OF THE SCIENTIFIC WORKING GROUP

India

Dr Vikram K. Behal, Dr Chandravati and Dr Chander Puri from India summarized the recent initiatives of the Government of India (GoI) to improve the reproductive health of people. ICPD marked a major shift in the thinking of the government on issues of population and development. The target-driven approach of providing family planning services was replaced with a comprehensive approach to reproductive health. The Government also launched a Reproductive and Child Health (RCH) programme in October 1997, which is based on the conviction that the parents will keep the family size small if they are assured of good health and longevity of their children. This also implies that the mothers will go through pregnancy and childbirth safely. The RCH programme thus integrates all interventions of fertility regulation, maternal and child health with reproductive health of both men and women. The major stress of the programme is on decentralization of policy and target setting by involving local government structures with emphasis on improving the quality of services. The programme also aims at improving services for vulnerable groups of population living in urban slums and adolescents.

The Indian Council of Medical Research (ICMR), jointly with the Department of Family Welfare of the GoI has, through the Reproductive Health Research Need Assessment, identified research priorities in the following areas: Maternal health and women's health and development; Child health; Fertility regulation; Infertility; Safe abortion; RTIs and STDs; Adolescent reproductive health; and Old age problems. All public and private research institutes as well as individual researchers have been requested to initiate operational research in these priority areas.

In India, a number of research activities are undertaken by different institutions which are under the control of different ministries and departments. ICMR is the nodal Institution for coordinating research under the Ministry of Health and Family Welfare, whereas the National Institute of Immunology and

the Central Drug Research Institute are under the Ministry of Science and Technology. ICMR undertakes reproductive health research through its own institutes, such as the Institute for Research in Reproduction, Mumbai, and the National Institute of Nutrition, Hyderabad. ICMR also supports extramural research through its 31 Human Reproductive Research Centres situated in medical colleges all over the country.

The Department of Family Welfare has set up various expert committees on reproductive health research. These committees, chaired by the Secretary, Department of Family Welfare, review and approve proposals for financial assistance. During the last two years, the various committees have sanctioned financial grants to 16 studies amounting to Rs. 1,30,00,000 (approximately US \$300,000). The research proposals that which have been funded, cover different areas of reproductive health e.g. male involvement, syndromic approach to RTIs, emergency contraception, medical methods for pregnancy termination, osteoporosis, long-acting androgens as male contraceptive, socio-behavioural studies of health-seeking behaviours, involvement of TBAs in the delivery of primary health care, and quality of care in reproductive health.

The major constraint in the present system of operational research being carried out by different agencies is networking. To overcome this problem, GoI is promoting networking between and within research institutions and agencies. A National Committee for Research in Human Reproduction has been established, with representatives from all concerned ministries, for this purpose. It is envisaged that such structural changes will help avoid duplication of research efforts and ensure optimal utilization of scarce resources.

Indonesia

Dr Agus Suwandono and Dr Azrul Azwar provided a review of the reproductive health situation in the country, and the policies and programmes of the Government of Indonesia to curtail the burden of reproductive ill-health. In Indonesia, operational research of reproductive health is a part of health systems research, and focuses on developing models for integrating expanded services and demonstrating how these models can be integrated on broader issues.

To develop a research agenda that reflects national needs and priorities in reproductive health, a National Symposium and Workshop on Reproductive

Health Research Priorities was conducted by the National Family Planning Coordination Board in collaboration with the Ministry of Health in Bandung in April 1999. Safe motherhood was identified as of the highest priority, followed by perinatal/infant/child health, family planning, abortion, status of women, RTI/STDs/HIV/AIDS, adolescent reproductive health, nutrition, infertility and health of the elderly.

The Government of Indonesia has supported a number of research projects to: (1) identify the reproductive health profile; (2) assess the reproductive health needs; (3) improve the quality of services; and (4) integrate reproductive health services suitable to each Province in Indonesia.

