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Contraceptive Transition in Asia

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This examines the contraceptive use pattern of the Asian countries and concludes that choice of contraceptive depends a lot on the socio-economic and cultrual set up of the country. Experience shows that as the contraceptive prevalence increases and people start opting for small family size, use of sterilization increases. The only exception is India where sterilization has dominated the scene right from the beginning, may be more because of programme effort than people choice.

Introduction

With 58 percent of married couples in Asia and Oceania using a contraceptive method in 1990 (United Nations, 1994), contraception - a novelty two decades ago - has become the norm in much of the region. However, Asia, where over 60 percent of the world's 900 million couples of reproductive age live, shows a wide variety in patterns of contraceptive use and method mix. Contraceptive prevalence, for example, ranges from a low of 12 percent in Pakistan to over 80 percent in China and Hong Kong. In addition, the types of methods being used also vary from country to country.

Parallel to the increase in contraceptive use, a decline in fertility has taken place. Fertility decline remains elusive in those countries, such as Pakistan, which have made little headway in terms of an expansion in contraceptive use. Evidence from over 100 developing countries suggest that contraceptive use is the single most important determinant of fertility (Weinberger, 1991) and the variations in the patterns of use are important to understand the prospect for fertility transition. Coverage of all of the various patterns of contraceptive use in Asia is beyond the scope of this paper. Instead, it will focus on the following three sets of issues:

1. What is the balance between traditional and modern methods? Do traditional methods tend to be more acceptable when prevalence is low, and then give way to modem methods? Is there any association between the prevalence level and the use of traditional methods?

2. What is the balance between reversible and permanent modern methods? Does sterilization tend to be more acceptable when prevalence is low, and then give way to reversible methods?

3. What is the balance between traditional, reversible, and permanent modem methods when contraceptive prevalence is high and more or less stable?

Of course, other sets of issues or questions are relevant in several countries. These include the importance of side effects for the adoption and continuation of various methods; the role of the national and local family planning programme; and the importance of the cultural context (Pullum and Shah, 1993). These issues will not 77 be covered here as they require additional data generally not available at the national level.

Six Asian countries, namely Bangladesh, India, Indonesia, Thailand, China, and the People's Republic of Korea, would be considered. The choice of countries is, to some extent, arbitrary. However, these countries come from the three main sub-regions (South Asia; South-East Asia; and the Far East) and are in different stages in contraceptive and fertility transitions.

They also have quite different cultural contexts and levels of modernization, as indicated, for example, by their per capita gross national product (GNP) and female literacy rates. Bangladesh is the poorest of the six countries as, measured by the per capita GNP (US$ 220) in 1991. Female literacy is low in Bangladesh (22 percent) and India (34 percent), but 70 percent or higher in other countries. Other countries fall at various levels with regard to other selected socio-economic and demographic indicators (Table 1). Other social and cultural differences among the six countries are also substantial. Each country has unique cultural features and a programme with its own history. When the current TFR is compared with the TFR in 1950-55, it is clear that fertility has declined in all the six countries. However, the varying pace of decline has resulted in different fertility levels in 1990-95. With an estimated total fertility rate (TFR) of 4.7 children per woman during 1990-95, Bangladesh represents one extreme among the six countries. China, Thailand and Korea represent the other extreme with a TFR that is 2.2 or lower (Table 1). The decline in fertility is relatively recent in Bangladesh while fertility has been declining steadily in Korea since 1960. While China, Thailand, and Korea have achieved the TFR level associated with the replacement fertility (i.e., a TFR of 2.1), Bangladesh is in the early stage of fertility transition, behind India and Indonesia .

