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Defining a Reproductive Health Package for India: A Proposed Framework

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Reproductive Health

Concept, Framework and Ideology

The Concept

The past decade has witnessed a significant shift in the way population and reproductive health problems are conceptualized. There has been a clearer articulation and definition of reproductive health as a concept as well as some thinking on ways in which reproductive health problems should be addressed. Reproductive health terminology is now part of the rhetoric of many constituencies as there has been a growing discourse on issues related to population and reproductive health and more recently on sexual health. This discussion reached its pinnacle at the International Conference on Population and Development in Cairo, where reproductive health as a concept and as an ideology received global acknowledgment. The challenge now is to translate this concept into policies and programmes at the national level.

A reproductive health approach means that:

- people have the ability to reproduce and regulate their fertility;
- women are able to go through pregnancy and child birth 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 Framework

The proponents of the reproductive health framework believe that reproductive health is inextricably linked to the subject of reproductive rights and freedom, and to women's status and empowerment. Thus, the reproductive health approach extends beyond the narrow confines of family planning to encompass all aspects of human sexuality and reproductive health needs during the various stages of the lifecycle. In addressing the needs of women and men, such an approach places an emphasis on developing programmes that enable clients to make informed choices; receive screening, counselling services and education for responsible and healthy sexuality; access services for preventing unwanted pregnancy, safe abortion, maternity care and child survival, and for the prevention and management of reproductive morbidity. Thus, reproductive health programmes are concerned with a set of specific health problems, identifiable clusters of client groups, and distinctive goals and strategies.

The Ideology

A paradigm shift is needed for operationalizing reproductive health programmes. A change in focus from a population control approach of reducing numbers to a client-based approach of addressing the reproductive health needs of individuals, couples and families, is necessary. Implementing reproductive health services within the national programme in India would, therefore, require an ideological shift, which in turn would necessitate a change in the existing culture of the programme from one that focuses on achieving targets to one that aims at providing a range of quality services. This agenda recognizes that fundamental policy changes are needed for its implementation; one that entails a shift of programme focus from societal fertility reduction to an explicit concern for assisting individuals to meet their personal reproductive goals. At the aggregate level, it means that instead of remaining responsible for reducing the rate of population growth, reproductive health programmes would become responsible for reducing the burden of unplanned and unwanted childbearing and related morbidity and mortality (Jain and Bruce 1994). Social and economic policies must then become responsible for achieving a broad range of demographic goals at the macro-level.

Quality and Measurement

Reproductive health programmes are designed to address clients' needs and, therefore, an important implication for their implementation is to ensure that the quality of services is improved, particularly from the perspective of the user. Several studies have highlighted the wide social and cultural gap that exists between the providers and users of services. In order to bridge this gap, more attention should be focused on the users' perspective within the overall framework of the service delivery system. There is a need to specially focus on women since they constitute the major client group or users of these programmes and also have the greatest problem of access, both physical and social, to health services (Pachauri, 1994a).

Quality is defined in terms of the way individuals and clients are treated by the system providing services (Jain and Bruce 1989). Using this principle, Bruce has evolved a working definition of quality applicable to family planning services, that incorporates six elements: choice of methods; information provided to clients; technical competence of service providers; interpersonal relations between service providers and clients; mechanisms to encourage continuity of care; and an appropriate constellation of services to address the reproductive health needs of the users of these services. Although developed primarily for family planning programmes, this framework is to a large extent valid for reproductive health programmes also. However, some further refinements of the framework that is specific for reproductive health services would be needed. This framework views the individual-level outcome as a consequence of service giving. It is based on the idea that the clients or users of services have a right to expect knowledge and satisfaction, and that fulfilling those expectations is the most valued aim of managers and service providers (Jain 1992). A basic premise of this framework is that improvements in service quality will result in client satisfaction and will, over the long term, translate into higher contraceptive prevalence and ultimately in fertility reduction (Jain 1992). However, if the broader reproductive health needs of clients can be addressed by providing good quality services, the programme will be able to achieve the objectives of not only reducing fertility but also reducing reproductive morbidity and mortality.

India's demographic and health profile today is radically different to the conditions of the national family planning programme when it was launched in 1951. During this 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. Mortality and fertility decline ran roughly parallel for many years, so that the population growth rate remained above 2 percent per 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 to 3.4 births per woman (Table 14.1). The contraceptive prevalence rate is 45.4 percent.

Table 14.1: Changes in Key Parameters, 1951 to 1992

Parameters	**1951-61**	**1981**	**1992**
Crude Birth Rate	41.7	37.2	28.7 (SRS 1993)
Total Fertility Rate	6.0	4.5	3.6 (SRS 1992)
Infant mortality rate (per 1000 live births)	146.0	110.0	74 (SES 1993)
Couple protection rate (%)	10.4 (1970-71)	22.8	45.4 (March 1994)
No. of births averted (estimated in millions)	0.04	44.4	168.8 (March 1994)
Life expectancy at birth (years)	41.3	50.5 (1971-81)	58.6 (1986-91)

Source: World Bank, 1995

To date, the impact of the family planning programme has been measured mainly in terms of its contribution toward the increase of contraceptive prevalence and to the decrease of fertility. Since these indicators do not reflect the impact of the programme on morbidity and mortality, they are not adequate for measuring the impact of reproductive health services. Unless these criteria for the programme's success or failure are modified, the programme will continue to be guided by overall goals of reducing fertility by achieving targets.