Operational research in reproductive health in Indonesia needs to be further strengthened. A conceptual framework for programme formulation, implementation, dissemination and translation of results to policies and actions for operational research in reproductive health in Indonesia needs to be developed on the following format:

- (1) Development of priorities and research agenda in operational research.
- (2) Development of a routine communication forum between stakeholders, researchers and donor agencies.
- (3) Development of a communication forum between researchers from various research institutions in reproductive health.
- (4) Improvement and integration of researchers' capacities in methodology, dissemination and translation of operational research into policies and actions in the field of reproductive health.
- (5) Intensification of the existing decision-making forum in improving political commitment and in operationalising research findings.
- (6) Development of appropriate mechanisms and tools for monitoring, supervision, dissemination and translation of operational research on reproductive health findings to policies and actions.
- (7) Integration of funding and implementation of operational research on reproductive health based on the priorities and research agenda of operational research on reproductive health.

For effective implementation of operational research in reproductive health, the need to strengthen closer linkages with health system research was emphasized. The networking should have three components: (1). An advisory body consisting of various stakeholders and senior researchers from health-related departments. The Board Members should manage the policy decision process as well as improve the political commitments of its members. (2). SAn expert committee consisting of researchers from various disciplines, which should be responsible for analysis, synthesis and review of research results. The outputs of this committee should provide the basis for for mulating policies on health-related matters. (3) Executive Secretary with professional resources for developing networking and information management system. The Secretariat should also prepare mechanisms and tools for monitoring and utilization of operational research in reproductive health.

Myanmar

Dr Yin Tin Zaw and Dr Nwe Nee reviewed operational research in reproductive health in Myanmar. As a sequel to the First SWG meeting on Operational Research in Reproductive Health, a coordinating meeting in the Department of Medical Research, Yangon, formulated research priorities in operational research to be implemented in the following areas: safe motherhood, nutrition and anaemia, family planning, STD/RTI/HIV/AIDS/infertility, adolescent reproductive health, prevention and management of complications of abortion, social, cultural and family -related issues, male responsibility and gender issues, empowerment of women and management of aging.

The operational research in reproductive health being carried out in Myanmar, in collaboration with the Directorate of Health and the Department of Medical Research, includes the following projects:

In collaboration with the Directorate of Health:

- (1) A township model for improving the quality of care in reproductive health services in Myanmar (Contraceptive method mix stage II).
- (2) Population changes and fertility survey.

- (3) Fertility and reproductive health study.
- (4) Validation of abortion procedures in Bago Division (Funded by UNFPA, 1999–2000).
- (5) Reproductive behaviour and decision-making in women with unwanted pregnancies in Yangon, Myanmar (Funded by Population Council, 1999-2000).
- (6) Health system inadequacies and providers, perspectives addressing adolescent reproductive health needs (WHO/HRP, under review).

In collaboration with the Department of Medical Research:

- (1) Treatment-seeking behaviour of STD patients in selected townships of Yangon, Myanmar.
- (2) Assessment of the counseling needs and other social support to HIV/AIDS patients.
- (3) A study on exposure and acceptability of IEC programmes regarding HIV/AIDS among ethnic minority groups in Northern Shan states.
- (4) A study on awareness of behavioural and reproductive health issues among 15–19 year old out-of-school youths.

Nepal

Dr Dibya Shree Malla and Dr Laxmi Raj Pathak provided a review of the operational research in reproductive health being pursued in Nepal. The Reproductive Health Strategy document adopted by the Government of Nepal has identified an integrated reproductive health package comprising of family planning, safe motherhood, neonatal health (new-born care), prevention and management of complications of abortion, RTI/STD/HIV/AIDS, prevention and management of subfertility, adolescent reproductive health and life-cycle reproductive health issues.

The objective of the national Reproductive Health programme is to curtail the burden of reproductive ill-health of individuals and couples by developing interventions to address their needs appropriate to their age and sex. The

strategy for undertaking operational research in reproductive health in Nepal identified following priority areas:

- Identification of strengths, weaknesses, gaps and overlaps in the reproductive health programme.
- Collective situation analysis and need assessment for research.
- Advocacy for research.
- Identification and prioritization of uncovered research areas.
- Resource mobilization and strengthening of research capacity.
- Dissemination of reproductive health information.
- Utilization of research results at all levels.
- Assessment of cost-effectiveness of the implementation of national reproductive health research strategy.
- Inventorizing completed, ongoing and planned studies.
- Implementing studies and giving feedback and recommendation of the study for its utilization in RH programme.

