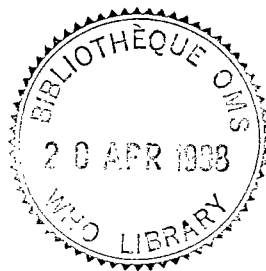


EXPANDING OPTIONS IN REPRODUCTIVE HEALTH

AN ASSESSMENT OF THE CONTRACEPTIVE METHOD MIX IN MYANMAR

Ministry of Health, The Union of Myanmar
and WHO's Strategic Programme Component on
Technology Introduction and Transfer



UNDP/UNFPA/WHO/World Bank
Special Programme of Research,
Development and Research Training
in Human Reproduction



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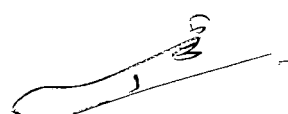
Foreword

The Government of Myanmar is committed to improving the quality of, and access to, birth spacing and reproductive health services throughout the country. The National Health Committee and the Ministry of Health acknowledge the importance of providing an optimum contraceptive method mix with a high quality of care, towards the protection of the health of women and children. Since 1991, with the support of many international agencies, positive action has been taken to promote birth spacing services in the public sector.

This report presents the results of a contraceptive method mix assessment conducted to further inform the development of appropriate birth spacing and reproductive health services in Myanmar. The participatory nature of the assessment created a partnership between government departments, non-governmental organizations, donor and international agencies which will have a positive influence on all further activities in this area.

The study focused on users' needs for contraceptive methods and the capability of the service delivery system to provide these methods with appropriate quality of care. The results and recommendations from this study will play an important role in the development of future policy, strategies and research related to contraceptive introduction.

Finally, I would like to express my personal thanks to everyone involved in the study: first, the core research team from the Department of Health, the Department of Medical Research, the Central Women's Hospital, the Department of Medical Sciences and the Myanmar Maternal and Child Welfare Association, who's hard work has made this assessment possible; second, WHO/HRP, ICOMP and the Population Council for their kind assistance and support during the assessment; and last but certainly not least, all the women, men and service providers who took the time to share their ideas and experiences, on which this assessment is based.



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Director General
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List of Acronyms/Abbreviations

AIDS	Acquired immuno-deficiency syndrome
COC	Combined oral contraceptives
DMPA	Depot medroxyprogesterone acetate
FPIA	Family Planning International Assistance
GP	General practitioner
HIV	Human immuno-deficiency virus
HRP	UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction
ICOMP	International Council on Management of Population Programs
IEC	Information, education and communication
IUD	Intrauterine device
MCWA	Maternal and Child Welfare Association
MMA	Myanmar Medical Association
MMCWA	Myanmar Maternal and Child Welfare Association
NGO	Non-governmental organization
PCFS	Population Change and Fertility Survey
RTI	Reproductive tract infection
STD	Sexually transmitted disease
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Summary

This report presents the findings from an assessment of the contraceptive method mix in Myanmar, conducted as the first phase of a three-stage strategy for contraceptive introduction promoted by the World Health Organization's (WHO) Strategic Programme Component on the Introduction and Transfer of Technologies for Fertility Regulation.

The Government of Myanmar began to provide birth spacing services in the public sector in 1991 with the assistance of a number of international agencies. This programme currently provides services in 33 of the country's 320 townships. There has been a recognition that the low level of contraceptive use (16.8% of all couples in 1991) is placing a significant burden on the reproductive health of women, particularly in terms of morbidity and mortality associated with short birth intervals and abortion. The Ministry of Health, therefore, requested WHO's assistance in conducting this country-led assessment to analyze Myanmar's contraceptive method mix from the perspectives of both users' needs and service delivery capabilities, so as to propose ways of responding to unmet need for contraception and to improve reproductive health status.

The assessment is focused on quality of care and addresses policy, programme development and research needs. In particular, it aims to answer three questions: Is there a need to explore the introduction of new contraceptive technologies? Are there existing methods being provided for which better quality of care in service delivery is necessary? Is there reason to remove any of the presently available methods?

A national team representing multiple perspectives from within the Ministry of Health and non-governmental organizations (NGOs) carried out the assessment, which included interviews, small group discussions and observations. The field work was conducted in seven townships between September and December 1996, and the report was finalized after a national workshop to review and discuss the findings and recommendations of the assessment.

A complex array of institutions and individuals are involved in the provision of birth spacing methods and services in Myanmar. One of the general findings of the assessment was that there is a need to strengthen all of these sectors.

While public sector provision of birth spacing services is new and limited, contraceptives have long been available in Myanmar's private sector. Both private practitioners and drug shop vendors supply a limited range of contraceptive products, particularly hormonal methods. The assessment team found that the level of knowledge regarding the appropriate use of various contraceptives is low among private providers, and that information and counselling given to women requesting birth spacing services is limited. The assessment concluded that given the limited financial and human resources of the public sector, the provision of contraceptive services in the private sector should be strengthened.

Provision of birth spacing services in the public sector urgently needs to be expanded to currently unserved townships. However, the assessment

suggests that government services should focus on providing access to those who cannot afford to use the well established private sector. In order to ensure that the programme is effective and sustainable, institutional capacity would need to be strengthened at both the national and the township level. A study should also be conducted to further document the various factors which act as barriers to accessing services.

One of the most striking findings of this assessment is the lack of accurate information among both providers and community members about individual contraceptive methods and the practice of birth spacing in general. Many myths and misconceptions were revealed, particularly regarding efficacy and side-effects. In many cases it appears that this misinformation is a direct cause of either non-use or misuse of contraceptive methods. The assessment concludes that accurate information needs to be widely disseminated through accessible channels to both community members and providers of contraception.

Two NGOs are particularly active in the area of reproductive health in Myanmar, the Myanmar Medical Association (MMA) and the Myanmar Maternal and Child Welfare Association (MMCWA). The MCWA has township and village level branch associations throughout the country and distributes both condoms and oral contraceptives in about 20 townships. The MMA has close ties with private practitioners, and provides training on a variety of public health topics directly related to maternal and child health. The assessment found that these organizations potentially have a large role to play in the promotion and provision of birth spacing services in the community. It will be important to involve these organizations in the development and distribution of information, education and

communication (IEC) materials, and to encourage them to expand their training activities to regularly include information on birth spacing.

The main recommendation arising from this assessment is the need to improve the quality of care in the provision of hormonal methods by training providers, improving the quality of available hormonal methods, and providing these as part of a range of methods. Hormonal contraceptives are by far the most commonly used methods. In most areas, injectables are the most popular method and are a close second to oral contraceptives in others. Both injectable and oral contraceptives are widely available in drug shops where little or no information or counselling is given. Several types and brands are used, with women making decisions between the different hormonal methods based on perceived efficacy, convenience, cost and regularity of menstrual patterns. Providers tend to prefer the three-monthly injectables, although knowledge and practice regarding the provision of these contraceptives was highly variable. Some of the available methods, particularly the monthly oral pill and some monthly injectables, have not been adequately tested for either safety or efficacy, and the assessment suggests that the use of such methods should be discouraged. To help discourage the use of these methods, the introduction of a once-a-month injectable of proven safety and efficacy should be considered.

The current range of available methods, even within the public sector, was found to be severely limited, and the assessment stressed the need to expand the range of methods available to ensure adequate choice.

The availability of the intrauterine device (IUD) is limited, and many myths regarding its use persist. The assessment suggests that a controlled

reintroduction be considered to determine the best way to improve access to this method while ensuring adequate quality of care. Female sterilization is provided at all township hospitals once a woman has received special approval from a board. This application process can take four months, but few applicants are rejected. Making female sterilization more easily accessible is likely to have an impact on the number of women resorting to abortion. It was felt that, given the current programme constraints, introductory efforts directed to long term methods should focus on the IUD and sterilization rather than contraceptive implants.

The assessment team concluded that condoms should be made more accessible. Both community members and service providers tend to have a negative view of condoms, particularly in townships not served by the birth spacing programme. Social marketing of condoms has recently begun. Although HIV/AIDS prevention is emphasized, efforts should also be made to provide accurate information regarding the contraceptive properties of condoms as well.

During the assessment it was found that progestogen-only pills are generally not available in Myanmar. The introduction of such pills for use by breastfeeding women would be a significant contribution to enhanced postpartum services. In addition, it would be useful to further document client and provider knowledge regarding emergency contraception, and to assess the potential use of such methods in Myanmar.

The assessment also addressed other related reproductive health issues. Abortion in particular is considered to be a major problem in Myanmar. It is illegal but most providers know of abortions taking place in their community, and most township

hospitals reported substantial numbers of women admitted for incomplete or septic abortions. The use of various substances to induce menstruation appears to be a regular practice in Myanmar, but they are generally not considered as abortifacients. The interactions between contraceptive use (or non-use), menstrual induction and abortion are not well documented in Myanmar, and the assessment suggests that further research be conducted to understand this dynamic. In addition, the introduction of manual vacuum aspiration technology would significantly improve the management of the complications of abortion.

Although reproductive tract infections (RTIs) were not a primary focus of the assessment, they were addressed as part of the broader reproductive health framework. Serious gaps were found in the knowledge of both clients and providers regarding the causes of RTIs, the symptoms of infections and the available means for prevention and treatment. Therapeutic practices were found to be inconsistent and often inappropriate, and laboratory equipment for the identification of RTIs was often inadequate or in disrepair. The need for the inclusion of information on RTIs in IEC and training materials was highlighted by the assessment, as was the importance of training service providers in the syndromic identification and management of RTI symptoms. Providing upgraded laboratory equipment and technical skills at the township level would significantly enhance the support for syndromic management of RTIs.

The following report of the Stage I assessment of the contraceptive method mix in Myanmar is divided into eight main sections. The first four describe the assessment process, reproductive health status, and birth spacing policy in Myanmar.

Subsequent sections discuss the findings of the assessment as they relate to users' perspectives on birth spacing, service delivery issues related to birth spacing, and related

reproductive health issues. The final section of the report presents the conclusions drawn from the assessment and the proposed recommendations for action.

Introduction

This report presents the findings from an assessment of the contraceptive method mix in Myanmar, using a strategy developed and promoted by the WHO/HRP Unit for Technology Introduction and Transfer (Spicehandler and Simmons, 1994; Simmons et al., 1997).

Since 1991, the Government of Myanmar has adopted a policy of making contraceptives available in the public sector in response to the recognition that birth spacing is important for the improvement of the health of women and children. This assessment has been designed to help broaden the range and expand the coverage of available birth spacing services.

The assessment of the contraceptive method mix is the first step in a three-stage strategy for the introduction of contraceptive technologies. Its focus is to assess the need for the introduction of new, or the reintroduction of currently available but underutilized contraceptive methods, or if necessary, the removal of methods from the current method mix. It is designed to assist in country-level decision-making by focusing on users' needs for contraceptive methods and the capability of the service delivery system to provide these methods with appropriate quality of care, with a view to improving the reproductive health status of women, men and adolescents.

The introduction strategy is based on the premise that making available new contraceptives will do little to increase contraceptive choice or expand utilization if the existing constraints faced by providers in delivering

adequate services are left unaddressed. Recent experiences have suggested that it is critically important to take a broader perspective by addressing the methods being introduced in the context of both the existing capabilities of the service delivery system, and the needs and perspectives of contraceptive users. Particular attention must also be given to the policy environment and the socio-cultural context.

An assessment of a country's contraceptive method mix and the need for contraceptive introduction is conducted as Stage I within the three-stage strategy. A second phase (Stage II) may follow, if the assessment leads to the selection of a method or methods for introduction. It comprises research on service delivery issues such as management, provider-user interaction, and factors influencing method supply. In Stage III of the process, these research findings and the lessons learned from the introductory activities are then applied to decision making, policy formulation and strategic planning in Stage III of the process. The framework for the three-stage strategy is described in the next chapter and is reviewed in a recent WHO publication (Simmons et al., 1997).

The Government of Myanmar requested the assistance of WHO/HRP in supporting a contraceptive method mix assessment in early 1996. The national assessment team was selected, a background paper prepared based on available data (Kyu Kyu Swe et al., 1996), and two small background studies were carried out to assist in the assessment. The field work for the assessment was

conducted in late 1996 by the national assessment team with the assistance of staff from WHO/HRP, the Population Council and ICOMP.

This report describes the overall observations of the team and presents recommendations for both programmatic action and research needed. The recommendations were based on an analysis of information obtained during field visits, as well as on a review of reports and studies on birth spacing and reproductive health in Myanmar. The recommendations were discussed with the Government and key international agencies.

The draft report was distributed to policy makers and programme managers for review and comment. A

two day workshop was held in Yangon in February 1997 to discuss and widely disseminate the findings of the assessment. This report reflects the discussions held at the workshop, and incorporates suggestions made by the participants.

After an overview of the objectives, framework and methodology of the assessment, the report presents a general overview of reproductive health status in Myanmar. A discussion of the policy and programmatic context of birth spacing services is then presented. Subsequently, the field observations of the team on user perspectives, service delivery and related reproductive health issues are reviewed. This provides a context and a basis for the assessment recommendations.

Objectives, Framework and Methodology

Objectives of the Method Mix Assessment

The Government of Myanmar established its national birth spacing programme in 1991. Currently it covers 33 of the 320 townships of Myanmar, representing approximately 15% of the total population. Although recent reliable data on contraceptive use is very limited, in 1991 it was estimated that 16.8% of all couples practiced birth spacing (Ministry of Home Affairs, 1992). Concomitant with this low prevalence, there is considerable unmet need for contraception. The incidence of abortion, either spontaneous or induced, is also high and has been widely recognized as adversely affecting the reproductive health of women.

Therefore, in 1996, the Ministry of Health requested that WHO/HRP provide assistance in undertaking a Contraceptive Method Mix Needs Assessment. The assessment was undertaken with the following broad objective:

To analyze Myanmar's contraceptive method mix from the perspective of user needs and service delivery capabilities, and to suggest ways of addressing unmet need for contraception so as to improve reproductive health status.

In addition, the assessment was conducted with the intent of answering the following three questions:

- (a) is there a need to explore the introduction of new contraceptive technologies in Myanmar?;
- (b) are there existing methods being provided for which better quality of care in service delivery is necessary?; and
- (c) is there reason to remove any of the presently available methods?

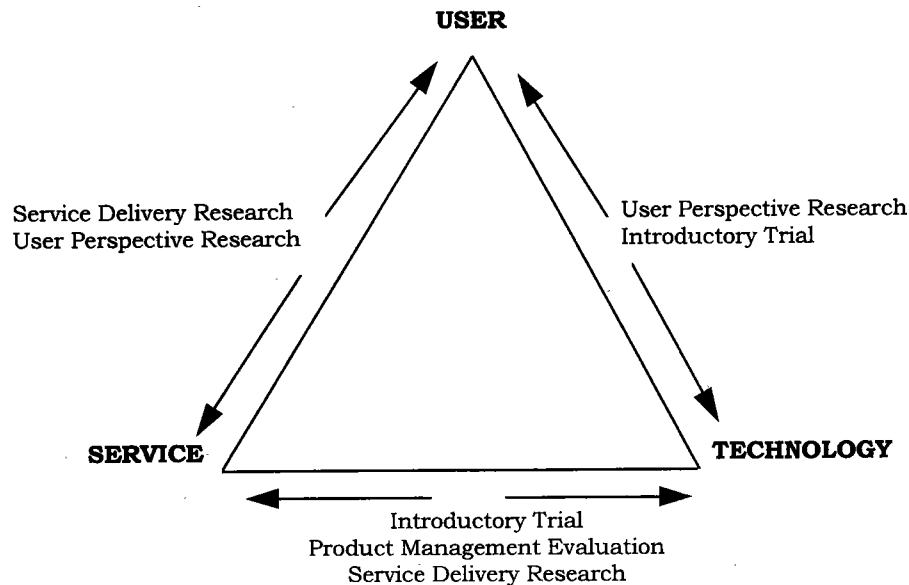
Framework

Introductory research under the strategy developed by WHO/HRP is oriented towards examining the interfaces between the user, the service delivery system and the technology (contraceptive method), as illustrated below in Figure 1 (Spicehandler and Simmons 1994).

The three-stage framework for contraceptive introduction places policy choice and identification of research needs on introduction of contraceptive technologies in the context of the service environment and user demand. Stage I is a preliminary assessment of user and service delivery needs, programme policies and potential constraints, aimed at the identification of which method or methods - if introduction is deemed advisable at the time - should be the focus of attention in the given context. This assessment considers existing method mix, service infrastructure and capability, programme policies, potential user demand and logistics management. The Stage I assessment may indicate a need for the introduction of new method(s), the reintroduction of available method(s) to improve the quality of care in service delivery and address unmet needs, or the discontinuation of currently available method(s).

FIGURE 1

**Research Activities based on
User, Service, and Technology Interfaces**



If Stage II research follows, it entails the application of recommendations made in the initial assessment. This may include research into the improved provision of methods currently available, or the introduction of a new method or methods. Such research usually includes assessments of users' perspectives that influence individual decisions to select or reject contraceptive methods, and research on service delivery issues such as the organizational, management and policy context within which services are provided. In all cases, however, the research is operationally or action oriented in the sense that it is designed to "increase the efficiency, effectiveness, and quality of services delivered by providers; and the availability, accessibility, acceptability and affordability of services desired by users" (Fisher et al. 1991).

Stage III analyses the implications of Stage II research findings for broader method utilization. It comprises an

analysis of research results, a review of findings with participants in the introduction process, the making of decisions on next steps, and the development of a strategy for broader method provision.

The assessment team in Myanmar adapted the framework described above with reference to previous experiences with such assessments and the particular needs in Myanmar. Previous experience and the key attributes of the assessment have been described recently (Simmons et al., 1997). However, the key attributes and their relevance to Myanmar are discussed below.

Strong emphasis on the perspectives of women and users: In assessing the need for contraceptive introduction, it is necessary to discern women's and men's attitudes towards, and experience with, particular methods and to place these within a broader social context of decision-making.

Understanding users' experiences within the service delivery system is equally crucial, as these can strongly affect decisions on contraceptive use. Such an examination of user perspectives, achieved through individual discussions and a review of the available research on users' and non-users' contraceptive knowledge, practices, beliefs and needs, is an important component of the assessment.

A few small-scale studies on knowledge, attitudes and practices about contraception have previously been undertaken in Myanmar. However, these do not allow for a sufficient understanding of the factors influencing clients' decision making. This assessment therefore emphasized in-depth discussions with women and men, who were either using or not using contraceptives, and with young people, to elicit relevant perspectives.

