

**WHO Special Programme of Research, Development
and Research Training in Human Reproduction**

Research in Human Reproduction

Biennial Report 1986-1987



World Health Organization

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Contents

Foreword.....	7
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Part I Overview

Chapter 1. Continuity and change (J. Barzelatto)	11
Chapter 2. Highlights of the biennium (M. F. Fathalla & T. Varagunam)	17
Chapter 3. The Programme in numbers (O. Ayeni, A. Pinol, E. M. Belsey & T.M.M. Farley) ..	33
Chapter 4. Coordination and collaboration (J. Barzelatto)	49
Chapter 5. Management and financial matters (E. Roed)	55
Chapter 6. Strategies of the Special Programme (M. Fathalla & T. Varagunam)	67

Part II Research and development

Chapter 7. Safety and efficacy of fertility regulating methods (S. Holck & H.Bathija)	85
Chapter 8. Behavioural and social determinants of fertility regulation (A. Mundigo & I. H. Shah)	107
Chapter 9. Long-acting methods of fertility regulation (P. E. Hall & C. d'Arcangues)	129
Chapter 10. Post-ovulatory methods of fertility regulation (P. F. A. Van Look)	153
Chapter 11. Vaccines for fertility regulation (P. D. Griffin)	177
Chapter 12. Male fertility regulation (G. M. H. Waites)	199
Chapter 13. Plants for fertility regulation (P. D. Griffin)	229
Chapter 14. Methods for the natural regulation of fertility (P. F. A. Van Look)	243
Chapter 15. Prevention and management of infertility (P. J. Rowe & T. M. M. Farley)	265

Part III Resources for research

Chapter 16. Africa (J. Kasonde)	289
Chapter 17. Asia (E. W. Wilson)	299
Chapter 18. People's Republic of China (F. T. G. Webb)	309
Chapter 19. Latin America (T. Varagunam)	323
Chapter 20. Programme on standardization and quality control of laboratory procedures (F. Michal)	335

Part IV The future

Chapter 21. Research needs in human reproduction (M. F. Fathalla)	341
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Foreword

The Special Programme of Research, Development and Research Training in Human Reproduction has hitherto reported on its activities on a yearly basis, with the last, Fourteenth Annual Report, being published in December 1985. In that year, the Programme's governing bodies recommended that the Programme should report on its activities every two years, in keeping with the change from an annual to a biennial budgetary cycle which occurred at the same time. This first Biennial Report, covering the years 1986-1987, has been produced in response to this recommendation.

As in the past, the Report describes the most important activities of the Programme. This time, however, an attempt has been made to review these activities in a broader context with a view to indicating how the Programme's achievements relate to those of other organizations active in the field.

The Report is divided into four parts. Part I describes the policies and strategies of the Programme, as well as its managerial and organizational structures, and provides an overview of the biennium. Part II summarizes the research and development activities supported by the Programme during the biennium. Part III documents the institution strengthening efforts of the Programme in developing countries. It should be borne in mind that the division between Parts II and III is artificial, since the activities described in the two Parts are closely integrated. Finally, Part IV reviews the global needs for research in reproductive health expressed by WHO Member States, particularly in the developing world. These varied, complex and pressing needs constitute a major challenge for the Programme in the future.

The authors of the twenty-one chapters in this Report are the Programme staff members responsible for the management of the activities described. The final responsibility for all aspects of the Report, including any shortcomings, rests with the Director of the Programme.

Dr José Barzelatto, Director

Part I Overview

Continuity and Change

J. Barzelatto

Reproductive health is an implicit goal of development. Yet poor health of the population can be an obstacle to national development, and other demographic circumstances can be detrimental. In some parts of the world sheer numbers, large or small, can slow development, in others the high growth rates can pose limiting constraints upon government efforts to improve the health and living standards of the population.