The institutional framework for coordinating research in reproductive health consists of:

- RH Steering Committee, which meets once a year, is primarily a policy making body. There are several committees under it.
- Research Sub-committee, which helps keep inventory of completed and ongoing research projects, spots gaps and overlaps, helps linking research plans and resources, proposes working groups for research projects, and
- Research Working Group with primary responsibility for implementing research and to formulate recommendations for action.

Sri Lanka

Dr Dula de Silvia presented the achievements and challenges of operational research in reproductive health in Sri Lanka. The per capita income in Sri Lanka is US \$ 848 and only 1.6 per cent of GNP is used as health

expenditure. Life expectancy at birth for females and males is 74.2 yrs and 69.5 yrs, respectively. The total fertility rate is 2.3. The contraceptive prevalence rate is 66.6 per cent, of which 22 per cent rely on traditional methods. Infant mortality rate is 16.9 per 1 000 live births and maternal mortality is 62 per 100 000 live births. Almost 90 per cent of the deliveries are institutional and the proportion of deliveries assisted by untrained staff is very low.

The main reproductive health issues still confronting the nation are: 225 maternal deaths every year due to pregnancy-related problems; almost 6 000 children die before reaching their first birthday, and the causes are preventable; 44 per cent of married couples do not use any birth control; 12 -15 per cent of couples are infertile or subfertile; the age of menarche has decreased and the age of marriage has increased, thus increasing the sexually-active period of youth before marriage; the estimated number of induced abortions is still very high; the exposure to mass media with incorrect messages on sexuality has increased; the incidence of STDs and HIV/AIDS has not been well controlled; many die due to cancers of the reproductive tract; and problems associated with old age.

Sri Lanka formulated a population and reproductive health policy in 1998, the main objectives of which are as follows:

- Achievement of stable population size by the middle of 21st century.
- Ensure safe motherhood and reduce reproductive health morbidity and mortality.
- Achieve gender equality.
- Promote responsible adolescent and youth behaviour.
- Provide adequate health care and welfare services for the elderly.
- Address migration and urbanization issues.
- Public awareness of population and reproductive health issues.
- Quality population and reproductive health statistics at all levels.

The current maternal and child health policies have been revised to establish a complete information system for reproductive health. In the year 2000, the new management information system for reproductive health will be implemented.

Future challenges in Sri Lanka are:

- Cultural, social and religious impediments in addressing sensitive issues.
- Flexibility of the present legislature for proactive reforms.
- Reaching unserved/underserved pockets, extreme rural, urban slums, etc
- Interests of donor agencies vs. country needs.
- Establishing equity in distribution of limited resources.

The use of research findings in health planning is minimal. Research capacity at the country level and networking needs to be strengthened.

Thailand

Dr Sukanya Parisunyakul and Dr Sumalee Permpaengpun reviewed operational research in reproductive health in Thailand. The scope of research includes family planning, maternal and child health, AIDS, RTIs, malignancies of the reproductive tract, sex education, abortion, adolescent reproductive health, infertility and post-reproductive age and old age care.

Operational research in reproductive health is mostly conducted by the universities, Department of Health, provincial hospitals as well as by some general hospitals. However, operational research has not received the desired support. It was limited to situation analysis and no experimental approach was followed to improve the indicators. The Eighth National Economic and Social Development Plan of Thailand and the concept of ICPD in 1994 emphasized client-centered and women empowerment-based research programmes in reproductive health. The framework adopted is as follows:

- (1) Development of a model to integrate reproductive health services to prevent, promote, counsel and provide medical treatment for women at all age groups.
- (2) Development of IEC packages and education programmes on reproductive health for all age groups with the emphasis on adolescents, both in and out of the school system.
- (3) Participation of various stakeholders, community, organizations, male and female leaders in health care.

- (4) Support male responsibilities and participation in reproductive health care.

The following pilot projects are being initiated or being undertaken by the Ministry of Public Health in the country .