Indicators for measuring the quality of health services from the perspective of the client are necessary. For example, if a client avoids unplanned or unwanted childbearing

safely, without negative consequences to his or her health, the programme is a success. Otherwise, it is a failure (Jain 1992). The challenge is to find ways to synthesize this information. There is an urgent need to develop indicators that can be used to monitor reproductive health services. Pilot projects should be undertaken to test the feasibility, reliability and effectiveness of monitoring and evaluation systems, especially in those areas where contraceptive targets have been removed.

Reproductive Morbidity and Mortality

According to the World Bank, about one-third of the total disease burden on women, 15 to 44 years of age, in developing countries, is linked to health problems related to pregnancy, childbirth, abortion, human immuno-deficiency virus (HIV), and reproductive tract infections (RTIs). Among diseases for which cost-effective interventions exist, reproductive health problems account for the majority of the disease burden in women of this age group (World Bank 1993). There are sub-stantial data to show that Indian women bear a heavy burden of reproductive morbidity (Bang et al., 1989; Bang and Bang 1991; Pachauri and Gittlesohn 1994; Jejeebhoy and Rama Rao 1992). The heavy load of reproductive morbidity among Indian women is an outcome of their poverty, powerlessness, low social status, malnutrition, infection, high fertility and lack of access to health care. Thus, socio-economic and biological determinants operate synergistically throughout the lives of poor women to undermine their health, resulting in high levels of morbidity and mortality (Pachauri 1994a).

The magnitude of women's reproductive health problems is reflected in the number of deaths related to pregnancy and childbirth, the most direct indicator of reproductive health care. India's maternal mortality ratio, usually estimated at 400-500per 100,000 live births, is fifty times higher than that of many developed countries and six times higher than that of neighbouring Sri Lanka (Ascadi and Johnson-Ascadi 1990). According to the National Family Health Survey, the maternal mortality ratio in 1992-93 was 420 per 100,000 (International Institute of Population Studies 1994). Expressed another way, a woman living in India runs a 300 times greater risk of dying in pregnancy and childbirth compared to a woman in the developed world. Mortality statistics, however, tell us only a part of the story. One small study conducted in India showed that for every woman who dies, an estimated 16 others develop various illnesses (Datta et al. 1980). Some pregnancy related illnesses are life threatening while others is chronic and debilitating such as vaginal fistulas and uterine prolapse, which cause terrible suffering. More research is needed to understand maternal morbidity risks as data on maternal morbidity are grossly lacking and community based morbidity data for developing countries are almost non-existent.

Although there is a high burden of reproductive morbidity, cost-effective interventions are also becoming increasingly available. The challenge is to develop cost-effective packages of good quality services to address the needs of specific client groups in various settings and to make these available and accessible to all, and especially to the poor, and the disadvantaged. Providing comprehensive reproductive health services to all is a desirable goal but, since there is considerable variability in the organizational capacity of programmes in the different regions and states of the country, the extent to which a programme might expand without compromising the quality and effectiveness of existing services must be seriously considered. There is clearly a need to prioritize and develop a phased approach with an incremental addition of health interventions that require greater skills and resources.

The discussion in this paper focuses primarily on the role of government programmes. However, the private sector and non-government organizations (NGOs) also play an important role in the provision of health care in the country. Consequently, it would be important to involve them as partners in this effort. In addition, social marketing programmes should also be re-designed to include products and information not only for family planning but also for reproductive tract infections, including those that are sexually transmitted.

Recommended Package of Services

Rationale for Recommending a Package of Services

In this paper, an attempt has been made to develop a framework for defining a package of reproductive health services for the country. The criteria used for selecting particular health services included in the package are: cost-effectiveness; disease burden; levels of fertility and mortality; and the capacity of the health infrastructure to deliver services effectively. The rationale for suggesting a package approach is to enable programme planners to: (1) assess the feasibility and management implications for implementing various combinations of health services at different levels of the health service system in diverse settings; and (2) examine the cost, financing and sustainability implications of implementing these health services.

As there is enormous diversity in India among the regions and states, as well as between rural and urban areas, no single package of services can be recommended for nation wide implementation. While in underserved areas, such as in the northern states of India, there is a continuing need to strengthen the health infrastructure and improve service access; in states with the better developed programmes, such as Tamil Nadu and

Kerala, efforts should now be made to expand the range and quality of services provided. The availability of resources and the capacity of the existing health infrastructure to deliver services effectively would determine the choice of specific interventions and levels of technical complexity that can he effectively integrated within existing programmes.

In the section that follows, two packages of reproductive health services are discussed: 1) a comprehensive package which at present would have limited application; and 2) an essential package which is recommended for nation wide implementation. Even the essential package would require considerable managerial, technical and financial inputs for its implementation, particularly in regions and states with weak infrastructural capacity (World Bank 1995). The proposed framework could be used to design reproductive health programmes that are feasible, affordable and effective in different contexts.

(1) A Comprehensive Reproductive Health Services Package

Although a comprehensive reproductive health services package would at present have limited application in India, it is outlined in this paper for two reasons. First, because it is important to plan for the incremental addition of services in a phased manner particularly for the more advanced states as well as for urban areas with better facilities; and second, because it may be possible to implement this package of services in some selected areas. In areas where it is implemented, it is recommended that operations research be undertaken to concurrently assess the feasibility and effectiveness of the various health interventions included in this service package. The goal should be to expand the implementation of services incrementally and in a phased manner by utilizing research results and lessons learnt from programme experience. The following services are included in a comprehensive reproductive health services package:

- Prevention and management of unwanted pregnancy;
- Services to promote safe motherhood;
- Services to promote child survival;
- Nutritional services for vulnerable groups;

- Prevention and treatment of reproductive tract infections and sexually transmitted infections;

- Prevention and treatment of gynaecological problems;

- Screening and treatment of breast cancer;

- Reproductive health services for adolescents;

- Health, sexuality and gender information, education and counselling;

- Establishment of effective referral systems.