TABLE 1: Basic social and demographic features of countries

COUNTRY	TFR 1960-65	TFR 1990-95	Contraceptive Prevalence rate % (Year)	GNP Per Capita US$ 1991	Female Literacy rate[a] (%) 1990	Female Labour Force Participation rate[b] % (Year)	Female Life Expectancy 1990-95 (Years)
Bangladesh	6.7	4.7	44.6 (1993)	220	22	67.4 (1989)	52.6
India	5.8	3.9	42.9 (1988)	330	33.7	22.7 (1991)	60.7
Indonesia	5.4	3.1	49.7 (1991)	610	75.3	51.7 (1989)	64.5
Thailand	6.4	2.2	67.5 (1987)	1570	91.3	76.2 (1990)	69.9
Republic of Korea	5.4	1.8	79.0 (1991)	6330	93.5	47.3 (1992)	73.7
China	5.9	2.2	83.0 (1992)	370	68.1	70.6 (1982)	72.6

a For women age 15 or older, except for Thailand (age 6 or older)

b For women age 15 or older

Sources: GNP: World Bank, 1993, Statistical Yearbook 1993, Paris: UNESCO.

Female Literacy rate: UNESCO, 1993, Statistical Yearbook 1993, Paris: UNESCO.

Female Labour Force participation rate: ILO, 1994, Labour statistics, 1993 Geneva:

International Labour Organization. TFRs and Female Life Expectancy: United Nations, 1993,

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Table 2 provides a profile of current contraceptive use in each of these countries, according to specific methods. Except for India and Thailand, the information available on contraceptive use is fairly recent (Table 2). Consistent with fertility data, contraceptive use is over 65 percent in Thailand, Korea, and China and below 50 percent in the other three countries. The prevalence of contraceptives is probably higher in India than in Bangladesh, but no recent estimate is available. The relative contribution of the different contraceptive methods to the overall prevalence is now considered for the set of issues stated above.

TABLE 2 : Percentage distribution of currently married women currently using a contraceptive method, by method

Contraceptive Method	**Bangladesh (1993/94)**	**India (1988)**	**Indonesia (1991)**	**Korea (1991)**	**Thailand (1987)**	**China (1992)**
All Methods	44.6	42.9	49.7	79	67.5	82
Terminal Methods	**9.2**	**30.8**	**3.3**	**47.0**	**27.9**	**44.0**
Female Sterilization	8.1	30.8b	2.7	35.0	22.4	34.0
Male Sterilization	1.1	-	0.6	12.0	5.5	10.0
Modern Spacing Methods	**27.1**	**7.8**	**43.8**	**22.0**	**37.6**	**36.0**
Pill	17.4	1.1	14.8	3.0	20.0	3.0g
Injectable	4.5	-	11.7	9.0	9.2	-
IUD	2.2	1.7	13.3	10.0	7.2	33.0
Condom	3.0	4.7	0.8	-	1.2	-
Norplant	-	-	3.1	-	-	-
Vaginal Barrier Methods a	-	0.3	-		0.0	-
Traditional Methods	**8.4**	**4.3**	**2.6**	**10.0e**	**2.0**	**2.0**h
Rhythm	4.8	-	1.1	-	1.0	-
Withdrawal	2.5	-	0.7	-	0.9	-
Other Methods	1.1	4.3c	0.8d	-	0.1	2.0c

Notes: a Diaphragm/Foam/Jelly

b. Includes male sterilization

c. Includes rhythm and withdrawal

d Includes herbs and massage

e. Includes vaginal barrier methods

f. Adjusted figures

g. Includes injectable

h Includes condom

- No information available

Sources: Bangladesh: DHS (1994)

Indonesia: DHS (1992)

China and Korea: United Nations (1994)

All other countries: United Nations (1991)

Balance between traditional and modern contraceptive methods

The distinction between traditional and modern methods is central to the analysis of contraceptive choice. To the extent that traditional methods already exist in a country, they can provide a point of entry for a family planning programme and can be a culturally acceptable initial method for many users. The methods that will be classified here as traditional are abstinence, rhythm (a variety of periodic abstinence), withdrawal, and other local or indigenous methods such as herbs. These so-called traditional methods are not all indigenous, but they share the characteristic that they can be practiced independently of any clinical services for supplies. Some survey in Korea and China included female vaginal barrier methods under 'other'. The Proportion using these methods is fairly small and does affect the overall conclusions.