Participatory and country led:

Although the Myanmar birth spacing programme was established recently and is limited in scope, the government is concerned with the high unmet need for contraceptive information and services, which has resulted in a large number of unwanted pregnancies and hospital admissions for abortion-related complications. In addition, there is concern about the spread of HIV/AIDS. Therefore, the Department of Health has a strong interest in expanding access and availability of birth spacing information and services, and took a lead role in the assessment.

A participatory process was used to ascertain the existing situation in Myanmar. People with diverse perspectives, both from within the Department of Health and outside, were included in the assessment process. A planning workshop was also organized to solicit broader inputs from related government agencies, field level programme managers, NGOs and

donor agencies, on the current experiences with birth spacing and related reproductive health programmes and to identify key issues for the assessment. In each of the study sites the assessment was undertaken in collaboration with the local township medical officers. The assessment process is described in detail later.

Focused on quality of care: The focus of the assessment on the method mix is derived from a concern for quality of care in birth spacing services and the need for improving reproductive health status. The six elements of quality of care in family planning programmes identified by Bruce, 1990, are: (1) choice of methods; (2) information given to clients; (3) technical competence; (4) interpersonal relations; (5) mechanisms to encourage continuity of care; and (6) an appropriate constellation of services.

The first element, which involves increasing the actual rather than the theoretical availability of contraceptive options, is a key objective of contraceptive introduction efforts. For example, appropriate choice of methods must be available for men and women who wish to space births, those who wish to limit their fertility, those who cannot tolerate hormonal contraceptives or are breast-feeding, and so forth. The technical capabilities of providers and their interpersonal and communication skills clearly influence the quality of care that their clients receive, as does the availability of services to meet the broader reproductive health needs of clients. These various dimensions of quality are all necessary if choice is to be meaningful.

Thus, examining the existing quality of care in the provision of current methods can help to anticipate both the need for, and the impact of,

introducing a new method on the resulting method mix and overall quality of care within a programme. The assessment presents information on each of the elements of quality of care as revealed in discussions with clients and providers.

Method mix orientated: The method mix approach is based on a shift from an exclusive focus on the introduction of a new contraceptive method to a broader consideration of existing methods.

There are many contraceptive methods which are physically available within the public or private sector service delivery system, but for which proper introduction has never occurred. As a result, methods are often used inappropriately or access to these methods is inadequate. In other cases, methods which have been approved for use are not found at service delivery sites due to problems of logistics, lack of resources, or strong biases among managers and/or providers. Hence, it is important to incorporate the concept of the need for reintroduction of methods into the assessment.

Finally, it is also necessary to consider which methods, if any, may no longer be appropriate given advances in technology or knowledge. Examples include high dose oral contraceptives and injectable contraceptives which have not been adequately tested for safety and efficacy.

Informed by management, service delivery capabilities and availability of financial resources: Most programme managers assume that the service delivery system would be capable of offering the new technology or that the system could be improved where necessary. If the addition of new technology is to truly expand choice, it is not adequate to focus only on training, IEC materials and

guaranteeing supplies of the newly introduced method. There must be some certainty that the service delivery system has the necessary human and physical resources, and a commitment to establishing the support systems necessary for introducing a new method with a high level of quality of care.

However, birth spacing programmes are often severely constrained in their resource base, which limits the availability of competent and technically skilled personnel, administrative and technical supervision, necessary infrastructure, and adequate logistics and supply systems. It is increasingly recognized that the introduction of new contraceptive methods adds burdens and complexities to service delivery, training, and administrative or operational systems, and may act to reduce, rather than improve the quality of care. Thus, an analysis of service delivery capacity and the present and potential availability of financial resources is an integral part of an assessment.

Addresses both policy and programme development, as well as research needs: As Myanmar's birth spacing programme is in a developmental stage, it can benefit from both early experiences from the field, as well as learning from relevant experiences from other countries. The assessment therefore addressed questions of future policy and programme development. As new contraceptive methods are introduced with a view to improving quality of care, many new issues arise which need to be researched. In view of the paucity of information to serve as a sound basis for these decisions in Myanmar, research needs are particularly crucial. The assessment aimed to identify these key research needs.

Assessment Methodology

Formation of the assessment team:

The MCH/Birth Spacing Section is a part of the Basic Health Services Division of the Department of Health in Myanmar. Therefore, the assessment was lead by the Assistant Director in charge of the MCH/Birth Spacing Section, under the guidance of the Deputy Director of Basic Health Services.

In an effort to incorporate multiple perspectives and multiple disciplines, staff from the following departments and agencies were also represented in the assessment team: the Health Education, Health Systems Research, and HIV/AIDS/STD Sections of the Department of Health; the Department of Medical Research; the Central Women's Hospital; the Department of Medical Sciences and the MMCWA. Technical assistance for the assessment was provided by staff from WHO/HRP, the Population Council and ICOMP.

Background paper: A background paper was prepared by a subgroup of the assessment team. This paper reviewed the available information on reproductive health status in Myanmar and the policies and programmes addressing major reproductive health needs (Kyu Kyu Swe et al., 1996). It served as a common body of knowledge for the assessment team as well as background for the planning workshop.

As information on birth spacing is very sparse in Myanmar, the preparation of the background paper was supplemented by two small studies: (a) interviews with drug shop vendors in the study sites about the availability of contraceptives and the sale prices and weekly sales volumes; and (b) a study of the knowledge and practices of birth spacing service providers in the private and public sectors (Thein Thein Htay et al. 1996). The findings of these studies have been incorporated into this assessment report.

Planning workshop: In April 1996, the Department of Health MCH/Birth Spacing Section sponsored a one day workshop. The objectives were: (a) to introduce the purpose and methodology of the assessment to key stakeholders; and (b) to seek inputs from a wide range of persons and agencies on key issues to be addressed during the assessment.

Approximately 40 participants, representing the service delivery at state/division and township levels, NGOs and the international donor community attended the workshop. The participants were drawn from the following organizations: Department of Health at national, state/division and township levels; Department of Medical Research; Department of Planning and Statistics; Central Women's Hospital, Department of Medical Sciences; MMCWA; Myanmar Red Cross; Institute of Medicine; MMA; United Nations Population Fund (UNFPA); United Nations Children's Fund (UNICEF); United Nations Development Programme (UNDP); and WHO/HRP.

The workshop involved four sessions. The methodology for the contraceptive method mix assessment was introduced in the first session. The themes for discussions in the following three sessions were: birth spacing; safe motherhood including abortion and adolescent fertility; and RTI/STD/HIV/AIDS. In each session presentations were made reviewing the current situation and government programmes on the session theme. These were followed by presentations by NGOs and donor agencies about their activities and experiences. Finally, key issues for assessment were identified by the participants.

Preparation of assessment

instruments: The assessment team subsequently met to define the scope of the assessment, develop interview guides, and to prepare a timetable and agenda for field activities.

Guidelines were prepared for interviews with service providers at various levels in the public and private sectors; with women who were both users and non-users of birth spacing methods, men, adolescents and community leaders; and with members of NGOs. The following general topics were covered by the assessment instruments: access, availability, coverage and quality of birth spacing services in the public and private sectors; providers' knowledge, skills, equipment and supplies in the provision of other related reproductive health services (ante-natal, delivery and post-natal care, RTIs/STDs, abortion care); and the role of NGOs and community support for birth spacing.

The guidelines for interviews with service providers focused on access, availability, coverage, utilization and quality of services. Those for use with women, who were either users or non-users, and those for interviewing men, focused on reproductive health service needs, use of and experience with, various contraceptives and reproductive health services, experiences with the service delivery system, and the social context. The NGO leaders and members were to

be interviewed about their IEC and service activities and their potential role in future activities.

The interview guidelines for use with adolescents focused on knowledge and understanding of reproductive health issues and perceived needs, as well as on current and potential channels for information and services. The guidelines for interviews with community leaders included questions about their own and their community's perceptions of the reproductive health status of women in their communities, service delivery needs and how well these needs were being met. Guidelines were also developed for observing birth spacing service delivery facilities.

Field assessment: The field assessment took place during a four week period from 9 September to 5 October 1996. During the first week discussions were held with policy makers, senior programme managers, and the international agencies in Yangon. The assessment team then conducted individual and group interviews, focus group discussions and clinic observations in seven townships in five states and divisions (Table 1).

TABLE 1

Townships Selected for the Contraceptive
Method Mix Needs Assessment

State/division	Township	Programme support
Mandalay Division	Nyaung Oo	UNFPA
	Tada U	FPIA
	Amarapura	Non-programme
Southern Shan State	Nyaung Shwe	UNDP
Northern Shan State	Lashio	UNICEF
Ayeyarwady Division	Danuphyu	Non-programme
Rakhine State	Sittwe	Non-programme

The townships were selected so as to include areas which represented a range of socio-economic, geographic, ethnic, demographic and health situations. Four of the townships were selected to reflect programmes supported by different agencies: Family Planning International Assistance (FPIA); UNFPA; UNICEF; and UNDP (see section on Policy and Programme Context). The other three townships did not have birth spacing programmes.

In each township, the township hospital, a maternal and child health centre, and selected rural health centres and sub-centres were visited. During the field work, three approaches were used to collect information. The first entailed interviews with field based service providers, including township medical staff, health assistants, lady health visitors, midwives, community-based volunteer auxiliary midwives, private medical providers commonly referred to as GPs, drug shop vendors, male and female contraceptive method users as well as non-users, women hospitalized with complications of abortion, adolescents, community leaders, local leaders of the MMCWA, and, where possible, MMA members. The second approach involved group discussions, particularly among representatives of women's organizations, community leaders, midwives and lady health visitors. Finally, the third approach involved observation of the facilities delivering birth spacing services, including the contraceptive availability in health facilities; the expiry dates of these contraceptives; and availability of equipment and physical conditions at service delivery sites.

The assessment team interviewed over 90 service providers in the public and private sectors, more than 170 women, men and adolescents, and 17 community leaders. In addition, 60 midwives, more than 40 (MCWA) members, around 20 community leaders

and eight GPs participated in group discussions conducted by the team.

Preparation of the draft report: Given the interactive and largely qualitative nature of the assessment methodology, the team met frequently during the field visits to share information collected and observations. After three townships had been visited, it was possible to begin formulating general observations on the key issues identified. The issues requiring further information were also identified and these received additional emphasis in the subsequent townships visited.

Thus, by the time the team returned to Yangon, preliminary observations had already been discussed and a considerable degree of consensus had already emerged. Five days were spent writing up observations on user perspectives, service delivery and related-reproductive health issues. The team then reviewed these draft sections and formulated recommendations. The recommendations were then discussed with the Director of Public Health in the Department of Health, the Division of International Health in the Ministry of Health, UNFPA, UNICEF and WHO. The national team members also discussed their observations and recommendations within their respective organizations. The draft chapters were edited over the following month.

Contraceptive needs assessment dissemination workshop:

A national workshop was held on 4 and 5 February 1997. In addition to dissemination of the preliminary findings and recommendations of the method mix assessment, the workshop had the following objectives: (a) to reach consensus among workshop participants on the accuracy and validity of the assessment findings; (b) to obtain additional inputs from participants for incorporation into the final method mix assessment report; (c) to discuss

necessary policy and programme responses by different agencies; (d) to review the need for possible Stage II research and, if desirable, develop a broad design for such research in Myanmar; and (e) to serve as a forum for the exchange of ideas on birth spacing needs in Myanmar.

Approximately 40 participants representing the Ministry of Health, service providers at state/division and township levels, NGOs and international donor agencies attended the workshop. The participants reviewed and discussed the assessment findings and recommendations. Their input has been incorporated into this report.

Reproductive Health Status

Reliable indicators of the reproductive health status of people in Myanmar are scarce. This chapter therefore draws heavily on recent reports by UNFPA, UNICEF and the Government of Myanmar, and the background paper prepared for the assessment (UNFPA 1996, UNICEF, 1995, Ministry of Home Affairs, 1992, Kyu Kyu Swe et al., 1996). The background paper, and the UNICEF and UNFPA reports are based on other available sources of data, and as such, risk reflecting the variable quality of much of the previously collected information. The government's Population Change and Fertility Survey (PCFS) report outlines the results of a survey conducted in 1991. This survey has two limitations: first, practical constraints prevented the survey from being nationally representative; and second, the survey was conducted before significant birth spacing programmes had been implemented. Thus, in certain regions, there may be significant changes in differences and/or in the indicators presented.

Background

The Union of Myanmar (formerly Burma), has an area of approximately 676,000 square kilometres. The country is divided into seven states and seven divisions. The states and divisions are further subdivided into 52 districts, 320 townships, 2,190 wards and 13,756 village tracts. There is considerable ethnic diversity, with approximately 135 national groups, of which the Barmars comprise approximately 69% of the total population. The majority of the population is Buddhist (89%), while the rest are Christians (5%), Muslims (4%), Hindus and Animists (UNICEF, 1995).

Demographic Situation

The population of Myanmar was estimated to be 44 million in 1995. This estimate is based on data from the last census conducted in 1983 (Department of Immigration and Manpower, 1986) and estimated population growth rates. Recent estimates of crude birth and death rates in Myanmar are in the range of 27.7 to 30 and 9 to 9.2 per 1,000 inhabitants respectively, implying a population growth rate of between 1.9 and 2.1%. According to the most recent estimate, the infant mortality rate in Myanmar is 94 per 1,000 live births. Life expectancy at birth is low by international standards at 59.1 years for men and 62.6 years for women. The population density varies considerably from 12 people per square kilometre in Chin State to 500 in Yangon Division with an average density of 66. The population is relatively rural, with 24.5% residing in urban areas in 1983, although this proportion may have increased somewhat since then (UNICEF, 1995, UNFPA, 1996).

The PCFS (Ministry of Home Affairs, 1992) estimated the total fertility rate to be 3.42 live births per woman of reproductive age during the period 1986 to 1990, down from 4.68 in 1976 to 1980. There was a considerable urban-rural difference, with an urban total fertility rate of 2.48 compared to 3.88 in rural areas. Due to the limitations of the PCFS these are likely to be underestimates. The Government's most recent estimate puts the current total fertility rate at 3.6. Even if this were to decline rapidly, there would still be considerable momentum for population growth as 34% of the

population is below the age of 15 (UNICEF, 1995).

Marriage

According to Burmese customary law, the legal age of marriage is 16 years with parental consent and 18 years without it (UNICEF, 1995). However, in practice the age of marriage has been progressively increasing. In 1991, the median age of first marriage was estimated to be 19.8 years for those women who were aged 45-49 at the time of the PCFS, and 21.7 years for women who were 25-29 years of age. The singulate mean age of marriage for women was estimated to have increased from 22.4 years in 1983 to 24.5 years by 1991. In the same period, the singulate mean age of marriage for males increased from 24.5 to 26.3 years (Ministry of Home Affairs, 1992).

It was also estimated in 1991 that nearly a tenth (9.1%) of all women aged 45-49 were never married. As a consequence of the high age of marriage and the relatively large proportion of women who never marry, only about 13% of the total population is composed of married women between the ages of 15-49 years (Ministry of Home Affairs, 1992).

Birth Spacing

Even though, in 1991, knowledge of contraceptive methods was high, only 16.8% of currently married women were currently using a method, and just 13.6% were using a modern method (see Table 2). The most commonly used methods were combined oral contraceptives (COCs) (4.0%), female sterilization (3.7%), injectables (3.1%) and male sterilization (1.8%). Use of the condom was negligible (Ministry of Home Affairs, 1992).

Since 1991, birth spacing programmes have been introduced in 33 of the 320 townships and contraceptive use may have increased. A survey in 20 UNFPA-supported programme townships estimated a contraceptive prevalence of 22% (Bo Kywe and Maung Maung Lin, 1993). During the period 1994-95, when contraceptive services were provided by UNDP in seven townships, contraceptive prevalence is estimated to have increased from 11.7% to 22.8% (Bhatnagar, 1996). Recent UNFPA estimates, based on the quantity of contraceptives supplied by donors and the assumed private sector supplies, place overall contraceptive use at around 20% including traditional methods (UNFPA, 1996).

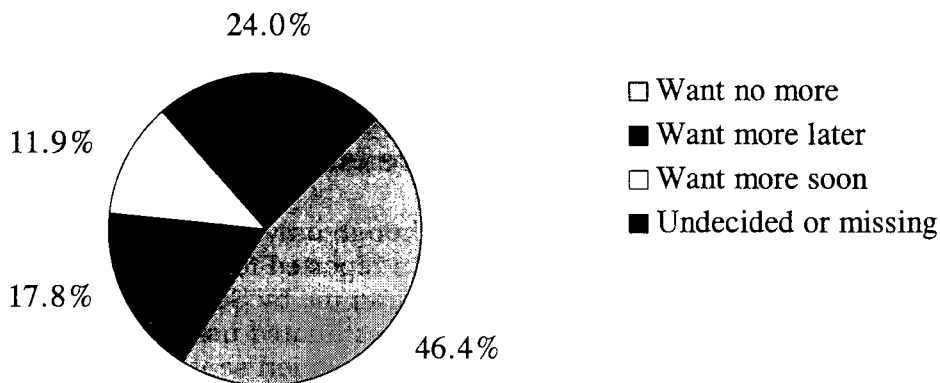
TABLE 2

Knowledge and Use of Contraception Among Currently Married Women Age 15 to 49 (%)
(Ministry of Home Affairs, 1992)

Method	Knowledge (%)	Ever use (%)	Current use (%)
Any method	84.4	30.2	16.8
Modern methods	82.8	23.7	13.6
Oral contraceptives	76.0	11.8	4.0
Injectable contraceptives	73.5	9.4	3.1
IUD	48.4	2.5	0.9
Condoms	24.5	0.5	0.1
Female sterilization	66.7	3.8	3.7
Male sterilization	62.9	1.8	1.8
Traditional	65.8	10.9	3.0

FIGURE 2

Desire for Further Children Among Currently Married Women Not Using Contraception
(Ministry of Home Affairs, 1992)



Unmet need for contraception: Data from the PCFS (Ministry of Home Affairs, 1992) suggest that the unmet need for contraception is high (see Figure 2). Nearly half of all currently married women not using contraception stated that they did not want any more children, 17.8% said that they wanted more children later, and only 11.9% expressed the desire to have another child soon.

If all the women in 1991 who did not want an additional child or wanted one later had become contraceptive users, the prevalence rate would have increased from 16.8% to over 70% (UNFPA, 1996).

Maternal Health

The available estimates for maternal mortality in Myanmar vary significantly and range from 100 to over 500 per 100,000 live births. However, reliable data are not available since most estimates are based on hospital records, when in reality 80% of births take place at home. The National Programme of Action in 1993 estimated the maternal mortality rate in Myanmar to be 140 per

100,000 live births, a study by MMCWA in 1996 produced an estimate of 161, and WHO/UNICEF estimates put the figure as high as 500 per 100,000 live births (Ministry of Health, 1993; MMCWA, 1994; Adamson, 1996).

