

DIRECTIONS IN DEVELOPMENT

-15457 March 1996-

India's Family Welfare Program

Moving to a Reproductive
and Child Health Approach

ANTHONY R. MEASHAM
RICHARD A. HEAVER



India's Family Welfare Program

**Moving to a Reproductive
and Child Health Approach**

Directions in Development

Begun in 1994, this series contains short essays, written for a general audience, often to summarize published or forthcoming books or to highlight current development issues.

Africa's Management in the 1990s and Beyond: Reconciling Indigenous and Transplanted Institutions

Building Human Capital for Better Lives

Financing Health Care in Sub-Saharan Africa through User Fees and Insurance (also available in French)

Improving Early Childhood Development: An Integrated Program for the Philippines (with a separate supplement)

Investing in People: The World Bank in Action
(also available in French and Spanish)

Meeting the Infrastructure Challenge in Latin America and the Caribbean
(also available in Spanish)

MIGA: The First Five Years and Future Challenges

Nurturing Development: Aid and Cooperation in Today's Changing World

Nutrition in Zimbabwe: An Update

Private and Public Initiatives: Working Together for Health and Education

Private Sector Participation in Water Supply and Sanitation in Latin America

Reversing the Spiral: The Population, Agriculture, and Environment Nexus in Sub-Saharan Africa (with a separate supplement)

A Strategy for Managing Water in the Middle East and North Africa
(also available in Arabic and French)

Taxing Bads by Taxing Goods: Pollution Control with Presumptive Charges

Toward Sustainable Management of Water Resources

Unshackling the Private Sector: A Latin American Story

The Uruguay Round: Widening and Deepening the World Trading System

*Water Supply, Sanitation, and Environmental Sustainability:
The Financing Challenge*

DIRECTIONS IN DEVELOPMENT

India's Family Welfare Program

**Moving to a Reproductive
and Child Health Approach**

Anthony R. Measham
Richard A. Heaver

The World Bank
Washington, D.C.

© 1996 The International Bank for Reconstruction
and Development / THE WORLD BANK

All rights reserved
Manufactured in the United States of America
First printing March 1996

The findings, interpretations, and conclusions expressed in this study are
entirely those of the authors and should not be attributed in any manner to
the World Bank, to its affiliated organizations, or to the members of its Board
of Executive Directors or the countries they represent.

Cover photograph of a Rajasthani mother and child by Curt Carnemark.

Library of Congress Cataloging-in-Publication Data

Measham, Anthony R.

India's family welfare program : Moving to a reproductive and
child health approach / Anthony R. Measham, Richard A. Heaver.

p. cm. — (Directions in development)

Includes bibliographical references.

ISBN 0-8213-3448-4

1. Family policy—India. 2. Birth control—India. I. Heaver,
Richard, 1952–. II. Title. III. Series: Directions in
development (Washington, D.C.)

HV700.14M43 1995

363.9'0954—dc20

95-52404

CIP

Contents

Preface	vii
Acronyms	ix
Overview	1
The Indian Family Welfare Program and Its Context	2
Key Issues	3
Contraceptive Targets and Incentives	4
Contraceptive Method Mix	4
Strengthening the Public Sector Program: Managing for Quality and Client Satisfaction	5
A Package of Essential Reproductive and Child Health Services	5
1. Background and Scope	11
2. Progress to Date	14
Program Development	15
The Unfinished Agenda	17
Major Issues	19
3. Essential Reproductive and Child Health Services	25
A Package of Essential Reproductive and Child Health Services	25
Additional Reproductive and Child Health Services	30
The Need for Advocacy	31
4. The Public Sector Program: Managing for Quality and Client Satisfaction	33
Changes in Policy and Implementation	33
Responding to Clients' Needs	37
Supporting the Frontline Workers	40
Strengthening the Referral System	44
Summary	44
5. The Private Sector: Making Use of Untapped Potential	45
Social Marketing	45
Private Medical Practitioners	48
Private Voluntary Organizations	49

6.	Financing the Reproductive and Child Health Program	51
	Current Resources Allocated to the FWP	51
	Future Funding Requirements	53
	Funding as a Performance Incentive	56
	Bibliography	57

Preface

This report focuses on one important aspect of the broad range of population policy issues that India faces: how the Family Welfare Program can carry out the commitment given at the Cairo population conference to implement a client-centered approach that responds more effectively to the reproductive health and family planning needs of women and men in India. This report makes preliminary estimates of the cost of implementing this approach. Additional discussion of how to finance these costs is contained in the report on health finance (World Bank 1995e) and the India Country Economic Memorandum.

The adoption of this focused approach does not mean that facilities and the “supply” of family welfare services are considered the only factors that are important for promoting fertility reduction. The report recognizes that developmental factors—in particular, girls’ education—are important determinants of fertility declines and reproductive, child, and overall health outcomes. However, these “demand-side” issues are not explored here. They are being addressed more thoroughly in other studies, that are investigating the roles of demand and supply factors in promoting fertility reduction.

It will be important in moving toward a reproductive and child health approach for the government to take careful account of links between family welfare and other health services. It will also be important to take account of the emerging role of the private and voluntary sectors, particularly as they develop in the increasingly dynamic Indian economy.

The report is a “living document” in the sense that the issues covered in it are the subject of ongoing discussions at the central and state levels and in the broader policy and research community. It is the product of extensive collaboration between the government of India, the states, and the World Bank team that drafted it. Earlier drafts of the report were discussed in detail in meetings chaired by the secretary of family welfare, in which state secretaries of family welfare and other high-level officials and experts participated. Written comments and suggestions from the government of India and the states have been incorporated into the report.

The work was carried out by a team led by Anthony R. Measham (adviser, population, health, and nutrition and mission leader) and composed of Meera Chatterjee (senior social development officer), Harry Cross (the Futures Group, Washington, D.C.), Catherine Fogle (population specialist), Gillian Foo (consultant), Richard A. Heaver (consult-

ant), Anrudh Jain (Population Council, New York), M. E. Khan (Population Council, New Delhi), Tom Merrick (adviser, population), Sudhir Mehra (consultant), Indra Pathmanathan (public health specialist), Saroj Pachauri (Population Council, New Delhi), V. J. Ravishankar (economist), John Townsend (Population Council, New Delhi), Prem Talwar (consultant), Anne Tinker (senior health specialist), and Caby Verzosa (population specialist).

The text was written by Anthony R. Measham and Richard A. Heaver, under the overall direction of Richard Skolnik, chief, Population and Human Resources Operations Division, and Heinz Vergin, director, South Asia Country Department 2 (Bhutan, India, and Nepal) both of the World Bank. The sections in the supplement volume and background papers were contributed by Tom Merrick, Anrudh Jain, Meera Chatterjee, Richard Heaver, Saroj Pachauri, Caby Verzosa, John Townsend, M. E. Khan, Indra Pathmanathan, and V. J. Ravishankar. Comments on the text were received from peer reviewers Shanti Conly (Population Action International), Peggy Curlin (Center for Development and Population Activities), Maria MacDonald, and Christopher Walker, and from Tawhid Nawaz and Keith Hinchliffe. Thanks go to Sarah Brijnath and Shirin Sen for excellent support and word processing assistance.

The team wishes to express its thanks for the encouragement and extensive collaboration of the Ministry of Health and Family Welfare and in particular to V. K. Shunglu, former secretary; J. C. Pant, secretary; Adarsh Misra, joint secretary; K. S. Sugathan, joint secretary; and Rita Menon, director, Department of Family Welfare. The team made field trips to Karnataka and Uttar Pradesh in October 1994 and to Madhya Pradesh and West Bengal in February 1995 and wishes to thank Gautam Basu, Sumita Khandpal, G. S. Shukla, Lina Chakraborti, and their colleagues for their excellent hospitality and collaboration.

To provide a smaller, more accessible volume for the nontechnical reader, the ten annexes to the original report are being published in a separate companion volume, *Supplement to India's Family Welfare Program*.

Acronyms

AIDS	Acquired immunodeficiency syndrome
FWP	Family Welfare Program
HIV	Human immunodeficiency virus
ICDS	Integrated Child Development Services scheme
IUD	Intrauterine device
NFHS	National Family Health Survey
PVO	Private voluntary organization

Box 1. Major Recommendations

Overall recommendation

- Reorient the Family Welfare Program, as quickly as possible, to a reproductive and child health approach that meets the health needs of individual clients and provides high-quality services.

Public sector recommendations

- Eliminate method-specific contraceptive targets and incentives and replace them with broad reproductive and child health goals and measures.
- Increase the emphasis on male contraceptive methods and broaden the mix of contraceptive methods.
- Improve the access to reproductive and child health services.
- Respond more effectively to client needs, for example, by listening to clients' preferences and by improving the quality of services
- Increase support for the frontline workers, for example, by enhancing the quality of training and providing adequate supplies.
- Improve the referral system, especially for essential obstetric care, by strengthening the primary health centers and first referral units.

Private sector recommendations

- Increase the role of the private sector, especially by revitalizing the social marketing program and adding health and nutrition products, expanding the use of private medical practitioners in the provision of reproductive and child health services, and continuing to encourage experimentation and an expansion of the role of the private sector in implementing publicly funded programs, monitoring the experiments, and identifying best practices for dissemination systemwide.

Finance recommendations

- Increase the budget for reproductive and child health to meet the staffing and other critical gaps, to enhance service quality, and to offer an essential reproductive health package.
- Use funding as an incentive to reorient the program toward a reproductive and child health approach.

Overview

The 1994 Cairo International Conference on Population and Development formalized a growing international consensus that improving reproductive health, including family planning, is essential to human welfare and development. This consensus recognizes a crucial distinction between the overall goals of population policy and those of a reproductive health program. The principal goal of a reproductive health program is to reduce unwanted fertility safely and to provide high-quality health services, thereby satisfying the needs of individuals, as well as stabilizing the population. A growing body of evidence and the consensus achieved in Cairo suggest that India's present system of numerical, method-specific targets and monetary incentives for providers should be replaced by a broader system of performance goals and measures that focuses on a range of reproductive health services. The evidence also suggests that setting a broad range of reproductive health goals reduces fertility and enhances client satisfaction and health. The government of India strongly supports the Cairo program of action and the reproductive health approach, as reflected in the India country report prepared for the Cairo conference and the 1992 Action Plan for Revamping the Family Welfare Programme in India, (see India, MOHFW 1992, 1994a; section A in the supplement volume).

In collaboration with India's Ministry of Health and Family Welfare, a World Bank team identified the major constraints affecting India's Family Welfare Program (FWP) and recommended ways in which these constraints might be overcome. This report, which is a result of that effort, recommends that the program be reoriented expeditiously toward an approach that emphasizes reproductive and child health, with the main objectives of meeting the health and family planning needs of the individual and providing high-quality services (box 1). Reproductive health can be defined as a state in which "people have the ability to reproduce and regulate their fertility; women are able to go through pregnancy and childbirth safely; the outcome of pregnancy is successful in terms of maternal and infant survival and well-being; and couples are able to have sexual relations free of the fear of pregnancy and of contracting disease" (Fathalla 1988). This report also encompasses child health, which is an integral part of India's FWP.

The Indian Family Welfare Program and Its Context

The government of India has taken several policy initiatives in recent years. A high-level population committee was set up in December 1991 as a subcommittee of the National Development Council, which includes all chief ministers of the states. The committee made recommendations to the Council for formulating a national policy and establishing mechanisms to implement it. In May 1994 an expert group constituted by the Department of Family Welfare issued a draft report for a national population policy (India Planning Commission 1994). The report is now being considered by the government.

Today India faces a demographic and health situation that is radically different from the conditions prevailing when the national family planning program was launched in 1951. In the intervening period, mortality fell by nearly two-thirds, fertility declined by about two-fifths, and life expectancy at birth almost doubled. India's population has more than doubled since 1961. The decline in mortality and fertility ran roughly in parallel for many years, so that the population growth rate remained above 2 percent a year until 1991. By 1992, India had achieved 60 percent of its goal of replacement fertility (2.1 births per woman), with fertility having declined from about 6.0 to 3.6 births per woman. Demand for fertility reduction is high, and meeting the unmet demand for family planning would take India more than half way to achieving the remaining distance to replacement fertility. Other factors, such as female education and employment, that increase the demand for smaller families are also moving in a direction that assures the continuing decline in fertility and the population growth rate.

The FWP, now in its fifth decade, has made an important contribution toward improving the health of mothers and children and providing family planning services. Now slightly over more than 40 percent of eligible couples use some form of contraception. For the past decade, the program has gradually shifted away from a predominant focus on family planning and toward a broad effort to improve maternal and child health. In 1992, the Ministry of Health and Family Welfare developed a far-sighted action plan to strengthen the program, including several recommendations that are congruent with the reproductive health approach. This plan responded to a series of reports and analyses highlighting constraints that limited the effectiveness of the program. Also in 1992, India took a further significant step toward adopting the reproductive health approach when it initiated the Child Survival and Safe Motherhood Program. The current achievements and goals of the FWP are given in table 1.

Although India has been a leader in developing health and population policies, major implementation problems have plagued the FWP for more than two decades: many who need the services are not reached, most of

those reached do not have access to the range of services they need, and the quality of services is often unsatisfactory. Issues of access and quality are therefore the key elements of the unfinished agenda. Of course, further improvements in the quality of and access to other social services—especially education for girls—will be critical determinants of the ability of the FWP to reduce fertility and improve family health.

Key Issues

Five key issues are receiving substantial attention but so far remain unresolved:

- Moving away from numerical, method-specific contraceptive targets and incentives to a client-centered system of performance goals and measures
- Expanding the use of male and reversible contraceptive methods and broadening the choice of contraceptives
- Improving the breadth, availability, and quality of services and involving communities in managing the public sector program
- Strengthening the role of the private sector in the program
- Assuming adequate funding for the current program and for the expansion implicit in adopting the reproductive health approach.

Table 1. Achievements and Goals of India's Family Welfare Program, 1951–2000

<i>Parameters</i>	<i>1951–61</i>	<i>1981</i>	<i>1992</i>	<i>1983 national health policy goals by 2000</i>
Crude birth rate	41.7	37.2	28.7 (SRS 1993)	21
Total fertility rate	6.0	4.5	3.6 (SRS 1992)	0
Infant mortality rate (per 1,000 live births)	146.0	110.0	74.0 (SRS 1993)	60
Couple protection rate (percent)	10.4 (1970–71)	22.8	45.4 (March 1994)	60
Estimated number of births averted (millions)	0.04	44.2	168.8 (March 1994)	0
Life expectancy at birth (years)	41.3	50.5 (1971–81)	58.6 (1986–91)	0

Note: SRS, Sample Registration System.

Contraceptive Targets and Incentives

The current contraceptive target and incentive system emphasizes demographic planning, which is antithetical to the reproductive and child health, client-centered approach advocated in the India country report prepared for the Cairo conference. In particular, emphasis on numerical targets is a major reason for the lack of attention paid to the needs of individual clients and is detrimental to the quality of services provided. Even before the Cairo conference, the government of India had initiated discussions with women's groups, nongovernmental organizations, and other experts regarding alternative performance goals. Numerical targets should be replaced by a broad set of performance goals and measures on the general lines of those successfully employed for the past six years in the Bombay and Madras Urban Slums Family Welfare Project. Moreover, provider, motivator, and acceptor incentives should be dropped. The issue has been discussed with the states, but no consensus on dropping the incentives has yet been reached.