The use of traditional methods is high in Bangladesh, where they account for nearly 20 percent of all use. The figure for Korea is difficult to interpret for it includes vaginal barrier methods as well as other traditional methods. Overall, traditional methods are more common in countries with low prevalence, for example Bangladesh and India (Table 2). In Bangladesh, the use of traditional methods is slightly less than the modern permanent methods. Although overall prevalence is somewhat higher in Indonesia than in Bangladesh and India, the prevalence of traditional methods is lower. In countries where the contraceptive transition is virtually complete, Thailand, Korea, and China, very little former or current use of the so-called traditional methods is found. Most users in these countries rely on modern methods. Only about 3 percent or less are using traditional methods, including rhythm, but some use of traditional methods is noted for each country.

For China, Thailand, and Korea - countries with virtually a complete contraceptive transition, a decline in the use of traditional methods is seen as the prevalence increased (Table 3). For example, traditional methods were used by 2.8 percent of all couples in 1982 in China, but by 2.0 percent in 1992. A similar

trend was seen in Thailand from 1975 to 1987. The figures for Korea show a constant level of use, but also include the use of vaginal barrier methods, The use of traditional methods has remained approximately constant in Korea.

TABLE 3 : Percentage distribution of currently married women currently using a contraceptive method, by method

Contraceptive Method	**China**			**Korea**				**Thailand**		
	1982	1988	1992	1976	1982	1988	1991	1975	1981	1987
All methods	**70.6**	**72.1**	**82**	**44**	**57.7**	**77.3**	**79**	**33.1**	**59**	**67.5**
Terminal	25.0	35.5	44	8.3	28.1	48.2	47	8.4	23	27.9
Methods	17.9	27.6	34	4.1	23	37.2	35	6.3	19	22.4
Female sterilization	7.1	7.9	10	4.2	5.1	11	12	2.1	4.2	5.5
Male sterilization										
Modern Spacing	**42.8**	**35.7**	**36**	**25**	**19.3**	**22**	**22**	**22**	**33**	**37.6**
Methods	6.0b	3.4	3.0b	7.8	5.4	2.8	3	13.7	20	20
Pill	-	0.2	-	-	-	-	9	1.9	7.1	9.2
Injectable	35.4	29.9	33	11	6.7	6.7	10	5.9	4.2	7.2
IUD	1.4	1.9	-	6.3	7.2	10.2	-	0.4	1.9	1.2
Condom	-	0.3	-	-	-	2.3	-	0.1	-	-
Vaginal Barrier Methodsa										
Traditional	**2.8c**	**0.9**	**2.0c**	**11**	**10.3**	**7.1**	**10.0c**	**2.8**	**2.7c**	**2.0**
Methods	-	0.5	-	7.1	-	-	-	0.9	-	1
Rhythm	-	0.1	-	-	-	-	-	0.9	-	0.9
Withdrawal	-	0.3	-	4.2	-	-	-	1	-	0.1
Other Methods										

Notes :

a. Diaphragm/Foam/Jelly

b. Includes injectable

c. Combined under the overall `Traditional methods', also includes vaginal barrier methods

Traditional methods can be attractive for couples who wish to space births or who have an intermediate level of motivation. Although failure rates are higher with these methods than with IUDs or pills, for example, they tend to have higher continuation rates, and there is a tendency to switch to modem methods

after experiencing an unplanned pregnancy (Pullum and Shah, 1993). Traditional methods have a place in the programme though their importance declines as the prevalence increases.

The balance between sterilization and reversible modern methods

We now turn to the distinction between two classes of so-called modem methods: those which can be used only for limitation of births (male and female sterilization), and those which can be used either for limitation or for spacing (mainly IUDs and pills, but including condoms and injectables and some other methods). What kind of mix between these two broad classes of methods will be found at various stages of a contraceptive transition?

Once again, one finds much variation in the method mix (Table 2). The three countries in an early stage of contraceptive transition differ in use of terminal methods and modem spacing methods despite similar overall levels of use. Over 70 percent of all contraceptive use in India is accounted for by sterilization, mainly tubectomy, while only 7 percent of all users rely on terminal methods in Indonesia. Bangladesh falls in an intermediate position with 20 percent of all use accounted for by terminal methods. Terminal methods account for 54 percent of all use in China and 59 percent of all use in Korea. In Thailand, these methods accounted for 41 percent of all use in 1987. Thus, in Bangladesh, Indonesia and Thailand, the use of terminal methods is lower than the use of spacing methods. Although, male sterilization is significant in both China and Korea, female sterilization is more common dm male sterilization in all countries.