POVERTY EXPLOSION AND DEVELOPMENT

The last few years have shown an increased awareness of the need for a more comprehensive and hence more in-depth analysis of population trends (World Bank, 1984; Brown and Jacobson, 1986). Monitoring the classical parameters of the demographic transition is not sufficient. Roughly half of the world, including the industrialized countries and China, has completed or is very near to completing its demographic transition. These countries are characterized by a population growth of 1% per year or less and by improved living conditions. The rest of the world, comprising 2.6 billion people, shows a rapid population growth of over 2% per year. The demographic middle ground has practically disappeared. Among rapidly growing regions, some countries are likely to complete their demographic transition soon, while some may be falling into the so-called "demographic trap": "If countries are in the middle stage of the transition for too long, rapid population growth and the associated ecological and economic deterioration may prevent them from reaching the

equilibrium of the final stage" (Brown and Jacobson, 1986). In fact, they could regress to the initial equilibrium of high birth and death rates, with sustained decline in living standards. Some African countries may be on the verge of this new demographic situation, that arises from a detrimental interaction of social, economic and ecological variables. The biological concept of carrying capacity, that is, the relationship between a population, its activities and the surrounding environment, can be applied to an entire ecosystem or even to a country. This concept helps in bringing together population dynamics with agricultural resources, like land, water and forests, food and energy production as well as economic and social trends. Such a holistic approach allows a better understanding of development options and plans and should help policy makers formulate population policies responsive to the national needs of their countries.

Given present knowledge one could say that in one hundred years or so the population of the world will stop growing and that our planet has the potential to feed its projected stationary population of 10-11 billion individuals. Such a simplistic statement would ignore the fact that the doubling of the world population during the coming century will occur almost exclusively among the poor of the world. The critical question is whether our present political and social systems can cope with this "poverty explosion" (Barzelatto, 1987a).

The response the world must provide to solve these problems is difficult and complex. Family planning is one ingredient of this

response, only one among many, but an essential one. Furthermore, regardless of demographic considerations, family planning is an absolute health requirement. Evidence continues to accumulate in most developing countries, indicating the considerable importance of appropriate timing and spacing of pregnancies in respect to morbidity and mortality of the mother and her children.

CORNERSTONES OF REPRODUCTIVE HEALTH POLICY

At the national level, human reproduction must be analysed in this broader and more holistic context in order to ensure an optimal use of limited resources in approaching the four main components of reproductive health policy:

Family planning. All individuals and couples have the right to have the number of children they want at the time they choose, with the fullest possible knowledge of the personal and social consequences of their decisions and with access to the means for implementing them.

Maternal care. Every woman has the right to have access to the best possible health care that can be provided to ensure a successful outcome of her pregnancy.

Infant and child care. Parents, family and society have the obligation to provide every child with the best possible means to develop their full potential.

Control of sexually transmitted diseases. This is another basic need in reproductive health, which has been made more urgent by the recent surge of the AIDS pandemic.

It is recognized that there are important interactions among these four "cornerstones" of reproductive health policy; hence research in reproductive health must be responsive to each of these main issues. Research needs in human reproduction today are analysed in Chapter 21 of this Report. It is clear that the status of

reproductive health in the world is very poor, the magnitude of the problem is huge and the situation is characterized by the inequity of being almost exclusively a developing-country problem. Given the political, social and economic reality of the world today it is unlikely that this unbalanced situation will improve significantly, at least not in the near future. A major international effort to respond to this challenge seems necessary and in this effort research has a major role to play (Barzelatto, 1987b). Although in general terms the response is insufficient, several new activities like the Safe Motherhood Initiative and the global effort in response to the challenge of AIDS, are being added to existing international research programmes.

THE MANDATE

The WHO Special Programme of Research, Development and Research Training in Human Reproduction has, at present, the following mandate:

"The Special Programme is a global programme of international technical cooperation initiated by WHO to promote, coordinate, support, conduct and evaluate research in human reproduction with particular reference to the needs of developing countries, by:

(i) promoting and supporting research aimed at finding and developing safe and effective methods of fertility regulation as well as identifying and eliminating obstacles to such research and development;

(ii) identifying and evaluating health and safety problems associated with fertility regulation technology, analysing the behavioural and social determinants of fertility regulation, and testing cost-effective interventions to develop improved approaches to fertility regulation within the context of reproductive health services;

(iii) strengthening the training and research capability of developing countries to conduct research in the field of human reproduction;

(iv) establishing a basis for collaboration with other programmes engaged in research and development in human reproduction, including the identification of priorities across the field and the coordination of activities in the light of such priorities" (WHO, 1987a).