At the suggestion of the central government, the states eliminated method-specific contraceptive targets in at least one district beginning in April 1995. These districts provide an excellent opportunity to replace these targets with a set of indicators specific to reproductive and child health, to test the feasibility of providing a package of essential reproductive and child health services, to assess its cost, and to evaluate whether it enhances the ability of couples to avoid unwanted pregnancies safely.

Contraceptive Method Mix

A second major reason for the problems evident in the FWP is that not enough emphasis is placed on reversible methods of contraception. According to the 1992–93 National Family Health Survey, "The focus of the family welfare program on permanent methods of contraception is evidently not satisfying the needs of a large group of women in India who wish to space their births. The encouragement of spacing methods for women who want more children would be likely to lower overall fertility and population growth, as well as to provide health benefits to both mother and children" (International Institute for Population Sciences 1994a: 183). Demand for sterilization is high and should be met. Although wanted fertility is close to replacement level in ten states, satisfying the unmet demand for reversible contraceptive methods in four major states, as well as others, constitutes an important challenge.

Greater emphasis should be placed on male contraceptive methods, especially vasectomy and condoms, and choice of methods.

Strengthening the Public Sector Program: Managing for Quality and Client Satisfaction

Shifting to the reproductive health approach implies changing the implementation signals sent to 250,000 family welfare staff. Client satisfaction would become the program's primary goal, with demographic impact a secondary, though important, concern. Broadening the package of services is necessary, and improving the quality of services becomes the top priority. A quiet revolution is necessary in the way the program is planned and managed. The required changes in signals are summarized in table 2.

To help change the signals, specific actions should be taken in five areas:

- Define a package of essential services
- Improve access to good-quality services

Table 2. Changing the Signals of the Family Welfare Program to a Reproductive and Child Health Approach

<i>Category</i>	<i>Old signal</i>	<i>New signal</i>
Primary goal	Meet norm of two-child family	Still encourage smaller families, but help clients to meet their own health and family planning goals
Priority services sterilization	Family planning, especially female	Full range of maternal and child health services
	Immunization	Full range of maternal and child health services
Performance measures	Number of cases	Quality of care, client satisfaction, coverage measures
Management approach	Top-down, target driven	Decentralized, driven by client needs
	Male dominated	Gender sensitive
Attitude to client	Motivate, persuade	Listen, assess needs, inform, advise
Accountability	To the bureaucracy	To the client and community, plus health and family welfare staff

- Make services more responsive to client needs
- Make sure frontline workers have the skills, support, and supplies they need
- Strengthen the referral system.

A Package of Essential Reproductive and Child Health Services

Table 3 summarizes recommendations for a package of essential reproductive and child health services in India. Recognizing the wide variation in health infrastructure, staffing, and overall capacity in different parts of India, this package of essential services should be available everywhere; additional services are recommended for selected districts and urban areas. Three points deserve emphasis. First, most of the services included in the essential package are already included in the FWP but often are not provided for want of resources, adequate training, and other reasons. Second, child survival interventions are also included. While some reproductive health interventions benefit both women and children, others, such as treatment of diarrheal disease in children, do not. Nevertheless, since women and children form a dyad,

Table 3. Recommended Package of Reproductive and Child Health Services

<i>Essential package nationwide</i>	<i>Additional services in selected districts</i>
Family planning	Growth monitoring, nutrition education, and food supplementation for children under six and pregnant and lactating women (through Integrated Child Development Services)
Safe abortion	Reproductive health services for adolescents
Safe motherhood	Diagnosis and treatment of cervical cancer
Prevention and management of reproductive tract and sexually transmitted infections	Advanced diagnosis and treatment of reproductive tract and sexually transmitted infections
Child survival	
Health, sexuality, and gender information, education, and counseling	
Referral services for all of the above interventions	

Table 4. Summary of Recommended Management Interventions to Strengthen the Family Welfare Program

<i>Intervention</i>	<i>Is it feasible?</i>	<i>Is it low cost?</i>
<i>Improve access to services</i>		
Make work routines more efficient	Yes	Yes
Give auxiliary nurse-midwives more help from other workers	Yes	Yes
Make sure workers are resident	Yes	Yes
Make sure workers are mobile	Yes	No
Hire more female workers	Yes	No
<i>Respond to client needs</i>		
Listen to clients' needs (two-way information, education, communication)	Yes	Yes
Develop district plans meeting local needs	Yes	Yes
Capitalize on opportunities of Panchayati Raj	Yes	Yes
<i>Support the frontline workers</i>		
Broaden the range of performance measures in the management information system	Yes	Yes
Improve the quality of inservice and preservice training	Yes	Fairly
Redesign the focus of supervision to on-the-job training	Yes	Yes
<i>Improve the referral system</i>		
Train field staff to recognize referral needs	Yes	Yes
Strengthen the first referral unit network	Yes	No
Strengthen the primary health care center network	Yes	No

and programs naturally wish to provide services to both elements of the dyad, services for both should be included.

A third important point is that the services included in table 3 are among the most cost-effective health interventions. Although some elements of the package necessarily are more cost-effective than others, improvements in health depend on making the whole set available. Consequently, no priorities are set for interventions within the essential package. If sufficient resources are not available to provide the whole package, it is better to introduce the whole package in phases than to strengthen individual services on a piecemeal basis.

Strengthening Service Delivery

Table 4 summarizes the main management interventions required to strengthen the reproductive health focus and improve quality and client satisfaction in the FWP. All of these recommendations are deemed important, but special emphasis should be placed on efforts to increase community involvement in assuring that the program meets client needs. In many areas, the growing responsibility and capacity of the local government institutions

provide an excellent opportunity to make the program more responsive and accountable to clients. A major effort is also required to increase the involvement of women's and other community groups in setting priorities, identifying clients, monitoring progress, and disseminating information.

Tapping into the Private Sector

The private sector accounts for more than three-quarters of all health care expenditure in India. It focuses mainly on curative care, quality is variable, and the poorest groups cannot always afford its services. Although the private sector provides some reproductive health services, the poor rely mainly on the public sector for preventive care and hospital services. Nevertheless, the private sector offers substantial potential for increasing the coverage of reproductive health services. In some instances—for example, contracting private doctors—public sector financing and private sector provision are feasible. This would give clients a wider choice and also enhance the quality of service. Considerable experimentation is under way to involve the private sector in the delivery of state programs. These experiments should be monitored to see whether emerging innovations could have broader application in other localities.

The scope for further evolution of the private sector's role notwithstanding, for the near term, the private sector can contribute most through the social marketing of reproductive health services and products. To achieve this, the following actions are required:

- Broaden the range of products to include other health and micro-nutrient products
- Assign high priority to the social marketing of oral contraceptives
- Expand the market, especially in rural areas
- Improve the condom marketing program
- Strengthen the management of the social marketing program.

A second area of untapped potential is the involvement of private medical practitioners, both indigenous and allopathic, in providing reproductive health services, as well as the contribution of private voluntary organizations (pvos), which have proved effective at mobilizing the community and providing high-quality services.

Financing the Reproductive and Child Health Program

The government will need to phase in the reproductive and child health approach gradually. First, it will need to fill critical gaps in inputs at the existing FWP facilities. Second, and somewhat parallel to the first step, it will need to expand services to areas that are not now served and that

do not have, and are not likely to have for some time, other suppliers of these services. In carrying out both of these steps, the government will need to take careful account of the links between the FWP and other health activities and the emerging role of the private and voluntary sectors. Finally, it is critical that services be adequately financed, so that they are of acceptable quality and likely to achieve their aims.

Current underfinancing. The government of India spends considerably less on family planning and maternal and child health services than many developing countries. At about Rs19 or \$0.61 per capita a year, the government in fact spends less on family planning and maternal and child health than the \$0.90 recommended for family planning services alone by the *World Development Report 1993: Investing in Health* (World Bank 1993c).¹ Moreover, India has not been able to meet its own current funding norms for the FWP, and the central government continues to be in arrears to the states in allocating resources for the program.

Financing needs. If all of the costs of providing the reproductive and child health package of services nationally were funded by the public sector, the government would incur the following additional costs: (a) those that would be incurred in meeting the government's own staffing, facility, drugs, medicine, and other supply norms and in fully funding the existing FWP and (b) those that would be generated by services that are currently not covered under the FWP but would be incurred in providing the package of essential reproductive and child health services nationally and additional services in selected districts. If the government were to bear the total cost of shifting to the reproductive and child health approach, the cost of the two components, over a five-year period, would be approximately \$1.7 billion (scenario B in chapter 6).²

Under this scenario, the additional costs associated with meeting the government's norms and fully funding the existing program would comprise about 83 percent of the incremental costs; only 17 percent of the incremental costs would be associated with the provision of additional services. The capital costs would be Rs21.5 billion, or around \$700 million, over five years. The recurrent costs would be Rs32.1 billion, or about \$1.03 billion. These numbers suggest that under a scenario in which the public sector funds the program totally, an 8.9 percent increase in recurrent costs each year in real terms for the FWP would be needed until fiscal 2000.

It is possible, however, that some reproductive and child health services may be provided by the private sector and PVOs where opportunities exist. In addition, priority for public expenditure should be based on the satisfactory operation and maintenance of existing services as India moves to the reproductive and child health package of services.

Moreover, it will also be critical to base any expansion of facilities on well-defined criteria that take into account, among other things, the need, demand, equity, and the possibilities for private and voluntary services in the area. To the extent that these sectors are able to provide services and that the requirements for public financing of facilities are reduced, the capital and recurrent costs required of the public sector will also be less.

Given the large segment of the population under the poverty line and the special difficulties facing women, the public sector will have to play an important role in financing the reproductive and child health package of services. Under such conditions, a joint commitment of all levels of government at the center and in the states will be necessary, and the central government will need to consider how to enhance the overall budget for the sector within the macroeconomic and fiscal constraints, taking into consideration the contributions made by the private and PVO sectors. Furthermore, some reallocation of resources will be required within the FWP both at the central and state levels.

Finance as an incentive for change. The central government might consider linking incremental funding to the states with their progress in reorienting the program to the reproductive and child health approach. Progress could be measured by goals achieved, service delivery gaps filled, and steps taken by the states to improve their finances. The following might be considered as performance indicators:

- Achievement in spending the previous year's budget allocation from the center
- Progress against agreed indicators of reorientation toward the reproductive and child health approach
- Amount spent to upgrade primary health care services and steps taken by the states to improve their finances.

Notes

1. India's currency is the rupee; all dollars are current U.S. dollars.
2. A billion is 1,000 million.

1. Background and Scope

The 1994 Cairo International Conference on Population and Development formalized in its program of action a growing international consensus that improving reproductive health, including family planning, is essential to human welfare and development. Reproductive health can be defined as a state in which “people have the ability to reproduce and regulate their fertility; women are able to go through pregnancy and childbirth safely; the outcome of pregnancy is successful in terms of maternal and infant survival and well-being; and couples are able to have sexual relations free of the fear of pregnancy and of contracting disease” (Fathalla 1988). The government of India strongly supports the program of action, in general, and the reproductive health approach, in particular, as reflected in its own Action Plan for Revamping the Family Welfare Programme in India (FWP) and in the program of action contained in the India country report prepared for the Cairo conference (India, MOHFW 1992, 1994a).

An important context for this collaborative review of the FWP is the new international vision of population policy that emerged from the Cairo conference. This international vision recognizes a crucial distinction between the goals of overall population policy and those of a reproductive health program. In the past, the success or failure of a family planning program was defined almost entirely by its contribution to declines in fertility and population growth rates. The new consensus recognizes that an important goal of reproductive health programs should be to reduce unwanted fertility safely, thereby satisfying both the needs of individuals for high-quality services, as well as demographic objectives.

The Cairo conference called for broader, more holistic approaches to population that link demographic concerns, including fertility reduction, with a range of objectives for social development and poverty reduction, particularly those that improve the health and socioeconomic status of women and increase the involvement of men in, and their responsibility for, sexual and reproductive behavior. At the program level, the conference called for high-quality, client-centered approaches that address a range of reproductive health needs, including safe motherhood and family planning, as well as other problems such as reproductive tract and sexually transmitted infections. The conference recommendations offer a more effective way to achieve the overarching objectives of population policy, poverty reduction, and improvement in human welfare than the previous approach and are also more acceptable on humanitarian grounds.

The concept of a reproductive health approach is therefore central to this new vision of population policy. Although concerns about fertility reduction can be addressed at the level of broad social policy, the design and management of reproductive health programs should be directed primarily at satisfying the needs of actual and potential clients. Correspondingly, performance—the program's ability to meet client needs and improve reproductive health—can be measured through indicators that demonstrate continued, effective use of temporary methods by couples who want to space pregnancies, use of permanent or temporary male and female methods by couples who want to limit pregnancies, and reductions in maternal mortality and morbidity. Family planning programs should avoid setting demographic performance targets because they distort the achievement of these broad reproductive health objectives. In the reproductive health approach, improving the health of individuals commands the same priority as helping couples to plan their families.

The government of India has enunciated specific health goals. These goals include achieving before 2011 a contraceptive prevalence rate of 60 percent, an infant mortality rate below 60 deaths per 1,000 live births, and substantial reductions in maternal and child morbidity and mortality. The FWP, the effectiveness of which can be increased by adopting the reproductive health approach, constitutes the principal means of achieving these goals. The objective of this report, therefore, is to identify, in collaboration with the Ministry of Health and Family Welfare, the specific constraints that stand in the way of reorienting the FWP toward a reproductive health approach and to spell out feasible actions that can be taken to overcome them. This report encompasses child health, in addition to reproductive health, because child health is an integral part of India's FWP.

The scope of the report is limited. While considering links between initiatives in family welfare and other aspects of social policy and poverty reduction, the report does not address the full array of population policy issues that the government of India is considering. For example, although female education is a key factor in improving the opportunities, health, and welfare of women and is receiving substantial government support, it is not emphasized here. Consideration of the broader issues is warranted and is being undertaken by the Indian authorities; therefore, this report focuses on practical ways to strengthen the FWP.

This report looks mainly at the public provision of reproductive and child health services, although it also examines the potential for expanding the role of the private sector, an effort that is supported by the government. While it serves no more than half the population, the FWP nonetheless dominates the provision of preventive health care in India. It is by far the largest provider of clinical family planning methods, such as sterilization and the use of intrauterine devices (IUD), and it is often the only source

of these services for the poor. Private providers are the major source of ambulatory, curative care, for both the poor and the better-off.

The context for the provision of reproductive and child health services is extremely diverse within and across the regions and states of India, as well as within and between urban and rural areas. The reader should always keep this diversity in mind, especially given the generalizations that necessarily appear in a report of this size.