- (1) Integrated reproductive health care package. Based on the concept of reproductive health that aims to serve the needs of women on the basis of equality and equity and holistic approach, two projects are being pursued. These are: (a). A pilot project on the operationalization of reproductive health services in Pattani and Payao Province, Thailand, and (b) a model programme for integrated reproductive health services.
- (2) Adolescent reproductive health programmes. Projects in this area are aimed at promoting and providing complete services of reproductive health system which addresses appropriate adolescent needs. The Ministry of Public Health has implemented two pilot projects - one for the Thai adolescent programme, which is ongoing in Nakornsritummarah Province; the other project entitled "The health development and education for Muslim adolescents" is aimed at: (a) increasing knowledge and awareness regarding health risk of Muslim adolescents; (b) strengthening capabilities of governmental and nongovernmental organizations for the clinic base services; hotline telephone counseling and information dissemination; and (c) generating support and participation of families, schools and community leaders.

Since Thailand is increasingly being regarded as a self-supporting country, financial support to its reproductive health programmes from donor agencies is decreasing. This is creating financial constraints and affecting the research programmes in operational research in reproductive health.

7. CONSTRAINTS/PROBLEMS IN OPERATION RESEARCH IN COUNTRIES

The Country presentations and WHO presentations were discussed which identified several constraints. It was recognized that operational research in reproductive health is directly aimed at increasing the access of essential

reproductive health services and improving their quality. This called for assessing the needs and perceptions of people, feasibility of product development and capability of the service delivery system to utilize the research results well before the research is initiated. It therefore requires a well thought out and concerted effort by policymakers, researchers and programme managers with the involvement of funding agencies. Some of the reasons as to why operational research in reproductive health has not received the importance it deserves were identified as follows:

- The concept of using evidence of operational research as a means to improve efficiency and effectiveness of reproductive health programmes as a regular practice is not yet established in our countries.
- Non-availability of an inventory of the projects undertaken in the area of reproductive health, particularly the operational research.
- Research projects are undertaken on an ad hoc basis; they are generally curiosity-driven rather than need-driven.
- Lack of a common Programme of Action and concerted effort by the national governments, professional bodies and other national and international agencies working in the area of reproductive health.
- Lengthy time-consuming procedures at the country level to clear research proposals.
- Lack of resources for manpower development and execution of research projects.
- Lack of a critical mass of qualified researchers at the country level.
- Mechanisms for recognition of quality work by researchers are deficient.
- Lack of optimal dissemination and utilization of operational research results for programme strengthening.
- Lack of effective tools and mechanisms for monitoring.

Effective monitoring of research at all levels is essential for maintaining good quality of research, timely completion of the programme, dissemination of information and translation of research into policy making. Though it was recognized that regular monitoring serves as an early warning -system and helps to ensure proper implementation of the programme, simple and effective mechanisms and tools for monitoring were lacking.

Limited budgetary provisions and lack of professional staff who could devote adequate time were identified as some of the constraints in introducing monitoring system.

8. DISCUSSION AND RECOMMENDATIONS

Scientific Working Group Members did not have uniform understanding of the term “operational research”. Therefore, there was substantial debate on arriving at a consensus and common understanding. Eventually, the Members agreed on a working definition of operational research on reproductive health which is as follows:

“Operational research on reproductive health is the research aimed to provide evidence-based scientific data and appropriate technologies to solve problems, improve service delivery and utilization, and recommend relevant policies”.

Further discussion focused on analyzing prevailing RH problems and prioritizing research. Guided by the information on the prevailing burden of reproductive ill-health in the countries of the Region, the members identified the specific reproductive health problems, prevalent in most of the countries that required operational research. The suggested priority areas are:

- Family planning.
- Safe motherhood, including care of the newborn.
- Prevention and management of complications of abortion.
- Reproductive tract infections including sexually transmitted diseases, HIV/AIDS.
- Adolescent reproductive health.

The members felt that priority within the essential reproductive health care package could be determined by the country concerned based on the problems of highest public health importance and available technical and financial resources. However, the members realized that the prevailing burden of maternal mortality and morbidity in the Region is very high. Almost 40 per cent of the global maternal deaths occur in 10 countries of SEAR (average 380

deaths/100 000 live births, range: 50-515 deaths/100 000 live births). Consequently, men outnumber women in SEAR with a ratio of 94 women to 100 men as against the global ratio of 106 women to 100 men. The members also took note of the recommendations of the SEA -ACHR that (i) operational research is needed to develop community-based surveillance of maternal deaths; and (ii) countries with high maternal mortality rates should carry out intervention studies to address this priority problem.