The mandate of the Programme thus covers all aspects of human reproduction, as they relate to the research needs of developing countries. In the research effort, however, the emphasis is on methods of fertility regulation including both contraception and the prevention and management of infertility. This emphasis includes the development of new methods and evaluating and improving the performance of existing methods as well as generating knowledge on prevailing social and cultural patterns underlying their use. In the area of research capability strengthening, and in the coordinating role of the Programme, the emphasis is not limited to fertility regulation, but embraces the broad field of research in human reproduction.

PROGRAMME ACTIVITIES

The Programme is now 16 years old and can show a successful record of achievements as documented in a recent review (Diczfalusy, 1986). During the first twelve years the emphasis was only on fertility regulation, including both contraception and infertility. The strategy was to develop a global and multidisciplinary research effort to evaluate and improve existing methods of fertility regulation as well as to develop new and better ones, particularly suitable for use in developing countries. This strategy required strengthening of research institutions in developing countries. This strategy was successfully implemented. The Special Programme has contributed in a significant way to the establishment of a world-wide network of centres that are collaborating in an effective way with WHO and with other international programmes in a global research and development effort to facilitate the conduct of clinical studies of methods of fertility regulation. The Special Programme through its Task Forces -- a

multinational and multidisciplinary research collaboration mechanism -- has become the major source of data relating to the safety and efficacy of existing methods of fertility regulation on a truly global basis. New fertility regulating methods developed by the Special Programme are beginning to be introduced into family planning programmes in developing countries and a number of other new methods are at an earlier stage of development. A description of the progress in all these activities constitutes the bulk of this Biennial Report and the highlights are reviewed in the following chapter.

INCREASED RESPONSE TO COUNTRY NEEDS

During the past few years the Special Programme has initiated a significant reorientation of its Resources for Research efforts in order to be more responsive to developing country needs in reproductive health in general, whilst maintaining its activities in the field of fertility regulation. The intention is to help developing countries to establish their research infrastructure in this area of health research, giving priority to epidemiological and social science capability to allow these countries to accurately diagnose their own reproductive health problems and to investigate the best way of utilizing their limited resources to solve them (see Chapter 21).

PRESENT STRATEGY

Hence, today, the strategy of the Programme is two-fold:

(a) a global research effort, to promote and support the improvement of existing fertility regulating methods and the development of new ones, with special emphasis on the evaluation of their safety and the social and behavioural aspects of their use;

(b) support of country research efforts, in response to national needs and priorities as perceived by developing countries, in the broad

area of reproductive health, but with continued emphasis on family planning.

The first approach is as justified now, if not more so, than 16 years ago. There is an increasing demand for a large variety of better, culturally more acceptable and more affordable methods of fertility regulation all over the developing world. In respect to contraception this demand is convincingly documented by (a) the significant number of women who do not wish to have more children, but do not use any contraceptive method, (b) the increasing percentage of couples who adopt contraceptive methods, but discontinue their use rather soon, (c) the dramatic increase in the number of people, particularly women, undergoing sterilization at earlier and earlier ages, and (d) the number of abortions occurring worldwide (Tietze and Henshaw, 1986; Cleland and Scott, 1987; Vaessen, 1988).

The demand for better management and prevention of infertility is documented by the magnitude of the problem of infertility in developing countries (WHO 1986, WHO 1987b) and by the proliferation of private *in-vitro* fertilization clinics even in developing countries.

In contrast to the increasing demand for better methods, the world has been progressively decreasing its investment in research in human reproduction during the last decade (Harkavy, 1987). Large pharmaceutical companies have contributed significantly to this situation by retreating partially or completely from this area of research and development mainly due to concerns about legal liabilities (Isaacs and Holt, 1987) and about ideologically based boycotts of their products in some developed countries.