The most common causes of maternal mortality according to a 18 hospital study in Myanmar in 1989-90 were abortion, sepsis, haemorrhage, hypertensive diseases of pregnancy and obstetric trauma (Krasu, 1992). A 1987 study in 168 townships concluded that abortion accounted for 52% of all registered maternal deaths (cited in UNICEF, 1995). The most common indirect obstetric causes of maternal death are malaria and cardiovascular diseases (UNFPA, 1996).

In terms of obstetric morbidity, the 18 hospital study showed that hypertensive disease was the most frequent morbidity followed by premature rupture of the membranes. Postpartum haemorrhage and retained placenta were found to be the most common causes of morbidity in the third stage, with sepsis being the major puerperal morbidity (Krasu, 1992).

Abortions and related complications

Induced abortion is illegal in Myanmar. However, considerable anecdotal evidence suggests that abortion-related complications account for up to half of all gynaecological admissions in hospitals. It is widely recognized among health professionals and the community that unsafe abortion is a major health problem. According to the 18 hospital study mentioned above, 38.3% of all maternal deaths were abortion-related (Krasu 1992). There has been only one recent community-based epidemiological study of abortion in Myanmar. In this study of 943 currently married women in Yangon, 58% reported having had at least one abortion, of which about 20% were reported to have been induced (cited in UNFPA 1996). It is probable that there is significant underreporting of induced abortion due to the illicit nature of the procedure.

Maternal care: According to the PCFS, 75% of women giving birth received ante-natal care by trained personnel (nurse, midwife or doctor), and about 60% of mothers received tetanus toxoid vaccination (Ministry of Home Affairs, 1992). An estimated 80% of deliveries took place at home, with 45.8% of the deliveries being assisted by traditional birth attendants, 37.8% assisted by nurses or midwives and 8.5% by physicians. However, with the expansion in the government's health service delivery, the proportion of home births may have declined since this time. In 1993, a slightly higher proportion of women were recorded as receiving ante-natal care by trained personnel, with 76.4% receiving care from midwives, and 15.9% from auxiliary midwives (Central Statistical Organization, 1995). The average number of ante-natal visits were 3.5 and 2.5 respectively, for women receiving care from midwives and auxiliary midwives.

Breastfeeding: The practice of breastfeeding is widespread and

prolonged in Myanmar. According to the PCFS, the mean duration of breastfeeding was 26.9 months and a third of all children were still breastfeeding at three years of age (Ministry of Home Affairs, 1992). The average length of lactational amenorrhoea was found to be 12.9 months.

Sexually Transmitted Diseases including HIV/AIDS

Although only 1,612 cases of AIDS had been reported to the National AIDS Programme by September 1996, it has been estimated using routine subpopulation sentinel surveillance data that nearly 400,000 people are infected with HIV (Goodwin, 1997).

HIV/AIDS is no longer confined to identifiable high-risk groups, but is affecting the general population, including mothers and children. While sentinel surveillance has indicated that groups with heightened vulnerability to infection, such as sex workers and injection drug users, have experienced rapid increases in seroprevalence over the past few years, studies have also shown that a small but significant percentage of pregnant woman attending maternal and child health centres are HIV-positive (Bo Kywe et al., 1995, Min Thwe et al., 1995).

There have been few studies on sexual behaviour related to STD/HIV/AIDS transmission. One study in Yangon showed that nearly two-thirds of married couples believed that one can avoid AIDS by avoiding extra-marital sex. However, about 12% of husbands and 1% of wives reported having had pre-marital or extramarital experiences (Aung Tun et al., 1991a). Other studies have shown that most of the population is aware of HIV/AIDS but has incorrect or incomplete information on how HIV is transmitted (Aung Tun et al., 1991b).

Greater awareness of the problem of HIV/AIDS has also focused increased attention on other STDs in Myanmar. Surveillance data for other diseases, such as syphilis, gonorrhoea, and genital ulcerative diseases is not generally available, or is complicated by inadequate laboratory facilities. However one estimate of the incidence of new cases of curable STDs based on Ministry of Health data was 665 per 100,000 population (Islam, 1995).

Adolescent Health

The PCFS attributed only about 5% of total fertility to teenagers (Ministry of Home Affairs, 1992). This figure is likely to be a reflection of the relatively high age at marriage, and the fact that the PCFS sample only included ever married women. Anecdotal evidence, and some studies, indicate that the incidence of teenage pregnancies is particularly high among those less educated and under-privileged. Consequently they are less likely to receive good maternal care and more likely to suffer from anaemia, obstetric complications and premature labour.

There is insufficient data on knowledge and behaviour regarding sexual practices and reproductive health among adolescents and educational programmes in this area operate in only a few pilot schools. There is some indication that segments of urban youth may suffer from a high incidence of STDs. Based on analysis of Ministry of Health data, 39.4% of reported STD cases occurred among young persons aged between 15 and 24 years (UNFPA, 1996).

Infertility

Infertility has not been extensively studied in Myanmar. In a hospital-based study of 140 infertile couples at the Central Women's Hospital in Yangon during 1994 and 1995, 90

women were found to have primary and 50 secondary infertility. The most common reasons for primary infertility were bilateral tubal occlusion (30%), abnormal post-coital test (24.4%), irregular menses (23.3%) and amenorrhoea with elevated follicular stimulating hormone (17.7%) (Khin Pyone Kyi 1995). In another study, primary infertility was found among 95 males. However, no demonstrable cause could be found through available diagnostic facilities for 60% of them. Of the 91 males who gave a medical history which could be related to infertility, 24 gave a history of having had an STD and 15 had experienced a urinary tract infection (Than Than Tin et al., 1995).

The Status of Women

Women in Myanmar enjoy a relatively high status compared to those in some neighbouring countries. For centuries women have participated in the affairs of everyday life - in agriculture, commerce and social affairs - facing little of the rigid, formalized discrimination that women have faced in many other countries. The comparatively high status of women is codified in Burmese Buddhist customary law. The Constitution of Myanmar (1974) accords equality before the law to women, and explicitly accords equal "political, economic, social and cultural rights" to women.

There is no demonstrable demographic discrimination against women. The sex ratio at birth is 1.05 with an infant mortality rate lower for girls than boys (87 compared to 111.9 per 1,000 live births). The prevalence of stunting among girls under three years of age was slightly lower at 38.3% compared to boys at 41.8%. Similarly, in 1995, it was found that 15.4% of girls and 16.3% of boys under the age of five were severely underweight (UNICEF, 1995, Department of Planning and Statistics, 1995).

The educational differences between men and women may be narrowing. The 1983 census (Department of Immigration and Manpower, 1986) showed literacy rates of 82% for men and 71% for women. Illiteracy among women was greatest in the seven states of Myanmar where most of the country's ethnic minorities live.

However, the sex ratio at primary and middle school levels is 94 males per 100 females. By the end of the 1980s young women had nearly the same educational attainment as comparably aged men, and were well represented in professional education (UNICEF, 1995, Ministry of Home Affairs, 1992, UNFPA, 1996).

Not enough is known about women's participation in the labour force in Myanmar. According to United Nations estimates, 48% of women aged

15 and above are economically active (UNICEF, 1995). Data from the 1990 Labour Force Survey show that approximately 63% of the male labour force is employed in the primary sector, women, however, are mainly employed in the primary and tertiary sectors, each accounting for about 42% of total female employment. The survey highlighted the importance of women in market-oriented activities. Women form an absolute majority in the whole sale and retail trades, and are significantly represented in manufacturing (Central Statistical Organization, 1990).

Despite the gender gap in education and employment being low, male predominance is widely accepted in most walks of life, and only a handful of women serve in the highest levels of civil service or occupy senior political positions.

Policy and Programme Context

Myanmar is considered to be one of the least developed countries in the world. In 1995, its per capita income was estimated to be approximately US\$ 300 and it was ranked 137 out of 174 countries in terms of the UNDP Human Development Index (UNDP, 1995). Living standards did not change significantly between 1962 and the mid-1980s under the closed economic policy regime. During the period 1985-89, the gross domestic product (GDP) actually declined.

In a significant departure from the past, in 1990 Myanmar began pursuing an open market policy, eliminating certain restrictions on agricultural marketing and pricing, and promoting greater private sector involvement. Since then international trade and the GDP growth rate have increased. Although definitive figures are not available, this growth is estimated to have been between 5 and 6% per year since 1992 (UNICEF, 1995). The pace of foreign and domestic investment has also accelerated. However, the benefits of this growth have not been equitably distributed and inflation may have further eroded the earnings of many low income families.

Population Policy Context

Myanmar has not had a formal national population policy since independence. Its stance, however, has generally been characterized as pro-natalist. The underlying sentiment was that Myanmar was under-populated, its natural resources abundant, and that population growth was an asset for economic development. However, realization has grown that the population growth of

the country must be in consonance with the national economy and the National Health Policy.

During the early 1990s, the National Health Committee was set up and subsequently the National Population Council was established under this committee. Through a process of consultation among various agencies and experts, a draft population policy was developed in 1992.

The draft policy aims to promote maternal and child health, birth spacing and adolescent health. It calls for ensuring the availability and accessibility of birth spacing services and information, and seeks to promote both adolescent and male roles in improving the reproductive health status of all (Ministry of Health, 1992).

According to Myanmar's report to the International Conference on Population and Development, "The ultimate goal of the Population Policy is to contribute to an improvement of the quality of life through better health conditions, higher education levels and increased employment opportunities". The report further states that the population, in both its quantitative and qualitative aspects, must be considered as an integral part of the process of socio-economic development towards improving the lives of people (National Population Committee, 1994).

Following the International Conference on Population and Development, there has been a heightened interest and commitment to reproductive health issues. Several workshops have been organized to discuss the reproductive health situation, including adolescent reproductive health. Until recently

reproductive health concerns were obscured because of socio-cultural barriers to public discussion about them. There is now a growing awareness of the burden of reproductive ill health related to unwanted pregnancy, child birth and RTIs including HIV/AIDS. However, functional understanding of the concept of reproductive health and its implications for health services has yet to be developed (UNFPA, 1996).

Although contraceptive services had been available in the private sector for many years, until 1991 they were not provided in the public sector. Provision of birth spacing services in the public sector began in 1991 through a project assisted by FPIA, with expansion to additional townships in 1992 with UNFPA and UNDP support.

Health Policy Context

The Government has emphasized delivery of maternal and child health services as part of primary health care under the Department of Health, but contraceptive services were not included prior to 1991. In 1993 the Government formulated the National Health Policy which aims to raise the health status of people and promote the physical and mental well-being with the objective of "achieving health for all by the year 2000" goals using a primary health care approach. It calls for the augmentation of community, NGO and private sector roles. The National Health Plan (1997-2001) aims to achieve equal distribution of health care throughout the country by effective and proper utilization of all available resources.

The Myanmar goals for health in the 1990s are derived from the goals of "Health for All by the Year 2000". A National Programme of Action (Ministry of Health 1993) has been established

which has the following targets: to reduce the infant and under-five mortality rates by half; to achieve 90% child immunization coverage; to eradicate polio and neonatal tetanus; and to reduce deaths due to diarrhoea and acute respiratory infection by a half and a third respectively.

The National Programme of Action goals in the area of reproductive health include reducing the maternal mortality rate to 70 per 100,000 births and ensuring universal access to: (a) pre-natal, safe delivery, and referral services; (b) information and services relating to birth spacing; and (c) information about and preventive measures against HIV/AIDS. However, constraints including inadequate financial and physical resources, limited transportation and communication infrastructure, and insufficient community knowledge, will need to be overcome to achieve these goals.

Reproductive Health Programmes

Basic health services: Basic health services in Myanmar are delivered through an organized infrastructure of hospitals, health centres and rural health sub-centres. It is estimated that 65% of the population has access to primary health care services (Central Statistical Organization, 1995). The Department of Health, one of five main departments of the Ministry of Health, is responsible for health care services, with reproductive health care programmes and services under the responsibility of the Division of Public Health.

In each township, public sector health services are administered by the Township Health Department, headed by the township medical officer and the township health officer. In urban areas services are provided by a

township hospital, urban health centres (in large cities) and maternal and child health centres (in smaller towns), and school health teams. Township hospitals serve as the primary referral centres for reproductive health services in the townships. In rural areas services are provided through station hospitals, rural health centres, rural health sub-centres, and village health posts.

Station hospitals have approximately 16 beds and are staffed by medical officers. They provide both inpatient and outpatient care. In villages where they coexist with a rural health centre, a station health unit is formed which provides both preventive and curative care under the supervision of the medical officer and runs a maternal and child health outpatient clinic and allocates six to eight beds for maternal and child health inpatient care. A total of 270 station health units currently exist in Myanmar.

There are approximately five rural health centres in each township, each covering an average of 40 to 50 villages and a total population of about 23,000. Each rural health centre in turn has four rural health sub-centres under its jurisdiction, each responsible for about five to ten villages with a combined population of approximately 5,000 individuals. Rural health centres are staffed by a health assistant, a lady health visitor, five midwives and one to five multi-purpose public health workers known as public health supervisors. Typically, the lady health visitor and one of the midwives provide maternal and child health and birth spacing services at the rural health centre and in the immediately surrounding villages, while the other four midwives are each responsible for one of the rural health sub-centres in the catchment area of the rural health centre. These midwives are supervised by the lady health visitor.

At both rural health centres and rural health sub-centres, outpatient maternal and child health services including pre-natal care and birth spacing services (in birth spacing programme areas) are provided one or two days a week, with the staff travelling to other villages during the remainder of the week to provide care either directly to women in their households (i.e. for post-natal care) or at a central village location, such as the village leader's house, for activities including growth monitoring, immunization, pre-natal care and health education. Department of Health policy states that each household is to be visited by a midwife at least once every three months, while each woman giving birth should be visited daily for seven days. In practice household visits are largely for deliveries and for post-natal care. In villages where the midwife resides, she will also provide services at a village maternal and child health post.

Midwives can be considered to be the core of reproductive health and birth spacing service delivery in the public sector. Following completion of middle school they receive an 18 month training course. There are approximately 10,000 midwives in service or a ratio of 23 per 100,000 population. There are nearly 1,200 lady health visitors in service. They are required to have midwifery training plus an additional minimum of three years field experience prior to undergoing the one year lady health visitor training course.

In villages where midwives do not reside, health services are provided by voluntary health workers. These include both male community health workers and female auxiliary midwives. The auxiliary midwives are selected by their communities and receive three months of training, followed by three months of supervision and in-service

training at the rural health centre. They provide ante-natal care and referral of high risk cases, conduct home deliveries, provide post-natal care, health education, and treatment of minor ailments such as fever and diarrhoea, in addition to assisting in maternal and child health services such as immunization and growth monitoring. There are currently over 10,000 auxiliary midwives who have been trained.

In the past, the Department of Health also had a training programme for traditional birth attendants. Although this training has been suspended, with priority now given to training auxiliary midwives, over 18,000 traditional birth attendants were trained in the past.

Although the health system is well organized and in theory provides access for people at the village level, there are numerous obstacles to the provision of adequate care. There are chronic shortages of essential drugs, insufficient equipment and inadequate numbers of staff in many areas. Transportation for staff to make their rounds to villages for which they are responsible is unavailable in many places. Low salaries compel staff to engage in private practice and other pursuits to supplement their incomes.

Birth spacing programmes: Birth spacing services through the public sector were started in 1991 with support of FPIA. Activities began in one township, expanding to a second the following year. Since then, FPIA

has provided additional support for activities in a total of seven townships. In 1992, UNFPA committed financial support and commodities to expand birth spacing activities to an additional twenty townships. Also in 1992, UNDP provided contraceptive commodities and provided a birth spacing training component in six additional townships included in its Human Development Initiative. By early 1996, birth spacing activities were taking place in 33 townships, representing about 15% of the population of Myanmar.

Although all three projects utilize the same basic model of service delivery, there are some important variations in implementation. All three provide COCs, depot medroxyprogesterone acetate (DMPA) and condoms at maternal and child health centres, rural health centre and rural health sub-centre sites. IUD insertions are undertaken at township hospitals, maternal and child health centres and some rural health centres.

Contraceptive users pay a user charge as part of a cost recovery scheme, but these fees are decided by township committees and thus differ from place to place. Table 3 shows typical user fees for each method. It should be noted that methods are supposed to be provided free for those who cannot afford them. However, many providers feel that the costs, particularly of injectables and COCs, represent a barrier to use for a significant number of women.

TABLE 3

Typical User Fees in Birth Spacing Programme Townships in Kyats
(160 kyats = US\$ 1)

Method	Fee
Oral Contraceptives (per cycle)	5
DMPA (per vial)	50
IUD	100
Condoms (dozen)	5

Basic training for health staff, including township medical officers and township health officers, lady health visitors and midwives, was provided at the beginning of project implementation in each township. However, one significant difference between projects was that the FPIA project provided for annual refresher training while the UNFPA support did not.

In all townships, initial surveys of contraceptive prevalence were conducted and annual registration lists of eligible couples and contraceptive users are intended to be compiled. Although the ongoing record keeping systems differ considerably between the FPIA and UNFPA/UNDP townships, both focus on new users and service delivery outputs. Contraceptive commodities also differ somewhat between projects, particularly with regard to the brands of COCs distributed. All three projects include support for development, production, and very limited distribution of technical training materials and guidelines, and IEC for clients.

In early 1996, an agreement between UNFPA and the Government of Myanmar was signed providing support for a three year birth spacing project. This project will expand services to an additional 46 townships (bringing the total to 79 townships with birth spacing services) by the end of 1997. This project is comprehensive in nature, including support for a variety of related activities. These include large surveys of fertility and reproductive health and of maternal mortality, the development and implementation of a birth spacing management information system, basic and routine refresher training in birth spacing and other reproductive health topics for public sector service providers and members of MMCWA, and the development and distribution of IEC materials.

Birth spacing activities in non-programme areas: Although physicians receive training in the provision of contraception in medical school, contraception is not included in the curricula of midwives or other basic health staff. However, in recent years, ongoing refresher training for basic health staff, for example through the Child Survival Project, has included limited material on birth spacing. Depending on the initiative of individual township medical officers, additional in-service training in birth spacing has been provided in some non-programme townships. However, training materials on contraception, and IEC materials for providers and clients, have not been available in most locations.

Private Sector Service Delivery

There are estimated to be approximately 8,500 doctors who serve solely in the private or cooperative sector in Myanmar. In addition, the vast majority of the 4,858 physicians, and the 11,200 midwives and lady health visitors in the public sector also have private practices after government service hours. Thus, the private sector is the largest provider of health services and its role in birth spacing services is also considerable. However, very limited information is available about its reach and coverage. In addition, many drug shops, kiosks, and other small sales points sell various contraceptives directly.