Clearly, this entire package of services, though desirable, would at present have limited application. This package of services could be tried in selected urban areas where there is a better availability of trained service providers and where it is possible to establish referral linkages with multiple health facilities that are operating in these areas. It could also be tried in selected districts of the more advanced states such as Kerala, Tamil Nadu and some others.

Each of the services in the recommended comprehensive package incorporates a number of interventions. Some of these interventions can be implemented at the peripheral levels of the health delivery system, while others require more sophisticated professional skills and facilities and can, therefore, be implemented only at the higher level or at the peripheral level in areas with adequate facilities. These issues are discussed in the following section. The last two services, health, sexuality and gender information, education and counselling and the establishment of effective referral systems, are not separate services but are critical for the effective implementation of all the other reproductive health services within the service system.

It is recommended that operations research projects be undertaken in selected areas to assess the feasibility and effectiveness of implementing interventions included in this service package, in order to document lessons learnt for improving the effectiveness of existing programmes as well as for planning new programmes. Some of the research questions to be addressed are: How can these interventions he operationalized? What are the short and long range priorities? What strategies should be designed to address

the diverse needs of populations in different region's and states? And what specific investments are needed? This package of services is recommended for adoption, in a phased manner, in selected districts of states with a higher resource and performance base. It should be concurrently evaluated to assess its feasibility and effectiveness. NGOs should be encouraged to work in partnership with the government and also to develop models of comprehensive reproductive health services. The feasibility and effectiveness of these models should be carefully assessed. In addition, the private sector should also be an active partner in the effort to provide high quality reproductive health services.

The effective implementation of this package of services has major implications for strengthening existing service capacity, especially the managerial capacity of the public system. For implementing this programme effectively, there is a need to emphasize staff training and to put in place equipment and supplies that would be necessary for providing these services. There is an urgent need to strengthen the capacity of the delivery system at various levels to improve the quality of services, particularly from the perspective of the user of these services and also to ensure that there is better coordination among field level staff so that there is a convergence of services at the user's end. For example, services for the management of sexually transmitted infections (STIs) and HIV/AIDS prevention programmes that have been recently initiated by the Health Department through the National AIDS Control Programme, should be integrated with services provided for the prevention and management of unwanted pregnancy and the promotion of child survival and safe motherhood by the Department of Family Welfare as well as with the Integrated Child Development Services (ICDS) Programme, which provides food supplements to vulnerable populations.

(2) An Essential Reproductive Health Services Package

The following package of essential reproductive health services is recommended for nation wide implementation:

- Prevention and management of unwanted pregnancy;
- Services to promote safe motherhood;
- Services to promote child survival;

- Nutritional services for vulnerable groups;

- Prevention and treatment of reproductive tract infections and sexually transmitted infections;

- Reproductive health services for adolescents;

- Health, sexuality and gender information, education and counseling;

- Establishment of effective referral systems.

All the services included in this package are presently recommended as a part of the government's Health and Family Welfare Programme. At present limited reproductive health services for married adolescents are provided through this programme. In addition, food supplementation programmes are provided through the ICDS Programme. While all these services are theoretically included in the national programme and are specified in the various policy and programme documents, there have been serious problems with their implementation at various levels of the health delivery system. There is a vast body of literature that highlights the numerous structural and functional constraints that impede effective programme implementation and these are well understood by policy planners and programme managers. These constraints relate to access to services, programme-client interactions, supervision and support, and programme financing.

For the effective implementation of the essential package of reproductive health services, these issues must be addressed. First, the gaps in existing facilities must be filled and services expanded to areas that are not served. Second, where reproductive health services are provided, they must be adequately financed to ensure acceptable quality of care. The World Bank estimates that only 17 percent incremental costs are associated with the provision of additional services for moving the present family welfare programme to a reproductive health approach. If the entire costs are borne by the public sector, an additional amount of 8.9 percent of recurrent costs per year in real terms would be needed for the programme until the year 2000. These costs would be minimized if some reproductive health services are also provided by NGOs and the private sector (World Bank 1995).

Recommended Services for Prevention, Treatment and Management of Reproductive Health Problems

In the section that follows, a rationale is provided for recommending particular health interventions in the package of essential health services and their importance and relevance in the Indian context is discussed. An attempt is also made to delineate important elements that are presently lacking and must be incorporated within the programme to ensure the effective implementation of the recommended services. The discussion focuses on interventions within each service component that can be implemented at various levels of the health service system. Health interventions that can be implemented at the community, sub-centre, primary health centre (PHC) and community health centre (CUC)/district/sub-district hospital levels are delineated in tabular form (Tables 14.2-14.5).