As mentioned earlier in this report, WHO, UNFPA, UNICEF and the World Bank have recently, through a joint statement, expressed concern about the high maternal mortality ratio, particularly in the developing countries. The joint statement is a reflection of the common purpose and complementarity of programmes supported by the four agencies to reduce and prevent maternal mortality and morbidity. The members felt that this was an opportunity moment for the countries to develop operational programmes, jointly with these UN agencies, aimed at reducing maternal mortality.

The members therefore recommended that for the next two years, WHO/SEARO should give the highest priority to support operational research aimed at reducing maternal mortality ratio. It was also realized that maternal mortality cannot be reduced by adopting an isolated approach. It will require an integrated comprehensive approach targeting family planning, including increase in age at first pregnancy, increased spacing between births and less number of children; RTIs/STDs; unsafe abortion practices; good midwifery practices; and general health of the mother. Reduction in maternal mortality would also require due consideration to other issues affecting service delivery such as male involvement, women empowerment and the national health system.

The following projects were recommended for implementation at various levels of health care:

(1) Safe motherhood and newborn care

(a) Community level

To develop and test an integrated community need-based 'model' to make pregnancy and child birth safe to improve accessibility, availability and acceptability of services.

(b) Primary Health Care level

To improve the quality of care by improving knowledge and skills of health care providers and by implementing problem-solving quality of assurance programmes.

(c) District level

Quality assessment of reproductive health services.

(2) Family Planning

(a) Integration of family planning services with that of STD /RTI.

(b) Reduction of unmet need of contraception:

- Expanding contraceptive choices, including making provision for emergency contraception.
- Focused IEC highlighting the benefits and side-effects of contraceptive methods, and dispelling myths about methods.
- Provision of services with quality of care and at times convenient to the potential users.
- Efficacy and use of traditional methods of contraception.

(3) STDs/RTIs

(a) Identification of appropriate and culturally-specific approaches for the education of men and women on risky sexual behaviour and adoption of safe sex practices.

(b) Easy access to sensitive and specific diagnostic tools.

(c) Improved access to STD treatment services, using a syndromic approach at the community level.

(4) Adolescent Reproductive Health

(a) Creating awareness about sexual maturation, sexuality and gender through culture-specific sensitive messages.

(b) Creating awareness of the advantages of using contraceptives to delay pregnancy and for spacing of children.

- (c) Accessibility of youth friendly services
- (d) Behavioural studies on family and community practices.

(5) Unsafe Abortion

- (a) Provision of safe abortion services and their utilization.
- (b) Risk taking behaviour.
- (c) Prevention of abortion through contraceptive use.
- (d) Post-abortion care practices.

In addition to recommending areas for operational research, the SWG made some general recommendations for solving the identified constraints and problems and for accelerating operational research aimed at increasing access and utilization of RH services. The recommendations consist of two parts: (1) Recommendations for WHO; and (2) Recommendations for countries

(1) Recommendations for WHO

(a) Advocacy

- WHO should continue to advocate the importance of an evidence-based operational research for strengthening of services and increasing access and utilization.

(b) Promotion and acceleration of Operational Research in Reproductive Health

- WHO should continue to promote operations research
- WHO/HQ and SEARO should continue to develop partnership to give technical and financial support for operational research activities in the Member Countries of the Region in a very concerted way.
- Priority areas identified by the SWG should be taken as a research agenda which aims to address inherent problems existing in the Member Countries. These should be prioritized, selected and carried out as relevant to address specific reproductive health problems by countries.
- WHO should emphasize and advocate to the countries for including operational research in selected priority areas of reproductive health as

an integral component in programme/project formulation of national, bilateral and multilateral agencies' programmes at the country level.

- WHO should promote the commissioning of multicentric studies on selected priority reproductive health. However, countries could also submit research proposals in areas of national priorities for review and possible funding by the Regional Office/HQ and other agencies.