2. Progress to Date

The policy context today is radically different from the one the government of India faced in 1951, when it launched the national family planning program. In the forty-four years since then, mortality fell nearly two-thirds, fertility declined about two-fifths, and the demand for family planning by Indian couples in all strata of society increased dramatically. For decades, the declines in mortality and fertility ran roughly parallel, with the result that the population growth rate remained above 2 percent a year, and India's population more than doubled between 1961 and the mid-1990s. The 1991 census, however, demonstrated that the population growth rate had fallen to below 2 percent for the first time, reflecting the accelerating decline in fertility. Because of the young age structure of India's population, the momentum for continued growth remains strong, with the population in 2025 expected to be between 1.5 billion and 1.9 billion.

In the supplement volume section A sets out the government's 1992 Action Plan for Revamping the Family Welfare Programme in India. Section B briefly describes the evolution of population policy in India from 1951 to the present, while section C sets forth the changes in fertility preferences over time, highlighting the large unmet need and demand for family planning services, especially for reversible methods, as demonstrated by National Family Health Survey (NFHS) data.

Demand for smaller families derives mainly from improvements in the literacy rate, age at marriage, status, and employment of women, social security, and overall economic and social development. In India, all of these factors are moving in the right direction, albeit at varying speeds, and can be expected to continue to depress the demand for children. India seems likely to achieve replacement fertility—2.1 births per woman—early in the next century. The earlier it does so, the smaller will be the ultimate size of the population. The FWP will make an important contribution to achieving replacement fertility.

With a total fertility rate of 3.6 births per woman, and replacement level at 2.1 births, Indian couples are having, on average, 1.5 births more than the number required to achieve the goal of replacement fertility. How close is wanted fertility to the replacement level? The desired fertility rate varies from about 1.8 births in Kerala to 3.8 births in Uttar Pradesh. Wanted fertility is quite close to replacement fertility in the following ten states: Andhra Pradesh, Gujarat, Jammu, Karnataka, Kerala, Maharashtra, Orissa, Punjab, Tamil Nadu, and West Bengal. In

Assam, Bihar, Haryana, Madhya Pradesh, Rajasthan, and Uttar Pradesh, reductions in both wanted and unwanted fertility are required to achieve replacement fertility.

By 1992–93, India had achieved 60 percent of its goal of replacement fertility. As shown in section B of the supplement volume, nearly half (46 percent) of married women want to delay or limit their future childbearing, in addition to the 31 percent who are already sterilized. Unwanted fertility varies from about 0.2 births in Kerala to about 1 birth in Bihar, Rajasthan, and Uttar Pradesh and 1.2 births in Haryana. In all states, except Kerala, at least 20 percent of fertility is unwanted; close to 30 percent is unwanted in Assam, Haryana, Jammu, Punjab, and Tamil Nadu. Fertility is lower, and unwanted fertility is higher in urban than in rural areas. Eliminating unwanted births—the priority for family planning services in a reproductive health approach—would take India more than halfway to replacement-level fertility.

A high-level population committee was established in December 1991 as a subcommittee of the National Development Council, which includes all chief ministers of the states. In 1992, the committee made an exhaustive set of recommendations to improve the FWP, and these are reflected in the resulting Action Plan issued by the Ministry of Health and Family Welfare, discussed in section A of the supplement volume. In addition, the committee recommended formulating a national population policy and establishing mechanisms for its implementation. A committee of experts, headed by M. S. Swaminathan, was constituted to draft the policy.

In May 1994, the Swaminathan committee submitted to the ministry a draft report with recommendations for a new national population policy. The report proposed establishing population and social development committees at the national, state, district, and local levels of government to promote an enabling political environment and community involvement in addressing family welfare issues. Recommended mechanisms for implementing the policy, including establishment of a population and social development fund, are still under discussion. The ministry is planning to issue a draft policy paper in the near future.

Program Development

The FWP, now in its fifth decade, has helped to bring India about three-fifths of the way toward its goal of achieving replacement-level fertility and significantly improving the health of mothers and children. (The term FWP covers all actions, in the public and private sectors, included in the effort led by the Ministry of Health and Family Welfare and its counterparts at the state and local levels.) According to the NFHS, the total fertility rate in 1992–93 was 3.4 births per woman, a decline of 2.6 births from an initial level of about 6 in the 1950s (International Institute for Population Sciences 1994a). The infant mortality rate was estimated

at 79 deaths per 1,000 live births, while the maternal mortality rate stood at 420 deaths per 100,000 live births, as against about 146 and 800, respectively, in the 1950s.

The Ministry of Health and Family Welfare has established an impressive network of more than 2,300 community health centers, 21,000 primary health centers, and 131,000 village-level subcenters that provide primary health care, including maternal and child health care and family planning, at the grassroots level. According to NFHS data, slightly more than 40 percent of eligible couples in India use contraception. Moreover, more than 60 percent of mothers received tetanus toxoid immunizations during their most recent pregnancy, more than 50 percent received iron-folate tablets to combat anemia, and more than 60 percent of infants received at least one immunization provided by the Universal Immunization Program. Current coverage is reported at more than 80 percent for tetanus toxoid and more than 90 percent for the other vaccine-preventable diseases.

During the past decade, the FWP has gradually shifted its focus away from family planning and toward a general effort to improve maternal and child health. The Universal Immunization Program exemplifies this gradual change, and greater effort was made in rural areas and urban slums, to provide maternal health services and care to children under five years of age. By 1992, auxiliary nurse-midwives were spending more time on immunization than on family planning. Efforts to improve the quality of services were boosted by substantial strengthening of the training infrastructure in the late 1980s and early 1990s, and the introduction of the Child Survival and Safe Motherhood Program in 1992 gave further impetus to the program's shift in direction.

In 1992, the Ministry of Health and Family Welfare developed a far-sighted strategy to address those problems identified in the report of the National Development Council's Commission on Population. Several of the key recommendations of the Action Plan for Revamping the Family Welfare Programme in India are congruent with the reproductive health approach that received consensus support at the Cairo conference two years later. These include:

- Improving the quality and outreach of family welfare services, including maternal and child health and immunization, and establishing the Child Survival and Safe Motherhood Program
- Speeding up implementation of the FWP in Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh and in the districts outside these four states that have weak social indicators
- Modifying the system of targets and incentives for family planning
- Promoting a broad range of contraceptive method choices
- Revitalizing the community-based support for family welfare workers.

India took an important step in shifting the FWP further toward the reproductive health approach when it initiated the Child Survival and Safe Motherhood Program in August 1992. The program seeks to improve the health status of women and children and to reduce maternal, infant, and child mortality. The child survival component will be operational in all 466 districts of the country by 1997, while the safe motherhood component will cover 219 districts. In addition, several states are implementing the safe motherhood component even in districts not earmarked to receive government support. The following package of services is offered under the program:

<i>Children</i>	<i>Mothers</i>
<ul style="list-style-type: none"> • Essential newborn care • Immunization • Appropriate management of diarrhea • Appropriate management of acute respiratory infection • Vitamin A prophylaxis 	<ul style="list-style-type: none"> • Immunization • Prevention and treatment of anemia • Antenatal care and early identification of maternal complications • Delivery by trained personnel • Promotion of institutional deliveries • Management of obstetric emergencies • Birth spacing

Good progress has been made with the child survival component of the program, although essential newborn care and management of acute respiratory infections are lagging behind the rest of the package, being the most recently introduced interventions. Progress with the safe motherhood component has been slow, partly because the program significantly expands previous actions in the area of maternal care and also because implementation of this component requires some physical upgrading of the first referral units, training of physician specialists, and procurement of equipment rarely found below the level of the district hospital.

The Unfinished Agenda

India has been a leader in developing health and population policies. However, major problems have plagued implementation of the FWP for more than two decades. These problems can be summarized as follows: many people in India who need services are not reached by the program, most people who are reached do not get access to the range of services they need, and the quality of those services that are provided is often unsatisfactory. Issues of access and quality are therefore key elements in the unfinished agenda. The issues are illustrated below with data taken from the NFHS.

Poor Average Performance

Three key indicators demonstrate the limited reach of the FWP: antenatal care coverage, immunization coverage, and knowledge of different family planning methods. With regard to antenatal care, almost half of all pregnant women in India received no antenatal checkup at all in 1992–93, although three antenatal contacts are recommended in the family welfare protocol. With regard to immunization, only 35 percent of children under two received all six antigens, while 30 percent received none. However, surveys of coverage show a significantly higher percentage of fully immunized infants and mothers than is reflected in the NFHS data. With regard to knowledge of contraceptive methods, although more than 95 percent of married, reproductive-age women had heard of a modern method of contraception, nearly 40 percent had not heard about the IUD, and about a third had not heard about the oral contraceptive pill.

Regional Variation

The regional variation in program performance is striking. While in Kerala more than 96 percent of pregnant women received an antenatal checkup, in Madhya Pradesh and Uttar Pradesh, respectively, only about 30 percent and 36 percent did so. Total immunization coverage varied from 64 percent in Maharashtra and Tamil Nadu to about 11 percent in Bihar and 20 percent in Uttar Pradesh. And although, on average, 30 percent of Indian children had not been immunized, the figure was about 48 percent in Rajasthan and 53 percent in Bihar. Knowledge of the IUD varied from more than three-quarters of women in Karnataka, Kerala, and Tamil Nadu to less than half in Andhra Pradesh, Bihar, Madhya Pradesh, and Rajasthan. The reasons for these striking regional variations are complex. On the demand side, they include the higher rates of poverty and illiteracy in the large northern states, resulting in low priority for preventive care, poor knowledge of services, and difficulty in obtaining them. On the supply side, they include lower per capita financial outlays for health and family welfare in the northern than in the southern states, weaker commitment to the social services, and weaker administrations, leading to poor performance in all government programs, not only family welfare.

Inequity

The NFHS does not present coverage data on coverage by income group. Nevertheless, it does present background characteristics of clients, some of which are reasonable proxies for poverty. From these, it is clear that the poor have worse access to family welfare services than the better-

off. For example, while about half of all pregnant women received at least one antenatal checkup, only about 26 percent of women with six or more children and 35 percent of illiterate women received this service. Only 24 percent of the children of illiterate women had full immunization coverage, against 49 percent of those who had completed primary education and 70 percent of those who had completed high school. Again, the reasons for inequity are complex. On the demand side, the poorly educated may not appreciate the importance of preventive care, the poor have less voice with which to demand services, and the poor can ill afford time off work to seek care. On the supply side, the poor are concentrated in the large, northern states, which have the weakest administrations and outreach services, and may be discouraged from seeking care by the behavior of higher-status service providers.

Major Issues

The gap between policy and implementation is the major focus of this report. Key issues are presented in this section; the elements of an essential reproductive and child health package are presented in chapter 3, their management implications are taken up in chapters 4 and 5, and financial issues are dealt with in chapter 6. Overall, five key issues are receiving substantial attention from India's government:

- How to move away from numerical, method-specific contraceptive targets and incentives to a client-centered system of performance goals and measures
- How to expand the use of male methods and reversible methods and broaden the choice of contraceptives
- How to strengthen the quality of services and overall management of the program
- How to strengthen community involvement in the FWP
- How to assure adequate funding for the current program and for the expansion implicit in adopting the reproductive health approach.

Setting Targets and Incentives for Specific Contraceptive Methods

Many government reports, including the Action Plan and the Swaminathan committee report, recognize that contraceptive targets and monetary incentives imbue the FWP with a demographic planning emphasis that is antithetical to the reproductive health, client-centered approach. However the National Development Council committee's report has recommended not only continuation of current incentives and disincentives but also introduction of additional ones. The issue has been discussed with the states, and no consensus has emerged so far. Such targets and incentives are of concern for several reasons: they tend to distort

program performance by directing attention to the total number of acceptors of a given method, rather than to the needs of the individual client, and can lead to biases favoring one method over another; they raise issues related to possible infringement of individual reproductive preferences; they are difficult to administer; and they are expensive. These issues are discussed in more detail in section B of the supplement volume.

Targets and provider and motivator incentives. Possible changes in the current method-specific target and incentive system are being considered by the government, which already abolished condom targets in April 1995. The government also invited the states to eliminate all method-specific targets in one district beginning in April 1995. Four larger states eliminated all such targets in two districts. These districts present an excellent opportunity to test the feasibility of providing a package of essential reproductive and child health services, to assess its cost, and to evaluate whether it enhances the couples' ability to avoid unwanted pregnancies more safely than the current approach. A set of program goals and indicators has been worked out that would replace the earlier targets and emphasize quality issues in these districts.

Since the early 1980s, all states have emphasized the maternal and child health approach to family welfare and introduced some of the features of the reproductive health approach, principally the de-emphasis of method-specific contraceptive targets. The Urban Slums Family Welfare Project in Bombay and Madras has been particularly successful. It is monitored by means of a set of performance measures that give as much weight to maternal and child health as to family planning. Although contraceptive targets and incentives have not been eliminated, they are receiving less emphasis. The prevalence of contraception continues to rise in all project areas, and under-five mortality and fertility declined substantially over a six-year period.

Tamil Nadu has experimented, over the last three years, with various changes in the target and incentive system, such as abolishing method-specific targets for fieldworkers, reducing the level of monetary incentive for sterilization, and eliminating the motivator certificate. None of these changes resulted in a decline in program performance, and the experiments are being applied on an expanded basis.

A growing body of evidence, and the Cairo consensus, suggests that numerical, method-specific targets and monetary incentives for providers should be replaced by a broad system of performance goals and measures, focused on a range of reproductive and child health services. The evidence also suggests that setting a broad range of reproductive health goals enhances the reduction of fertility as well as the satisfaction and health of clients. Therefore, method-specific contraceptive targets should be replaced by performance goals and measures along the general lines of those employed in Bombay and Madras. Provider and motivator incentives have already been discontinued for IUDs. The gov-

ernment should now consider eliminating the current system of provider and motivator incentives for sterilization.

Incentive payments to acceptors. Support for acceptor incentives, or compensation, is still great in India, based on the argument that cash and other assistance compensates the acceptor for time lost from work, time spent in travel, and the various outlays associated with the sterilization procedure or IUD insertion. Although acceptor incentives for IUD insertion have already been eliminated in some states—for example, Tamil Nadu—the incentives for sterilization continue in all states, albeit with less state augmentation of the government allowances than before. Such incentives also represent a much smaller incentive by virtue of having remained at the same level for more than a decade.

Tamil Nadu is already experimenting with using the savings accrued by reducing the level of incentives to expand the quality and outreach of all maternal and child health services. There are strong arguments in favor of phasing out acceptor incentives. The main argument for eliminating incentives for sterilization is that similar incentives are not offered for any comparable procedure. Another important argument is that the savings—about 6 percent of the government's family welfare budget—could yield higher returns if used in other ways.

Broadening the Choice of Reversible Contraceptive Methods

Female sterilization still accounts for about three-quarters of the modern methods of contraception used in India. According to the NFHS report, "The focus of the Family Welfare Program on permanent methods of contraception is evidently not satisfying the needs of a large group of women in India who wish to space their births. The encouragement of spacing methods for women who want more children would be likely to lower overall fertility and population growth, as well as to provide health benefits to both mother and children" (International Institute for Population Sciences 1994a:183). Demand for sterilization is certainly high and should be met. Nevertheless, unmet demand for reversible methods is also considerable. The main point here is that *unmet demand* is higher for reversible methods than for sterilization, which is universally available, so that increasing contraceptive choice for individuals deserves high priority.