Table 14.2: Services for the Prevention and Management of Unwanted Pregnancy at Difference Levels of the Health Service System

Community Level	**Sub-centre Level**	**Primary Health Centre Level**	**Community Health Centre District/Sub-district Hospital Level**
Sexuality and gender information, education and counselling Community mobilization and education for adolescents, youth, men and women Community-based distribution of contraceptives Social marketing of contraceptives Establishment of effective referral systems	Sexuality and gender information, education and counselling Expansion of contraceptive choice Provision of oral contraceptives and condoms Insertion of IUDs after screening for contra-indications Counselling, management and referral for side-effects, method-related problems, and change of method where indicated Motivation and referral for sterilization Counselling and referral for medical	Sexuality and gender information, education and counselling Expansion of contraceptive choice Provision of oral contraceptives and condoms Insertion of IUDs after screening for contra-indications Conducting vasectomy procedures Performing first trimester medical termination of pregnancy (upto 10 weeks) Counselling and management of cases referred for side-effects, method-related	Sexuality and gender information, education and counselling Expansion of contraceptive choice Provision of oral contraceptives and condoms Insertion of IUDs after screening for contra-indications Conducting vasectomy procedures Provision of first and second trimester medical termination of pregnancy Counselling and management of cases referred for side-effects, method-related problems, and change of

	termination of pregnancy Establishment of effective referral systems Management of referred cases and feedback to referral source	problems, and change of method where indicated Motivation and referral for sterilization Counselling and referral for second trimester pregnancy termination Establishment of effective referral systems Management of referred cases and feedback to referral source	method where indicated Establishment of effective referral systems Management of referred cases and feedback to referral source

Note: Health interventions that are not a part of the present programme are highlighted in all the tables.

Prevention and Management of Unwanted Pregnancy

The programme currently relies heavily on female sterilization which is by far the most dominant method. A 'basket of services' is recommended to enhance the choice for women. A greater emphasis should, therefore, be placed on increasing the choice of method by including reversible contraceptive methods. Reversible methods are more likely to affect birth rates and also to improve maternal and infant health. These methods, however, require complementary attention to improving the quality of services and addressing clients' reproductive health needs.

The objective of the programme should be to provide people with the means to achieve their reproductive goals in a healthy manner (Jain and Bruce 1994). Contraceptive safety is an essential requirement; the programme must ensure that contraceptive services are delivered safely. Ensuring service quality and safety is especially important for all surgical procedures. Special care must also be taken for inserting intra-uterine devices (IUDs), particularly in areas where RTIs and STIs are widely prevalent and when the client's RTI status is not known. Supportive counselling and follow-up services are essential elements of a programme designed to provide quality care, particularly for reversible methods.

Special efforts should be made to encourage men to take responsibility for family planning. Health providers should be pro-active by making special efforts to re-introduce vasectomy into the programme and should encourage men to accept responsibility for family planning, reproduction and childcare. In addition, the condom should be promoted as a method to provide dual protection against both pregnancy and infection. For those at risk of STIs, condoms should be advised even if the client or partner has been sterilized or is using another family planning method such as the IUD or oral contraceptives.

Services for Safe Abortion

The Medical Termination of Pregnancy (MTP) Act was passed by the Indian Parliament in 1971 but what was thaught to be a landmark in social legislation, has failed to translate into reality for the majority of Indian women, particularly in rural areas. Today, there are more illegal abortions in India than there we prior to the MTP Act with about 15,000-20,000 abortion-related deaths occurring annually mainly among married, multiparous women (Chhabra and Nuna 1994). These figures show that there is a vast unmet need for contraception and safe abortion. Table 14.2 indicates that counselling and referral services for MTP should be organized at the peripheral levels of the health care system. Services for first trimester abortion should be made available at PHCs, and facilities for the second trimester abortions at CHCs.

Unsafe abortion is an important cause for maternal mortality and results in high levels of maternal morbidity in India. In large part, this is due to the failure of the programme to integrate MTP services with family planning services. About 11-12 per cent of maternal deaths in rural India are due to septic abortion (Government of India 1990). Sep- tic abortions account for upto 25 per cent of all maternal deaths in hospital studies in India (Bansal and Sharma 1985; Mathur and Rohatgi 1981; Kamalajayaram et al. 1988),

A recent report on abortion shows that poor women in India, particularly in rural areas, do not have access to safe abortion services. Some of the important programmatic constraints that have limited access are: rigid bureaucratic control; an inflexible approach; inadequate funding; lack of training of health care providers; and poor monitoring of MTP services. While public sector programmes should be strengthened to provide safe abortion services, there is an urgent need to examine the quality of services provided by the private sector and to organize training programmes for private practitioners, as they are by far the most important providers of abortion services in the country.

Services to Promote Safe Motherhood

Although maternal and child health (MCH) services form an integral part of the Family Welfare Programme, the programme has focused primarily on efforts to improve child survival. Maternal health has suffered from relative neglect in this programme. There is, therefore, an urgent need to strengthen maternity care services. Tables 14.3A, B and C list interventions that should be implemented at various levels of the health service system to promote safe motherhood.