As mentioned earlier, public sector birth spacing services began in 1991, but contraception has been provided in the private sector for many years. The PCFS reported a contraceptive prevalence rate of 16.8% in 1991, and presumably, these users were served by the private sector (Ministry of Home Affairs, 1992). Recent baseline studies in selected townships suggest that the current prevalence rates may be

greater than 20%, with users obtaining services from the private sector. Several township level studies in urban and peri-urban areas found that GPs were reported to have served between ten and 61% of the women, while drug shops were the source of contraceptives for between 20 and 60% of respondents (U Bo Kywe et al., undated, Hla Pe et al., 1992, Than Than Tin et al., undated).

Role of NGOs in Birth Spacing and Reproductive Health

The MMCWA is a key NGO active in birth spacing activities. Its members are volunteers who are primarily women, and include doctors, midwives and teachers, as well as village women who pay monthly dues of two kyats. It is dedicated to promoting the health and well-being of mothers and children.

Established in its present form in 1991, it has 307 township associations and about 1,500 branch associations. It is continuing the process of developing its branch associations down to village tract level with its total membership now exceeding 100,000.

The MMCWA provides pre- and post-natal care throughout the country. Its 33 maternity homes also provide intra-partum care. The township level associations work with township medical officers to manage the premises of many Ministry of Health maternal and child health centres. The township medical officers also serve as advisors for a full range of MMCWA health activities.

In 1991, the MMCWA began providing contraceptive services directly, as an International Planned Parenthood Federation-affiliate, in about 20 township clinics and distributing condoms and pills provided by bilateral

donors to women. The MMCWA now also provides training courses in birth spacing to volunteers from township associations and a birth spacing manual is distributed. These volunteers in turn train the members at township and branch level. The trained members provide birth spacing education and counselling to women.

The other government-related NGOs which address the needs of children and women are the Myanmar Red Cross and the Myanmar Medical Association (MMA). The MMA's training and workshop activities regularly cover a number of public health topics relating directly to maternal and child health. However, they do not yet conduct training in birth spacing for their members on a sustained basis. Both the MMA and the Myanmar Red Cross, along with the MMCWA are participating in a HIV/AIDS prevention project with UNICEF assistance as described below.

RTIs/STD and HIV/AIDS Prevention

The Department of Health's STD control programme coordinates a network of 36 STD teams that operate in 25 townships throughout the country. In these townships the teams are responsible for STD surveillance, treatment, and contact tracing. Unfortunately, most townships in Myanmar are not reached by this vertical programme and other health service units rarely cover these functions in a comprehensive fashion. As a result, broader efforts are planned to more thoroughly integrate STD prevention and control efforts into basic health services throughout Myanmar.

In 1993, UNICEF and the government of Myanmar launched an innovative project aimed at preventing the further spread of HIV/AIDS in Myanmar

through the promotion of reproductive health. This project utilizes a multi-pronged approach focusing on STD and reproductive health interventions and is being implemented by both governmental agencies and NGOs in 25 townships throughout Myanmar. Major components of the project include improving the detection and case management of symptomatic STDs in a variety of health service settings and providing peer education and life skills training for youth and housewives to deliver accurate HIV/AIDS information and encourage healthy decision-making.

Implementing agencies include the Ministry of Health's STD clinics and maternal and child health centres, the private sector (private medical practitioners), and national NGOs. Three different NGOs are participating in the implementation of project activities: the MMA is training private providers, the MMCWA is concentrating its activities on women and the Myanmar Red Cross targets youth.

Specific project activities include: (a) improving services for the case management of symptomatic STDs within existing vertical public STD clinics; (b) introducing syndromic management of symptomatic STDs into services for women at maternal and child health centres; (c) efforts to reach the majority of STD clients who do not seek care in the public sector by providing training for private medical practitioners and the establishment of user-friendly clinics which will be more accessible to youth; (d) development and use of participatory life skills training materials that encourage and promote informed decision-making and care-seeking behaviour targeted to both youth and women; and (e) development of HIV/AIDS curricula

(based on a health promotion approach and presented within the broader context of adopting healthy lifestyles and making responsible choices) for all grades of school supported by the Department of Basic Education.

The project was designed to take place in 25 townships in three phases. Phase I included six townships which initiated project activities in early 1994. Supplies, including diagnostic tests and drugs for treatment, were procured and distributed to these townships, and the STD clinics were strengthened through refresher training. In addition, ten maternal and child health medical officers received training in STD diagnosis, care and management, and their clinics also received drugs and test kits. In 1994, a coordination workshop brought together the implementing partners from each of the six townships to township-level workplans.

Activities in the Phase II were initiated in nine additional townships in 1995 and began with a similar coordination workshop and delivery of supplies. Simultaneously, work began developing a counselling manual on sexual and reproductive health for maternal and child health staff, and two laboratory technicians from all 15 townships received diagnosis of STD and HIV. Twenty-five additional maternal and child health medical officers received training from refresher training in techniques for the Department of Health on care and management of STDs and counselling for HIV/AIDS. In addition, 21 GPs were trained as trainers by the MMA in the syndromic approach to STD care and management. These trainers in turn trained private medical practitioners. These activities were extended to a further ten townships in late 1996 as Phase III of the project.

Users' Perspectives on Birth Spacing

There have been only a few knowledge, attitudes and practices studies of users' perspectives on birth spacing in Myanmar and these have been limited to a few townships. The 1991 PCFS (Ministry of Home Affairs 1992) is the most reliable large scale national survey addressing birth spacing. While this survey provides information on knowledge, practices and unmet need for birth spacing, it does not provide information about attitudes of people or the reasons for non-use of birth spacing methods. The following discussion summarizes the assessment team's observations related to users' and non-users' perspectives on birth spacing.

Social Legitimacy of Birth Spacing

The discussion of birth spacing in Myanmar has inadequately recognized community concerns regarding the social legitimacy of birth spacing practices. As there is a large unmet need and many users seek services from both public and private sector providers, discussion of birth spacing often presumes that birth spacing is socially well accepted. Although the majority of people support birth spacing, there is a significant proportion of the community who do not favour, or approve of, the use of contraception.

The support for birth spacing by community leaders varied. Some supported birth spacing on the grounds that times have changed and family resources are becoming scarce.

It has become more expensive to provide education for children, leading to the conclusion that birth spacing

should be practiced. Others felt that it was against their cultural and religious beliefs and could be harmful to the health of women and children.

In programme areas, community leaders were better informed than those in non-programme areas, and thus displayed more favourable attitudes, but they were not actively involved in the promotion of birth spacing. The team observed that in programme townships there appeared to be a more supportive atmosphere and individuals were more at ease in discussing issues related to contraception. The recent government policy shift to provide support for expanding the birth spacing programme has also perhaps helped to sanction the social legitimacy of contraception.

In the field, most men and women said that they do not openly discuss birth spacing, except with their close friends. Many reported that they did not wish to be known to be practicing birth spacing, particularly by older relatives. Birth spacing is not generally considered to be a topic for public discussion and many men and women reported that they and the other members of their communities were too shy to discuss birth spacing and other issues related to sexuality. However, the assessment team found that in the context of individual and small group discussions, nearly everyone was willing and interested in participating in a frank discussion once the topic had been raised.

People reported that younger members of the community tend to be in favour of the use of contraception, while older members are more conservative and

may not support or approve of their use. Women reported that they favour a smaller family size than their husbands, and they are more likely to be in favour of the use of birth spacing than men. Most respondents felt that the use of contraception was good for women's health. Those opposed were more likely to feel that the use of contraception was either against their religion or against the culture of Myanmar. Similar findings emerged from an earlier survey of attitudes to contraception, which found that over half of respondents said that they were opposed to the use of contraceptives as it is against their religion, their culture, or nature (Thein Hlaing et al., 1995).

In a survey conducted in 20 townships prior to birth spacing programme implementation, 20% of nearly 12,000 respondents (married women of reproductive age) stated that birth spacing practices were against their cultural beliefs (Bo Kywe and Maung Maung Lin, 1993). It should be noted that the survey was conducted in areas with predominantly Buddhist populations, and relatively little information concerning the beliefs of the Muslim or Christian minority populations was obtained.

Although the majority of individuals, and especially women, thought that birth spacing was important for women's health, concerns over the impact of contraceptive use were found to be widespread. Many people, including providers, were concerned about potential adverse effects on women's health. Concerns were also expressed about the use of contraceptives leading to difficult deliveries, and their potential for causing congenital malformations. Several non-users reported that they were afraid to use contraception because if they were to subsequently give birth to a child with a malformation, the community would

attribute the problem to their contraceptive use and place the blame on them.

As social legitimacy of birth spacing may be limited and people often feel too shy to discuss contraceptive methods, it is important to consider how information regarding the benefits and availability of contraception could be most appropriately provided. Several users suggested that the use of mass media including radio, television, and videos shown in the popular video halls could be utilized to support more open and widespread discussion of contraception and a broader understanding of the benefits of birth spacing. The team found that other health information such as HIV prevention messages have been successfully communicated to many through the use of such mass media channels.

Unmet Need for Information

Users have a considerable unmet need for birth spacing information, despite many recent studies documenting a high level of knowledge of contraceptive methods (Ministry of Home Affairs, 1992, Bo Kywe and Maung Maung Lin, 1993, Than Than Tin et al., undated, Thein Hlaing et al., 1995). In the PCFS over 80% of respondents knew of at least one modern method, 75% knew of injectable contraceptives and COCs, over 60% knew of female and male sterilization, 50% of the IUD, and 24% of condoms. The assessment team found a similar pattern of knowledge among those interviewed, with nearly all knowing about injectables and COCs, but with far less knowledge about the IUD, particularly in non-programme townships or those with little organized programme effort. The assessment team also found that a significant number of people had not heard of condoms, and of those who had, many did not realize that they

were a birth spacing method, considering them to be only a means of STD prevention.

The team also encountered a number of women, particularly those who were very poor or living in relatively remote areas, who had little knowledge of birth spacing or where they could get services.

Despite the high proportion of people who know of contraceptive methods, knowledge of specific methods is generally very superficial. People often lacked accurate information about the efficacy, side-effects and the appropriate use of the various methods available to them. Many misconceptions and myths were encountered, both concerning specific methods and the use of birth spacing in general. For example, many expressed concern over the use of contraceptives for more than three continuous years. Another common belief is that oral contraceptives can cause cancer. In the absence of factual information, people tend to generalize based on limited experience or from observing associations, often spurious, of particular conditions with the use of specific methods. Inaccurate information also appears to contribute to inappropriate use of contraceptives, which in turn is likely to be a factor in the frequent reports of contraceptive failure.

Most women cited close friends and neighbours as the primary source of information. As will be discussed in greater detail in a later section, providers tend to give little information or counselling to clients. IEC materials are typically not available in most townships visited. It appears that providers will give information if specifically asked, but that the clients often don't ask. For example, one woman related that when she first started to use an injectable, she went to a GP and was simply given the injection and told to "return in three

months if you do not have any problems". She departed without asking for any further information.

Wherever the team went, it was met with numerous questions from users and non-users concerning birth spacing information. For example women asked: "What would be the effect on my health if I use pills for a long period?"; and "I am getting thin after I started using an IUD. Should I switch to injectables which I have seen make other women gain weight?".

Women were eager to obtain more in-depth information, gathering around a group discussion with midwives in one rural health centre to obtain more information. In another interview, a woman asked "Why don't the midwives talk to us in detail the way you are doing?". When given the reply that perhaps it was because the midwife had not received training in birth spacing, the woman replied "Then please give them training!". Leaders in several communities requested that pamphlets and other printed information be available for distribution to community members.

The training in life skills for both urban and rural village women in Lashio township provided by the MMCWA with UNICEF support, gives an example of the positive influence of greater efforts to inform women of birth spacing. As described earlier, this training included a component on birth spacing, in addition to those on HIV/AIDS prevention, tuberculosis, malaria, and other life skills. In discussing this training with rural women, they consistently stated that the birth spacing component was of greatest interest and benefit to them. Not surprisingly, those who had participated were better informed than others in the community. These women strongly stated that they wanted more training on birth spacing and that such training should be given in greater detail.

Unmet Need for Services

Many users and non-users have unmet needs for birth spacing services. For example, even in programme areas, the team encountered a number of women living near service delivery points who were unaware that contraceptives were available in the public sector at affordable prices. Where services are provided, stock outs and inadequate supply may result in contraceptives being unavailable. In one township, in order to obtain public sector services, potential COC and injectable users must first register and then wait one month for supplies to arrive. Many women find that cost considerations limit their ability to obtain their chosen contraceptive. For example, poor women who may wish to use an injectable contraceptive may be unable to afford it and thus use COCs due to their lower price. Both the application procedure and the high cost of

sterilization limits access for women who desire to limit their births (see box below).

Users' Perspectives on Specific Contraceptive Methods

Injectable contraceptives: In most areas, injectable contraceptives are the most popular method and are a close second to oral contraceptives in others. Several types and brands of injectables are used, including two brands of monthly injectables from China, NET-EN, a two monthly injectable, and several brands of the three monthly injectable contraceptive, DMPA (see Table 4). Users report obtaining services from a variety of providers, including doctors and basic health staff in the public sector, as well as in their after hours private practices, private GPs, retired health staff and injectionists or "quacks".

Examples of some aspects of the unmet need for birth spacing in Myanmar

- *Opposition from relatives:* A 36 year old mother of four children did not want any additional children but did not use contraception as her mother-in-law was against it. Her husband was knowledgeable about contraception but did not encourage his wife because his brother had accepted vasectomy and consequently the mother did not talk to him for a year.
- *Lack of active counselling for birth spacing:* A 33 year old woman with five children received ante-natal care for all her pregnancies and all deliveries were assisted by the midwife. Although she does not want additional children, she does not practice birth spacing. The midwife did not provide birth spacing counselling to her. She feels that if she becomes pregnant, she will carry the pregnancy to term.
- *Poverty and programme regulations as barriers to access:* A 25 year old woman with four children wished to use a birth spacing method and went to a sub-centre. To receive commodities, this sub-centre has to first register the clients and send the list to the rural health centre. Once approved, the contraceptive is sent to the rural health sub-centre and then supplied to the clients. This process takes about one month. Therefore, the client did not receive contraceptives for that month. She was very poor and could not afford to buy contraceptives from the market.
- *Inadequate supply of contraceptives:* A 30 year old woman with two children received DMPA from the sub-centre for two cycles. However, the sub-centre did not have a supply of DMPA when she went for her third injection and she had to switch to pills because she could not afford to buy DMPA from the market.

Once-a-month injections are preferred by many users because the price of a single dose is cheaper and menstruation is more regular than with DMPA. However, some women are aware that they have a higher failure rate.

DMPA is the preferred contraceptive for many women, due to its convenience and efficacy. Women reported that their principal concern is amenorrhea, as they believe that menstruation is cleansing and fear that the unexpelled blood will accumulate and cause health problems. Many users resort to menses inducers such as Kai Thi Pan, an oral herbal preparation, or Menstrogen injections (a combination of progesterone and estrogen) to induce withdrawal bleeding in case of amenorrhea. However, many other women said that they can tolerate amenorrhea, particularly as their friends have also previously experienced it and health providers have assured them that it is not dangerous. Spotting and irregular bleeding were of relatively less concern to the women interviewed.

Some users perceive differences between the different brands of DMPA. The 150mg/3ml preparations are considered by some to be "more powerful" than the 1ml preparation. Several users stated that they prefer the red cap DMPA because it includes an expiry date on the label. However, for most, the choice is based on availability and price considerations. The two monthly injection Noristerat (norethisterone enanthate or NET-EN) was encountered in two townships, and some users stated that they preferred it because it is cheaper and perceived to be more effective than DMPA.

Oral contraceptives: The Chinese once-a-month pill is widely available in drug shops. It is cheap (typically between five and ten kyats) and perceived to be convenient to use. Its low cost makes it the choice of many women, particularly those who are poor. Many women, however, consider it to have a high risk of contraceptive failure and thus choose other methods, particularly in programme areas where

TABLE 4

Injectable Contraceptives Found During Field Visits
(160 kyats = US\$ 1)

Name	Company and Country of Origin	Content	Price to Client
Chinese Injectable # 1	China	17 α -hydroxyprogesterone caproate estradiol valerate	30-50 kyats
Chinese monthly	China	megestrol, 2.5 mg/ estradiol, 3.5 mg	30-50 kyats
NET-EN	Schering, Germany	norethisterone enanthate	60-150 kyats
Depo Provera (red cap)	Upjohn, Belgium	DMPA, 150 mg/1 ml	90-150 kyats
Depo Prowin (metal cap)	Linnerle, Thailand	DMPA, 150 mg/3 ml	100-150 kyats
Depo Prowin (orange cap)	Linnerle, Thailand	DMPA, 150 mg/3 ml	100-150 kyats
Contracept	Organon, Thailand	DMPA, 150 mg/3 ml	150 kyats

providers reinforce this view. The team also spoke with many women who complained of the nausea and vomiting associated with the use of the Chinese once-a-month pill.

Daily COCs are preferred by many users because they are cheaper than injectables and menstruation is reported to be more regular. However, many women experience side-effects, the most commonly reported being dizziness, headaches and nausea. Several brands are widely available in drug shops. These include Combination 5 (also known as gold card) and Noriday (silver card), which are the most common, as well as Microgynon, Rigevidon, Anna and another gold card produced by Wyeth-Pharma that is labelled in Bangla and does not appear to have a prominent brand name on the label (see Table 5).

Users of COCs typically do not consult a provider prior to use, but buy them directly from a drug shop or kiosk. The choice of brand is often based on availability, price and reputation. The gold card brands are most expensive

(15 to 18 kyats), but are believed to provide the most regular menstruation and thus preferred to silver card (seven to ten kyats) by those who can afford the extra expense. When a woman purchases oral contraception from a drug shop, little or no information is provided concerning side-effects or instructions for use, including what to do in the event of forgetting to take a pill.

Many women say that they do not want to use COCs because they think that it would be difficult to remember to take them daily, reflecting the view of most providers. However, COC users who were interviewed felt that this was not a problem.

Progestogen-only pills are generally not available in Myanmar.

IUDs: In non-programme areas, most people have not heard of, or know little about IUDs. They are better known in programme areas where the CuT 380A is available. Some women know of the Lippes Loop although this appears to be no longer available in Myanmar.