Male methods. Male methods account for only 6 percent of current contraceptive use, according to NFHS and government data: only 3.4 percent of couples rely on vasectomy, and 2.4 percent rely on condoms. Cultural reasons are frequently advanced as the reason for low acceptance of vasectomy, but the FWP clearly has not emphasized male steril-

ization nearly to the extent that it has emphasized tubectomy. A vigorous effort should be undertaken to promote vasectomy along with tubectomy, in view of the greater simplicity of the procedure, the need for men to take more responsibility for family planning, and the lower mortality and lower incidence of complications associated with male sterilization. The government has already recommended that states place greater emphasis on vasectomy. There is an even more pressing need to promote the use of condoms, both through a revitalized social marketing effort and through the FWP. The spread of the human immunodeficiency virus (HIV) is reaching epidemic proportions, which makes greater use of condoms an urgent priority.

Reversible methods. NFHS data show that only 5.5 percent of couples use reversible modern methods of contraception. The Ministry of Health and Action Plan for Revamping the Family Welfare Programme in India, the NFHS report, and many other analyses have recommended placing more emphasis on reversible methods, especially "for younger couples with high fertility potential," in the words of the Action Plan (India, MOHFW 1992:5).

Although oral contraceptives have been available in the FWP since the mid-1970s, only 59 percent of rural women know of this method, and this percentage falls below half in rural Madhya Pradesh and Uttar Pradesh. Only 1.2 percent of couples use oral contraceptives, according to the NFHS. The use of oral contraceptives is low, especially in public sector programs, because logistical problems limit their supply, and information, education, and communication about this method are inadequate. Experience in neighboring countries suggests that many younger couples would use this method, if the necessary counseling, support, and supplies were in place.

A nonhormonal, once-a-week oral pill, "Centchroman," developed through indigenous research and development, has recently been introduced in the market. This oral pill is reportedly free from many of the side effects commonly associated with hormonal pills.

The ministry recommended in the Action Plan that injectables "be introduced under the program, initially under controlled conditions and gradually on a wider scale" (India, MOHFW 1992:5). The government believes that the method should be introduced on a wider scale, only after more research has been conducted on the quality of services, side effects, and consumer acceptance. Injectables became available in the private sector in 1994, at Rs120 (about \$4) per three-month dose, well above the price affordable for the vast majority of Indian couples. Given the need for safe, effective, and convenient reversible methods, there seems to be every reason to phase this method into the program, with the necessary training, surveillance, and monitoring by the Indian Council of Medical Research and the medical colleges engaged in research and demonstration efforts regarding contraceptive methods.

Barrier methods other than the condom—for example, diaphragms—would also be a welcome addition to the FWP. Although the demand may be relatively limited, making these methods available would broaden the choice of effective methods.

FWP supply needs. India is self-sufficient in the provision of IUDs and condoms, and receives hormone supplies for the oral pill as an annual commodity grant from the United Nations Fund for Population Activities. Substantial expansion of the provision of reversible methods by the public sector in the near future will, however, put stress on the existing sources of contraceptive supply and may require additional ones. In order to assure adequate supplies of reversible as well as permanent methods, over the next few years, the likely evolution in mix of methods should be reviewed in light of the number of women and men of reproductive age and their requirements. Adoption of the broader reproductive health approach will also require expansion of the supplies of drugs and equipment.

Managing for Quality and Client Satisfaction

Successive reports on the FWP, including the Action Plan and the reports of the National Development Council's population committee, and the Swaminathan committee, have highlighted the need to strengthen the management of the FWP. How this might be accomplished occupies chapters 3–5 of this report. Chapter 3 sets the stage by presenting an essential reproductive and child health services package in some detail. Chapter 4 discusses the management implications of the essential package, with particular emphasis on improving the quality of and client satisfaction with the public sector program. Chapter 5 then suggests ways in which the potential of the private sector might be tapped further.

Role of the Community in the Reproductive and Child Health Program

The critical importance of having the community, especially women's groups and those groups representing the poor, scheduled castes, and scheduled tribes, play a substantial role in the planning, implementation, and monitoring of the FWP has been emphasized by innumerable reports for more than twenty years. Although this involvement has grown over time, especially in states where the local government system is well developed and where women's groups, village health committees, and similar groups are functioning well, the potential for playing a larger role is enormous, and the benefits of such involvement are likely to be considerable. The implementation of the Panchayati Raj (local

government) Act of 1992 provides one vehicle for making the community's participation a reality. Chapter 3 discusses the implications of this community role for improving the quality of services and how the FWP can best nurture and sustain a growing partnership with communities, while section D of the supplement volume discusses how the community's role can be expanded, with particular emphasis on women and the poor.

Funding for the Reproductive and Child Health Program

The FWP is substantially underfunded in relation to its current goals. Chapter 6 presents the rough size and composition of the current funding gap, and looks at the resource situation in India compared to that in other low-income countries. Implementing the reproductive health approach advocated in India's country report for the Cairo conference, even in a carefully phased and cost-effective manner, will require a quantum increase in resources for the FWP. Chapter 6 attempts to estimate the order of magnitude of the current funding gap and the further requirements of the reproductive health approach. It also makes recommendations for how central funding could be used as an incentive to encourage the states to reorient the FWP toward reproductive health.

3. Essential Reproductive and Child Health Services

This chapter discusses which reproductive and child health services should be made available through the health and family welfare programs. Because of the wide variations in different parts of India in health infrastructure and staffing, as well as in technical and management capacity, it is inappropriate to propose a single reproductive and child health services package for the country. Instead, different levels of services are proposed for different conditions (table 3.1). A package of essential services should be made available nationwide over a five- to ten-year period, and additional services should be offered on a more restricted basis where the delivery capacity exists.

A Package of Essential Reproductive and Child Health Services

A package of essential services would include child survival interventions. Although some reproductive health interventions benefit both woman and child, others—for example, treatment of diarrheal disease in children—do not. Nevertheless, since the woman and child form a dyad, and programs naturally wish to provide services to both elements of the dyad, they both are included in the package.

Most of the essential services in the package in table 3.1 are theoretically included in the FWP but often are not provided for want of resources, inadequate training, and other reasons. Key issues are the gaps that exist in the range of services in many areas, the poor quality of the services delivered, and the poor coverage of services. The next section summarizes the major changes that are required in the content, quality, or coverage of each service. Although adding new services and improving quality are major challenges, they do not require a quantum increase in resources. Increasing coverage by filling current gaps in staff and infrastructure, however, requires very substantial additional resources.

Major issues must be resolved about which service should be available at which level of the health system. For example, medical termination of pregnancy and diagnosis and treatment of reproductive tract and sexually transmitted infections are currently available only at higher lev-

Table 3.1. Recommended Package of Reproductive and Child Health Services

<i>Essential package nationwide</i>	<i>Additional services to selected districts</i>
Family planning	Growth monitoring, nutrition education, and food supplementation for children under six and pregnant and lactating women (through Integrated Child Development Services)
Safe abortion	Reproductive health services for adolescents
Safe motherhood	Diagnosis and treatment of cervical cancer
Prevention and management of reproductive tract and sexually transmitted infection	Advanced diagnosis and treatment of reproductive tract infections and sexually transmitted infections
Child survival	
Health, sexuality, and gender information, education, and counseling	
Referral services for all the above interventions	

els of the health system. Making services available at lower levels would increase coverage, but staffing, training, and quality control would become more difficult, and costs would rise. Section D of the supplement volume contains detailed proposals for which specific services should be provided at each level of the rural health system—from community to first referral unit. These suggestions need careful review, because of the important implications they have for access, training, management, and cost. They will also need to be adapted to local health service capacity. Kerala or Tamil Nadu, for example, may be able to offer certain services at primary health centers, while some northern states may only be able to offer them at hospitals for the foreseeable future. Similar recommendations also need to be developed for urban areas, where the service delivery infrastructure follows a different pattern.

About half of the Indian population are potential clients of the FWP. Within this group, the suggested priority target for the package of essential services is all couples of reproductive age, especially those at highest risk—women who are pregnant or have an infant, the very poor,

and high-risk adolescents. Adolescents are of particular importance, because childbearing during adolescence poses enormous risks to both mother and child.

Family Planning

Additional reversible methods should be added to the choice of contraceptives, and more emphasis should be given to male methods. A greater emphasis on informed choice and quality of service is essential if clients are to meet their family planning goals. Currently, many clients hear more from service providers about sterilization than about other methods, and clients seldom receive good-quality counseling about reversible methods. Clients must receive full information on the advantages, disadvantages, and contraindications of the full range of contraceptive methods and on support, referral, and follow-up care.

Safety is clearly an issue for contraceptive methods that involve surgery, but it is also of special importance for the IUD, especially in a population among which reproductive tract and sexually transmitted infections are common. Where auxiliary nurse-midwives have unrealistically high acceptor targets for IUDs, they have little incentive to screen clients for contraindications; most have neither the training nor the equipment to conduct a proper pelvic examination. More careful screening is required, as are better training in aseptic insertion and routine follow-up.

Services for Reproductive Tract and Sexually Transmitted Infections

Although forming part of the FWP, services for reproductive tract and sexually transmitted infections are currently available only at district and subdistrict hospitals and some community health centers. Making these services more available at lower levels of the health system merits high priority, as does providing more health education about preventing and recognizing infections. HIV infection is lethal; other sexually transmitted infections can result in infertility, chronic pelvic inflammatory disease, ectopic pregnancy, and other serious problems. Insertion of an IUD when an infection is present substantially increases the risk of infertility or serious disease, thus making screening essential wherever IUDs are available. These infections can cause fetal death or adversely affect child survival by causing preterm delivery of low birthweight infants or by passing on infection during delivery. And they may decrease the initial acceptance and continued use of contraceptives when the client believes the symptoms of infection are a side effect of the method used.

There is a dearth of reliable estimates of the prevalence of reproductive tract and sexually transmitted infections in India. But the limited data suggest that prevalence is widespread enough to justify routine testing of all pregnant women for at least syphilis, which has been found

in between 1 and 5 percent of women attending antenatal clinics in some cities. Laboratory diagnosis and treatment facilities at referral institutions should be upgraded, and carefully designed approaches to treatment by auxiliary nurse-midwives should also be considered. Recent analyses (Piot and Rowley 1992; Tinker and Koblinsky 1993) suggest that treatment of reproductive tract and sexually transmitted infections is highly cost-effective. This component of the proposed reproductive health package is currently under development by the Department of Family Welfare. Further details of the rationale, cost-effectiveness, and operational implications of such a component are given in section F of the supplement volume. One issue to be resolved is the appropriate distribution of services for screening and treating infections between primary health centers and subcenters.

Safe Abortion

The 1971 Medical Termination of Pregnancy Act was a landmark piece of social legislation but has failed to translate into reality for most Indian women, especially in rural areas. More illegal abortions are performed today than were performed before the act was passed, leading to about 15,000–20,000 abortion-related deaths a year. Services for medical termination of pregnancy, like those for reproductive tract and sexually transmitted infections, are mainly available at district hospitals and some community health centers; they are rarely available at primary health centers. Equipment and training are required on a large scale to make this service more available, complemented by efforts to inform women of their availability.

Safe Motherhood

Maternity care should be designed to prevent maternal mortality and morbidity and hence to ensure timely detection, management, and referral of complications during pregnancy. Antenatal services can detect and manage complications such as anemia, infection, pre-eclampsia, and malpresentation as well as provide an opportunity for immunization against tetanus, iron supplementation, counseling on health, nutrition, and family planning, and treatment of preexisting conditions, such as tuberculosis or malaria. All deliveries need to be attended by someone trained in hygiene and recognition of complications. Postpartum services include early detection and management of infection and hemorrhage and counseling in breast-feeding, health, nutrition, and family planning. Provision of these services is highly cost-effective (Tinker and Koblinsky 1993).

Coverage of antenatal and postnatal care services is extremely low in the larger, northern states and needs to be greatly expanded. Many traditional birth attendants have no training, and trained attendants need

refresher courses to ensure that they can recognize the signs of complicated deliveries. Auxiliary nurse-midwives also need further training to identify and refer the highest-risk pregnancies (for example, women less than eighteen years old or with severe anemia), and the referral system needs to be strengthened. Institutional deliveries are essential for the highest-risk pregnancies, and deliveries at primary health centers should be encouraged for mothers in general, wherever the referral network is strong enough to handle them.

Child Survival

The expanding child survival component of the Child Survival and Safe Motherhood Program is helping to reduce the prevalence of the vaccine-preventable diseases, deaths from dehydration and diarrhea, and acute respiratory infections. But much remains to be done, especially to eradicate polio, eliminate neonatal tetanus, and improve the performance of the programs that seek to control diarrheal disease and acute respiratory infection. In addition, interventions are needed to reduce perinatal and neonatal mortality, which make up 50 to 60 percent of infant mortality. These include treatment of birth asphyxia and prevention of gonococcal eye infection, which can cause blindness in newborns; this latter intervention is particularly cost-effective, at \$1.40 per case averted (World Bank 1993c). The links between low birthweight (an important risk factor for infant mortality) and poor maternal health and nutrition further underline the importance of improving antenatal care.

Information, Education, and Communication on Sexuality and Gender

Although improving information, education, and communication is essential for implementing all these interventions effectively, they are especially important for sexuality and gender relations, because of past neglect. This has two dimensions. With respect to clients, counseling on sexuality, sexually transmitted infections, and gender relations is needed, plus information and motivation to empower women to ensure that their health needs are addressed and to encourage men to be more responsible for family planning, the health and nutrition of pregnant women, and the rearing of children. There is an equal need to sensitize providers on gender issues at all levels of the system, which is heavily dominated by men. A vigorous effort should be made to increase the number of female doctors and female managers in the health and family welfare programs. The government has already advised the states to ensure that the services of female doctors are available at primary and community health centers, if necessary on a contract basis. Issues and recommendations for

improving the program's gender sensitivity are detailed in section D of the supplement volume.

Referral Services

Referral for hospital delivery is critical for very high-risk pregnancies—for example, after a previous stillbirth or cesarean section—and is especially important for life-threatening conditions such as obstetrical emergencies and pneumonia or other infections among young children. To ensure that referrals are completed in a timely manner, pregnant women and traditional birth attendants need to learn the early signs of complications, and communities need to plan to mobilize transport to the referral unit. To ensure that referred cases are properly treated, the primary health center needs to be developed throughout the country as an effective intermediate referral institution. In districts not covered by the safe motherhood component of the Child Survival and Safe Motherhood Program, selected community health centers need to be strengthened to provide emergency obstetrical care, through investing in the improvement of operation theaters, staff training, equipment, and supplies.

Additional Reproductive and Child Health Services

Two additional sets of interventions are also of high priority, but likely to be implemented only in parts of the country covered by the Integrated Child Development Services (ICDS) scheme or by programs of private voluntary organizations (PVOs) with similar outreach capacity and service content. These are interventions against protein-energy malnutrition for vulnerable groups and reproductive health services for high-risk adolescents.