Table 14.3A: Antenatal Services at Different Levels of the Health Service System

Community Level	**Sub-centre Level**	**Primary Health Centre Level**	**Community Health Centre District/Sub-district Hospital Level**
Counselling and education for breastfeeding, nutrition, family planning, rest, exercise, etc. Detection and referral of cases with complicated pregnancies Immunization for tetanus prevention Birth planning	Counselling and education for breastfeeding, nutrition, family planning, rest, exercise, etc. Immunization for tetanus prevention Treatment of malaria Birth planning Provision of antenatal services at clinics and through outreach (at least 4 visits) Detection and referral for complications, e.g., hypertension, preecclemphxia, eccalmpsia, severe anaemia, malaria, tuberculosis, diabetes, antepartum haemorrhage and cephalopelvic	Counselling and education for breastfeeding, nutrition, family planning, rest, exercise, etc. Immunization for tetanus prevention Detection and referral of cases with complicated pregnancies Birth planning Treatment of malaria Treatment of tuberculosis Provision of antenatal services at clinics and through outreach (at least 4 visits) Detection and management of complications, e.g., hypertension preecclemphxia,	Counselling and education for breastfeeding, nutrition, family planning, rest, exercise, etc. Immunization for tetanus prevention Birth planning Provision of antenatal services at clinics (at least 4 visits) Management of cases with complications Treatment of malaria Treatment of tuberculosis Routine testing for syphilis Diagnosis and treatment of RTIs and STIs Management of referred cases and feedback to referral source

	disproportion Detection and referral of women with RTIs and STIs	malaria, tuberculosis and diabetes Referral for hospital delivery in cases with complications Routine testing for syphilis Diagnosis and treatment of selected RTIs and STIs and referral for others Management of referred cases and feedback to referral source	

Table 14.3B: Delivery Services at Different Levels of the Health Service System

Community Level	**Sub-centre Level**	**Primary Health Centre Level**	**Community Health Centre District/Sub-district Hospital Level**
Detection of pregnancy complications and referral for hospital delivery Clean home deliveries with delivery kits Recognition of danger signals (rupture of membranes of more than 12 hours duration, prolapse of the cord, haemorrhage) and referral Routine prophylaxis for gonococcal infection in the newborn Arrangement of	Detection of pregnancy complications and referral for hospital delivery Clean home deliveries with delivery kits Recognition of danger signals (rupture of membranes of more than 12 hours duration, prolapse of the cord, haemorrhage) and referral Supervision of home deliveries by ANMs Routine prophylaxis for gonococcal infection in the	Detection of pregnancy complications and referral for hospital delivery Clean home deliveries Supervision of home deliveries by ANMs Treatment of infection Routine prophylaxis for gonococcal infection in the newborn Arrangement of transport for referral Management of referred cases and feedback to referral source	Provision of institutional delivery services Treatment of pregnancy complications Management of obstetrical emergencies Routine prophylaxis for gonococcal infection in the newborn Arrangement of transport for obstetrical emergencies Management of referred cases and feedback to referral source

transport for referral	newborn Treatment of infection Arrangement of transport for referral		

Table 14.3C: Postpartum Services at Different Levels of the Health Service System

Community Level	**Sub-centre Level**	**Primary Health Centre Level**	**Community Health Centre District/Sub-district Hospital Level**
Provision of postnatal care through four postpartum visits (less than 24 hours, 7-10 days, 3-4 weeks and 5-6 weeks) Provision of breastfeeding support Provision of family planning, counselling and services Provision of nutrition education and supplements Management of mild and moderate asphyxia of the newborn Management of neonatal hypothermia Outreach care within 24 hours of delivery by sub-centre or PHC staff Management of low birth weight (2000-2500 grams) infants by feeding,	Provision of postnatal care through four postpartum visits (less than 24 hours, 7-10 days, 3-4 weeks and 5-6 weeks) Provision of breastfeeding support Provision of family planning, counselling and services Provision of nutrition education and supplements Treatment of puerperal scepsis Management of mild and moderate asphyxia of the newborn Management of neonatal hypothermia Treatment for some and referral for other complications	Provision of postnatal care through four postpartum visits (less than 24 hours, 7-10 days, 3-4 weeks and 5-6 weeks) Provision of breastfeeding support Provision of family planning, counselling and services Provision of nutrition education and supplements Management of women referred with complications Treatment of puerperal scepsis Resuscitation for asphyxia of the newborn Management of neonatal hypothermia Referral for complications Management of	Provision of postnatal care through four postpartum visits (less than 24 hours, 7-10 days, 3-4 weeks and 5-6 weeks) Provision of breastfeeding support Provision of family planning, counselling and services Provision of nutrition education and supplements Treatment of puerperal scepsis Manual removal of retained placenta Resuscitation for asphyxia of the newborn Management of neonatal hypothermia Management of referred cases and feedback to referral source

temperature control and infection prevention measures Detection and referral for complications		referred cases and feedback to referral source	

Services for maternity care should be designed to ensure timely detection, management and referral of complications during pregnancy, delivery and the postpartum period. Because of their impact on the health of the mother and the child, maternity services are highly cost-effective. Providing antenatal, delivery and postpartum services costs less than $2000 per death averted (World Bank 1993).

Antenatal services should be organized to detect and manage complications related to pregnancy such as anaemia, infection, pre-eclampsia, malpresentation and obstructed labour. Women should be educated about the danger signs of pregnancy and provided information on where to seek help. All deliveries must be managed by trained birth attendants. Normal deliveries can be managed at home or at an institution but in all cases infection must be prevented by ensuring clean delivery practices. Since complications can develop without warning, it is critical to have readily available effective systems to ensure timely referral and management of emergency complications. To date, postpartum programmes in India have focused primarily on providing family planning services. These programmes have had limited success because they have not been designed to address women's reproductive health needs. Postpartum programmes should include services for the early detection and management of infection and haemorrhage; support for breastfeeding for at least six months; nutrition counselling; and family planning services.

