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PROVIDING PILLS FREE : DOES IT MAKE A DIFFERENCE?

Thailand's experience with a free pill policy

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Abstract : Starting in the fourth quarter of 1976, the National Family Planning Programme in Thailand abolished charges for oral contraceptives distributed through government outlets. Evidence accumulated so far indicates that the free pill policy resulted in a substantial and sustained increase in new acceptors of the pill. This increase had no apparent adverse effect on the numbers of new acceptors of other methods nor did it involve much switching from other methods or substitution of free government pills for ones bought commercially. The policy was largely carried out as intended in-as-much as most acceptors have been obtaining pills free. Moreover continuation rates immediately following elimination of charges increased slightly although they have subsequently decreased. Recent evidence indicates that women who receive the pill free from the Programme have higher continuation rates than those who pay.

## Introduction

For well over a decade debate has gone on within the family planning community about the effectiveness and ethics of providing incentives or disincentives to encourage the adoption and continued use of contraception. Monetary or other types of incentives to acceptors or recruiters can be viewed either as bribery or as fair compensation for lost time depending on one's point of view. Far less attention has been given to the potential impact of providing contraceptive services free rather than charging even nominal costs perhaps because the issue is less emotionally charged or because it has been prejudged to have little potential effect. Indeed a plausible argument can be made that the free provision of contraception, at least in comparison to attaching a small charge to the service, would actually discourage adoption since it would devalue the service in the minds of the potential client.

Experience in Thailand provides a rare opportunity to assess the impact of providing contraception, especially oral contraceptives, free to a predominantly rural population. The National Family Planning Program in Thailand dates officially from 1970 although family planning activities were carried on by the Ministry of Public Health under various projects since the mid-1960's (Rosenfield, et al., 1982). Although the National Program has various components, by far the largest share of services are provided through outlets of the Ministry of Public Health. Prior to the last quarter of 1976, the Ministry of Public Health had been charging women 5 Baht per cycle of oral contraceptives, 20 Baht for an IUD insertion, 50 Baht for vasectomy, and 150 Baht for tubal ligation (20 Baht = \$1 at that time<sup>1/</sup>). Starting with the last quarter of 1976, an official

policy of providing the pill free at all government health outlets and the IUD and sterilization free of charge at all rural outlets was implemented. It is noteworthy that this change of policy was not made because of any anticipated impact on acceptance rates but rather resulted from difficulties in maintaining an adequate accounting system to monitor the financial transactions, especially of pill sales (Research and Evaluation Unit, National Family Planning Program, 1978). For several reasons, the impact of this policy on pill prevalence is of primary interest and indeed the policy is discussed in Thailand mainly in terms of the pill rather than in terms of free contraception in general. First, at most local outlets (midwifery centers and township health centers) the pill and condom are the only methods provided. Condoms, however, were given out free all along and have been far less significant than pills as a contraceptive method among married couples in Thailand. Second, since the IUD and sterilization are generally not available to rural women locally, their use typically entails a more significant travel cost component than is true for the pill. Third, the costs for IUD and sterilization are only one time costs to the user while the charges for the pill recur for each cycle. Thus for these reasons the new policy should be significant mainly in terms of reduction of cost for pill use and can in effect be considered primarily a free pill policy. The focus of this analysis is therefore on the impact on pill prevalence.

Sufficient time has passed since the policy was first implemented and sufficient data are now available to judge the impact of the policy change. The evidence leads to four conclusions:

- 1) providing the pill free has led to a substantial and sustained increase in its adoption through the Program;
- 2) the increased adoption of the pill through government health outlets did not deplete new acceptors of other methods nor was it simply the result of switching from other methods or substituting free pills for ones bought commercially;
- 3) the policy was largely carried out as stipulated with most pill acceptors not being charged;

- 4) although continuation rates for pill use have declined this does not appear to be a result of the free pill policy since the continuation rates are inversely related to the cost of the pill with highest rates for women who receive the pill free.