Looking at trends in the three countries w complete contraceptive transition (Table 3), we find that the use of terminal methods does indeed rise as contraceptive prevalence increases, even in Thailand where the overall use of these methods is lower than in China an Korea.

Over the last 10 years, the use of sterilization among married couples rose in China from 25 percent to 44 percent. In Korea, only 8 percent of married couples were using terminal methods in 1976, but their use rose to 47 percent in 1991. In Thailand also, the use of terminal methods, among married couples, rose more than threefold, from 8 percent in 1975 to 28 percent in 1987.

To summarize, sterilization is perhaps the simplest of all methods, in the sense that it is the most passive method, once an initial decision has been made to accept it, and it is relatively free of side effects when services are good. However, issues related to adequate counselling and quality of care are noteworthy. Poor quality of services is related to side-effects and dissatisfaction with the method. About one-fifth to over one-half of the users in most of the six countries at an

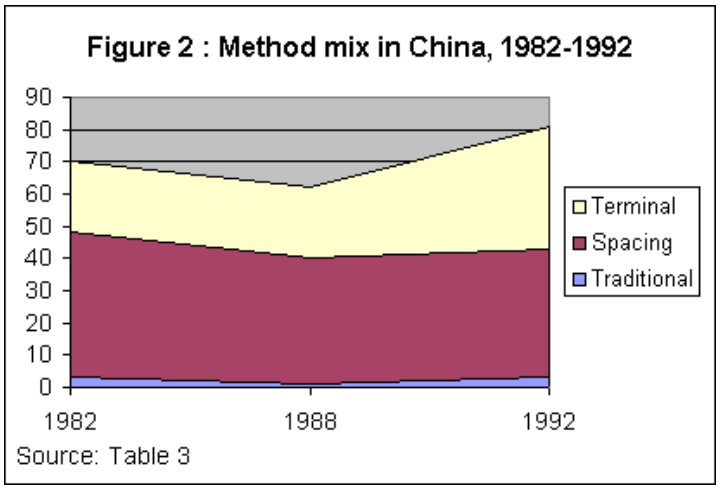
intermediate (except Indonesia) or advanced stage of their contraceptive transition are using sterilization.

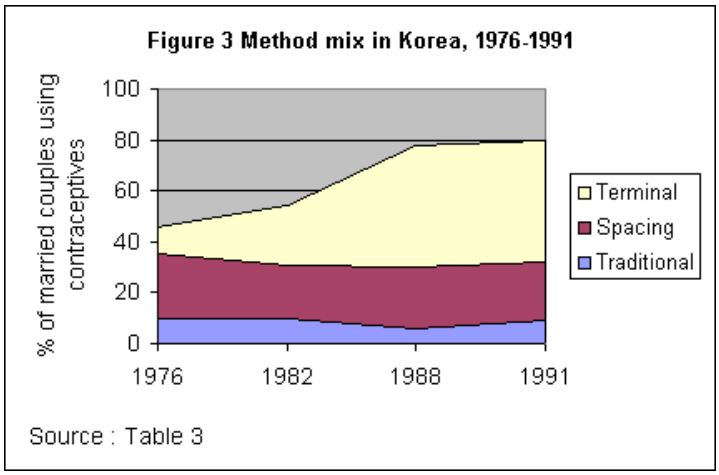
Another study (Pullum and Shah, 1993) shows that, for those couples who begin with a reversible method, it is far from universally observed that they will eventually make a life course transition from reversible to permanent methods, even though such a sequence has a clear appeal. Some couples will continue for long periods with a reversible method, even though they want no more children. They may, for example, wish to keep open the option of having another child in the event of a child death. At the same time, permanent methods are the first and the only method used by many couples, especially in India. For many women, female sterilization is and may continue to be the point of entry into family planning with no prior use of a reversible method.