Services to Improve Child Survival

The child survival programme in India has received considerable attention during the past decade and there have been significant declines in infant mortality. The infant mortality rate (IMR), however, varies significantly between urban and rural areas and between regions and states. There are considerable variations even within states. Perinatal and neonatal mortality constitutes a significant proportion, 50-60 percent of all infant mortality. Prematurity and growth retardation, that are important causes of death in the first month of life (the neonatal period), are inextricably related to the health of the mother. Therefore, interventions for improving maternal health must be implemented in order to reduce neonatal and perinatal deaths. Maternal malnutrition

and infection which have a synergistic impact on pregnancy outcome are important risk factors. Other causes of neonatal death are asphyxia, birth injuries, infection of the newborn and congenital defects.

Nutritional Services for Vulnerable Groups

Food supplementation programmes for pregnant and lactating women are organized at the village level through the Integrated Child Development Services (ICDS) Programme which presently covers about 40 percent of the community development blocks in the country. The scope of these programmes should be expanded to include not only pregnant and lactating women but all women. In addition, nutritional interventions should also be organized for adolescent girls.

Prevention and Treatment of Reproductive Tract Infections and Sexually Transmitted Infections

Recent years have witnessed a growing concern for RTIs, especially those that are sexually transmitted. The serious threat of the acquired immune deficiency syndrome (AIDS) has drawn attention to the importance of STIs. RTIs and their sequelae are inextricably intertwined with key health programmes, such as those concerned with family planning, child survival, women's health, safe motherhood and HIV prevention. RTI syndromes have profound implications for the success of each of these initiatives and conversely, these initiatives provide a critical opportunity for the prevention and control of RTIs. From the programme and policy perspective, therefore, RTIs could offer a strategically important common element for reproductive health programmes.

Strong programmatic and epidemiological reasons have been put forward for considering family planning and MCH services as an appropriate focal point for the prevention and control of RTIs and STIs: First, these services require access to the same client groups-sexually active populations. Second, providers of these services require similar skills for addressing the needs of their clients. Third, both aim at modifying sexual behavior. Fourth, condoms and other barrier methods and spermicides are common technologies presently available for the prevention of STIs and unwanted pregnancies. And finally, since these infections can seriously affect the health of the mother and the newborn child, their diagnosis and management during pregnancy is particularly important. These infections can result in infertility, chronic pelvic inflammatory disease, ectopic pregnancy and can adversely affect child survival by causing pre-term delivery of low birth weight, immature infants. (Pachauri 1993b).

A working group convened by the World Health Organization (WHO) to examine cost-effective interventions for reducing maternal and infant infectious morbidity concluded that five cost-effective interventions are available, of which the first four concern infectious morbidity related to RTIs. These are prophylaxis against gonococcal ophthalmia neonatorum (eye infections in the newborn), prenatal screening and treatment for maternal syphilis, training of traditional birth attendants, hepatitis B, immunization of infants and immunization of mothers with tetanus toxoid to prevent neonatal tetanus (WHO 1992).

In the past, because of the complexity of diagnosis and the expense of treatment, RTI and STI interventions have appeared to be beyond reach. However, recently proposed alternatives that simplify case management of STIs such as using a syndromic approach for diagnosis and algorithms for treatment (WHO 1991) could make selected interventions feasible and affordable at the primary health care level, particularly if the cost of early diagnosis and treatment is compared with that of treating complications and sequelae of STIs (Piot and Rowley 1992).

The training of health functionaries at various levels of the health delivery system is an essential requirement for the successful implementation of these services. Therefore, training needs should be assessed and programmes designed to train health care providers. Health workers at all levels should be trained to recognize symptoms of RTIs and STIs and to use appropriate treatment and referral protocols. Health workers should also be trained to counsel clients on condom use; identify sexual contacts; and assist in the notification of partners. The National AIDS Control Organization has developed training modules for service providers and has recently initiated training programmes. The effectiveness of these training programmes should be systematically assessed and programmes expanded.

Routine screening and treatment of syphilis during prenatal care is recommended for areas with high prevalence. The most serious consequence of gonorrhea in pregnant women is the occurrence of ophthalmia neonatorum, a severe eye infection that can cause blindness in newborns. Routine antibiotic prophylaxis for this condition in the newborn, which costs barely anything per case averted, is recommended (Table 14.4) rather than screening and treatment of all pregnant women (Schulz et al. 1992).

Table 14.4: Child Health Services at Different Levels of the Health Service System

Community Level	Sub-centre Level	Primary Health Centre Level	Community Health Centre District/Sub-district Hospital Level
Health education for breast-feeding, nutrition, immunization, etc. Provision of immunization Supplementation of Vitamin A Treatment of diarrhoea without dehydration Treatment of some upper respiratory infections Management of mild and moderate asphyxia and low birth weight infants (2000-2500 grams) Provision of routine prophylaxis for gonococcal infection Referral of infants with complications	Health education for breast-feeding, nutrition, immunization, etc. Provision of immunization Supplementation of Vitamin A Treatment of diarrhoea with mild/moderate dehydration Provision of first aid for injuries, etc. Treatment of some upper respiratory infections Treatment of mild and moderate asphyxia and management of low birth weight infants (2000-2500 grams) Provision of routine prophylaxis for gonococcal infection Referral of infants with complications	Health education for breast-feeding, nutrition, immunization, etc. Provision of immunization Supplementation of Vitamin A Treatment of diarrhoea Treatment of acute respiratory infections Provision of first aid for injuries, etc. Treatment of infection Management of referred cases Referral of infants with complications Treatment of asphyxia and management of low birth weight infants (2000-2500 grams) Provision of routine prophylaxis for gonococcal infection Management of referred cases and feedback to referral source	Health education for breast-feeding, nutrition, immunization, etc. Provision of immunization Supplementation of Vitamin A Treatment of diarrhoea Treatment of acute respiratory infections Treatment of infection Provision of first aid for injuries, etc. Treatment of infants referred with low birth weight, asphyxia, infections, severe dehydration, acute respiratory infections, etc. Provision of routine prophylaxis for gonococcal infection Management of referred cases and feedback to referral source.