TABLE 5

Oral Contraceptives Found During Field Visits
(160 kyats = US\$ 1)

Name/Programme	Price to Clients	Producer / Origin	Estrogen Content
Combination 5 (gold card)	15-18 kyats	Schering, Germany	EE 50 µg*
Bengali labelling (gold card)	15-18 kyats	Wyeth Pharma, Germany	EE-30 µg
Noriday-Maya (silver card)	7-10 kyats	Syntex, USA	mestranol 50 µg**
Microgynon / UNDP	3-5 kyats	Schering, Germany	EE-30 µg
Rigevidon / UNFPA	3-5 kyats	Gideon Richter Hungary	EE 30 µg
Anna / FPIA	5 kyats	Thai Nakorn Patana, Thailand	EE 30 µg

* EE ethinyl estradiol

* 50µg mestranol is pharmacologically equivalent to 30-35 µg ethinyl estradiol and thus could be considered as low dose

Several satisfied users of IUDs were interviewed during the field visits. Most women, however, think that IUDs have many disadvantages and many consider them to be dangerous. Common concerns about the IUD which were frequently encountered included that their use would lead to erosion of the uterus, the dislike of a foreign body being inserted in the body and the fear of it causing a tumour in the uterus because of it being plastic, sexual dysfunction or other illnesses. Many also felt that hard work will lead to spontaneous expulsion of an IUD.

Even satisfied users who were interviewed thought that they should switch to other methods after a few years of use due to the potential danger of prolonged use. The current availability of IUD insertion is limited to township hospitals, and some GPs, lady health visitors and midwives. Experience in surrounding countries and field discussions with women suggests that even with increased availability, the current low level of demand for IUDs is likely to continue.

Condoms: In non-programme areas, there is very limited knowledge of condoms and they are rarely mentioned as a birth spacing method. Condoms have a stigma attached to them as they are widely seen to be used only for STD prevention by those who have multiple sexual partners. For example, one village leader, when asked if he had ever tried using a condom, replied "No, I've never gone to sex workers". Given this perspective, it is not surprising that many people have not seen a condom and are embarrassed when talking about them in public.

In programme areas there is more active promotion of condoms and some couples use them for contraception. In these townships users and non-users were more at ease in talking about condoms and users were more willing

to discuss their use of the method. It is important to note that even in programme areas, condoms are supposed to be provided only to couples. Also, condoms are primarily provided to women because the providers tend to be women, and men are often too shy to come and request them.

Social marketing of condoms has recently begun in selected townships under UNICEF auspices with technical assistance from Population Services International. Although condoms are positioned both for AIDS prevention and as contraception, the former perspective is emphasized. The introduction of condoms in the selected townships is accompanied by IEC through bill boards, posters and point-of-purchase promotional materials. The programme also trains community-based promoters and uses local NGOs. In addition to drug shops, the programme utilizes non-traditional outlets where young men can be reached. These include barber's shops, video halls, and truck terminals. The condoms provided under this programme have a suggested retail price of ten kyats for a pack of four.

Although it is still too early to assess its impact, indications are that social marketing will increase overall use of the condom. In the first township with a population of around 180,000, 25,000 condoms were sold in the first month of promotion (Widmyer, 1996).

The team found that users of condoms had appropriate knowledge of how to use a condom and of the importance of regular use. However, providers had not explained their lower contraceptive efficacy. Attitudes toward condoms were very positive among women using the method. They appreciated the lack of side-effects. One woman whose husband was a long distance truck driver commented that she felt much

safer. Several commented that the benefits outweighed any adverse effects, and that their husbands had not complained. They disposed of used condoms in their pit latrines or by burying them and they did not consider disposal of condoms to be a major problem.

Condoms are expensive in the private sector and prices in shops vary from five to 20 kyats a piece, depending upon the brand. However, the price when provided through programme services varies from free to five kyats a dozen. Unfortunately, the availability of these subsidized condoms in some birth spacing programme areas is very limited.

Female sterilization: Special approval from a division/state level board is required for female sterilization. The boards use varying eligibility criteria, and some are more lenient than others. In general, the criteria for potential users are that the woman should be at least 30 years of age, have at least three living children and have health conditions which make other contraceptive methods possibly harmful to her health. An application must be forwarded by the township medical officer to the sterilization board for consideration. The approval process may take one to four months, but few applicants are rejected.

Many women interviewed by the assessment team wanted no more children and were interested in undergoing sterilization. However they did not consider this to be an option available to them. The lengthy application procedure and the associated costs of transportation and of the procedure itself make it too expensive for the majority of women to afford. Reported total costs varied by township, but ranged from 1,500 to 10,000 kyats. This high cost reflects the fact that the women must pay for

the supplies and medications used during the procedure, as well as transportation, food and lodging for those accompanying them. In addition, many women are afraid of the surgical process and feel that it may have adverse health effects. Others think that it can only be obtained at the time of childbirth. Other prevalent misconceptions about female sterilization include, for example, the belief that the husband may not have an orgasm if the wife is sterilized.

Male sterilization: Vasectomy is illegal except in cases where the wife has approval for sterilization but cannot be sterilized because of possible adverse consequences for her health. Despite this legal situation, many people know of vasectomy and have heard of men who have had one. Many of those interviewed expressed concern about the possible adverse effects of the procedure on men's health, strength, and sexual function. A number also reported having heard of method failure among men from the area who had undergone the procedure.

Natural birth spacing methods: The 1991 PCFS reported that around 3% of married women or reproductive age were using natural methods of contraception (Ministry of Home Affairs, 1992). Some women interviewed mentioned the use of periodic abstinence and withdrawal as means of spacing pregnancies. They appreciated that these methods are less effective, and pointed to the need for a disciplined husband to successfully use these approaches. However, the respondents' knowledge of the safe and fertile periods of women's cycle were often inaccurate.

Lactational amenorrhea: Women in rural areas universally breast feed their infants, with a mean duration of 26.9 months (Ministry of Home Affairs, 1992), but supplementary food is

traditionally introduced very early. The mean reported length of lactational amenorrhea in this survey was 12.9 months. A very common belief among respondents is that a woman cannot become pregnant until she has resumed menstruation. Typically, contraceptive users wait until they have resumed menstruation after childbirth before starting to use a method.

Post-coital contraception: Postinor has recently become available in drug shops in Myanmar. However, promotional materials were not encountered and drug shop owners reported little demand as few people know about the method. A box of four tablets costs 100 kyats. Emergency contraception is known by very few providers or clients.

Traditional practices: Several women described the use of uterine manipulation for birth spacing. Traditional practitioners are said to invert or retroflex the uterus to prevent conception. The charge was reported by one client to be 1,000 kyats. It is considered to remain effective until the practitioner repositions the uterus, again for a fee of 1,000 kyats.

The team also encountered various reports of the use of other herbal potions and injections which were used for birth spacing.

Gender Issues and the Role of Husbands

In many dimensions, gender equality is relatively high in Myanmar and there is relatively little discrimination against women in comparison to some neighbouring countries. However, there is considerable gender bias in birth spacing responsibility. Birth spacing IEC and service delivery is largely targeted towards women and male methods are not widely available

or used. As noted earlier, vasectomy is illegal in most situations and condoms are seen as something to be used only by men with multiple partners.

The staff providing birth spacing services are midwives and lady health visitors, all of them women, who do not often reach men. The health assistants who are administratively responsible for rural health centres are typically male, but they often do not consider birth spacing as their responsibility, even in programme areas. Consequently, while they supervise other maternal and child health activities, birth spacing activities are seen to be outside their responsibility. The public health supervisors at rural health clinics, primarily male, also do not see birth spacing as their responsibility. Thus, men are largely not reached by birth spacing information or services.

Most men interviewed knew about COCs and injectable contraceptives, but their knowledge was very limited.

The decision making processes for contraceptive use vary, with several distinct patterns being reported. Usually either the husband and wife jointly decide on the use of birth spacing, or the wife makes a decision and the husband acquiesces. In only a few instances, had either the wife decided to use contraception secretly, or the husband made the decision independently. However, both men and women interviewed by the team considered contraception to be a women's issue.

While husbands are generally not active in birth spacing, they are concerned about their wife's health. In some cases, husbands were found to be worried about the potential adverse effects of contraception on their wife's health and therefore discourage the use of birth spacing. However, in cases where there had been difficulties

during pregnancy, or if the wife's health is not good, husbands may even actively promote the use of birth spacing by his wife.

Several MMCWA officials interviewed argued for the need for increased empowerment of women. They suggested that concerted efforts should be made to improve the health literacy of women so that they are able to make appropriate choices to ensure their reproductive health.

Contraceptive Use Behaviour

Injections and oral contraceptives are the most popular methods of contraception. However, considerable method switching takes place for a variety of reasons.

Experience with undesirable side-effects of methods was perhaps the most frequently encountered reason for switching to another method. Users of oral contraceptives typically switch to injectables after experiencing dizziness, headaches or other

symptoms, while injectable users switch to pills due to amenorrhea. Price is also an important factor, with women using injectables when they can afford them, and switching to cheaper COCs when their financial resources are constrained. Sometimes users will alternate between pills and injections, balancing both financial and side-effect considerations.

Inappropriate utilization of methods also occurs. For example, some users of DMPA return for reinjection only when they experience a menstrual period. As long as they continue to have amenorrhea, they consider themselves to be protected. Other users of DMPA who have amenorrhea will take Kai Thi Pan or Menstrogen to induce bleeding prior to obtaining a reinjection. Oral contraceptive users are likely to begin use at any point in their menstrual cycle, as these are typically purchased from drug shops where little, if any, information is given. Sporadic taking of COCs also appears to be common and few women know what to do if they miss taking a pill for one, two or more days.

Service Delivery Issues Related to Birth Spacing

Availability and Utilization of Services

The distinction between public and private sector availability of birth spacing services in Myanmar is blurred. Public sector birth spacing programmes currently cover only about one tenth of all townships and provide limited contraceptive supplies. However, most in-service doctors and many lady health visitors and midwives provide injectable contraceptives and COCs as part of their private practice. GPs and drug shops also provide both injectable and oral contraceptives.

Condoms are not as widely available, although many drug shops do sell them. They are also provided by the public sector in programme townships, and by MCWAs in some townships. A social marketing programme for condoms has just begun and is expected to cover four townships with relatively large populations by the end of 1996, and to expand considerably in 1997.

Services for IUD insertion are limited as few providers have relevant training. Most township hospitals provide female sterilization if prior official approval has been obtained by the user. Male sterilization is legally available only to those whose wives cannot undergo female sterilization because of possible adverse health consequences.

Injectable contraceptives: Injectable contraceptives are provided by doctors and basic health staff in government services, GPs, retired health staff and "quacks". They generally obtain

supplies from drug shops. In programme townships, DMPA is supplied in limited quantities through government channels. Sometimes, users purchase the injectable contraceptive at a drug shop and ask a provider to inject it.

DMPA is the method most preferred by doctors and basic health staff. High efficacy and the possibility of weight gain are considered as its advantages, but providers report that amenorrhea is a serious concern of users. They reported that counselling often suffices to alleviate users' concerns with lack of menstruation, but many providers use menses inducers such as Menstrogen injections to induce withdrawal bleeding when users request it.

Almost all providers of DMPA also provide monthly injectable contraceptives. However, they report their failure rate to be high. Although many providers do not have faith in their efficacy, they continue to provide monthly injectables as many users prefer them because a single dose is cheaper and menstruation is considered to be more regular than with DMPA.

In one of the two townships in which NET-EN was found, some providers prefer it to other injectables because they feel that it produces fewer side-effects. In Rakkhine State, both providers and clients prefer NET-EN as it is considered to be more effective and is cheaper than DMPA (originating from the Bangladesh public sector). This belief may be a result of many reports of contraceptive failure with DMPA five to six years previously, which health officials attribute to the presence at that time of fake DMPA in the marketplace.

Oral contraceptives: Most users of oral contraceptives buy them at drug shops. These shops often do not inform women about when during the menstrual cycle to begin, about possible side-effects, or what to do if she forgets to take a daily pill.

Providers often reported that they do not like to prescribe COCs because users would not remember to take them daily. Some women also feel that it would be inconvenient to take oral contraceptives daily, perhaps reflecting the influence of provider views. However, many users commented that they have no problems remembering to take the pills and the team interviewed several who have successfully used oral contraceptives for many years.

IUDs: The availability of IUD insertion services is very limited. Although IUDs are available in the market in big towns, typically only township medical officers, a few specialists and a few female GPs provide IUDs. Many doctors are male and women may not wish to have an IUD inserted by them, thus further limiting the availability of IUD services. Only a few lady health visitors and midwives have been trained and can insert IUDs. Even in programme areas where they have been trained, many are reluctant to do so or lack the necessary equipment such as vaginal speculae. Basic health staff and physicians in non-programme areas generally do not know much about IUDs. They are better known in those programme areas where some providers consider it to be the best method.

Condoms: In non-programme areas, there is very limited knowledge of condoms and they are rarely mentioned by providers as a birth spacing method. They are generally thought only to be used by those with multiple sexual partners and therefore have a negative image. Providers also share this negative image of condoms

and many are embarrassed while talking about condoms and rarely demonstrate how to use them. The assessment team found that many of the providers interviewed have not even seen a condom out of its wrapper.

However, both the AIDS and birth spacing programmes have begun to improve the image of condoms. In programme areas, condoms are promoted more actively and some people are using them. Here, users are more willing to talk about them and admit to their use. However, it was noted that providers do not explain the lower contraceptive effectiveness of condoms to users.

Female sterilization: All township hospitals provide female sterilization after the client has received approval from the sterilization board at the division/state level. There are some private providers of female sterilization. However, providers generally do not consider it to be a birth spacing method because it is not included as a method in their training. Some of the township medical officers who spoke with the assessment team expressed their view that the number of women with abortion complications would be reduced if the sterilization approval process was made quicker and simpler. Township medical officers often take active interest in securing approval from sterilization boards for those desiring sterilization.

Male sterilization: Vasectomy is available only in very exceptional cases, primarily to those men whose wives have approval for female sterilization but are unable, for medical reasons, to undergo one. The assessment team was often told by providers that private practitioners in neighbouring townships provided vasectomy services. However, the team did not come across any such providers, making it difficult to validate this belief.

Drug Shops

Most drug shops carry several brands of COCs, injectable contraceptives and condoms. A study of 33 drug shops in five townships found that all of them had at least one brand of COC and around 90% had at least one brand of injectable contraceptives in stock (see Table 6). However, only 18% had condoms in stock. Expired commodities and those with damaged packaging were noted in a number of shops.

The assessment team found in its field visits that many users obtain their supplies of COCs or injectable contraceptives from the drug shops. After purchase of an injectable, women take the ampoule to a private provider who gives the injection for a small fee.

Drug shop vendors generally do not provide any information or counselling, unless specifically requested. The assessment team found that the reliability of information varied depending on the knowledge of the drug shop vendor, but that only a few were well informed.

General Practitioners

There are generally six to ten GPs in smaller townships, typically practicing in the central town rather than in rural areas. However, their numbers are much larger in bigger cities. For instance, there were around 70 GPs in Lashio township, mostly in the urban or peri-urban areas. Although most GPs interviewed provide brief information on birth spacing methods (injectables, COCs and IUDs) to a prospective client, they prefer injectable contraceptives. Infrequently they also write prescriptions for oral contraceptives. Most do not insert IUDs. Many of them have their clinics in store-front type premises which provide little privacy.

Generally, the information and counselling provided by GPs on contraceptive use is limited. For injectable users they report that they mention amenorrhea as the most frequent side-effect and that they advise clients when to come back for the next injection. Little actual counselling concerning method choice appears to be provided. If the client

TABLE 6

Commodities Found in Drug Shops
(160 kyats = US\$ 1)

Commodity	Per cent having stock	Average weekly sale	Average price in kyats
COCs			
Combination 5	57.3	9	17
Gold card (Bangla label)	54.5	10	7
Noriday	60.6	3	8
Monthly oral contraceptive	60.6	11	9
Injectable contraceptives			
Monthly	54.5	11	11
DMPA 1ml	78.8	8	61
DMPA 3ml	42.4	4	93
Condoms	18.2	8	7
Kai Thi Pan	55	14	5

does not come requesting a specific method, the providers are likely to provide that which they consider most appropriate for a client based on socio-economic as well as medical factors. Many of the GPs interviewed expressed an interest in receiving training in providing contraception, as long as the time of training did not conflict with their hours of private practice.

Role of NGOs

Myanmar Maternal and Child Welfare Association: In the townships visited by the team, township level MCWAs generally function and are active in supporting immunization and child health care. In one of the townships, it was also involved in the distribution of iodized salt. Maternal care is also being provided by MCWAs as they work in close collaboration with government health services, and maternal and child health centres in townships are often in the same building as the MCWA. In Danuphyu, the township MCWA assists and facilitates women in applying for and obtaining sterilization. The MCWAs are most active at the township level and have only recently begun extending their branches to the village tracts.

In some townships visited, MCWA officials have provided multiplier courses, distributed some IEC materials and given health talks to the community after receiving birth spacing training. A limited number of condoms have also been provided due to a concern for preventing HIV infection. In some townships the condoms are distributed free, and in others they are sold at a nominal price. The funds generated through sales are used to support other MCWA activities. In townships where the previously described UNICEF supported project is being implemented, MCWA has conducted life skills training seminars for urban and rural women which

included a birth spacing component. However, in some of the other townships visited they do not seem to be actively involved in promoting birth spacing.

Other NGOs: The Myanmar Medical Association (MMA) does not have branches in many townships. Even where MMA branches exist, continuing training of GPs does not consistently take place. The other NGO active in the field of birth spacing is the Myanmar Red Cross Society. The assessment team found that their main activity involved the provision of life skills training, including birth spacing to youth in selected townships with support from UNICEF.

Access to Services

Most clients have to actively seek birth spacing services from providers. Midwives are expected to visit all households with married women of reproductive age once every three months, but they are not expected to provide birth spacing services in clients' homes. However, many report providing some birth spacing advice during their post-natal home visits. There is no community-based distribution of contraceptives. Availability of services, therefore, depends on how close the client is to a birth spacing service provider.

Although there is a wide range of providers, access to services varies considerably. It is generally better in programme townships where many providers have been trained. In non-programme urban areas, the public sector in-service doctors and many lady health visitors and midwives provide birth spacing services as a part of their evening private practice. In rural non-programme areas access to services depends on whether the midwife provides such services. Many drug shops in towns and kiosks in villages carry several brands of COCs and injectable contraceptives.

Clearly, difficult geographic terrain and lack of transport also constrains access to birth spacing services, particularly during the rainy season. However, as the team did not visit remote areas, it is difficult to comment on service accessibility in such areas.

Cost recovery: The government has a policy of cost sharing for most medicines, including contraceptives. Contraceptives are provided in the public sector only in programme areas. The extent of the subsidy varies since it is determined by the local authorities. Despite this subsidy, affordability of contraceptives is an important barrier to access in all areas.