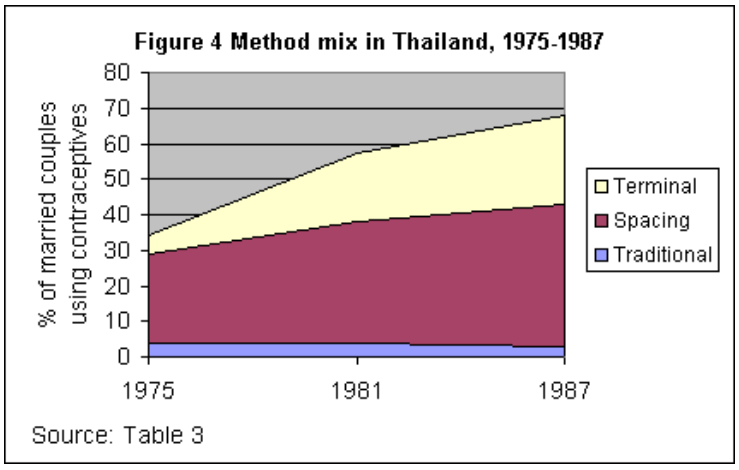
As is shown by Indonesia and, to some extent, by Thailand, heavy use of sterilization is far from essential for a fertility transition to occur. If there are cultural or other objections to sterilization, reversible methods are sufficient to achieve major declines in fertility. The expanded method mix offered by the national family planning programme generally leads to an improved client satisfaction and to increased prevalence through increased acceptance and better continuation rates (WHO, 1994). It is noted that the availability of one additional modern method could increase contraceptive prevalence by about 6 percent, controlling for the effect of socio-economic development (cited in WHO, 1994).

Evolution of method mix with high levels of contraceptive prevalence

The last major theme of this paper is the change in the method mix as contraceptive prevalence increases. China, Korea, and Thailand are considered for this purpose (Table 3, Figure 2, Figure 3, Figure 4).In China, the percentage of married couples using sterilization nearly doubled over the last ten years while the use of spacing methods declined from 43 percent in 1982 to 36 percent in 1992. In terms of the share of total use, spacing methods accounted for 61 percent of all use in 1982, but 44 percent of all use in 1992 while the share of sterilization rose for 35 percent to 54 percent of all use.







The increased use of sterilization was more dramatic in Korea, although spacing method did not show as much decline as they did in China during the period from 1982 to 1991. In 1976, 56 percent of all use was of spacing methods, but in 1991 they accounted for only 28 percent of all use. However, from 1982 to 1991,

the use of spacing methods remained relatively constant at 33 to 28 percent. Most of the increased overall use of contraceptives in Korea was due to increased use of sterilization. The use of both sterilization and spacing methods increased in Thailand, although the increase was more pronounced for sterilization than for the spacing methods. From 1975 to 1987, the use of spacing methods declined by 10 percentage points, from 66 percent to 56 percent, while the share of sterilization in all use increased from 25 percent in 1975 to 41 percent in 1987.

Turning to specific methods, female sterilization has now replaced the IUD as the most commonly used method in China. Both IUD and female sterilization account for 82 percent of all use in China. In 1976, IUD, rhythm, and the pill were the more common methods in Korea. However, in 1991 sterilization (male or female), IUD, and injectable were the four more common methods. The use of female sterilization is almost three times higher than of the second most commonly used method (male sterilization or IUD). From 1976 to 1991, the use of the pill dropped substantially in Korea.

In Thailand, the pill continued to be used by a large number of users, though its share has declined from 41 percent of all use in 1975 to 30 percent in 1987. In 1987, female sterilization was the single most commonly used method in Thailand.

Two features in the use patterns are obvious. Firstly, in all countries, the use of female sterilization is much higher than of male sterilization, although a significant number of male sterilizations are noted for China and Korea. Secondly, in all countries the role of sterilization, especially female, has become more pronounced with the increase in the level of prevalence. As norms for small family size take hold, the use of sterilization becomes more prevalent.