Table 14.5: Services for the Preventions and Treatment of RTIs and STIs at Different Levels of the Health Service System

Community Level	Sub-centre Level	Primary Health Centre Level	Community Health Centre District/Sub-

			district Hospital Level
Sexuality and gender information, education and counselling for adolescents, youth, men and women Community-based condom distribution Social marketing of condoms Routine prophylaxis for gonococcal infections of the newborn	Sexuality and gender information, education and counselling for adolescents, youth, men and women Provision of condoms Pilot testing of the syndromic approach Referral of women with vaginal discharge, lower abdominal pain and genital ulcers, and men with urethral discharge, genital ulcers and swelling in the scrotum or groin Partner notification and referral Routine prophylaxis for gonococcal infections of the newborn	Sexuality and gender information, education and counselling for adolescents, youth, men and women Provision of condoms Pilot testing of the syndromic approach Diagnosis and treatment of some infections and referral of others Partner notification, treatment and referral Routine syphilis testing in antenatal women Routine prophylaxis for gonococcal infections of the newborn Management of referred cases and feedback to referral source	Sexuality and gender information, education and counselling for adolescents, youth, men and women Provision of condoms Laboratory diagnosis and treatment Pilot testing of the syndromic approach Partner notification and treatment Routine syphilis testing in antenatal women Routine prophylaxis for gonococcal infections of the newborn Management of referred cases and feedback to referral source

Diagnosis and Treatment of Gynaecological Problems

Services for gynaecological problems are presently provided at district and sub-district hospitals and other CHCS. Services for the management of selected gynaecological problems should be organized at PHCs, especially at those PHCs that have women physicians. Counselling and referral services for gynaecological problems related to menstrual hygiene, safe abortion, safe delivery and the prevention of RTIs and STIs should be provided at the PHC level. At the subcentre level, ANMs should be trained to detect problems and to refer cases. In addition, referral systems should be established between subcentres, PHCs and CHCs where facilities are available for the diagnosis and, treatment of gynaecological problems.

Screening and Treatment of Cervical Cancer

Cancer is one of the three leading causes of adult female mortality in both developed and developing countries. While breast cancer is the most frequently occurring cancer among women in the industrialized countries, cervical cancer is the most common malignancy in developing countries where it accounts for 20 to 50 percent of all cancers and 80 to 85 percent of all malignancies of the female genital tract (Belsey and Royston 1987). In India, the incidence of cervical cancer ranges from 15.4 to 46.5 per 100,000 women (Indian Council of Medical Research 1990).

Cervical cancer screening is an important intervention for prevention but at present very limited screening facilities are available to Indian s women. While 15 percent of the world's cervical cancer case exit in India, screening facilities are available only to a very small minority of urban women. Research is needed to identify simple and effective screening procedures and to determine the minimum, and thus the most cost-effective frequency of screening required for detecting and treating cervical cancer.

Prevention and Treatment of Infertility

Since child-bearing is highly valued and childlessness can have devastating consequences for Indian women, infertility is perceived to be a very serious problem. Infertility could be a sequela of STIs and also an outcome of poor obstetric and gynaecological practices, particular illegal abortions resulting in infection. Programmes for the prevention and control of RTIs and STIs and provision of safe abortion and safe deliveries services would have an important impact on preventing infertility. Therefore, services for the prevention and treatment of tuberculosis would also have an important impact on preventing infertility. Diagnosis and treatment of all causes of infertility requires sophisticated facilities and, therefore, services for treating women who have primary or secondary infertility can only be provided in select institutions where such facilities exist. Some efforts are underway to plan a few centres with such facilities. The focus of primary health care programmes should be on the prevention of infertility.

Screening and Management of Breast Cancer

Breast cancer is a serious problem worldwide and a growing problem in India. Research on this problem is limited to a few hospital based cancer registries which show an incidence of 15-25 per 100,000 women (Gulati 1994). There are some data to show that Indian women get breast cancer about a decade earlier than their western counterparts.

The mean age of occurrence is about 42 years in India compared to 53 years among white women (Park and Park 1991). The problem of breast cancer has not received any attention in the national health programme. A beginning could be made in urban settings where facilities are available. Pilot projects should be undertaken to examine the issues involved in organizing programmes for the screening and management of breast cancer.

Services for the Adolescent

The adolescent period is important for several reasons. Adolescent girls are exposed to the hazards of pregnancy when they are not emotionally and physically ready for childbearing. The early age of marriage results in a high incidence of teenage births in India (Government of India 1988). Teenage pregnancy poses serious health hazards for the mother and child (Pachauri and Jamshedji 1981; Nair et al. 1963; Ghosh and Ghosh 1976). A majority, nearly two-thirds, of 6-14 year old girls in, the countries of the Indian sub-continent are anaemic and a considerable proportion of the anaemia in this group is of a moderate or severe degree (Gopalan 1992). Adolescents, therefore, constitute an important segment of the population for whom reproductive health programmes should be designed and implemented.