The price of injectable contraceptives in programme areas was around 50 kyats and ranged between 100 to 150 kyats in most non-programme areas. Generally, providers and community members felt that many users cannot afford them at such prices. The total cost of female sterilization varies from 1,500 to 10,000 kyats, making it out of reach for most poor people. In addition, hospitalization is needed for three or more days.

Programme factors: There are several other barriers to access in government programmes. Clients are registered on a client list which can be public. As many users prefer privacy, they may chose not to utilize government services. Another barrier noted by the team was that in some townships there is a delay of a month between registration and the first supply of contraceptives. Also, services in villages where midwives do not reside are often provided at the home of the village head. Women are willing to come for ante-natal care or for child immunization but may not wish to come to a public site for birth spacing services.

Thus, inadequate knowledge, difficult geographic access, affordability of contraceptives and programmatic barriers all need to be addressed in order to improve access to birth spacing services.

Quality of Care

Choice of methods: Several methods are typically mentioned to a prospective user by providers. Method availability, however, is severely constrained and since in general the choice is between COCs and injectable contraceptives, the actual choice made by the client is between different brands.

Usually the service providers give balanced information about methods within their limited knowledge. Although the choice is generally left to users, providers sometimes have their own preferences. In non-programme areas, the preference is for either injectable or oral contraceptives. In some programme areas, providers prefer the IUD to either COCs or injectable contraceptives.

Provision of information and counselling: Most programmes provided limited IEC in the form of a training manual for providers, a poster and some leaflets. The team found that even these materials were not always available. Consequently, both providers and users feel the need for more IEC materials. They suggested several forms of IEC, through posters and leaflets, television spots, and drama and television series.

Information provision is further constrained by the limited knowledge of service providers. Neither the 18 months basic training for midwives, nor the nine months additional training for the lady health visitors, include birth spacing. In-service

training in contraception was provided in programme areas, but some have been transferred out of those areas and untrained staff have been posted. Regular refresher training needs to be included as part of the programme and is planned under the new UNFPA-supported project. As a result of their lack of training, several midwives interviewed had acquired some information about COCs and injectable contraceptives based on the experiences of their clients. In general, providers' knowledge was superficial, and many did not know about the details of good technical practices.

Providers' practices regarding when to begin DMPA and about its reinjection time window vary. Some begin injectables only on the fifth day and others only on the seventh day after the beginning of menstruation. Rarely do they consider the whole interval up to seven days as appropriate. Back up methods for women starting after that interval or overdue for their next injections are not provided.

Abstinence is suggested as a back up in some instances. Condoms are typically considered as a contraceptive and therefore, not recommended as a back up method. Although most providers know that there is a reinjection time window, they do not know the appropriate protocol if a woman returns after this time. Some providers mentioned that in such instances they inform the client of the risk of conception but would give the injection if the client wanted. Others mentioned that they would give a Menstrogen injection to induce withdrawal bleeding (or suggest other traditional herbal menses inducers such as Kai Thi Pan) and after that occurred, would provide DMPA.

The majority of providers were not generally aware of the different hormonal composition of oral contraceptives and did not distinguish between pills containing high and low

doses of estrogen. Most also did not know that COCs should not be prescribed for breastfeeding women for the first six months after delivery.

Most providers do not know about the advantages and disadvantages of the IUD. Many were unaware of the life span of a Cu-T 380A. Even in programme areas, some felt that it was three years and others six years, as compared to the ten years approved by the United States Federal Drug Administration.

Lady health visitors are generally expected to be better informed than midwives since they have more training and experience. However, many do not provide any contraceptive services and therefore cannot learn from practice or contact with users. Many lady health visitors also perceive their role primarily as supervisors of child health activities. The team found, therefore, that many health visitors were often less well informed than midwives.

Since untrained providers may not know any more about birth spacing than a well informed user, it is not surprising that users do not perceive them as a reliable source of information or counselling. Many service providers, including some GPs, mentioned that clients preferred to seek information from their friends and relatives rather than from the service providers.

Counselling is often limited and several clients complained during the field visits that they were not given enough information or properly counselled. First, counselling is passive. Public sector providers, for example, often do not counsel clients when they come for ante-natal care. They only respond when a client enquires directly about birth spacing. Thus many opportunities for counselling on birth spacing are missed. GPs are usually

busy and many state that they do not have adequate time for counselling.

Second, few side-effects are mentioned to clients. The most commonly mentioned side-effect is amenorrhea for DMPA and nausea for oral contraceptives. Third, there is insufficient understanding of contraindications. For instance, they do not recognize that estrogen containing oral contraceptives are not recommended for breast feeding women in the first six months after delivery. Many still follow old and outdated guidelines concerning contraceptive medical eligibility criteria which, for example, suggest that hormonal contraceptives are not appropriate for women above 35 years of age.

Technical service delivery practices:

Most service delivery facilities visited were neat but very basic, and had very limited supplies and equipment. Many rural health centres do not even have a vaginal speculum, and many rural health sub-centres do not have an examination table. All drugs are typically in short supply, except for vaccines and ferrous sulfate for pregnant women.

Most providers claim to use disposable needles for injections. However, the team came across some instances where they were being boiled for re-use. Many providers use glass rather than disposable syringes. The choice of disposable syringes and needles is often dictated by the clients' ability to pay. Disposable needles cost around 4 kyats and syringes around 6-8 kyats.

Public providers also frequently report that they have to buy spirits and cotton from their own resources. The Government provides some funds for this purpose for the Universal Child Immunization Programme, but it is often inadequate to meet the centre's needs.

Interpersonal relations: Although the team was not able to observe actual service provision, the relations between most clients and providers appeared cordial. Concern for privacy during counselling was not evident in public facilities during the field visit.

Follow-up and continuity of care:

Most providers advised clients on when to return, but did not provide a user card or other written reminders. It was left to clients to return at an appropriate time. However, some midwives in villages remind clients when they are due for their next injection.

Quality of contraceptive products: A large number of contraceptive products with questionable safety and efficacy are available in the market in Myanmar. For instance, two different once-a-month injectable contraceptives from China are available. One of them has not been tested adequately for its safety and efficacy. The other, known as Chinese Number 1, has a high failure rate unless a complicated schedule for the first three injections is followed. In clinical trials supported by WHO, when the injectable was given once-a-month the pregnancy rate was nearly 6% and the trial was halted. It then utilized a regimen with the first injection given on days one to five of a menstrual cycle, and then an additional injection given 9±1 days later. Subsequent injections were given on day ten to 12 after the onset of withdrawal bleeding, or 28 days after the previous injection if no bleeding occurred. Even with this schedule, the pregnancy rate was higher than with Cyclofem or Mesigyna, the other monthly injectable contraceptives used in the trials (0.8%, 0.3% and 0.1% respectively) (Sang et al., 1994). The team found that providers did not follow this complicated regimen, although a few practice a variant of this schedule with two injections in the first month of use.

Several different types of high dose estrogen daily oral contraceptives are available on the market, including Combination 5 or "gold card" which is the most popular oral contraceptive. The Chinese monthly COC has not been adequately tested for efficacy and safety, and serious concerns remain concerning the safety of its components. Many of the available brands of DMPA have also not been tested for content and purity, and some do not list country of origin or expiry date on the label.

Contraceptive failure: Most providers reported that some of their clients had experienced contraceptive failures. Many users also reported failures. There are many factors which contribute to this failure: (a) the once-a-month injectable and the once-a-month pill are known to be less effective than DMPA and daily oral pills; (b) many inappropriate practices increase the risk of pregnancy - users may be late for subsequent injections, contraceptive use may be started late in the menstrual cycle, or oral contraceptives may be taken intermittently; (c) many women use COCs intermittently or post-coitally, believing that a pill prevents pregnancy as soon as it is taken; and (d) many women do not realize that there is some risk of pregnancy before menstruation resumes after lactational amenorrhea.

Management Issues

Limited programme coverage:

Various birth spacing programmes operate in 33 of the 320 townships and will expand to 79, or a quarter of all townships, by the end of 1997. Although the inputs among different programmes have varied, they generally provide training, IEC and some contraceptive commodities. In other areas, limited birth spacing training has been provided to basic health staff as part of their in-service

training. A training manual has also been supplied to each township medical officer. Neither IEC materials nor contraceptives are provided in the public sector in non-programme areas.

Community acceptability: As mentioned earlier, despite the fact that the majority of people support birth spacing, there is a need to enhance the social legitimacy of the practice. In areas where programmes do operate, the climate for birth spacing is generally more favourable than in areas where programmes do not exist. The community leaders tend to be favourably inclined towards birth spacing in those areas, although not actively involved in the programme. Establishing a programme can increase community acceptability of birth spacing services.

Training: The programmes have generally provided only one round of training to health staff. As many staff have been transferred over time from programme townships to other areas, the effect of training on the availability and quality of services has gradually diminished. However, field visits showed that providers were better informed about contraceptives and had increased competency in providing good quality of care in programme areas where continuing training was provided.

In some programme areas, the township medical officers, township health officers and lady health visitors were trained in birth spacing by a central training team. The team serves as trainers for basic health staff of the township and conducts training for midwives and health assistants who in turn, provide training to auxiliary midwives and community health workers. Refresher training has also been provided on several occasions during the programme period of two years. In addition, observed problems in the functioning of the programme are discussed in monthly meetings.

The lady health visitors provide some on-the-job training during supervision. Where this more intensive training and supervision takes place, staff knowledge and skills are clearly superior.

IEC support: Very little IEC support has been provided in most programme areas. Consequently, IEC materials are rarely available to service providers. In some programme areas, IEC received more emphasis with providers receiving posters, pamphlets and a training manual. The staff say they use posters at the health facilities and allow people to read the pamphlets. In some cases pamphlets were distributed to people. The midwives also reported giving health education talks at rural health sub-centres and in villages. Despite the modest IEC effort, users in these townships seemed better informed about various available contraceptive methods and their relative advantages and disadvantages.

Contraceptive supply, pricing and logistics: The programmes concentrate on providing contraceptive commodities, but the supplies at service delivery sites are often limited. These commodities are provided to users at subsidized prices which vary between townships.

Providing subsidized contraceptive commodities would not make a significant difference in contraceptive prevalence unless sufficient commodities were provided to meet the total needs of the area. The assessment found that as the need is much greater than the amount supplied by programmes, clients in programme areas had to alternate between using contraceptives supplied from the Government and those from the private sector. Some providers also reported that they charge the usual private sector fee for contraceptives from the programme because they did

not wish to be seen to discriminate between clients and this also provided some income. Providers also reported that clients expected that they would have to pay for the commodities.

Prices in the private sector in Myanmar are generally lower than the international procurement prices at the current exchange rate, even for the same brands. This assessment could not investigate the private sector supply channels, but it appears that some of the supplies available at the shops had leaked from programmes in neighbouring countries. Many other brands available in the market have questionable safety and efficacy and have not qualified for international procurement. The issue of how to provide safe and efficacious contraceptive commodities at prices comparable to those currently prevailing requires careful analysis.

As programmes have been in operation for only a couple of years, the logistics system has not yet been stabilized. In addition, different donors have differing requirements for procurement and supply of contraceptives. As the programme expands and the supply of commodities increases, logistics will become an issue. Currently some townships receive more than they can use and others experience shortages.

The logistics system will therefore have to be strengthened as the programme expands its coverage.

The issue of expired contraceptives has not yet arisen, but the team observed that the first batch of IUDs provided in one township had an expiry date of April 1997 and were unlikely to be used before that date.

Recording system: Midwives maintain records of the services they provide. In non-programme areas they do not take a census of all households and, as many users obtain services

from other sources, midwives do not know the total number of users and non-users of contraception in their area.

In some programme areas, a system of annual registration of eligible couples has been initiated which can be used to track contraceptive use and sources of services. As this information is not used for planning programme activities, it is often not summarized and may not be accurate.

Supervision: The team observed that where they have had adequate training and been provided with IEC materials, midwives counsel clients on the four main methods of contraception: COCs, injectables, IUDs and condoms. They are aware of screening criteria and contraindications for each method, although these may not always be consistent or complete. However, in the absence of supervision, they may not always translate this knowledge into proactive counselling or appropriate technical service provision.

Levels of supervision vary considerably between programme areas. Because of the large distances involved, particularly in hilly regions or other hard to reach areas, supervision is

difficult. Supervision from the centre is also difficult as the MCH/Birth Spacing Section is inadequately staffed. The programmes appear to function better in townships which received more supervision than those in other programme areas. In non-programme areas there is very little field supervision of midwives' birth spacing activities as the lady health visitors primarily concentrate on child health activities.

Programme impact: The assessment team did not, in general, find large differences in the knowledge, attitude and practice of users in birth spacing programme and non-programme areas. None of the programmes have been evaluated for their impact on knowledge, attitudes and practices, and only the UNDP programme townships have been evaluated for their impact on contraceptive prevalence. That evaluation showed that contraceptive use by married women of reproductive age had doubled from around 11% to 22% (Bhatnagar, 1996). However, most other township studies show contraceptive prevalence of around 20% in non-programme areas (Bo Kywe and Maung Maung Lin, 1993).

Related Reproductive Health Issues

There is still among providers, a considerable lack of awareness concerning the entire range of reproductive health issues aside from pregnancy and birth spacing. Most do not yet have a comprehensive view of the reproductive health needs of women, men and adolescents. This is perhaps most evident in regard to STDs and other RTIs. A manual on reproductive health is, however, being prepared by the Department of Health, and will be used to train township medical officers. This manual will review the reproductive system and outline the concept of comprehensive reproductive health, including pregnancy, contraception, abortion, postpartum services, menarche and menopause, RTIs and genital tract cancer.

Maternal Health Services

The assessment team was not able to focus extensively on ante-natal, intra-partum, and postpartum care given its limited time for field visits. The field visits did reveal, however, that while ante-natal coverage is generally high, its quality varies considerably. Essential equipment (e.g., blood pressure cuffs) is not always in working order. However ferrous sulfate tablets are available and distributed, the administration of tetanus toxoid immunization is routine, and referrals for ante-natal syphilis screening are made if a local STD laboratory is available. Ante-natal services demonstrate that where organized programme efforts in maternal health services have been made, they have achieved a measure of success within the existing resource constraints. While some information regarding birth spacing is included in health education talks given to groups

of women at ante-natal clinics, individual counselling is not provided in the ante-natal care setting and this is not seen by providers as an appropriate venue for such activity.

During the field visits it was found that midwives can usually identify women at high risk of complications during child birth, but that women are reluctant to deliver in the hospital. The midwives said that primagravidae and women with breech presentations routinely have home deliveries. A study in Kyauktan found that women are aware that the hospital is a safer place to deliver but that they prefer to be in a familiar surrounding with their family (Win May et al., 1996).

Postpartum services are also quite variable. In all sites visited, it was found that, if the midwife has performed the delivery, she regularly visits the mother at her house for five days. This is used as an opportunity to provide counselling to the mother on various issues regarding child care, breastfeeding, and nutrition. Unfortunately, information provided regarding birth spacing is generally superficial. It was unclear to what extent midwives visit newly delivered mothers who have received intra-partum care from other providers. In one site, the team was told that since the midwife had been delegated the responsibility for issuing birth certificates for all new-borns, she would come to know about all births and would also visit women she had not assisted in delivery. Consequently, midwives are expected to visit all new-born mothers and, in many cases, do so. In some areas, however, it was observed that women not delivered by midwives did not receive such postpartum care.

Inaccurate knowledge on the part of midwives limits the information they can provide to women. For example, like their clients, many midwives believe that it is not possible for a woman to become pregnant until her menses has returned following pregnancy.

Menstrual Induction

Concern with the regularity of menstruation is high. As described earlier, this was one reason given by women for their preference for the once-a-month injectable. Women often use a variety of menses inducers such as Menstrogen injections, Kai Thi Pan, Cumerac tablets, Ginger-Jagary mix, and Moke Soe Kyaw.* All of these substances are widely known, but their use effectiveness is unproven. While many users acknowledge that they do not always work, the belief in their use is quite strong.

These compounds are used to bring on menses when it is delayed and are not generally seen as abortifacients, although some of these substances, such as Kai Thi Pan, are used in much higher doses for the purpose of inducing abortion. The lower dose use of these substances is primarily intended to relieve uncertainty concerning the possibility of pregnancy and essentially represents a proxy to pregnancy testing. This is best illustrated by the use of Menstrogen, an injectable combination of a progestogen and estrogen. Both women and providers believe that Menstrogen will induce menses only if a woman is not pregnant. They also feel that it will not affect the fetus of a woman who is pregnant.

* *Kai Thi Pan is a mixture of local herbs that comes in packets. Moke Soe Kyaw is a herbal medicine, often used in conjunction with massage, that is thought to have therapeutic effects for a wide range of disorders. It is considered a very "hot" medicine and, consequently, often used as a purgative.*

Abortion and Management of its Complications

Although induced abortions are illegal and discussion of abortion is often taboo, most providers know of abortions taking place in their community. Given the secrecy and criminality surrounding abortions, it is difficult to distinguish between spontaneous and induced abortion.

Despite the sensitivity of this issue in Myanmar, abortions are known to be widely available. In one household survey of 1010 currently married women aged 15-49 years in Yangon, only 2% said that abortions were difficult to procure. These same women felt very strongly that seeking induced abortion was against religious beliefs (99%), dangerous (99%), and expensive (98%). Of interest, a significant minority of women in this study felt that induced abortion was acceptable if a woman is not currently married (22%), if the pregnancy was unplanned (13%), or if contraceptives had not been used (22%) (Ba Thike et al., 1994).

Complications of abortion may account for a significant proportion of hospital admissions among women, although there is little reliable data. One prominent obstetrician interviewed by the assessment team estimated that 20-30% of women admitted to the Central Women's Hospital in Yangon with septic abortion had induced abortion as a result of contraceptive failure. These were primarily users of Chinese once-a-month injectables.

During the method mix assessment, most township hospitals reported having women patients admitted for incomplete or septic abortions or other abortion complications, at rates ranging from ten to 20 cases per month. It was reported that in most cases, medical and surgical intervention was successful in averting mortality. One township medical

officer estimated that there were two to three deaths for every 100 women admitted to the hospital with complications of abortion. The hospital staff reported having clear treatment guidelines for the management of abortion complications. Generally evacuation and curettage or dilatation and curettage is used and septic cases are treated with multiple antibiotics. Where it was discussed, the antibiotics prescribed for such patients seemed appropriate. It is important to stress that manual vacuum aspiration equipment is not available for the management of incomplete abortion.