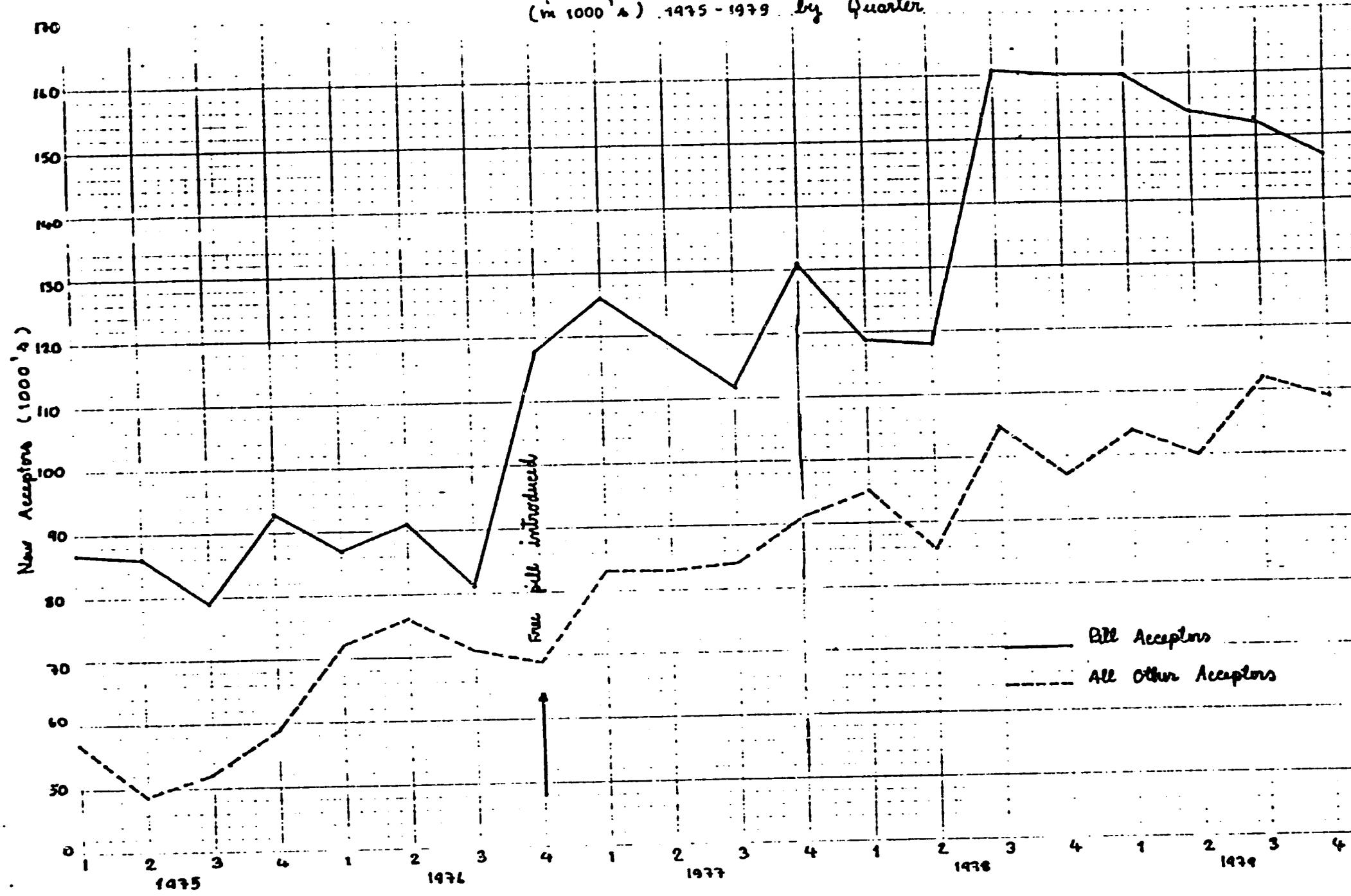
#### Trends in Acceptors

Data from service statistics of the National Family Planning Program show a dramatic increase in new acceptors of pills coincident with the start of free distribution. As evident from the quarterly numbers of new acceptors shown in Figure 1, new pill acceptors were reasonably constant between the first quarter of 1975 until the third quarter of 1976 just before the introduction of the free pill. Between the third quarter of 1976 and the first quarter of 1977, new pill acceptors increased by 46 percent from 80,631 to 118,123. This increase in new acceptors was sustained at a more or less constant rate through the second quarter of 1978. Thereafter another sharp increase is indicated and is more or less sustained throughout the following year.<sup>2/</sup> The sharp increase between the second and third quarters of 1978 is mainly attributable to a large number of late reports of new acceptors during the first half of the year being included to the July and August monthly figures. Some expansion of private agency activity and reporting coverage also contributed to the sustainment of the increase in new acceptors during the subsequent quarters. Thus while a substantial genuine increase in new acceptors was occurring during 1978, the sharpness of the increase in the official figures graphed in Figure 1 is in large part an artifact of reporting irregularities which depressed the reported number of new acceptors during the first two quarters and inflated them during the third quarters.<sup>3/</sup>