Justification for the second approach is based on the inequity in reproductive health between developing and industrialized countries. The appalling reality of unacceptably high maternal and child morbidity and mortality, the magnitude of the abortion problem and the high incidence of sexually transmitted diseases require action today. Family planning is a central piece of the jigsaw that must be put together to improve this situation. Many aspects of this

urgently needed action do not have to await the development of new technologies since existing ones -- when delivered properly -- can dramatically reduce the incidence of the conditions mentioned above. Research on a national basis is required to optimize the scarce resources available.

COORDINATION, STANDARDIZATION AND INFORMATION

In addition to direct support of research following the two strategies described above, the Programme is playing, in recent years, an increasing role in coordinating and facilitating research and development efforts in this area, especially in respect of international and national research programmes dealing with reproductive health (see Chapter 4). This coordinating role of the Programme is complemented by other activities that have also increased in recent years, like providing standards and guidelines in its field of competence, ranging from laboratory procedures to guidelines for safety requirements for new contraceptive methods. The Programme is also promoting scientific meetings, particularly in developing countries, to contribute to the diffusion of information on recent advances in the field and to promote the cross fertilization of ideas. Furthermore, the Programme continues to play an important role in advising governments, at their request, on technical matters related to human reproduction. Last, but not least, the traditional concern of the Programme about ethical standards (Barzelatto, 1988) is being expanded to promote an international and intercultural dialogue on bioethical matters.

SUPPORT TO THE PROGRAMME

The progress achieved, the reorientation of some activities and the expansion of the Programme, have been possible because of the continuous and generous support of the scientific community that runs the Programme through its different committees and that has carried out the research described in this Biennial Report. Progress could not have been possible without the increasing financial support of governments,

both from industrialized and from developing countries, as well as from some non-governmental institutions (see also Chapter 5).

recent policy changes received the unanimous support of the Executive Board of the World Health Organization in January 1988, resulting in Resolution EB81.R6 (see box at the end of the chapter).

Progress made by the Programme and

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(* Denotes publication resulting from studies supported by the Special Programme)

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Executive Board Resolution EB81.R6

The Executive Board,

Having considered the Director-General's progress report on the Special Programme of Research, Development and Research Training in Human Reproduction:¹

1. THANKS the Director-General for his report;
2. NOTES with satisfaction the progress made by the Special Programme;
3. REQUESTS the Director-General to submit to the Executive Board in 1990, through its Programme Committee, the report on the third external evaluation of the Programme;
4. RECOMMENDS to the Forty-first World Health Assembly the adoption of the following resolution:

The Forty-first World Health Assembly,

Having considered the progress report submitted by the Director-General, on the Special Programme of Research, Development and Research Training in Human Reproduction;¹

1. ENDORSES the policy guidelines outlined by the Director-General, with particular attention to the role of the Programme in:
 - (a) the continued assessment of existing technologies and the acceleration of the development of new technologies in fertility regulation;
 - (b) the building-up of national self-reliance in research on all aspects of human reproduction in developing countries to meet their specific needs in primary health care;
 - (c) promoting scientific and technical cooperation between developed and developing countries, and between developing countries;
 - (d) coordination of the global research effort in the field of reproductive health;
 - (e) promoting ethical practices in the field of human reproduction research to protect the health and rights of individuals in different social and cultural settings;
2. REAFFIRMS the close relationship between family planning, health and development;
3. EMPHASIZES the importance of ensuring the rapid and widespread application of the results of research supported by the Programme in the national health strategies and programmes of countries;
4. APPROVES the co-sponsorship of the Programme by the World Bank, the United Nations Development Programme and the United Nations Fund for Population Activities, as outlined in the report of the Director-General;
5. URGES Member States to contribute, or to increase their contributions to the Programme in order to accelerate the achievement of its objectives at the approved level.

¹Document EB 81/22.