Although quantitative data are not available to demonstrate that organized birth spacing programmes in Myanmar have reduced the number of abortions and their complications, most providers in programme townships reported that the incidence of abortions in their areas had decreased.

Given the sensitivity of this issue, it was difficult to gather detailed information on abortion seeking behaviour. However, the team was able to discern several general patterns of behaviour from interviews with hospitalized abortion patients, other women and providers.

It appears that while most women will occasionally use some form of menses inducer, some women who fail to induce menses with the substances discussed above, will attempt to induce abortion. Often Kai Thi Pan is the first step towards terminating an unwanted pregnancy. For this purpose, Kai Thi Pan is taken in large quantities (over ten packets) in the hope that it will serve as an abortifacient. If this does not work (which is common), many women will next seek the services of a let-the (traditional birth attendant) who performs uterine massage. Usually this is performed abdominally, although occasionally it is

accompanied by manipulation per vagina as well. Having induced bleeding, the woman will then present with an incomplete abortion. If massage does not succeed, some women will seek the services of a "quack", an untrained traditional birth attendant, or "someone in another town" who will pass one of a variety of instruments through the cervix (bamboo sticks, metal rods, pens, and catheters were all mentioned). These procedures often result in septic complications.

It is important to emphasize that women, men, and providers are all very aware of the hazards of induced abortion and describe it as a desperate action taken by women who do not want additional children. Many of these women were said to be unable to afford or access birth spacing services, or had experienced contraceptive failure.

It was widely reported that neither physicians nor midwives were involved in providing induced abortion services. In the clinics of the GPs visited, which were mostly store-front clinics, it would appear that they lack the facility to provide such a service. Obstetricians and gynaecologists, even if they might agree that termination of pregnancy should be available in selected cases, are said to fear the possible consequences of providing such service given the criminal status of abortion in Myanmar.

One special case of abortion seeking behaviour was discussed during the visit to Lashio in the Northern Shan State. A number of people interviewed during that field visit indicated that women sometimes travel to Muse and then over the border to China to seek abortion services. (They also reported occasionally seeking IUD services in this manner.) It appears that such trans-border travel for contraceptive and abortion service is quite common and is not restricted to the sizeable

ethnic Chinese population of the Northern Shan State. Apparently, as long as women can pay, the Chinese State Family Planning Council clinics will readily provide such services. The price was reported to be 2,000 to 4,000 kyats plus transportation which would cost approximately 3,000 kyats and take 1 1/2 days each way from Lashio to Muse. The box below tells the stories of two women met by the assessment team with an unmet need for birth spacing who resorted to abortion.

Preventing the high rates of morbidity and mortality resulting from illegal induced abortions will depend primarily on improving the availability of safe and effective birth spacing services that emphasize more appropriate use of COCs and injectables, as well as longer term methods such as the IUD, and female and male sterilization.

Adolescents

Most community leaders and basic health service staff stated that the age of marriage had been increasing with

the education level of girls. There appears to be a considerable unmet need for reproductive health information and services among adolescents. Many adolescents interviewed by the team expressed their interest in more accurate information concerning reproductive health issues. The school core curriculum does not include information concerning the human reproductive system, but it is included in the co-curriculum, an elective supplement to the middle school curriculum. In addition, a number of pilot efforts concerning sexuality education for youth have recently been initiated. Many adolescents receive information, often inaccurate, through overheard discussions among adults, a variety of books, and from older siblings, friends, and relatives. However, it appears that these subjects are rarely discussed openly at home.

The adolescents interviewed by the team felt that they needed scientific education on sexual health in their schools. They also felt that reliable information about sexuality and birth

Illustrative examples of women with an unmet need for birth spacing who resorted to abortion

- A 30 year old mother of four children had an abortion, subsequently she haemorrhaged and a dilatation and curettage was performed. She did not receive any ante-natal care for her four deliveries and did not know about birth spacing. She was very poor and, although willing to consider birth spacing post-abortion, was unable to afford it.
- A 41 year old women was admitted to the hospital for septic abortion with shock. She had had ten previous pregnancies and had eight living children (aged four to 20). Her children were all delivered by traditional birth attendants. She knew about injectable contraceptives and pills from her neighbours but was afraid of their adverse health effects. Although she lived near the midwife's residence in a village not far away from the township, she never received birth spacing counselling from the midwife. Now she wishes to discuss birth spacing with her husband.

spacing through videos, magazines and other mass media would serve to correct the unreliable information available through other sources.

Young people in need of services are more likely to go to GPs rather than public health care providers because of confidentiality and convenience. Government clinic times are usually the same as school times, making it hard for adolescents to attend.

In the courses on management of schools for headmasters organized by the Ministry of Education, one session is devoted to the health concerns of adolescents. It primarily covers issues of drug abuse and HIV/AIDS. Subsequent to this course, the headmasters organize essay competitions and talks in their schools. In the absence of any education on the reproductive system and sexuality, however, it is not clear whether students fully understand what is involved in HIV/AIDS transmission.

The assessment team was repeatedly told by community leaders that adolescents do not face any problems regarding physical and emotional changes during adolescence and that ensuring the health of adolescents is the responsibility of parents. It was also mentioned that premarital sex is uncommon despite the high age of marriage. This position was contradicted somewhat by a recent study of HIV/AIDS-related knowledge, attitudes and practices among final year students at Yangon University. In this study of approximately 700 students, 38.7% of the males and 2.9% of the females reported having prior sexual experience. Only 2.1% of the male and 0.3% of the female students were married (Myint Zaw, 1996).

When an occasional pregnancy out of wedlock does occur, it is expected that the partners marry. Nonetheless,

instances of abortion complications in unmarried women were reported and, as mentioned earlier, some women believe that pregnancy in these circumstance is an acceptable reason for induced abortion.

One important intervention targeting youth has been initiated through UNICEF's programme "Reducing HIV/AIDS Through the Promotion of Reproductive Health". A major component of this programme, implemented in collaboration with the Myanmar Red Cross, has been the development of a Life Skills Training Curriculum, which includes detailed and accurate information concerning sexuality, birth spacing, STDs, and HIV/AIDS.

Through the 25 project townships, the Myanmar Red Cross has been training youth from both urban and rural areas to become friend-to-friend counsellors as a means to further spread accurate information concerning these important topics. In a recent evaluation workshop of this programme, the Red Cross trainers indicated that they frequently encountered parental ambivalence concerning the appropriateness of discussing such topics among peer groups of unmarried youth. In the next step of their evaluation, UNICEF plans to more carefully assess parental reactions to the life skills training programmes.

Reproductive Tract Infections

Although RTI issues were not a primary focus of this contraceptive method mix assessment, the team addressed them as part of the broader reproductive health framework within which the assessment was undertaken. The subject of RTIs and STDs was briefly discussed in each of the field visits. However, due to the

presence of a township level STD team, and RTI/STD training activities by the MMR and the MCWA in Lashio, the assessment team focused in more detail on issues surrounding case management and prevention of RTIs.

Awareness of RTIs among women and men: During the field visits, the team found that many people were more aware of HIV/AIDS than they were of other STDs and RTIs. This may result from the prominence that HIV and AIDS have received in both national and international media. Most people indicated that they obtained HIV/AIDS information through video, television, and radio and less from print media. There is greater attention given to HIV/AIDS than STDs in such media and, in particular, much regional reporting focuses on the HIV/AIDS epidemic in the neighbouring countries of India and Thailand.

It is difficult to know how much people actually understand about HIV/AIDS, beyond the principle modes of transmission and its association with commercial sex and drug use. There seemed to be a relatively poor understanding of reproductive function. A better grasp of the reproductive system would be required to fully understanding the broader issue of RTIs, including both sexually transmitted and non-sexually transmitted infections.

Awareness of RTIs among providers: Most midwives and lady health visitors have limited knowledge concerning RTI/STDs. Like clients, providers seem much better informed about HIV/AIDS than they are about other STDs. Many providers have received some training on HIV/AIDS through the national programme, however, STDs and other RTIs receive little attention.

Providers reported clients presenting with symptoms of white discharge, as well as genital ulcers, although there was little knowledge of specific STD pathogens. Syphilis was perceived to be the most common STD in women. Providers reported that most people seek service in the private sector for reasons of privacy and to avoid stigmatization.

Health seeking behaviour: All providers indicated that self-treatment for RTI symptoms prior to consultation is the norm. Men with urethral discharge, for instance, commonly purchase rifampicin through drug shops for this purpose. Men are also reported to sometimes purchase tetracycline capsules and sprinkle the powder directly on genital ulcers.

Most people with an RTI or STD complaint go to a GP and sometimes to the private clinics of government service doctors. GPs are generally only available in urban settings, whereas midwives and other government health personnel have private practices in rural areas. In Lashio, it was reported that approximately 20% of the GPs are women and that women clients preferentially seek care from these providers. It was also reported in Lashio that women with a discharge would go to an obstetrician/gynaecologist. Such specialists, however, would not be available in most locations.

Sex workers were reported to use a variety of antibiotics for prophylaxis against STDs, including oral tablets as well as gentamycin injections.

RTI case management: Women presenting to the rural health clinic with complaints are usually referred to private practitioners. In Lashio, they are generally sent to an obstetrician/gynaecologist in the township capital. Lady health visitors and midwives at

the rural health clinics usually lack the skills to treat such cases. Even with the skills, they generally lack the appropriate antibiotics for syndromic case management. Sometimes, however, they will first treat the condition with metronidazole and then refer the client.

It was found that GPs use a variety of syndromic approaches for the management of RTIs. The prescribed regimens are variable and often lack a clear scientific rationale. Many providers described the use of inappropriate therapeutic regimens. In some instances, the wrong antibiotics were prescribed for the presumptive condition. For example, several providers reported treating vaginal discharge presumed to result from bacterial vaginosis with amoxicillin or Septrin. In another case, vaginal discharge was assumed to be caused by syphilis and treated with injections of benzathene penicillin.

More commonly, there were inaccuracies in the dose or duration of prescribed therapies. For example, erythromycin might be prescribed for use three times a day instead of four times a day. Many antibiotics were prescribed for three to five day courses, instead of the recommended seven to ten days. The latter is of concern, as it may contribute to the emergence of antibiotic resistance.

In treating the syndrome of urethral discharge in men, all providers interviewed based their therapeutic practice on the assumption that such discharge was caused by gonorrhoea. The common treatment regimens included: kanamycin, 2 gm IM (200-250 kyats); spectinomycin, 2 gm IM (1,500 kyats); ceftriaxone (dose unspecified) (2,000 kyats); and ciprofloxacin. None of the providers described the need to add a tetracycline for the treatment of non-gonococcal urethritis caused by chlamydia.

Laboratory testing was uncommon, and in those clients that were tested, a negative test was attributed to prior self-treatment. When asked about chlamydia infection, most providers seemed unaware that it might be an important cause of urethral discharge syndromes.

For most GPs and rural midwives, the management of vaginal discharge syndromes in women was based on the presenting symptoms. Most of the GPs' and midwives' clinics lacked both the privacy and the equipment for vaginal examinations. Furthermore, laboratory tests to help discriminate between the various causes of vaginal discharge were almost universally absent. Generally, providers assume that vaginal discharge is caused by non-STD pathogens, such as candida and bacterial vaginosis. In general, if the symptom of pruritus (itching) was reported along with discharge, it was assumed to be candida and treated with Canesten, nystatin, or other vaginal suppositories. Otherwise discharge was treated with metronidazole.

There seemed to be some confusion regarding whether trichomoniasis was an STD. Women with presumed trichomoniasis were often treated with metronidazole, but not counselled regarding the need to treat male partners. This confusion may partly arise from the lack of reliable laboratory tests to distinguish between bacterial vaginosis and trichomonas infections.

There is a general lack of equipment in government health facilities, particularly at rural health centre and sub-centre levels. These services had no vaginal speculae and, consequently, did not perform vaginal examinations as part of the management of women with vaginal discharge syndromes.

Partner referral: Sometimes providers reported treating partners. There are

organized contact tracing services only at the STD clinics. In the Lashio STD clinic it was reported that approximately 50% of the men treated for STDs subsequently brought their wives for treatment. In such cases, however, to avoid marital discord the woman is not usually told that she is being treated for an STD. The providers are complicit in this practice and thereby miss an opportunity for counselling and condom promotion. Very little partner notification is reported to occur in the private sector.

Case finding: Case finding efforts are restricted to ante-natal screening for latent syphilis. This only occurs in places, such as Lashio, where there is a locally available STD laboratory facility. Syphilis screening is performed using the venereal disease research laboratory (VDRL) serology test. No confirmation of positive tests with a specific treponemal antibody test (such as the treponema pallidum haemagglutination test) is available. Consequently, it is likely that reported syphilis seroprevalence rates are probably inflated by false positive VDRL tests. At present all pregnant women with a positive VDRL test are meant to receive treatment for syphilis. It is not clear what percentage of women actually receive such therapy.

Condom promotion: The provision of condoms to women or men for infection prevention appears to be uncommon. For example, in a group discussion with midwives and lady health visitors in Lashio, only two of eight participants reported ever seeing a condom outside of its package and only one had actually demonstrated condom use to a client. This was typical of midwives and lady health visitors in other areas as well. There was some distribution of condoms through the MCWA, but this did not involve demonstration of appropriate condom technique. In the one STD clinic visited there did appear to be more attention to condom provision for

infection prevention. Condoms were stocked and were given free to clients diagnosed with STDs. Nine condoms were reportedly given to each STD client.

GPs in some cases reported recommending condom use to male clients treated for discharge syndromes, but they generally did not have them available for demonstration or provide them.

Service delivery issues: Midwives reported receiving information about treatment of vaginal discharge syndromes in their basic training. In most places they have not received any further refresher training on this topic. Maternal and child health clinics are also not stocked with appropriate antibiotics for RTI case management in most areas. In the UNICEF project townships, there has been an effort to train maternal and child health clinic providers in the syndromic management of RTI cases, as well as to ensure adequate antibiotic supplies.

Due to very high rates of staff transfer, however, many of these staff soon move to other townships. Given the lack of refresher training opportunities, the project townships are then left with untrained staff, despite the presence of adequate therapeutic drugs. On the other hand, trained providers are often transferred to townships lacking adequate antibiotics and, consequently, cannot use their training in syndromic case management.

It would appear from the team's observations that disposable syringes and needles are routinely reused after boiling. This is necessary because of the common shortage of needles and syringes. Given the relatively high HIV prevalence and the reality of needle re-use in the absence of improved supply logistics, greater attention to techniques for decontamination and re-sterilization is needed, particularly in the STD clinics.

STDs appear to be associated with considerable social stigma. This is one reason why most people with symptomatic STDs are reported to seek services in the informal or private sector. Some clients also perceive that

there may be a lack of confidentiality associated with government health facilities. Government staff, however, assured the team that confidentiality was assured for all STD clients.

Conclusions and Recommendations

This report has presented the findings of an assessment of the need for contraceptive introduction in Myanmar, undertaken in collaboration between the Department of Health and WHO/HRP with participation of staff from the Department of Medical Research, the Department of Medical Sciences and MMCWA. The assessment shows that Myanmar faces many challenges in ensuring quality birth spacing services to improve the reproductive health status of women, men and adolescents.

Although many people practice birth spacing, there is considerable unmet need for information and services. The public sector programme currently provides very limited coverage of birth spacing services. The majority of services are provided in the private sector either through GPs, public sector health staff as part of their private practice or through drug shops. There is a need to expand community capability, as well as to improve the access to and availability of public sector services.

There is an urgent need to ensure the quality of contraceptive services and commodities and to expand their use in a safe and efficacious manner. It is widely acknowledged that abortion and management of its complications warrant special attention in Myanmar. Finally there is a need to broaden the scope of reproductive health services.

The conclusions and recommendations are summarized according to these major themes and conclude with a discussion of the implications for the method mix.

Enhancing Community Capability for Birth Spacing

Currently the majority of birth spacing services are being provided in the private sector. Given the limited financial and human resources available to the public sector, it will be important to strengthen the community's involvement in the support and provision of birth spacing services and the supply of contraceptives.

Presently the social legitimacy of birth spacing is questioned by some segments of society and people's shyness limits open discussion of contraception.

Consideration should be given to using radio and television, as well as national print media, to promote a wider discussion of birth spacing activities and their potential benefits in terms of improving the health of women and children and reducing the number of abortion complications.

There is a widespread desire for more information about birth spacing, particularly among women of reproductive age. Many users and non-users of contraception have inaccurate information concerning the benefits of birth spacing and lack the necessary information to make informed choices among contraceptive options.

Accurate information concerning the efficacy, side-effects, and appropriate use of all available contraceptive methods should be

made widely available to women and men through a well-designed IEC strategy. Such a strategy must include attention to the diversity of languages used throughout Myanmar, and emphasize reaching community leaders including TLORC, the Myanmar Red Cross and GPs.

Few IEC materials concerning birth spacing have been produced in Myanmar, and almost none are available to individuals in the community. It remains unclear as to what are the most effective approaches to communicating birth spacing information to different segments of the community.

There is a need to conduct research to determine the most effective communication formats for a national IEC strategy for birth spacing. Consideration should be given to the potential use of newer media, such as TV and video, as well as traditional media, such as pamphlets, posters and newsletters.

Men have not been adequately addressed or reached by birth spacing programme activities, in part due to programme reliance on female midwives and lady health visitors. The only available male method, the condom, is unknown by many men and not considered by most as a method of contraception.

An effort should be made to reach men with information concerning birth spacing and condoms through the existing network of male basic health staff and community health workers. This should include an effort to ensure that men can use condoms correctly and include attention to issues of condom disposal.

Drug shops and kiosks are the source of supply for the majority of oral contraceptive and condom, as well as for many injectable users. Traditional compounds to induce menses are also commonly purchased from these outlets. In addition, many people suffering from RTIs first attempt self treatment with antibiotics obtained from these shops.

The Department of Health should consider the development of a training programme to improve the quality of information provided by drug shop vendors selling commodities for birth spacing as well as for the treatment and prevention of RTIs.

Private GPs are the primary source of injectable contraceptives for many users, particularly for those in and around township centres. They also supply some oral contraceptives, but rarely other methods, nor insert IUDs. However, few have ever received training in birth spacing and their level of knowledge and their practices in the provision of balanced information and counselling, as well as in other technical aspects of service provision, are often in need of strengthening. The Myanmar Medical Association (MMA) has the potential capacity to reach physicians in private practice in both urban and rural townships with training and information materials. Incentives for participation in training may be needed.

The MMA should be encouraged to develop and widely distribute both technical information and IEC materials concerning birth spacing to private providers and establish training programmes for GPs in the districts regarding reproductive health issues, including the full range of contraceptive methods.

The feasibility of providing GPs with in-depth training in contraceptive service delivery, including the insertion of IUDs, should be explored.