With such a dramatic increase in new pill acceptance, following implementation of the free contraception policy, questions naturally arise concerning (a) whether the continued increase in new pill acceptors occurred at the cost of taking new acceptors away from other methods in the program and (b) to what extent the free pills have simply caused women to switch from the commercial sector to the government program. Data from the service statistics on new acceptors of methods from the National Program

Figure 1

New Pill Acceptors and New Acceptors of All Other Methods  
(in 1000's) 1975 - 1979 by Quarter



Data for Figure 1

New pill acceptors and new acceptors of all other methods  
(in 1000's) by quarter, 1975-1979

Year	Quarter	Pills	Others
1975	1	87	57
	2	86	49
	3	79	52
	4	93	59
1976	1	87	72
	2	91	76
	3	81	71
	4	118	69
1977	1	126	83
	2	119	83
	3	112	84
	4	131	91
1978	1	119	95
	2	118	86
	3	161	105
	4	160	97
1979	1	160	104
	2	154	100
	3	152	112
	4	147	109

other than the pill are also plotted in Figure 1. After several consecutive quarters showing increases, a slight drop in the number of new acceptors for methods other than the pill is evident for the third and fourth quarters of 1976. The fact that the decline in acceptors of methods other than the pill occurs one quarter in advance of the free contraception policy's implementation may either indicate that there is no direct connection or that the decline is in anticipation of free pills. More importantly, however, is that, taken collectively, the decline in new acceptors of methods other than the pill is immediately reversed. Instead of continuing to decline or levelling off, the number of new acceptors of other methods generally increases at an even faster pace than prior to the introduction of the free contraceptive policy perhaps in part because the general policy of free contraception increased acceptance of other methods as well or because publicity about the free pill generated a more general interest in contraception. Of course, many other factors were operating and undoubtedly influenced the method mix but at least it is clear that the increase in new pill acceptors was not at the expense of new acceptors of other methods offered by the Program.

Evidence that the dramatic increase in pill acceptors was also not the result of users of other methods switching to the pill is provided by data on new acceptor characteristics (note that a new acceptor is defined as a new acceptor of a particular method not of any method). The proportion of new acceptors of pills who switched from using another method within the Program rises only slightly from 2.7 percent in 1975 to 3.3 percent in 1976 and then remains almost unchanged at 3.2 percent in 1977. The free pill policy was in operation for only 3 months during 1976 but for the full year in 1977, yet there is no increase in switching between these two years although there is an increase between 1975 and 1976. More importantly, the low level of switching and the small differences in the levels in 1976 and 1977 compared to 1976 clearly indicate that the source of new pill acceptors was not from previous users of other methods in the Program.

Information on commercial sales of oral contraceptives is less readily available in a suitable form for judging the impact of the free pill policy. Information was collected on behalf of the Ministry of Public Health on the number of pill cycles distributed by a number of leading companies in the private sector. These data are not entirely satisfactory for judging trends in pill sales for several reasons: 1) not all companies distributing pills provided information; 2) the number of companies reporting varied over time; 3) besides changes in the number of companies reporting distributions, there was a change in which particular companies reported and 4) the figures refer to distributions to sales outlets and not to sales directly. Nevertheless, the information provides some clues as to the extent free pills effected the trends in commercial sales.

The data on commercial distribution are presented in Table 1, annually for the years 1973 through 1979 and quarterly for the year 1975 through 1977. The quarterly data show no obvious drop in the number of cycles distributed coinciding with the initiation of the free pill policy (4th quarter of 1976). However, because seasonal fluctuations in distribution are usual and because the five companies reporting during 1976 are not all the same as in 1977 (two are different), it is difficult to rule out a negative effect on commercial sales. Moreover, if there was a negative effect, it is not clear precisely what the timing should be in terms of distribution. Some reduction in distribution could have occurred in anticipation of reduced demand. More plausibly, the impact would have been delayed somewhat since it would take several months for inventories in the sales outlets to backlog sufficiently before orders to the distributors were reduced.