Conclusions

The six countries show a wide variety of patterns of use. The explanation for the more widespread use of one method rather than another lies with a host of factors related to programme emphasis and socio-cultural characteristics. All of the countries have strong programmes with firm political support. They have developed pervasive infrastructures with steadily improving access to a variety of methods. To some degree, the dominance of one method over another, the concern with side effects, or the success of the programme are reflections of more fundamental societal norms. These can include, for example, religious prescriptions about the human body, preference for sons or for a balanced sex composition, concern with infant or child death, attitudes about inter-generational obligations, husband-wife communication patterns, informal patterns of communication with relatives and neighbours, and so on.

The choice of a particular method is affected by the specific circumstances of each couple, by their social and cultural environment, and by the national and local programme. Some degree of choice, even within a rather narrow range of choices seems to be desirable. In every country with moderate or high prevalence, the great bulk of use is accounted for by just two or three methods, but the principal method differ from one country to another. There is considerable substitutability between reversible methods and sterilization. That is, for many couples, sterilization is the first and the only method ever used; for many other couples, reversible methods are used for both spacing and limitation purposes.

In all countries except Indonesia, female sterilization is the single most often used method. In Bangladesh, pill and female sterilization jointly account for 57 percent of all use. In India, female sterilization alone account for 72 percent of all use, followed by condom, which accounts for an additional 11 percent of all use. Pills and IUDs jointly account for 57 percent of all use in Indonesia while female and male sterilization account for 59 percent of all use in Korea. The most dominant combination of methods in Thailand is female sterilization (33 percent) and the pill (30 percent). In China, female sterilization accounts for 41 percent of all use closely followed by the IUDs (40 percent), and the two thus jointly account for 81 percent of all use.

The above review indicates some common patterns and other features which distinguish each country. The use of traditional methods is non-trivial in low prevalence (e.g., Bangladesh) as well as high prevalence (e.g., Korea) countries. However, not all countries in broadly the same category of contraceptive prevalence level conform to this pattern. For example, the use of traditional methods is low in India, Indonesia, Thailand and China, which have varying levels of overall contraceptive prevalence. Thus, there is no support for the hypotheses that traditional methods tend to be more acceptable when prevalence is low, and then give way to modern methods. In these settings, traditional methods do not necessarily offer an entry point to family planning.

The use of sterilization can be significant when the prevalence is low (e.g., India) or when the prevalence is high (China and Korea). There is no evidence to suggest that sterilization is more acceptable when the prevalence is low and then give way to reversible methods. On the contrary, the use if sterilization increases as the overall prevalence rises. In the three high prevalence countries, female sterilization is the single most used method.

The change in method mix with the increase in the overall prevalence shows a trend toward a greater use of sterilization. However, spacing methods as a

group, may continue to account for a greater proportion of all use, as was seen in Thailand. In Korea, the trend was in terms of a shift from spacing methods to terminal methods. When, the norms for smaller families are firmly established, couples fmd sterilization as an appropriate option for fertility regulation. Countries with high levels of contraception prevalence also exhibit lower infant and child mortality and thus reducing a couple's concern with the survival of their children. Small family size norms coupled with an improved child survival may therefore sway a couple's choice toward sterilization. India, however, presents an exception to this reasoning. It is unclear whether the predominant use of sterilization is primarily programme-driven or is a response to the demand. The programme emphasis on sterilization seems however to be more relevant than the demand, for the knowledge and the availability of spacing methods are fairly limited. Some local variations in India are also noteworthy. For example, high prevalence in Tamil Nadu State has been achieved by relying mainly on spacing methods while in Kerala State, sterilization has been the mainstay for achieving the comparable high level of contraceptive prevalence. Thus, different pathways to high contraceptive transitions are found even within a nation.

Variations in the patterns of use in these countries (and within a country) point out the importance of the local social and cultural context and programme efforts. A strong programme is critical if higher levels of prevalence are to be reached, particularly in terms of providing access to services for sterilization and IUD insertion and re-supply of pills The observed differences in contraceptive patterns are more due to the local socio-economic and cultural factors and the programme efforts than because of the characteristics of contraceptive methods. A wide variety of approaches can be adopted to achieve a contraceptive transition, so long as they respond to the local context.

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