A promotional campaign in support of trained private birth spacing service providers could increase their client numbers and provide an incentive for participation in such training.

The Myanmar Maternal and Child Welfare Association (MMCWA) is a national NGO active in the field of maternal and child health throughout Myanmar. It has branch associations in all townships and is in the process of establishing sub-branches in all village tracts. It is committed to the strengthening of birth spacing activities.

In some of the townships visited, the local MCWA had played an active role in mobilizing community support for birth spacing, including training in birth spacing for community women in one township. In some others, although active in child health activities, action in support of birth spacing had yet to be undertaken.

To realize the considerable potential for MMCWA to play an active role in birth spacing activities at the community level, several areas need attention:

(a) there is a need for more frequent refresher training for local MCWA members;

(b) greater technical support from local health staff is required to ensure that MCWA members are prepared to meet community members' needs for detailed information concerning birth spacing methods; and

(c) increased administrative support from local authorities is required to facilitate social mobilization and community participation.

Improving Access and Availability of Birth Spacing Services

At present, significant reproductive morbidity and abortion-related mortality results from the lack of birth spacing services or the inappropriate use of contraceptive methods by ill-informed users. Enhancing community capability through measures discussed in the previous section will significantly improve access and availability of contraceptive methods currently available in the private sector to those who can afford them. However, there is a need to improve access and availability of services for those who cannot currently access or afford such services.

There is an urgent need to expand organized programme efforts to cover all townships for the provision of safe, effective, and user-friendly birth spacing services.

To provide a wide range of methods to all contraceptive users in the public sector will require large resources. Consequently, to ensure long term sustainability, birth spacing services should be provided through the private sector as far as possible. This would build on the existing service delivery system which is currently providing the majority of services.

In addition to inadequate information, cost is a major barrier to access despite low prices in the private sector. Therefore, the Government should provide birth spacing services for those who cannot afford to purchase them from the private sector.

Due to concern with HIV/AIDS and current low demand, a social marketing programme for condoms has begun which will provide condoms at highly subsidized prices. The social marketing activities for condoms will need to be expanded and the provision of COCs considered.

At present, IUD and female sterilization services are very restricted and are primarily available in the public sector. The access to these services needs to be expanded and the Government should continue to provide them for all eligible clients who request them.

In order to improve access and availability in light of the existing resource constraints and the need for long-term sustainability, government service delivery programmes should: (a) be expanded to deliver a wide range of methods in a climate of balanced choice to all that cannot afford or access birth spacing services; (b) provide IUDs and female sterilization for all eligible clients who request them; and (c) expand the social marketing of condoms.

The decision whether to provide these contraceptives at subsidized rates depends on an assessment of resource availability, the capacity of the commodity procurement and logistics system, and the development of a more advanced record-keeping system.

Analysis should be carried out to determine whether or not injectable contraceptives and COCs should be provided in the Government sector to all eligible clients who request them and if so, at what subsidy.

A national population policy would provide both a mandate and framework to expand the Government birth spacing programme in the above

manner as well as facilitate mobilization of additional resources needed. Currently a draft national population policy is awaiting consideration.

Expansion of birth spacing services would be greatly facilitated by the finalization of the National Population Policy.

In addition to a policy mandate, achieving the goal of effective implementation of the expanded government birth spacing programme requires both strengthening of institutional capacity and the mobilization of considerable resources. The team was aware that negotiations with donors are underway to expand programme coverage from the currently planned 79 townships by the end of 1997 to 164 townships, over half of all townships, by the end of 1998.

Urgent steps should be taken to strengthen the institutional capacity of the MCH/Birth Spacing Section at the national level by appropriate staffing, training and finances for transportation and other operational support. In addition, state/division and township level implementation capacity should be strengthened by training and increased operational support.

There is an existing demand for female sterilization and, to a lesser extent, male sterilization services. A number of existing regulations, including the need for approval at state/division level, are a significant barrier to access. Making sterilization services more widely available has the potential for reducing morbidity and mortality from unsafe abortion practices.

The existing regulations regarding access to sterilization services

should be reviewed. As a first step, the sterilization boards should be decentralized at least to the district level.

There is very little information on the availability and sources of birth spacing services, but more information should become available from the PCFS follow-up study currently being implemented.

Data from the PCFS follow-up study concerning individuals' current sources of contraceptive services should be analyzed and made available to programme planners as soon as possible.

In addition, there is very little information available on access to services, particularly in remote and difficult-to-reach areas.

A study should be carried out to further document the role of factors such as geography, cost, lack of birth spacing knowledge, and programmatic issues (e.g. stock-outs, lack of confidentiality and privacy) as barriers to accessing services. This study should include an assessment of the potential impact of cost recovery schemes on access for the poor.

Ensuring the Quality of Contraceptive Services and Commodities

Commodities currently provided within the national programme include a variety of brands of low dose oral contraceptives, as different projects have different procurement procedures.

To avoid confusion among both clients and providers, the national programme should strive to provide only a limited number of different

brands of a single type of any given contraceptive method - e.g. one or two DMPA containing injectables and one or two low dose combined oral contraceptives.

In the private sector a wide assortment of different brands and formulations of contraceptives are available. Many contraceptives encountered in drug shops are considered internationally to be of uncertain or decreased safety and efficacy. In addition, expired commodities and those with damaged packaging were found.

There is a need to strengthen drug regulatory practices, in particular to avoid the sale of unsafe, expired, or damaged contraceptive commodities.

The placing of safe and effective contraceptives on the national essential drug list would allow for their duty free importation and would facilitate their availability at competitive prices.

The team encountered weaknesses in a number of dimensions of quality of care in birth spacing service delivery. These included inadequate and unbalanced information and counselling, insufficient technical knowledge and practices among many providers, and inadequate follow-up and continuity of care.

There was considerable misinformation regarding the appropriate use of hormonal contraceptives, including COCs and the three-monthly injectable DMPA, among both providers and clients. In particular, both public and private sector providers lacked the full information necessary to provide appropriate counselling and quality of care in the technical aspects of providing hormonal contraceptives.

Prior to the development of a training curriculum, the existing technical

guidelines for contraceptive service delivery, and in particular the medical eligibility criteria, need to be reviewed and updated in reference to the latest international standards.

There is an urgent need to provide comprehensive and more in-depth training in birth spacing for providers at all levels, focusing on all elements of quality of care. This should include both basic training in service provision, as well as refresher training and should be made available within government health services in all townships (both programme and non-programme).

The private sector should also be targetted with comprehensive training programmes and high quality training materials (see the MMA recommendation above).

There is a need for an organized effort to improve the quality of service provision for hormonal contraceptives, particularly DMPA and COCs, with specific attention to client counselling, and supportive IEC materials.

Providers in both the public and private sectors have insufficient knowledge of lactational amenorrhea and natural birth spacing methods.

Health workers need to receive training to improve their knowledge concerning natural birth spacing methods and lactational amenorrhea.

Inadequate factual information about contraceptive methods on the part of both providers and clients appears to result in a variety of inappropriate patterns of use of both contraceptives and menses inducers. These in turn may contribute to reported high rates of method failure and can therefore lead to unsafe induced abortion.

Research is needed to further document the existing patterns of contraceptive use, including method switching, method failure, the interaction between method failure and the use of menstrual induction and abortion.

During the fieldwork, the team had little opportunity to observe birth spacing service delivery. In its assessment, the team relied on inferences drawn from providers' and clients' descriptions of practices, the level of knowledge of providers and observations of conditions, equipment and IEC materials present at service delivery facilities.

It would be desirable to conduct a study to document the actual content of service provision, focusing on the technical competence of providers and client-provider interactions. Such a study might employ an adaptation of the situation analysis methodology and, ideally, should await the implementation of expanded programmes for provider training and IEC development.

Abortion and Management of its Complications

There is a great concern in Myanmar regarding the large proportion of maternal morbidity and mortality resulting from unsafe abortion procedures. Much of the demand for abortion arises from an unmet need for safe and effective birth spacing services.

Few studies have documented the socio-demographic characteristics of women seeking induced abortions. However, it is suspected that many of these women have achieved their desired fertility and face constrained contraceptive choice in an environment where access to voluntary sterilization

and long-term effective contraceptive methods is limited.

Finally, since induced abortions are illegal and performed under clandestine circumstances by untrained persons, many women do not receive adequate counselling regarding birth spacing when they terminate an unwanted pregnancy.

The availability of safe and effective birth spacing services should be expanded as a means to reduce the number of abortions and their complications. In particular, increasing access to voluntary sterilization and long-term methods, such as the IUD, should be pursued in a climate of balanced choice. In addition, the availability of emergency contraceptive pills may assist in decreasing the number of illegal abortions. All women experiencing abortion complications should receive adequate post-abortion counselling concerning birth spacing.

Women with complications of induced abortion typically present to government hospitals for clinical care. At present, incomplete and septic abortions are managed by physicians according to a standard set of therapeutic guidelines that depend on evacuation and curettage or dilatation and curettage for uterine evacuation. Manual vacuum aspiration has been shown to be safe, effective and to result in fewer complications than conventional methods of uterine evacuation.

The management of incomplete abortion would be significantly improved by the introduction of manual vacuum aspiration technology.

Little is known about the phenomenon of abortion in Myanmar. It appears that the use of several menstrual inducers is common, however, the decision making process involved in seeking abortion and the selection of abortion providers is largely unknown.

A qualitative study should be undertaken to further describe and document practices of menstrual induction and abortion seeking behaviour. This study should examine women's decision making process with regard to pregnancy termination, the interaction between the use of menstrual inducers, abortifacients, and surgical procedures, and the factors determining the choice of abortion providers.

There is a hospital-based study currently underway with WHO support to assess the factors associated with the decision to seek induced abortion. This case-control study of women with abortion complications will compare the characteristics of such women with those of women experiencing unwanted pregnancies who chose to continue with the pregnancy.

There is a need for further descriptive research regarding the profile of clients having abortions and experiencing complications, their knowledge of birth spacing, and their access to contraception. Such a study might be conducted in the context of a broader study of the causes of maternal morbidity and mortality and would complement the qualitative findings of the recommended study regarding menstrual induction and abortion seeking behaviour. The results of such a study would potentially inform the development of national IEC strategies.

Broadening the Scope of Reproductive Health Services

At present the integration of birth spacing information and services into other maternal health services is incomplete and sometimes fails to provide information essential to the postpartum health of women and their new-borns.

The content of birth spacing information and counselling should be strengthened in both ante-natal and postpartum care settings. The latter should include specific counselling concerning the concerns of using estrogen containing combined oral contraceptive pills while breastfeeding, information concerning lactational amenorrhea and, ultimately, the use of progestogen-only pills when they become available.

A workshop on adolescent reproductive health was completed with support from WHO's South and East Asian Regional Office. That workshop revealed a number of important gaps in the knowledge base regarding adolescent health in Myanmar.

A prioritized list of important research needs regarding adolescent reproductive health should be completed and high priority activities undertaken as soon as feasible. The most pressing needs will likely concern further documentation of adolescent reproductive health status and an assessment of the optimal means for information and service delivery, with a focus on prevention of both unwanted pregnancy and sexually transmitted infection.

In addition to formative research there is a strong need to develop user-friendly health education and reproductive health services for adolescents and youth in Myanmar.

The Myanmar Red Cross Society has begun to develop some activities through its participation in the development of a life skills training curriculum and the implementation of such training in 25 pilot townships through UNICEF's programme entitled "The Prevention of HIV/AIDS Through the Promotion of Reproductive Health". In the coming year, a participatory evaluation of the life skills training programme for youth will be conducted and should provide valuable information concerning the design of other user-friendly services for this important sub-population.

Further experimentation is needed to meet the challenge of providing user-friendly reproductive health information and services for adolescents and youth. Given the lack of experience in this area within Myanmar, it is recommended that such efforts involve a sequence of local needs assessment, careful pilot project design, and detailed evaluation.

There are serious gaps in knowledge among both clients and providers regarding the causes of RTIs, the symptoms of infection, and available means for prevention and treatment.

Accurate information regarding RTIs should be incorporated into IEC, health education, and training materials targeted to the general population, specific subgroups at risk of infection, and providers at all levels.

Standardized therapeutic practices are not utilized by the various people treating clients with symptoms of RTIs. Antibiotic prescription practices are highly variable and often incorrect in regard to the choice of antibiotic regimen, the dose, or the duration of therapy, particularly in the private sector. A clear set of guidelines regarding client referral is also absent. Some effort to train GPs in optimal syndromic management has recently been undertaken by the MMA as part of the UNICEF project. Most people with RTI symptoms seek care in the private sector for reasons of convenience and privacy.

Providers at all levels, starting with township medical officers, should be trained in the syndromic identification and management of RTI symptoms. Clear guidelines regarding standardized case management or referral of men and women with different RTI symptoms should be developed and widely disseminated. Specific instructions should be developed for, and distributed to, auxiliary midwives, midwives, lady health visitors and government physicians. Further efforts to train private GPs should be pursued through the MMA and other appropriate means.

At present, therapeutic practices for the management of RTIs focus almost exclusively on curative interventions. Apart from the STD clinics, which exist in only 26 townships, not much attention is given to behaviour change counselling, partner referral and treatment, and condom promotion.

As an essential component of case management, providers at all levels who see clients with RTI symptoms should be trained and encouraged to provide appropriate STD counselling, partner referral, and condom promotion.

Laboratory equipment at township hospitals was often found to be inadequate or in disrepair. Syndromic management of many RTI syndromes can be significantly enhanced by the use of simple laboratory tests.

Laboratory equipment and technical skills should be upgraded at maternal and child health clinics, urban health centres and township hospitals to facilitate the optimal syndromic management of RTIs.

There is limited information available regarding the local terminology used to refer to RTI syndromes. In many other countries the cultural construction of reproductive tract symptoms has proven to be an important determinant of health seeking behaviour, self-treatment, and client-provider interaction.

Research concerning RTI syndrome composition, self treatment, and health seeking behaviour should be conducted to provide insights into current practices. This information should be used as the basis for IEC materials development, as well as for the adaptation of local treatment algorithms.

Implications for the Method Mix and Contraceptive Introduction

The assessment team considered the implications of the findings for the contraceptive method mix in Myanmar in terms of three central questions:

- Should any methods be removed from the mix?
- Do any methods need reintroduction?
- Should any methods be added to the mix?

As discussed previously, there were serious concerns regarding the quality, effectiveness and safety of some of the contraceptive commodities currently used by women in Myanmar. Our recommendations regarding the method mix and the need for contraceptive introduction are summarized in regard to these three questions.

Should any methods be removed from the mix? The assessment team found widespread use of monthly Chinese injectable contraceptives throughout Myanmar. Some of the supplies obtained indicated that these were "Chinese Injectable Number 1" (composed of 17α -hydroxyprogesterone caproate and estradiol valerate), others were unlabeled or labelled only in Chinese. Existing clinical data indicate that "Chinese Injectable Number 1" is less effective than the other monthly injectable contraceptives, Cyclofem and Mesigyna. Women and providers corroborated these clinical studies with their reports that the available once-a-month injectables are well known to have a high failure rate. Women use them because these injectables are less expensive than the three monthly varieties and they are less likely to disturb regular patterns of menstruation.

The use of injectables of unproven safety and efficacy should be discouraged. The use of the once-a-month Chinese Injectable Number 1 should also be discouraged in favour of more effective alternatives. Given the difficulty of effective regulatory enforcement, removing these methods from the method mix will depend ultimately upon lowering the cost of other birth spacing methods and, following appropriate introductory research, the

introduction of a safer and more effective once-a-month injectable contraceptive such as Cyclofem or Mesigyna.

Once-a-month oral contraceptive tablets, manufactured in China, were also widely available and were reported to have very high rates of side-effects. These pills contain large doses of estrogen; most pills contain 12 mg of levonorgestrel and 3 mg of quinestrol. In addition, several years ago a WHO toxicology review panel refused to allow studies of quinestranol on the grounds of inadequate toxicological data regarding its safety.

The use of the long acting (once-a-month) oral contraceptive tablet should be discouraged.

There are a broad range of COC brands available in Myanmar. Some of these contain unnecessarily high doses of the estrogen component (WHO has recommended no more than 35 µg). Such brands are associated with higher rates of side-effects and complications and have no advantage in terms of their efficacy.

The use of these high dose estrogen pills should be discouraged in favour of lower dose combined oral contraceptive pills.

Do any methods need reintroduction? Given their low cost and long term efficacy, modern IUDs may prove to be a desirable method for some Myanmar women, especially in a context where voluntary sterilization services are not readily accessible. There are currently many misconceptions among both providers and clients regarding the safety, contraceptive efficacy, side-effects, and duration of action of different IUDs.

A controlled reintroduction of the IUD should be considered. The principal question of such an introductory study would be to determine how to improve access to this contraceptive technology while ensuring adequate quality of care.

There is a need to increase general awareness concerning condoms as a birth spacing method. In particular, clients need balanced information concerning the contraceptive effectiveness of latex condoms, as well as their role in preventing sexually transmitted infection.

In conjunction with on-going STD and HIV prevention activities, efforts should be made to provide accurate information regarding the contraceptive properties of condoms.

Balanced information regarding the contraceptive and infection prevention effectiveness of all methods should be included in birth spacing counselling as a component of enhanced service quality.

Should any methods be added to the mix? As described previously, there appears to be considerable demand for a once-a-month injectable contraceptive, given women's widespread preference for menstrual regularity.

The staged introduction of a once-a-month injectable contraceptive of proven safety and efficacy, such as Cyclofem, should be considered as a means of replacing the currently available less effective once-a-month injectables.

At present there is very superficial birth spacing counselling provided in postpartum care settings. There is

also little recognition that estrogen containing oral contraceptives should not be used by breastfeeding women.

The introduction of progestogen-only pills for use by breastfeeding women should be a component of enhanced postpartum services.

The assessment team learned little regarding the potential use of emergency contraception in Myanmar. Beyond the occasional availability of Postinor at drug shops, not much interest or knowledge of such methods was apparent.

There is a need to further document client and provider knowledge regarding emergency contraception and to further assess the potential use of such methods in Myanmar.

In view of the potential demand for additional long term effective methods, the team considered the possibility of introducing progestogen-only implants. However, implants require unique technical, counselling and follow-up services that distinguish it from other methods. Furthermore, programme costs of implants are considerably higher than other available methods. It was noted that adequate facilities and provider skills necessary to provide contraceptive implants were generally only available at the township hospital level, and that the birth spacing programme client records could not assure appropriate five year follow-up for removal.

Given current programme constraints, introductory efforts directed to long term effective methods should focus on improving access and quality of care for the provision of IUDs and sterilization, rather than on introducing contraceptive implants.

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