Possibly the unusually low number of cycles distributed in the third quarter of 1977 reflects some switching from the commercial sector to the government program but this is by no means certain. Likewise the apparent decline in the annual number of cycles distributed in 1976 and 1977 might reflect a reduction in demand for commercial pills due to the

Table 1

Number of oral contraceptive cycles (in 1000's) distributed commercially by leading distributors 1973-1979

	Annual <sup>a</sup>	Quarterly	Number of companies reporting
1973	3,921		7-8 <sup>b</sup>
1974	3,396		8
1975	3,634		7
1st quarter		1,791	7
2nd quarter		451	7
3rd quarter		638	7
4th quarter		754	7
1976	2,923		5 <sup>c</sup>
1st quarter		867	5
2nd quarter		749	5
3rd quarter		622	5
4th quarter		685	5
1977	2,890		5 <sup>d</sup>
1st quarter		1,063	5
2nd quarter		708	5
3rd quarter		408	5
4th quarter		710	5
1978	3,204		
1979	3,677		

Notes: a) Annual totals may differ slightly from sum of quarterly figures because of rounding.

b) 7 companies reported during the first 2 quarters and 8 reported during the last two quarters.

c) Two of the seven companies reporting in 1975 stopped distribution of pills in 1976 accounting for the reduction in the number of companies reporting in 1976.

d) Two of the five companies reporting from 1977 on are different from those reporting in 1976.

free pill policy but again this can only be speculated. Interestingly the number of annual cycles distributed increased in 1978 and 1979. Perhaps the most that can be said with any confidence about commercial sales from distribution data is that the free pill policy had at most a modest negative effect. It is noteworthy that in a meeting with representatives of several major distributors in Bangkok in 1979 as part of the USAID Third Evaluation of the Thailand National Family Planning Program, the representatives expressed the opinion that the free pill policy had only a minimal effect on sales in the private sector. Since prior to the free pill policy, the Ministry of Public Health was charging a price several times lower than the price charged in the commercial sector, it is perhaps not surprising that no striking effect on commercial sales is evident.

Information on characteristics of new acceptors help confirm the impression that that the increase in pill acceptors following implementation of the free pill policy was not in any large part a result of substitution from the commercial sector. If much of the increased acceptance was indeed substitution, the proportion of new pill acceptors who never used contraception previously should decline following the provision of free pills. Unfortunately the only statistics available refer to the proportion of never users among acceptors of all methods rather than among pill acceptors specifically. Since pill acceptors constituted about 60 percent of new acceptors, however, this information is still useful. The percent of acceptors of all methods that reported no prior use of contraception declined only slightly from 76.0 percent in 1975 to 73.3 percent in 1976 and remained virtually unchanged in 1977 at 73.2 percent. In addition, drainage from the commercial sector should be reflected in an increase in the percent of new pill acceptors who never received services before from the National Family Planning Program. Instead of increasing, this percentage actually declined slightly from 85.4 percent in 1975 to 83.0 percent in 1977 (Research and Evaluation Unit, National Family Planning Program, 1978).

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One private program that appears to have been adversely affected by free pill distribution is Community Based Family Planning Services (CBFPS). This program which was established in 1974 maintains a network of volunteers who sell several brands of pills in a large number of villages. Although the price they charged for pills was relatively modest compared to the commercial sector, the availability of free pills in local health stations apparently hurt sales. After more than doubling from about 3,000 a month during May through July of 1976 to close to 7,000 in October 1976, the number of monthly new acceptors recruited by CBFPS volunteers dropped to around 2,000 during the period of February through July 1977. While it seems quite likely that the sharp reversal of the trend towards increased CBFPS acceptors was at least in part due to the local availability of free pills through government health stations, it should be noted that a previous fluctuation of even greater magnitude in the number of new acceptors to CBFPS occurred between late 1975 and May 1976 and obviously cannot be attributable to the free pill policy (Research and Evaluation Unit, National Family Planning Program, 1978). More importantly from the perspective of assessing the impact of the free pill policy on overall prevalence, the net change is already taken into account in the trends shown in Figure 1 since CBFPS acceptor statistics are included in acceptor statistics of the National Family Planning Program. Thus the free pill policy clearly resulted in a net gain in acceptance despite some switching from CBFPS and some possible minor loss from the commercial sector.

Data from national surveys of contraceptive prevalence confirm a substantial increase in pill use between 1975 and the end of 1978-- in rural areas from 14 to 23 percent of all married women age 15-44 (after standardization for age). Both male and female sterilization also increased from 2 to 4 and from 7 to 10 percent respectively but IUD prevalence declined from 7 to 4 percent (Knodel, et al., 1982, P 110). The increase in pill usage accounts for more of the increase in contraceptive prevalence between 1975

and the end 1978 than all other methods combined. Moreover, the rate of increase in contraceptive prevalence accelerated during this period compared to others. The increase has been especially large among the more disadvantaged segment of the population (as indicated by educational levels) which is what is expected from the free contraceptive policy since it should have greater appeal among the poorer women (Knodel, Debavalya and Kammuansilpa, 1980).