(c) *Networking*

- SEARO should facilitate the coordination of operational research activities in the Region and provide a forum for exchange of information.
- TCDC should be encouraged, particularly involving the network of WHO collaborating centres and additional centres of excellence. WHO should facilitate those activities.

(d) *Information dissemination and utilization of research*

- Information on countries carrying out operations research in the Region and are interested in conducting training programmes in operation research should be collected and made available to countries by WHO.
- WHO should develop effective mechanisms for the dissemination of operational research information to national focal points and encourage countries to form national networks which could disseminate information to the districts and peripheral levels where needed. Once the programme managers are informed of the research, there are better chances of utilization of these in programme development and policy formulation.

(e) *Monitoring*

- WHO should support countries to stabilize and update inventories of operational research project.
- WHO should facilitate networking at regional and country levels for regular monitoring of research projects undertaken in various countries.

- WHO should encourage governments to establish a subcommittee for within the existing Reproductive Health Research Committees to monitor the progress, update the inventory, classify research and conduct metanalysis where possible, and provide feedback to donors, governments and professional bodies. WHO should provide technical support to these activities.

(f) Encouragements/Recognition of researchers

- WHO should promote technical collaboration between research institutions for identifying good quality research work.
- WHO should evolve a mechanism for the recognition of good research work done at the country level and disseminate such information.

(g) Resources

- WHO should facilitate and promote interaction between agencies sponsoring research programmes to avoid duplication of efforts and optimum utilization of research results.

(2) Recommendations for Countries

- National programme RH managers and health professionals should continue advocacy for operational research on RH at all levels, need to identify constraints, develop innovative approaches and solve problems in RH programme management.
- National health professionals should emphasize on evidence-based information to address:
 - the package of RH interventions that is most suited to the local setting,
 - the need to increase access to the essential package of RH interventions to all women who are pregnant and/or delivering, wherever they are,
 - simplify procedures for clearing WHO-involved research programmes by respective countries,
 - human resource development by creating opportunities for specialized training; and
 - mobilize resources for operational research in reproductive health.
- Governments should ensure that rigorous independent assessments of the quality of health care provided for women are carried out based

on defined standards, such as WHO's Integrated Management of Pregnancy and Childbirth, and WHO's Standards of Midwifery Practice for the South-East Asia Region.

- Governments and international agencies should back focused research to find new technologies and approaches that promote reproductive health, particularly those make pregnancy safer, with urgent efforts to develop or refine cost-effective interventions and better products that contribute to maternal health and that of the newborn.
- Governments and international agencies should undertake an annual review of the progress made.

9. CLOSING SESSION

In his concluding remarks, the Regional Director appreciated the active participation in the discussions and the excellent contributions made by the Members of Scientific Working Group. He mentioned that the recommendations seemed practical and WHO would try its best to provide technical support for countries to implement the recommendations.

Prof. Azrul Azwar, the Co-Chairperson, thanked the Dr Uton for inviting him to this meeting and highlighted the importance of operations research for improving accessibility and quality of care.

The Chairperson thanked the participants for their excellent contributions and appreciated WHO for convening this Group meeting and reiterated the collaboration of SWG members on an ongoing basis.

She then closed the meeting.

Annex 1

INAUGURAL ADDRESS BY DR UTON MUCHTAR RAFEI REGIONAL DIRECTOR, WHO, SOUTH-EAST ASIA REGION

Distinguished Members of the Scientific Working Group, Ladies and Gentlemen,

Reproductive Health is a crucial part of general health and a central feature of human development. It is a reflection of health during conception, childhood, adolescence, and adulthood and sets the stage for health beyond the reproductive years for both women and men, and affects the health of the next generation. The health of the newborn is largely dependent on the mother's health and nutritional status and of her access to health care.

Reproductive Health is a prerequisite for social, economic and human development. The highest attainable level of health is not only a fundamental human right, it is also a social and economic imperative, because energy and creativity are the driving forces of development. Since such energy and creativity cannot be generated by sick, tired people, a healthy and active population is essential for social and economic development.

Since the Alma Ata Declaration, Member Countries in South-East Asia Region have been trying to achieve Health for All through the PHC approach and promote Maternal and Child Health and Family Planning programmes as its essential elements. Family Planning programmes started vertically with demographic imperatives in many countries including Nepal. Some success was achieved in these areas.