Protein-Energy Malnutrition

In view of the very strong links between maternal nutrition and maternal and child health, and between child nutrition and child health, programs to improve the health of women and children cannot be fully effective unless they also provide counseling, growth monitoring, and supplementary or complementary feeding. Ideally, this service should be available to all vulnerable groups. However, although nutrition education can be provided to all pregnant and lactating women as part of routine pre- and postnatal care, growth monitoring and supplementary feeding are time-consuming interventions that cannot be managed by auxiliary nurse-midwives. These interventions are, however, available to poor clients in the 50 percent of development blocks in the country that are covered by ICDS.

Reproductive Health Services for Adolescents

Adolescents, defined as individuals fifteen to nineteen years old, have been neglected by the health services. Yet this age group has important health and information needs, particularly with regard to nutrition, sexuality, and reproduction. One in four married adolescents is a mother, and all married adolescents, because of their high health risk, require special attention through the package of essential services. A majority of adolescent girls, married or not, are anemic, often to a moderate or severe degree (Gopalan 1992). In addition, what little is known about the fertility of unmarried adolescents suggests that their situation is bleak. Adolescents are far less likely to practice contraception than women aged twenty to twenty-four; unmarried adolescents constitute a sizable proportion of abortion seekers; and studies in Baroda, Bombay, and Solapur show that they often delay their abortions until dangerously late because of ignorance or fear of social stigmatization (Bhatt 1978; Solapurkar and Sangam 1985).

Ideally, therefore, special counseling and services should be made available to all adolescents. In practice, however, because of the numbers involved, special counseling for all adolescents may only be feasible in areas, such as ICDS blocks, where paid fieldworkers (who may be able to take on the load) are at the village level. Operational research is needed on the feasibility of adding sexuality and reproduction-related messages to the counseling received by adolescents reached by ICDS and by PVOs providing similar outreach services. Throughout the country, the mass media and the school system should be used as channels for relaying these themes to all unmarried adolescents.

Comprehensive Services

A more comprehensive package of reproductive health services should include more sophisticated diagnosis and treatment of infections and cervical cancer, which have been shown to be cost-effective interventions (Tinker and Koblinsky 1993). However, India has little experience with managing these outside specialist referral institutions. Operational research is therefore recommended on these interventions in selected districts of Kerala and Tamil Nadu, where maternal health services are already relatively well developed.

The Need for Advocacy

Finally, there is a great need for information about, and advocacy for, reproductive health services in India. The information gap on the concept and ideology of reproductive health and gender issues is currently a

deterrent to the implementation of a reproductive health program. In a country as large and as diverse as India, many constituencies must be informed before large-scale change is possible. Information and advocacy programs are needed at the state and central levels initially and must subsequently be directed at clients in the local government and women's groups and at providers at the district level and below.

4. The Public Sector Program: Managing for Quality and Client Satisfaction

India's signing of the Cairo declaration marks a policy commitment to the reproductive health approach. The challenge now is to determine the behavior of more than 250,000 staff of the FWP and an uncounted number of private service providers. The required shift has various dimensions, which are summarized in table 4.1. It recognizes that client satisfaction is the primary goal of the program, with demographic impact a secondary, though important, concern. It requires broadening the service package and improving the quality of services. And it means changing the way the program is managed at the field level, which will affect how performance is measured, how workers deal with clients, and to whom workers feel accountable. These changes require a quiet revolution in the way the FWP is planned and implemented.

Changes in Policy and Implementation

As recommended in chapter 2, the following changes in target and incentive policy are a precondition for changing the implementation signals:

- Eliminate provider incentives as soon as possible
- End the practice of giving family planning targets to revenue departments
- Replace method-specific contraceptive acceptance targets with goals for and measures of overall use
- Develop performance goals and measures for key maternal and child health and other reproductive health interventions.

Complementary actions at the level of implementation are essential if quality and client satisfaction are to become a reality. Specific actions should be taken in four areas:

- Improving access to good-quality services
- Making services more responsive to client needs
- Making sure frontline workers have the skills, support, and supplies they need
- Strengthening the referral system.

Table 4.1. Changing the Signals of the Family Welfare Program to a Reproductive and Child Health Approach

<i>Goal</i>	<i>Old signal</i>	<i>New signal</i>
Primary goal	Meet norm of two-child family	Still encourage smaller families, but help clients meet their own health and family planning goals
Priority services	Family planning, especially female sterilization	Full range of maternal and child health services
	Immunization	Full range of maternal and child health services
Performance measures	Number of cases	Quality of care, client satisfaction, coverage measures
Management approach	Top-down, target driven	Decentralized, driven by client needs
	Male dominated	Gender sensitive
Attitude to client	Motivate, persuade	Listen, assess needs, inform, advise
Accountability	To the bureaucracy	To the client and community, plus health and family welfare staff

Improving Access to Services

The coverage of several key services is poor, especially in the most populous northern states. Better access to good-quality services is a precondition for improving quality and client orientation. This is because quality care depends not only on the contact between client and provider taking place, but also on it being frequent enough and long enough to establish a relationship of trust and confidence and to sustain changes in health behavior, once initiated. Of the five sets of measures for improving access that are recommended below, the first three are inexpensive to implement, while the last two are relatively costly.

Make work routines more efficient. Fieldworkers in most states spend substantial time attending meetings at block and sector headquarters and filling out records and reports; paperwork can take 20 percent or more of an auxiliary nurse-midwife's time, time which could be spent delivering services. A review of monthly tour programs in each state

could reduce the time spent on low-priority activities. With regard to the record-keeping system, substantial efforts at rationalization of paperwork are under way. Tamil Nadu and West Bengal have reduced the fieldworker's paperwork to two or three key registers; other states should follow their lead.

Fieldworkers should spend more time with priority clients. Auxiliary nurse-midwives need to concentrate their time on the highest-priority clients, especially the poorest. They need guidance on how best to do this: they now receive more guidance on which villages to visit, and when, than on which clients they should spend time with in each village. The Child Survival and Safe Motherhood Program employs a "birth-based" approach to client prioritization, in which auxiliary nurse-midwives focus on newly pregnant women and provide antenatal, delivery, postnatal, and child care until the child has survived its critical first year. This experience should be reviewed, paying particular attention to whether it has increased the time workers spend with the poorest families, who are usually at the highest risk of poor health. And since the policy goal of reducing population growth can not be discarded, the auxiliary nurse-midwives should also concentrate on couples where the wife is between the ages of twenty and twenty-nine and on women who either are pregnant or have just delivered. High priority should be given to evaluating different approaches to targeting clients, since improvements in fieldwork routines are inexpensive but offer a high payoff in performance.

Give auxiliary nurse-midwives more help from other workers. With more than 150 pregnant women in a typical service area at a given time, auxiliary nurse-midwives need help in identifying priority clients and encouraging them to seek services. Community networking could be accomplished through *mahila mandals* and other women's groups, through couples selected from the community, and through close collaboration with workers from the ICDS.

Increasing the role of male multipurpose workers in family welfare is also necessary, if better gender balance is to be achieved in the provision of services. Male workers can do much more to identify and provide information, education, and communication to priority male clients. This poses a major policy issue, because many states, short of money and disillusioned with the performance of the male multipurpose worker, have allowed the ratio of male workers to clients to reach 1 worker for every 8,000–10,000 clients. In addition, spending on disease control programs is increasing, and the workload of these programs threatens to cut into the time both auxiliary nurse-midwives and male multipurpose workers can spend on reproductive and child health work. A review of workloads should be carried out as a basis for determining policy on the future strength of the cadre of male multipurpose workers and rationalization of the role of auxiliary nurse-midwives in other programs.

Make sure workers are resident. In many parts of the country, most auxiliary nurse-midwives and a high proportion of lady health visitors and doctors live outside their service areas. This long-standing problem must be resolved, because field staff who have to spend several hours traveling to and from work cannot provide adequate service coverage. States should consider initiating disciplinary action against workers who refuse to live in their service areas. The *panchayats* (local government) may be well placed in the future to make sure that workers live in the local community.

A minority of auxiliary nurse-midwives do not live in their place of assignment for reasons of safety, because their subcenters are located outside village centers. These subcenters should be identified and converted into clinics without residential accommodation. New subcenters continue to be built outside village centers, contrary to the guidelines for locating a site. The central government should consider refusing to finance subcenters so constructed.

Make sure workers are mobile. Other long-standing problems are the lack of transport for field supervision and referral and inadequate allowances for petroleum, oil, and lubricants. These allocations were enhanced in January 1994 for the seven northeastern states and may be enhanced for all states in 1996. Resolving this problem will be expensive (see chapter 6), but it is essential if field staff are to have the mobility to do their jobs, if the primary health center is to play its intended role as a support and referral institution, and if referred patients are to reach the appropriate facility in a timely way. A jeep should be provided for every primary health center without one, and petroleum, oil, and lubricant allowances, which in many states have remained unchanged for years, should be doubled or tripled, following the recent example of Maharashtra and Tamil Nadu. Mopeds or bicycles should also be provided to auxiliary nurse-midwives who serve large service areas that have poor public transport and who cannot visit remote villages regularly. Finally, the system of transport allowances—which are between one and three years in arrears in several northern states—needs to be revamped. The amounts should be substantially increased, and program managers must ensure that they are paid.

Hire more female workers. Referral completion rates are unlikely to improve, especially for women with reproductive tract and sexually transmitted infections, unless female clients are treated by female doctors, who are rarely available at most primary health centers away from urban centers. This long-standing problem has no clear-cut solution; public sector salaries are too low to attract female doctors to remote areas. Contracting out key referral services to PVOs, trusts, and the private sector is an alternative that the central government is recommending to the states.

The ratios of auxiliary nurse-midwife to population that are shown for primary health centers and other health facilities are overstated, because the population figures are based on 1981 census data, and populations

have increased by more than a third since that time. At present, only average coverage data are available at the state and central levels. A survey of coverage by facilities is urgently required to determine what proportion of auxiliary nurse-midwives serve significantly more people than the planned norm and hence have impossible jobs. Quality reproductive and child health services cannot be delivered unless there is at least 1 auxiliary nurse-midwife for every 5,000 persons. It is essential to increase substantially the number of auxiliary nurse-midwives over the next five years, both to fill current vacancies and to ensure that population growth does not further erode the existing level of service coverage.

Responding to Clients' Needs

Many reviewers have noted that the FWP does better at fulfilling the targets set by central policymakers than at meeting the needs of its clients. This section discusses how the program might do more to satisfy its clients by:

- Listening to their needs and providing them with the information they need to make their own choices
- Tailoring local plans and information, education, and communication strategies to local needs
- Involving local communities in planning, monitoring, and decisionmaking.

Listening to Clients

Too much of the communication between provider and client is one-way. Fieldworkers need to spend less time motivating clients to accept contraception or immunization and more time listening to them, discussing their health and family planning needs, and informing them of the range of health services and family planning options available. Training in listening and counseling skills is necessary. Providers must also respond to the clients' need for the type of information that facilitates changes in behavior: better knowledge of the method or product, how to use it correctly, how to manage side effects, and where to obtain new supplies and follow-up services. In addition to worker training, the proposed move away from method-specific targets will signal to workers that the aim is client satisfaction rather than numbers of acceptors.

Information, education, and communication strategies need to be redesigned in several ways to respond to local needs. First, planning needs to be decentralized from the state to the district level, as is already happening with training. Second, local communication strategies need to be precisely defined, identifying priority target audiences, specific behavioral changes, message concepts, and channels of communication.

Third, messages should concentrate on fewer themes, which are of most importance to local problems and priorities. And fourth, a research mechanism is needed for tracking changes in knowledge, attitudes, beliefs, and practices as a result of information, education, and communication activities to provide feedback to program implementors. Adequate financial provisions for effective information, education, and communication activities are essential. Needs and recommendations in these areas are detailed in section G of the supplement volume.

Tailoring Local Plans for Local Priorities

The effort to decentralize family welfare planning to the district level has made slow progress. Most local plans remain top-down, based on targets and norms set by the state, which is far from the ideal in which local priorities are defined jointly by local communities and family welfare staff. But Madhya Pradesh, for example, is experimenting with district- and block-level workshops through which local plans will be developed; initiatives with district planning are also being taken in Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal. Lessons from these initiatives should be collated and disseminated in the form of planning guidelines. District managers need training in planning techniques, especially in how to link the district planning process with the development of local information, education, and communication strategies and training curricula. Most important, the role of local people in program planning and management needs to be defined more clearly and strengthened. The next section focuses on this key need.

Involving Local Communities

The Panchayati Raj Act of 1992 initiated one of the most significant changes in the organization of government since independence was achieved in 1947. It will have profound effects on the management of the FWP, which is to be placed under *panchayat* control. However, it is not yet clear how Panchayati Raj will develop, since it is being implemented at different speed in different states, and states have discretion in how much authority and money they devolve. Panchayati Raj presents an opportunity for local communities to define their own needs and make local government more accountable to local people for the quality and quantity of services it provides. But it also presents risks: *panchayats* may not speak for the poorest and neediest, they may be more interested in creating infrastructure than in social development, or they may interfere with the technical integrity of the program, for example, by demanding curative care at the expense of preventive care, as happened after decentralization in China.

The states, not the central government, will determine the shape of the Panchayati Raj. Nevertheless, at least four steps can be taken by FWP managers to capitalize on the opportunities and minimize the risks of decentralization. The FWP could:

- Develop a major information, education, and communication campaign to inform the *panchayats* about the importance of reproductive and child health and the rationale for the package of essential services
- Offer *panchayats* financial incentives to take reproductive and child health initiatives and to build ownership of and responsibility for the program
- Form partnerships with *panchayats* at the district level, to ensure that district plans reflect a balance between *panchayats'* felt needs, disease priorities, and equity concerns
- Define specific ways in which *panchayats* can help to improve program quality, for example, by organizing transport for emergency referrals, supervising and monitoring the personnel at health facilities, and recording births, deaths, and age at marriage.

The *panchayats* represent only one potential form of community involvement. In addition, more could be done to inform existing women's and other community groups on local health problems and progress and to involve them in identifying clients, monitoring progress, and spreading information. Such groups are more prevalent in some states, such as Andhra Pradesh, than others. Elsewhere, an unresolved issue is the degree to which fieldworkers should be involved in the formation of community groups. The skills and time needed to organize community participation of this kind are often underestimated. Where it has worked—as with the women's groups formed under the Tamil Nadu Nutrition Project—it has enormously facilitated program implementation. But because of the difficulties and pressures being exerted on auxiliary nurse-midwives, careful field testing of plans to form community groups should precede the adoption of any large-scale schemes.

People who belong neither to *panchayats* nor to women's groups also have a key role to play in ensuring that services are available and meet their needs. The FWP could help to develop their role in three practical ways. First, a special information, education, and communication campaign could be developed to inform people in villages and slums of the essential reproductive and child health services to which they are entitled. Special efforts could be made to publicize these services wherever the poorest people live in each area covered by a primary health center. Second, the essential services, workers' tour programs, and clinic hours could be publicized on subcenter and village walls, so that clients know when to expect services and can hold workers accountable for delivering them. Third, easily understood information on how to moni-

tor performance could be developed and posted outside the subcenter, as well as made available to the local *panchayat*.