In most developing countries, while the needs of children and pregnant women are acknowledged in national strategies and programmes, the unique health needs of the critical population 10-19 years of age are usually overlooked or expected to be integrated with services for children or adults. In India, neither services nor research have focused on the adolescent's health and information needs. In a country in which adolescents 10-19 years of age represent almost one quarter of the population, the consequences of this neglect take on enormous proportions (Jejeebhoy 1994).

Critical Factors For Effective Implementation of Reproductive Services

Heath, Sexuality and Gender Information, Education and Counselling

Most government programmes have generally ignored the fact that reproduction takes place through sexual relations, which are conditioned by broader gender relations. A review of conventional demographic and family planning literature illustrates that the population field has neglected issue related to sexuality, gender roles and relationships and has focused largely on outcomes, such as contraceptives safety and effectiveness, unwanted pregnancy, and more recently on infection. Clearly, social constructions of

sexuality and gender relations impact on reproductive health. But because they are generally considered to be politically sensitive, these issues have been neglected. A proposed approach is to place sexuality and gender relations at the centre of productive health programmes; to empower women to ensure that their health needs are addressed; and to encourage male participation by ensuring that men take responsibility for family planning, family support, and childrearing (Germain et al. 1994). Given that the gender inequalities favour men in most societies in India, it is important to ensure men's involvement in these programmes.

To date, most reproductive health programmes have focused on women. Family planning programmes have targeted women to achieve fertility reduction goals. Maternal and child health programmes have also focused efforts on reaching women. Men have tended to be ex-, eluded and side-lined by these service programmes. In their efforts to improve women's status and empower women, NGOs have also focused exclusively on women. In fact, several women's NGOs have explicitly excluded men from their programmes. While there was a rationale for adopting this approach in the past, there are good reasons to make some changes now.

Education and counselling for women and men should form an integral component of all the interventions that are included in the recommended package of reproductive health services. A special effort should be made to strengthen these interventions as they have suffered neglect at the level of implementation in the Health and Family Welfare Programme.

Gender Sensitization of the Health Bureaucracy

The health care system in India is a bureaucratized, top-down, male dominated hierarchy. To date, women's voices have largely been missing from health policy debate. There is a growing concern among women health advocates that women's views and perspectives must be incorporated in policies and programmes that are designed for them. In order to effectively integrate sexuality information and counselling with reproductive health programmes in a 'gender-sensitive' way, not only is it important to make this an explicit job responsibility of all service providers at the various levels of the health care system, but it is also necessary to sensitize all health planners and service providers to gender issues. Clearly, a long-term process of gender sensitization and training will be needed to effect social change within the present rigid bureaucratic system.

Advocacy for Reproductive Health

Currently, there are major information gaps at all levels ranging from a lack of understanding of the ideology and the concept of reproductive health and gender issues to questions about what changes are needed at the policy and programme level to implement services. This lack of information presents a major deterrent to implementing reproductive health programmes. In a country as large and diverse as India, multiple constituencies must be informed and empowered before any process of change can be affected.

Advocacy programmes are needed at the central and state levels to engage decision-makers in policy dialogue. A range of different constituencies including government and non-government organizations, as well as activists and researchers should be involved to catalyze a process of networking with a growing number of organizations in discussions on reproductive health and related family and gender issues so that there is common understanding about the concept as well as the design and implementation of services to address reproductive needs.

Establishment of Effective Referral Systems

The establishment of effective two-way referral systems between the community level and the various levels within the health service system is critical for the effective implementation of reproductive health services. Such referral systems are needed for implementing all the health interventions included in the essential package of reproductive health services. It is of paramount importance to organize effective referral systems for saving women's lives during obstetric emergencies and for saving the lives of new born infants with complications. There are several examples of successful referral systems in the NGO sector (Pachauri 1994b). The Panchayati Raj system provides an opportunity for mobilizing community leaders to help organize transportation emergency referrals. Although the panchayats are presently nascent organizations that have yet to define their roles in implementing health programmes and developing linkages with government and NGO institutions, these decentralized institutions have considerable potential for taking on this responsibility. The establishment of referral systems could be a starting point for developing linkages between the government's health service system, NGOs, the community and institutions of the Panchayati Raj for decentralizing planning and implementation so that health programmes are accountable to the community and can more effectively address community needs.

Conclusion

To translate the reproductive health concept into policies and programmes, two important issues must be addressed: First, a paradigm shift is essential. A change in focus from a top-down, target-driven population control approach to a gender sensitive, client-based approach to address reproductive health needs is necessary. Second, reproductive health programmes must be designed to enhance access and improve the quality of services, particularly from the perspective of the user. There is a need to specially focus on women since they constitute the major client group or users of these programmes and also have the greatest problem of access, both physical and social to health services. On the other hand, it is equally important to promote male responsibility and enhance the involvement of men.

As there is tremendous diversity in India among the various regions and states and even within states as well as between urban and rural areas, no single package of services can be recommended. The framework proposed in this paper could be used for defining reproductive health programmes for different settings. The Government, NGOs and the private sector must work in partnership to promote reproductive health policies and programmes. Strong advocacy efforts are needed to involve and empower a range of different constituencies, including activists, feminists, NGOs and researchers, to catalyse a process of net-working with a growing number of organizations so that the reproductive health ideology and the ethos is effectively internalized and programmes responsive to clients' needs are designed with the active involvement and participation of all.

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