Two major international conferences, the International Conference on Population and Development held in Cairo in 1994 and the Women's Conference held in Beijing in 1995, formalized international consensus that improving reproductive health including family planning is essential to human welfare and development. The Cairo Conference also placed people, especially women firmly at the centre of all development efforts as protagonists of their own reproductive health. It further emphasized the shift from the demographic

target-oriented programmes of the past to a need-based broader concept of achieving reproductive health goals over the life span of an individual.

In order to assist countries to operationalize the Reproductive Health concept, the South-East Asia Regional Office of WHO organized an Inter-country Consultation for the development of a regional reproductive health strategy in 1996. The Strategy defines the integrated essential reproductive health care intervention package by levels of care, and identifies short- and long-term programmes as well as priority actions in the Member Countries. Briefly, the integrated essential reproductive health care interventions defined by the Regional Strategy include five priority areas for action. They are: Family Planning, Safe Motherhood including newborn care, Prevention and Management of Complications of Abortions, RTI/STD/Infertility, and Adolescent's Reproductive Health.

The SEAR ACHR, held in Dharan, Nepal, in April 1996, recommended that priority be given to operational research in reproductive health in Member Countries, which will support rapid implementation. For this reason, WHO SEAR office convened a Scientific Working Group consisting of eminent experts who have contributed to the development of research in their own countries with participation from WHO/HQ. Accordingly, the First Scientific Working Group was convened in 1996, which made a number of recommendations and identified priority areas for operational research. The Member Countries have carried out a number of operations research since then. Some of the important ones are operations research in Adolescent Health in Indonesia, Thailand and Myanmar and reduction of MMR in Indonesia and Nepal and various ICMR projects in India. However, efforts are not enough if the enormity of the problem is considered.

I would also like to mention here that the WHO South-East Asia ACHR/MRC meeting, held in 1998, and the WHO SEA Advisory Committee on Health Research, organized in 1999, have recommended that safe motherhood should remain the main vehicle to promote reproductive health. This is because of the very high incidence of maternal mortality in this region.

Prevention of pregnancy-related deaths has also been taken as one of the WHO-HQ cabinet initiatives – “Making Pregnancy Safer” - in which the Director-General, Dr Gro Harlem Brundtland, has emphasized that every pregnancy should be wanted, all pregnant women must have access to skilled care, and all pregnant women must be able to reach a functioning health care facility when the need arises.

In spite of the efforts by governments, several donors, international agencies and NGOs, access to skilled care for pregnant women and the quality of other REPRODUCTIVE HEALTH services are still major issues in our Region. We must work collectively in the spirit of partnership. Our actions should be based on sound scientific evidence.

This meeting of the Scientific Working Group has been convened to identify and recommend tools, mechanism and guidelines for accelerating Operations Research aimed at increasing the access and utilization of integrated essential REPRODUCTIVE HEALTH Services at country level.

I hope that the recommendations made at this meeting will be helpful for further strengthening the reproductive health programmes in the South -East Asia Region of the WHO.

I wish you all success in your deliberations and a pleasant stay in Delhi.

Thank you.

Annex 2

AGENDA

- (1) Inaugural Address
- (2) Introduction of Participants
- (3) Nomination of Chairperson/Co-chairperson and Rapporteur
- (4) Introduction on Reproductive health in the changing context: Dr Rita Thapa.
- (5) Review of reproductive health research: Issues and priorities in SEAR: Dr Suniti Acharya.
- (6) From formative to operational research in reproductive health: Evidence from countries in South-East Asia region. Dr Michael Mbizvo.
- (7) Development of operational research in reproductive health in the countries of the Region: Presentations by Members of the Scientific Working Group
 - Bangladesh
 - India
 - Indonesia
 - Myanmar
 - Nepal
 - Sri Lanka
 - Thailand
- (8) Group Work: To identify and recommend tools, mechanisms and guidelines for accelerating operational research in reproductive health for increasing access to reproductive health services
- (9) Plenary Session
- (10) Drafting presentation and discussion, finalization of recommendations
- (11) Closure of the Meeting, by the Regional Director

Annex 3

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