Supporting the Frontline Workers

The measures discussed above will help to ensure that clients have access to services and that these services are tailored to meet local needs. However, these are necessary, but not sufficient, conditions for quality care. In addition, measurement of progress in training, supervision, and logistics systems needs to be strengthened to give workers the incentives, skills, support, and supplies they need.

Measurement of Performance

The management information system has been primarily used to feed information on target achievement up to state- and central-level managers. In doing so, it has operated as a powerful incentive mechanism, encouraging workers to focus on delivering their target number of cases, especially for family planning and immunization. The need to broaden the range of indicators so that workers focus equally on the full range of services that make up the reproductive and child health package was discussed in chapter 2. There is an important tradeoff between the need to increase the number of indicators to give a more balanced measure of the range and quality of services and the need to reduce the paperwork that takes up too much staff time. A set of indicators that meets both objectives needs to be finalized. The government is planning to test the following set of indicators:

- The proportion of institutional deliveries and deliveries by trained personnel in relation to the total estimated number of deliveries
- The number of health facilities providing medical termination of pregnancy services and the number of women treated for complications following unsafe abortions
- The number of health facilities providing emergency obstetrical care
- The number of polio and neonatal tetanus cases reported
- The number of planned information, education, and communication sessions on diarrheal diseases and acute respiratory infections and the number actually held
- The number of pneumonia cases in children under five years of age identified and treated
- The proportion of the total acceptors of sterilization with two, three, and more than three children
- The proportion of the total acceptors of reversible methods, in which the wife is less than thirty years old
- The total number of immunization sessions planned and the number of sessions actually held.

Monitoring indicators for a reproductive health approach are discussed in more detail in section H of the supplement volume.

Training

A quiet transformation of the family welfare training system has occurred during the past five years. A new infrastructure of state institutes of health and family welfare, regional and divisional training centers, and district training teams was created. States are beginning to recognize the critical importance of training for improving quality. And where, five years ago, fieldworkers seldom, if ever, received inservice training, most staff at the periphery have now received training at least twice. The secondary cities and the northeastern states, which have seriously deficient infrastructure, are an exception to this encouraging trend. The effort to strengthen training needs to be consolidated in four areas.

First, the skills of trainers and methodology of training need to be improved. This is partly a matter of improving the content and methodology of trainer training. But it is also essential to attract better-quality trainers into the system and to make sure that they stay in their posts once trained. This, in turn, means providing an appropriate career structure for trainers, so that training assignments are not seen as sideline jobs.

Second, field staff need more training in how to plan their work routines and in how to carry out quality two-way interpersonal information, education, and communication. Since the training content in these areas should vary depending on local plans and strategies and on the workers' skill levels, this type of training is best delivered at the block level by primary health center staff, who can tailor it to local needs. Trainers at the block level need to be selected and trained in the appropriate skills by the core training team, which has now been formed in most districts. This kind of "cascade" training has proved effective under the Child Survival and Safe Motherhood Program and should become routine.

Third, a major drive is needed to improve the quality of technical care delivered by auxiliary nurse-midwives and lady health visitors, especially in clinical skills such as pelvic examinations, IUD insertions, and deliveries. Unlike training in work planning and information, education, and communication, this training must be carried out at clinical facilities where the right type and number of cases are available. Because many workers have in the past graduated from clinical courses without the requisite hands-on practice, a careful evaluation is needed of the number of cases and training loads at existing clinical training facilities to assess the expansion required to implement the essential reproductive and child health package.

Fourth, redesigning the content of preservice training for auxiliary nurse-midwives, lady health visitors, and doctors is essential so that they receive the key technical, information, education, communication,

Table 4.2. Recommended Management Interventions to Strengthen the Family Welfare Program

<i>Intervention</i>	<i>Can it be done?</i>	<i>Is it low cost?</i>
<i>Improve access to services</i>		
Make work routines more efficient		
Review and revise tour programs	Yes	Yes
Develop systems for prioritizing clients	Yes	Yes
Cut time on recording and reporting	Yes	Yes
Give auxiliary nurse-midwives more help from other workers		
Expand the community link worker scheme	Yes	Yes
Increase the contribution of male multipurpose workers	Yes	Fairly
Make sure workers are resident		
Discipline or terminate nonresident staff	Yes	Yes
Convert badly located subcenters into clinics	Yes	Yes
Make sure workers are mobile		
Supply a jeep for every community and primary health center	Yes	No
Raise petroleum, oil, and lubricant allowances	Yes	No
Supply bicycles or mopeds for auxiliary nurse-midwives with large service areas	Yes	No
Make sure transport allowances are paid	Yes	No
Hire more female workers		
Hire more auxiliary nurse-midwives for large service areas	Yes	No
Contract key primary health center services to female private sector doctors	Yes	No
<i>Respond to client needs</i>		
Listen to clients' needs (two-way information, education, communication)	Yes	Yes
Develop district plans that meet local needs	Yes	Yes
Capitalize on opportunities of Panchayati Raj	Yes	Yes
Launch an information, education, communication campaign on the concept and importance of reproductive health	Yes	Yes
Supply matching grants for reproductive health initiatives	Yes	Fairly
Form partnerships to produce joint district plans	Yes	Yes
Define ways <i>panchayats</i> can help to improve program quality	Yes	Yes
<i>Support the frontline workers</i>		
Broaden the range of performance measures in the management information system	Yes	Yes
Improve the quality of inservice and preservice training		
Improve the skills of trainers	Yes	Yes
Improve training in work planning and interpersonal information, education, and communication	Yes	Yes
Improve training in clinical skills	Yes	No
Redesign the content of inservice training	Yes	Yes
Redesign the focus of supervision to on-the-job training	Yes	Yes
<i>Improve the referral system</i>		
Train field staff in recognizing referral needs	Yes	Yes
Strengthen the network of first referral units	Yes	No
Strengthen the network of primary health centers	Yes	No

and planning skills. This recommendation has often been made, but never implemented. Preservice training remains largely didactic rather than interactive and theoretical rather than hands-on. As a result, unnecessary inservice training time is spent giving field staff skills that they should already possess.

Supervision

Little progress has been made in reorienting supervision from inspections to opportunities to support the program, largely because the target and incentive system encourages supervisors to focus on the achievement of targets rather than quality. A better criterion for measuring the performance of supervisors would be their success in using the management information system and field visits to identify unmet client needs and deficient worker skills and to rectify these through on-the-job training. If the primary focus of supervision is to shift to on-the-job training, the skills of most supervisors will need to be strengthened—especially the information, education, and communication skills of doctors who are clinically oriented and the clinical skills of lady health visitors, which are often no better than those of the auxiliary nurse-midwives they supervise. This will further increase the load at clinical training facilities.

Procurement and Logistics

The scarcity of supplies at health facilities is the consequence of procurement and logistics breakdowns and inefficiencies, as well as underfunding. It will be particularly important to avoid a repeat of the eight-month stock-out of oral contraceptives that took place in 1992/93, if clients are to gain confidence in this method. Various issues should be addressed at central, state, and peripheral levels. At the center, there has been too much reliance on producers with multistage manufacturing technologies who cannot quickly fill supply gaps and too frequent changes of pill production contractors, which has led to quality control problems. Moves are being made to limit procurement to suppliers with proven efficiency. At the state level, deficiencies in storage and transportation and associated budgets need to be rectified. At the periphery, subcenters need to hold stocks equivalent to three months per user, rather than the one month now common, to avoid supply breakdowns, especially during the monsoon. Finally, the reproductive health approach requires giving higher priority to and more outlays for essential drugs as well as contraceptives.

Strengthening the Referral System

Frontline workers need the support of effective referral services both at first referral units and at primary health centers if they are to be credible and effective. In the case of the first referral unit and obstetrical care, the referral process needs to begin with recognition of potential complications. Preservice and inservice training of traditional birth attendants and auxiliary nurse-midwives should emphasize their role in training mothers to recognize the signs of impending complications. Assisted by the local *panchayat*, health workers need to set up an emergency transport system from each village to ensure timely referral. The key reproductive health function of the first referral unit is to reduce maternal mortality by treating obstetrical emergencies and complications from abortions. Under the Child Survival and Safe Motherhood Program, the network of first referral units is being extended to cover half of the country, and significant additional investment is required to achieve national coverage.

Primary health centers are also in great need of strengthening. More than 6,800 primary health centers remain to be constructed to meet current norms, and many are without their full complement of staff—for example, 1,295 primary health centers had no doctor and 6,780 had no laboratory technician in 1994 (India, MOHFW 1994c). Yet primary health centers have an important role to play in reducing the most common causes of child and maternal death—by treating infants referred for dehydration or severe respiratory infections and by dealing with the large proportion of high-risk pregnancies (such as women with anemia and toxemia) that, with proper management, need never develop into obstetrical emergencies. They also have a key role to play in family planning (for example, sterilization), in providing medical termination of pregnancy services, and in diagnosing and treating common, reproductive health-related diseases (such as reproductive tract and sexually transmitted infections). Because the subcenters are centrally funded, and primary health centers are primarily state funded, few resources have flowed into the network of primary health centers. This large financing gap must be filled if the essential reproductive and child health services set out in chapter 3 are to reach everyone.

Summary

Table 4.2 summarizes the main recommendations for strengthening the reproductive and child health focus and improving the quality of and client satisfaction with the FWP.

5. The Private Sector: Making Use of Untapped Potential

The private sector accounts for three-quarters of all health expenditures in India. The private sector's great advantages are its reach, convenience, and orientation to the client. Unlike family welfare subcenters, private medical practitioners and commercial outlets for drugs are ubiquitous. Their flexible hours and commitment to client service are the cornerstones of their success. For all these reasons, most people in India turn first to the private sector for curative care, and even poor people are prepared to pay substantial sums for it. The private sector's limitations are that it focuses mainly on curative care because that is what clients are prepared to pay for, that the poorest persons cannot always afford services, and that quality, as in the public sector, is very variable.

The private sector already plays an important role in delivering several reproductive and child health products and services—notably primary-level maternal and child health and family planning services. The 1992 NFHS for Uttar Pradesh found, for example, that about half of rural women using spacing methods obtained them from private sources (International Institute for Population Sciences 1994b). The private sector presents the government with tremendous untapped potential for increasing the coverage of some reproductive and child health services. The challenge for government is similar to its own challenge for the public sector—how to maximize reach by giving the private sector appropriate incentives, how to broaden the range of reproductive and child health services, and how to improve quality. These issues are considered, in turn, for the three major components of the private sector: the contraceptive social marketing program, private medical practitioners, and PVOs.

Social Marketing

In India, the term social marketing is used to mean the sale of contraceptives in commercial outlets at subsidized prices. The social marketing program for condoms is fairly substantial: condoms are marketed through 520,000 outlets, and the social marketing program sells or distributes free about half of all condoms used in the country. Nevertheless, several important issues related to the social marketing program remain to be resolved (a more detailed presentation of issues

and recommendations can be found in section G of the supplement volume). These include:

- The incentives to commercial participants are insufficient, and several of the major suppliers are threatening to withdraw from the program
- The social marketing program is dominated by condoms, at the expense of other products, and focuses on sales and supply, rather than on the marketing of information
- The free distribution of condoms is wasteful, and their frequency of use unsatisfactory
- The program has limited reach and is urban-biased.

Offering Incentives to Commercial Participants

The social marketing program is implemented by a small number of large, private companies and medium-size PVOs. Several of the large commercial participants in the market have for some time threatened to drop out, because they think that the incentives to participate are inadequate and because their corporate philosophy has changed. Indian Tobacco Company, Ltd., one of the largest participants, recently redeployed its condom marketing sales force to other activities. This action makes it clear that a review of the incentives for private sector participation is overdue and that a comprehensive strategic solution is needed, since the dissatisfaction of commercial participants is long-standing. As well as looking at the economics of participation, the proposed review should assess the current system of dividing the market geographically among companies; the potential for attracting medium-size companies in addition to the traditional, large players; and the degree to which bureaucratic constraints in program management are a disincentive to participants.

Broadening the Range of Products

As in the public sector, in the context of moving to a reproductive health approach, there is a need to broaden the range of products available to clients and hence increase client choice and satisfaction. The social marketing of oral contraceptive pills is still relatively limited and needs to be expanded rapidly. This has been government policy for some time, but little priority has been given to social marketing of this method, despite its suitability for the commercial sector. Condoms need to be made more available in rural areas. And consideration should be given to extending the range of products beyond contraceptives, for example, to include oral rehydration salts, iron supplements, and iodized salt.

Expansion of the range of products calls for a closer link between social marketing and information, education, and communication. While social marketing provides tangible products or commodities, information, education, and communication create health-seeking behavior. This requires greater knowledge about consumer behaviors and preferences and development of an information, education, and communication strategy, segmented by audience, to accompany the sales effort.

Expanding the Market

There remains tremendous scope to expand the number of retail outlets in the program, especially in rural areas. In Haryana, Rajasthan, and Uttar Pradesh, for example, 71 percent of retailers, including grocers, general stores, chemists, confectioners, and other outlets, do not stock condoms. New distribution channels will need to be developed—such as chemists for oral contraceptives and food companies for nutrition supplements. In order to give the private sector an incentive for expansion, subsidies should be considered for market development in addition to the normal subsidies on sales.

Improving the Condom Marketing Program

The real size of the market for condoms is unknown, since 890 million free condoms were distributed in 1993–94, constituting more than twice the volume of sales from social marketing and commercial outlets. Many of these free condoms never reach the client, and surveys show that clients use only half of those that do. The recent removal of method-specific targets for condoms should reduce this wastage. Surveys also show that only 70 percent of individuals who use condoms use them every time they have intercourse. The recent replacement of dry with lubricated condoms is a major improvement in quality, which should help to increase this proportion. But a major information, education, and communication campaign is also required to inform consumers of the dangers of intermittent use, including pregnancy and sexually transmitted diseases.

Strengthening Program Management

Program management will need to be strengthened at both central and state levels to facilitate the above changes, with a special focus on product procurement; distribution and logistics management; communication support; and capacity to monitor the performance of products, markets (by geographical area and client segment), and participants (commercial and private voluntary organizations). It

has proved very difficult to attract staff with the appropriate skills into the public sector. One possible avenue that should therefore be explored is the augmentation of the capacity of the Ministry of Health and Family Welfare by subcontracting the management of the national social marketing scheme to a specially created autonomous "social corporation," with the ministry, PVOs, and the commercial private sector represented on the board and the ministry's role limited to overall formulation and oversight of strategy, rather than day-to-day management.

Private Medical Practitioners

Private medical practitioners provide more than two-thirds of all health care in India. These human resources therefore provide a good opportunity to link public sector financing with private sector provision of services. This would give clients a wider choice and also enhance the quality of service.

There have been relatively few in-depth studies of private medical practitioners. The data below are taken from recent studies in Uttar Pradesh (Levine and others 1993) but are likely to represent the situation in other parts of the country. Private medical practitioners are extremely numerous; a conservative estimate of the number in Uttar Pradesh is 100,000. They are also much more accessible than auxiliary nurse-midwives or male multipurpose workers because many of them live in villages of between 500 and 2,000 inhabitants. The Uttar Pradesh surveys show that more than a third of villages of this size have a private medical practitioner, while only 4 percent have a government subcenter.

Although private medical practitioners derive most of their income from minor curative care, they also provide a significant amount of maternal and child health and family planning services, and some conduct deliveries. For example, nine out of ten private medical practitioners surveyed in Uttar Pradesh give their clients family planning advice, and three out of ten provide or prescribe family planning methods. Because the government emphasizes sterilization, and few private practitioners are able to provide this method, private medical practitioners are important providers of reversible contraceptive methods. Many have had no formal training in maternal and child health and family planning, but 90 percent of those surveyed are eager to have access to training because they think it will improve their practices. More than two-thirds are willing to be depot-holders for contraceptives.

A strong case can be made for having the government play a more active role in supporting and promoting the involvement of private practitioners in reproductive and child health care. In the case of qualified, allopathic practitioners, experiments should be carried out

with contracting out specific referral services at remote primary and community health centers that are difficult to staff. In the case of traditional practitioners, a program should be launched in each major state to encourage their involvement in reproductive and child health, building on the experience being developed in an ongoing project to support private practitioners in Uttar Pradesh. The primary need is for training to broaden the range of services they provide and to improve the quality of both their counseling and technical skills.

A major issue in developing such a program is how to organize such training cost-effectively. The large numbers and scattered location of private practitioners, which make them so convenient for client access, present a major challenge for training programs. Surveys show that many private practitioners are part-time workers and that the minority of practitioners who have full-time practices and larger client loads provides the majority of care. One study in Uttar Pradesh found that about a third of practitioners receives about 60 percent of the client visits (Levine and others 1993). Training and support could therefore be made more cost-effective by targeting practitioners with heavy client loads. Surveys show that many private practitioners are members of professional associations and that most would like more information and networking through such associations. Stronger associations of private practitioners may therefore be a potential channel for "cascade"-type training, along the lines of the family planning training that has been provided to many modern, allopathic practitioners through the Indian Medical Association.

Private Voluntary Organizations

PVOs are likely to play a relatively limited role in the delivery of reproductive and child health services in India because of their restricted client coverage and the fact that few operate in the rural areas of the north, where the poorest clients are concentrated. Nevertheless, where they are active—as, for example, in many inner-city slum areas—PVOs are often very effective at mobilizing the community and providing high-quality services that respond to local needs. Recognizing this, in 1991 the government set up a new mechanism for PVO financing, with three channels for support. These are through the central Ministry of Health and Family Welfare, through state standing committees on voluntary action, and through six large PVOs that act as "mother unit" intermediaries for the transfer of funds to smaller PVOs. These three channels began to operate at different times during 1992 and 1993.

During 1991–94, an amount of only Rs856.52 lakhs (\$2.8 million) was released to the states out of an available Rs24.59 crores (\$7.8 million) for PVO support.¹ The data available show that the number of

project proposals submitted by PVOs is low (indicating a poor response), that the proportion of proposals funded is low (suggesting problems in the application and approval process), and that some inefficiency exists in the projects funded. Four critical issues need to be addressed to improve the involvement of PVOs in the FWP. Further details are provided in section I of the supplement volume.

- Both the central and state units dealing with PVOs are understaffed and follow complicated bureaucratic procedures, leading to delays in processing applications and inadequate support for "mother units." Since the central ministry is committed to increasing the role of PVOs, the staffing issue must be addressed, and procedures reviewed to eliminate bottlenecks. More "mother units" should then be established and supported.
- The attitude of government officials needs to be reoriented so that PVOs are seen as collaborators. Continuous dialogue between PVOs and the government would help to improve the quantity and quality of collaboration.
- Technical assistance to weaker PVOs is needed. This is essential if the quantity and quality of applications are to increase, especially for the poorer areas that are often served by the weaker PVOs.
- New strategies need to be developed to strengthen the reproductive and child health focus of PVOs, and to mobilize PVOs for this work in remote, underserved areas and in the organized private sector.

Note

1. A crore is a unit of value equal to 10 million, or 100 lakhs. A lakh is thus equal to 100,000.

6. Financing the Reproductive and Child Health Program

This chapter presents the prevailing level of resources allocated to the FWP, comparing resource allocation by state. It then estimates what it would cost, over the next five years, to fill the funding gap of the current program, that is, to bring infrastructure, staffing, and recurrent costs to the level required to meet government guidelines and to put in place the reproductive and child health package shown in table 3.1. It closes with a discussion of how central government funding could be used as an incentive to encourage states to reorient the FWP toward a reproductive health approach. Section J of the supplement volume presents the calculations on which the data are based.

Current Resources Allocated to the FWP

Table 6.1 shows the estimated level of recurrent spending per capita on the FWP for 1994–95 and its composition, for various states and for India as a whole. At about Rs19 or \$0.61 per capita a year, India spends far less on family welfare than many developing countries. In fact, it spends less on maternal and child health and family planning than the \$0.90 (Rs28) recommended for family planning alone by the World Bank's *World Development Report 1993: Investing in Health* (World Bank 1993c). That report considers spending on maternal and child health and family planning to be among the most cost-effective health interventions and recommends spending \$5.40 (Rs167) per capita for these services in low-income developing countries.

The annual allocation for the FWP varies from a low of about Rs16 (\$0.52) per capita in Bihar to a high of about Rs26 (\$0.84) per capita in Rajasthan and about Rs19 (\$0.61) per capita for the four Hindi-belt states. The explanation for these differences by state is that each year's funding is based partly on the state's performance in spending the resources allocated for the previous year and partly on the size of the state's population. In addition, resources from externally funded projects are not evenly spread across the states. Overall, the pattern of resource allocation bears little relation to the need for funds, as reflected in such social indicators as crude birth rate or infant mortality level.

Financing of the subcenters is a case in point. First, the government norm of Rs26,000 (\$839) for funding each subcenter is far be-

Table 6.1. Estimated per Capita Recurrent Spending by the Central Government on the FWP, by Geographic Area, 1994–95
(rupees)

<i>Geographic location (number of states)</i>	<i>Salaries</i>		<i>Other fixed costs</i>	<i>MCH/CSSM programs</i>	<i>Family planning</i>	<i>Area projects</i>	<i>Total</i>
	<i>State</i>	<i>Center</i>					
Hindi Belt (4)	3.77	6.29	1.26	1.03	2.13	4.03	18.51
Bihar	2.26	5.29	1.07	0.99	2.76	3.28	15.65
Madhya Pradesh	4.94	6.08	1.56	1.41	2.03	3.44	19.46
Rajasthan	4.68	8.66	1.89	1.12	2.25	7.16	25.75
Uttar Pradesh	3.88	6.25	1.04	0.86	1.74	3.78	17.53
East (2)	3.96	7.05	1.17	0.53	2.32	3.21	18.24
Northeast (8)	4.81	8.03	3.34	3.18	1.67	1.63	22.65
South (4)	4.79	7.35	1.41	0.58	3.03	3.17	20.34
West and north (4)	4.78	6.49	1.42	0.71	2.99	2.32	18.72
All India	4.19	6.59	1.41	0.91	2.46	3.43	18.99

Note: MCH refers to maternal and child health programs; CSSM is the Child Survival and Safe Motherhood Program. Spending on the Family Welfare Program (FWP) is the sum of central expenditure on all components of the program, state-financed expenditure on the salaries of auxiliary nurse-midwives and 20 percent of the salaries of doctors at primary health centers and all paramedics in each state.

low requirements, which are at least Rs45,000 (\$1,452) per subcenter: the current annual salary for an auxiliary nurse-midwife alone amounts to about Rs38,000 (\$1,225). Second, the amount actually budgeted is even less than the norm; the 1994–95 budget allocated Rs185 crores (\$60 million) of government funding for 98,000 subcenters, or only Rs20,000 (\$645) per subcenter. As a result, the government has accumulated deficits in its funding of subcenters. Partial payment for such arrears to state governments amounted to Rs200 crores (\$65 million) in 1993–94 and Rs150 crores (\$48 million) in 1994–95.

Recurring expenditures per capita on health and family welfare services have declined in real terms in the majority of states over the three years since 1990–91. The average for all states declined by 12 percent; the steepest falls occurred in West Bengal (22 percent) and Uttar Pradesh (19 percent). Nonsalary recurring expenditure on the family welfare program declined from Rs51 crores (\$16 million) in 1991–92 to Rs30 crores (\$10 million) in 1993–94 in Uttar Pradesh.

In summary, the FWP is substantially underfunded when viewed in international perspective. India spends a third less per capita for maternal and child health and family planning than the amount recommended by the Bank for family planning alone, and less than 15 percent of the amount recommended for maternal and child health and family plan-

ning. Second, India has not been able to meet its own funding norms for the FWP. And third, the central government has been in arrears to the states for the last several years in allocating resources for the program.

Future Funding Requirements

The government will need to phase in gradually its development of the reproductive and child health approach. First, it will need to fill in critical gaps in inputs at the existing FWP facilities. Second, and somewhat parallel to the first step, it will need to expand services to areas that are not now served and that do not have, and are not likely to have for some time, other suppliers of these services. In carrying out both of these steps, the government will want to take careful account of the links between the FWP and other health activities and the emerging role of the private and voluntary sectors. Finally, where services are provided, it is critical that they be adequately financed so that they are of acceptable quality and likely to achieve their aims.

Two scenarios for additional financing requirements, called scenario A and scenario B, correspond, respectively, to a less and more complete filling of the gaps in physical and human infrastructure gaps. Each scenario takes into account the appropriate sequencing of anticipated expenditures, including those for prioritized capital requirements, construction activities, and staffing needs. Each scenario is also compared with a baseline scenario to derive the additional resources required during 1995–2000. The scenarios are defined as follows:

- *Baseline.* Existing level of input supply and percentage coverage of population are maintained; the absolute number of beneficiaries and the number of auxiliary nurse-midwives employed increase in proportion to the population.
- *Scenario A.* The subcenter gap and critical staffing gaps (auxiliary nurse-midwives and five categories of staff) at existing primary health centers are filled; no new primary health centers are created; new subcenters are constructed to fulfill Eighth Plan targets by 2000; all subcenters are provided with one bicycle or moped by 2000. Many districts in the country have upgraded facilities for referrals under essential obstetrical care. Excluded districts are given operation theaters, labor rooms, observation beds, ambulance facilities, and so forth.
- *Scenario B.* This scenario is the same as scenario A plus the creation of new primary health centers to fulfill the targets set by the Eighth Plan for 2000 and to provide every old and new primary health center with a jeep.

If the central government were to bear the total cost of shifting to the reproductive and child health approach, the cost of the two components,

over a five-year period, would be approximately \$1.7 billion (scenario B). Section J of the supplement volume (tables J.5 and J.6) provides projected costs, by year, for each scenario. Table 6.2 shows that the main cost of moving to the reproductive health approach is comprised of additional physical facilities, staff, supplies, equipment, and transport to fill the existing infrastructure gap in the FWP. In other words, the main cost of moving to a reproductive and child health approach is that of bringing the FWP up to existing coverage norms. The additional cost for covering the whole country with the package of essential reproductive and child health services by 1999–2000 is a relatively modest Rs890 crores (\$287 million), about 17 percent of the requirement for scenario B. Capital costs make up 30 percent of the total requirement under scenario A and 40 percent under scenario B. Salaries and other fixed recurring costs make up 51 and 43 percent, respectively, under the two scenarios.

The costs of strengthening the private sector's contribution to the FWP are included in table 6.2, because it is anticipated that these could be funded by reallocating resources within the FWP. For example, the movement away from free distribution of condoms, which currently consumes about Rs100 crores (\$32 million), and toward their sale can generate resources needed for storage facilities in the states.

The financing gap has three components: the gap in facilities, the gap in staffing, and the gap in transport. Each is discussed in turn.

The facility gap is the difference between the existing number of primary health centers and subcenters and the number required under the Eighth Plan. This is a conservative assumption, since the targets are based on 1991 population figures. The construction cost of additional subcenters is estimated at Rs681 crores, or \$220 million (scenario A), while the cost of additional primary health centers is estimated at Rs481 crores, or \$155 million (scenario B includes both types of facilities, aggregating to Rs1,162 crores, or \$375 million).

Table 6.2. Financing Required by the FWP in 1995–2000
(rupees crore at 1994–95 prices)

<i>Type of cost</i>	<i>Baseline</i>	<i>Scenario A (additional)</i>	<i>Scenario B (additional)</i>	<i>Difference (B minus A)</i>
Capital		1,280	2,146	866
Recurring expenditures	8,463	2,953	3,206	253
Salaries	6,250	914	1,065	151
Other fixed costs	664	1,230	1,251	21
Family planning	1,158	406	427	21
Other reproductive health	391	403	463	60
Total resources	8,208	4,233	5,352	1,119

The staffing gap is the difference between existing and required numbers, under each scenario, of the six most essential categories of staff at primary health centers and subcenters. These are auxiliary nurse-midwife, lady health visitor, medical officer, health educator, health assistant (male), and laboratory assistant. The cost of additional male multipurpose workers has not been estimated, given the states' unwillingness to hire more of these workers. Scenario A estimates what it would take to fill completely the gap in auxiliary nurse-midwives at subcenters and to fill all vacancies for the other five categories of staff at existing primary health centers only. This works out to Rs914 crores (\$295 million). Scenario B adds a further Rs150 crores (\$48 million) for the additional staff at new primary health centers created during 1995–2000 (it is assumed that facilities built during one year are staffed during the following year).

The lack of mobility of outreach workers and their supervisors and other staff at the primary level is a critical constraint in the FWP. The shift to a reproductive and child health approach, requiring greater client-provider contact, makes mobility even more critical. Scenario A estimates the cost of providing every auxiliary nurse-midwife at every subcenter with a bicycle or a moped (assuming an average unit cost of Rs8,000, or \$258) as being Rs64 crores (\$21 million) for 1995–2000. Scenario B estimates the costs of providing every primary health center with a jeep by the end of the decade as being an additional Rs360 crores (\$116 million).

Under scenario B, the additional costs associated with meeting the government's norms and fully funding the existing FWP comprise about 83 percent of the incremental costs, while only 17 percent of the incremental costs are associated with the provision of additional services in moving to the reproductive and child health approach. The capital costs are Rs21.5 billion, or around \$700 million, over a five-year period. The recurrent costs are Rs32.1 billion, or about \$1.03 billion. These numbers suggest that under a scenario in which the public sector funds the program totally, an 8.9 percent increase in recurrent costs a year in real terms would be needed by the FWP until fiscal 2000.

It is possible, however, that some reproductive and child health services may be provided by the private sector and by PVOs, where opportunities exist. In addition, priority for public expenditure will need to be placed on the satisfactory operation and maintenance of existing services as India moves to the package of essential services. Moreover, it will also be very important that any expansion of facilities be based on well-defined criteria that take account, among other things, of need, demand, equity, and the possibilities for private and PVO services in the area. To the extent that the private and PVO sectors might be able to provide services, and to the extent that requirements for public financing of facilities is reduced, the capital and recurrent cost requirements from the public sector would also be less.

Given the large section of the population under the poverty line and the special difficulties facing women, the public sector will have to play a central role in financing the reproductive and child health package of services. A joint commitment of all levels of government will be necessary, and the central government will need to consider how to enhance the overall budget for the sector within the context of the country's macroeconomic and fiscal constraints, taking into consideration the contributions made by the private and PVO sectors. Furthermore, some reallocation of resources within the FWP will be required both at the central and state levels.

Funding as a Performance Incentive

How to allocate additional resources for reproductive health services is as important an issue as making those resources available. At present, resources for the FWP have been distributed to the states and districts on the basis of population numbers, developmental need, and achievement of contraceptive targets. Linking financing with contraceptive target achievement has had several adverse consequences, including reinforcement of the focus on the number of family planning acceptors rather than on the quality and inflation of the performance reports for reversible contraceptives in some states. It is also inconsistent with the approach to population policy developed at the Cairo conference. If contraceptive prevalence rates are as much the product of socioeconomic factors as of program performance, judging the program on the basis of an achievement indicator that it can only partially influence is inappropriate. This report therefore recommends that the link between funding and the achievement of contraceptive targets be discontinued and that the government develop an alternative performance incentive mechanism for the states.

As an alternative, the government might consider linking incremental funding to states' demonstrated willingness to reorient the FWP toward a reproductive and child health approach. Specifically, in addition to population size and financing need, the following might be considered as indicators of performance:

- Achievement in spending the previous year's allocation from the central government
- Progress against agreed indicators of reorientation toward the reproductive and child health approach
- Amount spent by the states to upgrade the primary center network of primary health centers.

Bibliography

The word "processed" describes informally reproduced works that may not be commonly available through library systems.

- Andina, Michele, and others. 1994. *Mid-Term Evaluation. Private Voluntary Organizations for Health (PVOH-II)*. Boston, Mass.: John Snow, Inc.
- Bhatt, R. V. 1978. "An Indian Study of the Psychosocial Behaviour of Pregnant Teenage Women." *Journal of Reproductive Medicine* 21 (4, October): 275-78.
- Bhushan, Indu. 1991. "Information, Education, and Communication Bureau: Beginning and Perspective." Government of Rajasthan. Processed.
- Bose, Ashish. 1988. *From Population to People*. Vols. 1 and 2. New Delhi: D. K. Fine Art Press.
- Bulatao, Rodolfo. 1995. "Key Indicators for Family Planning and Reproductive Health Projects." World Bank, Human Development Department, Washington, D.C. Processed.
- Chhabra, Rami, and Sheei C. Nuna. 1993. "Abortion in India: An Overview." Veerendra Printers, New Delhi. Processed.
- CORT (Centre for Operations Research and Training). 1994. "Situation Analysis of MTP Facilities in Gujarat." Working Paper 4. Baroda. Processed.
- EPI. 1985. "Expanded Program on Immunization: Economic Appraisal, Sri Lanka." *Weekly Epidemiology Record* 50:191-94.
- Fathalla, Mahmood. 1988. "Research Needs in Human Reproduction." In E. Diczfalusy, P. D. Griffin, and J. Kharlana, eds., *Research in Human Reproduction. Biennial Report (1986-87)*. Geneva: World Health Organization.
- Gittelsohn, Joel, Margaret E. Bentley, Pertti J. Pelto, Moni Nag, Saroj Pachauri, Abigail D. Harrison, and Laura T. Landman, eds. 1994. *Listening to Women Talk about Their Health Issues and Evidence from India*. New Delhi: Ford Foundation and Har-Anand Publications.
- Gopalan, C. 1992. "Nutrition in Developmental Transition in South-East Asia." SEARO Regional Health Paper 21. Regional Office for South-East Asia, World Health Organization, New Delhi. Processed.
- Gupta, J. P., N. K. Sinha, and Amita Bardhan. 1992. "Evolution of Family Welfare Programmes in India." Vols. 1 and 2. National Institute of Health and Family Welfare, New Delhi. Processed.
- Gupta, S. C. n.d. "Mahila Swasthya Sangh: An Evaluation Study." Indian Institute of Mass Communication, New Delhi. Processed.

- India, MOHFW (Ministry of Health and Family Welfare). 1982. "Statement of National Health Policy." New Delhi. Processed.
- . 1986a. *Report on the Evaluation System of the Family Welfare Program*. New Delhi.
- . 1986b. *Revised Strategy for National Family Welfare Programme—A Summary*. New Delhi.
- . 1992a. *Action Plan for Revamping the Family Welfare Programme in India*. New Delhi.
- . 1992b. *Department of Family Welfare Yearbook, 1990–91: Family Welfare*. New Delhi.
- . 1993. *Conference of Central Council of Health and Family Welfare. "Agenda Notes."* New Delhi.
- . 1994a. "Country Statement, International Conference on Population and Development, Cairo." New Delhi. Processed.
- . 1994b. "Introduction of Quality in Family Planning Services." New Delhi. Processed.
- . 1994c. "Note on IEC Activities." New Delhi. Processed.
- . 1994d. "Rural Health Statistics." New Delhi. Processed.
- . annual. *Ministry of Health and Family Welfare Annual Report*. New Delhi.
- India, Planning Commission. 1992. *Report of the Committee of the National Development Council on Population*. New Delhi.
- India Planning Commission, Expert Group on Population Policy (Swaminathan Committee). 1994. "Draft National Population Policy." New Delhi. Processed.
- Indian Council of Medical Research. 1991. *Evaluation of Quality of Family Welfare Services at Primary Health Centre Level*. Compiled by S. Datey, S. Mehta, and B. N. Saxena. New Delhi.
- . 1993. *Improving the Quality and Coverage of Maternal and Child Health and Family Planning Services at Primary Health Center Level*. New Delhi.
- . 1994. *A Multicentre Collaboration Study on the Care of Mothers and Infants with a Comprehensive MCH Care Package Utilizing High Risk Approach Strategy at Primary Health Centres*. New Delhi.
- International Institute for Population Sciences. 1994a. *National Family Health Survey 1992/93*. Bombay.
- . 1994b. *Quality of Family Welfare Services and Care in Selected Indian States*. Bombay.
- Jeffery, Patricia. 1992. "Report on the Role of ANMs in Haryana." Processed.
- . 1993. "Report on the Role of ANMs in Rajasthan." Processed.
- Khan, M. E., and B. C. Patel. 1993. *Review of Family Planning in Uttar Pradesh: A Synthesis*. New Delhi: Population Council.
- Khan, M. E., and S. Rajagopal. 1993. "Family Planning in India: Observations on the 1970, 1980, and 1988 ORG National Family Planning Surveys." ORG National Family Planning Surveys Working Paper 1. Centre for Operations Research and Training (CORT), Baroda. Processed.

- Kundu, N. K. 1994. *Contraceptive Social Marketing in India: A Brief Report*. Washington, D.C.
- Levine, Ruth E., Harry E. Cross, Ashok Gopal, and Hema Viswanathan. 1993. "Do Rural Doctors Have What It Takes to Provide Family Planning Services? Results from a Survey in Uttar Pradesh." Report produced under the OPTIONS for the Population Policy Project. Urban Institute, Washington, D.C. Processed.
- Luthra, Usha K., Suman Mehta, N. C. Bhargava, Prema Ramachandran, N. S. Murthy, A. Sehgal, and B. N. Saxena. 1992. "Reproductive Tract Infections in India: The Need for Comprehensive Reproductive Health Policy and Programs." In Adrienne Germain, King K. Holmes, Peter Piot, and Judith N. Wasserheit, eds., *Reproductive Tract Infections: Global Impact and Priorities for Women's Reproductive Health*, New York/London: Plenum Press.
- Ness, Gayl D. 1989. "Implementing Strategic Management in Population Programmes: The Search for Strategic Interventions." In Gayl Ness and Ellen Sattar, eds., "Strategic Management of Population Programmes." Management Contributions to Population Programme Series 7. ICOMP, Kuala Lumpur. Processed.
- Operations Research Group (ORG). 1982. "Second All-India Family Planning Survey." Baroda. Processed.
- _____. 1990. "Family Planning Practices in India: Third All-India Family Planning Survey." Baroda. Processed.
- Operations Research Group and Family Health International. 1993. *Social Marketing of Condoms in India*. New Delhi.
- Over, Mead, and Peter Piot. 1993. "HIV Infection and Sexually Transmitted Diseases." In Dean T. Jamison, W. Henry Mosley, Anthony R. Measham, and José Bobadilla, eds., *Disease Control Priorities in Developing Countries*. New York: Oxford University Press.
- Piot, Peter, and J. Rowley. 1992. "Resources Needed for the Control of Reproductive Tract Infections." In Adrienne Germain, King K. Holmes, Peter Piot, and Judith N. Wasserheit, eds. *Reproductive Tract Infections: Global Impact and Priorities for Women's Reproductive Health*. New York/London: Plenum Press.
- Podol, R., B. Deolalikar, N. S. Deodhar, and H. Singh. 1993. *Final Evaluation: Information, Education, and Communication Component of Family Planning Communications and Marketing (FPCM) Project*. Rosslyn, Virginia: John Snow, Inc.
- Ramasundaram, S. 1995. "Implementation of Population and Related Policies: Reproductive Health and Family Welfare—An Overview." Paper presented at a seminar on population policy in India: review and reconsideration, Jaipur, 17–19 February. Processed.
- Satia, J. K., and Shireen J. Jejeebhoy. 1991. *The Demographic Challenge: A Study of Four Large Indian States*. New York: Oxford University Press.
- Schultz, K. F., J. M. Schulte, and S. M. Berman. 1992. "Maternal Health and Child Survival: Opportunities to Protect Both Women and

- Children from the Adverse Consequences of Reproductive Tract Infections." In Adrienne Germain, King K. Holmes, Peter Piot, and Judith N. Wasserheit, eds., *Reproductive Tract Infections: Global Impact and Priorities for Women's Reproductive Health*. New York/London: Plenum Press.
- Shekar, Meera, and S. Mukharji. 1994. "Communication for Change: Translating Family Planning into a People's Programme." IEC strategy development workshop. SIFPSA and the Johns Hopkins University, Baltimore, MD. Processed.
- Solapurkar, M. L., and R. N. Sangam. 1985. "Has the MTP Act in India Proved Beneficial?" *Journal of Family Welfare* 31(3): 46–52.
- Srinivasan, K. 1994. "Birth-based Approach to Family Planning Programme in India: Impact Evaluation and Target Setting Based on Characteristics of Births." Report to United Nations Fund for Population Activities, New Delhi. Processed.
- STEM (Centre for Symbiosis of Technology, Environment, and Management). 1993a. *Rapid Appraisal Study on Communication Need Assessment for Non-tribal Areas of Ten Districts*. New Delhi.
- . 1993b. *Rapid Appraisal Study on Communication Need Assessment—Tribal Population*. New Delhi.
- Tinker, Anne, and Margorie A. Koblinsky. 1993. *Making Motherhood Safe*. World Bank Discussion Paper 202. Washington, D.C.
- Townsend, J. W., and M. E. Khan. 1993. "Target Setting in Family Planning Programmes: Problems and Potential Alternatives." *Demography India* 22(1):113–25.
- United Nations Fund for Population Activities. 1992. *Contraceptive Requirements and Logistics Management Needs in India*. New York.
- . 1994. "Programme of Action of the United Nations International Conference on Population and Development." New York. Processed.
- . 1995. "Interim Report of the Executive Director." New York. Processed.
- van Dam, C. J. 1994. "Steps in Incorporating STD and HIV/AIDS Prevention and Control into Family Welfare Programme." Paper presented at the workshop on integration of STD/HIV/AIDS Prevention Activities into Family Welfare Programmes, Jaipur, 9–10 December. Ministry of Health and Family Welfare. Processed.
- . 1995. Personal communication, WHO, New Delhi.
- Visaria, Pravin, and Leela Visaria. 1994. "Demographic Transition: Accelerating Fertility Decline in the 1980s." *Economic and Political Weekly*, 17–24 December: 3281–92.
- Weinman, J. M. 1995. *A Literature Review of Information, Education, Communication (IEC) Programs Involving Reproductive Health Issues in India*. Washington, D.C.: Program for Appropriate Technology in Health.
- World Bank. 1989. "Family Welfare Strategy in India: Changing the Signals." India Country Department, Washington, D.C. Processed.

- . 1990a. "The Role of NGOs in India's Family Welfare Programme." India Country Department, Washington, D.C. Processed.
- . 1990b. "Strengthening the Role of Non-Governmental Organizations in the Health and Family Welfare Program in India." 3 vols. India Country Department, Washington, D.C. Processed.
- . 1993a. "India: Issues in Women's Health." India Country Department, Washington, D.C. Processed.
- . 1993b. "India: Public Expenditure Review—Sector Report IV: Social Sectors." India Country Department, Washington, D.C. Processed.
- . 1993c. *World Development Report 1993: Investing in Health*. New York: Oxford University Press.
- . 1994a. *A New Agenda for Women's Health and Nutrition*. Washington, D.C.
- . 1994b. *Population and Development: Implications for the World Bank*. Washington, D.C.
- . 1994c. "A Review of the NGO Component of IPP 7." India Country Department, Washington, D.C. Processed.
- . 1994d. "A Review of the Social Marketing Component of IPP 7." India Country Department, Washington, D.C. Processed.
- . 1995e. "India: Policy and Finance Strategies for Strengthening Primary Health Care Services," South Asia Country Department, Washington, D.C. Processed.
- . 1995f. *Economic Developments in India: Achievements and Challenges*. Washington, D.C.
- World Health Organization. 1984. *Prevention and Treatment of Conjunctivitis in the Newborn at the Primary Level*. WHO Publication PB2/84-4. Geneva.
- . 1991a. *Management of Patients with Sexually Transmitted Diseases*. Report of a World Health Organization study group, WHO Technical Report Series 810. Geneva.
- . 1991b. "Report of the Consultation on Maternal and Newborn Infections." Geneva. Processed.
- Zurayk, H., N. Younis, and H. Khattab. 1994. *Rethinking Family Planning Policy in Light of Reproductive Health Research*. Policy Series in Reproductive Health 1. Cairo: Working Group on Reproductive Health, Population Council Regional Office for West Asia and North Africa.



THE WORLD BANK
A partner in strengthening economies
and expanding markets
to improve the quality of life
for people everywhere,
especially the poorest

HEADQUARTERS

1818 H Street, N.W.
Washington, D.C. 20433, U.S.A.

TELEPHONE: (202) 477-1234
FACSIMILE: (202) 477-6391
TELEX: MCI 64145 WORLDBANK
MCI 248423 WORLDBANK
CABLE ADDRESS: INTBAFRAD
WASHINGTONDC
WORLD WIDE
WEB: <http://www.worldbank.org>
E-MAIL: books@worldbank.org

EUROPEAN OFFICE

66, avenue d'Iéna
75116 Paris, France

TELEPHONE: (1) 40.69.30.00
FACSIMILE: (1) 40.69.30.00
TELEX: 640651 0077-3

Internal Documents Unit,
H E1-151

TOKYO OFFICE

Kokusai Building
1-1 Marunouchi 3-chome
Chiyoda-ku, Tokyo 100, Japan

TELEPHONE: (3) 3214-5001
FACSIMILE: (3) 3214-3657
TELEX: 26838