#### Impact on Continuation Rates

Data from the 1981 Continuation Rate Survey of pill acceptors during the years 1977-79 provides information on how widely the policy was actually implemented at the grass roots level. Despite a centrally issued directive to provide contraceptives free, the possibility of continuing to charge or to pressure clients for "donations" could in effect negate the policy. There is little external control to ensure that no charge was assessed the client, especially in connection with pills, which can be distributed at the local health or midwifery center. The continuation rate survey followed up a national sample of women who accepted the pill during 1977-79 from Program outlets and included a question on how much they paid for the pill. The results indicate that 56 percent received the pill free, 24 percent paid between one and four Baht and 19 percent paid five or more Baht. Thus the majority actually did receive the pill free and 80 percent either received it free or paid less than the prior charge of five Baht (Research and Evaluation Unit, National Family Planning Program, 1982).

In assessing the impact of free pill distribution it is important to examine not only the number of new acceptors but also the continuation rates of use. If the result of making the pill free was to devalue it as a method of contraception and thereby adversely affect the probability of continuing use, increases in new acceptors could be negated by higher discontinuation rates. On other hand continuation might have increased because of the lack of payment needed for new supplies. Data from two continuation rate surveys following up new acceptors provide some relevant information.

The 1977 continuation rate survey, conducted at the end of 1977 followed up a sample of women who had accepted the pill during 1974 and 1976 and thus included some women who accepted the pill after the initiation of free distribution. It is thus possible to compare continuation rates of the subsample of 147 women who accepted the pill during October through December 1976 (the initial period of free pill distribution) with the average continuation rates of the total sample of over 1,000 women. Results as presented in the top panel of Table 2 indicate above average continuation rates for the October - December 1976 acceptors<sup>4/</sup> While the subsample of acceptors during the free pill period is small and thus subject to considerable sampling error, the results are at least suggestive of a greater willingness to continue use of the pill when there is no cost for resupply.

The fact that in actual implementation of the free pill policy some women paid for the pill while others did not permits calculation from the 1981 survey of continuation rates by cost of pills and thus enables us to further test whether women who received the pill free would be more likely to discontinue its use. The results, presented in the bottom panel of Table 2, indicate that just the opposite has been the case. Continuation rates are highest for those receiving the pill free and lowest for those paying 5 or more Baht per cycle. While it is not possible to show from these results that cost and continuation are directly linked -- for example, characteristics of providers or acceptors which influence continuation rates may also be associated with charges for the pill -- they are suggestive that free provision facilitates rather than discourages continuation of use.

One somewhat perplexing and contradictory aspect of the findings presented in Table 2 is the drop in overall continuation rates found in the 1981 survey, based on 1977-79 acceptors, compared with the earlier survey results based on 1974-76 acceptors. If free provision of pills encouraged continuing use, all else equal, continuation rates would have been expected to increase rather than decrease between the two surveys. Because other conditions which

Table 2

Cumulative continuation rates for pill acceptors from the 1977 Continuation Rate Survey by date of acceptance and from the 1981 Continuation Rate Survey by cost of pill per cycle.

	Months since acceptance				
	6	12	24	36	48
From 1977 survey					
by date of acceptance					
Oct. - Dec. 1976	.85	.75	n.a.	n.a.	n.a.
Total Sample	.82	.72	.56	.45	n.a.
From 1981 survey by					
cost of pill cycle					
free	.78	.67	.52	.42	.31
1-4 Baht	.76	.65	.50	.39	.28
5+ Baht	.68	.53	.40	.26	.19
Total sample	.76	.64	.49	.38	.27

Sources : Research and Evaluation Unit, National Family Planning Program, 1978 and 1982.

n.a. = not available

potentially affect continuation rates may also have changed during the period under consideration, it is difficult to judge to what extent, if any, the reduction in continuation rates is connected with the free pill policy. For example, with the rise in popularity of permanent contraceptive methods, the more highly motivated contraceptors may have increasingly chosen sterilization as their initial method or have switched from other methods to sterilization, thus disproportionately leaving the less motivated contraceptors to be pill acceptors.<sup>5/</sup>

The possibility that the free provision of pills affected continuation rates adversely is not completely out of the question if one is willing to dismiss the higher continuation rates found for October - December 1976 acceptors in the 1977 survey as the result of either small sample size or as non-representative of women accepting the pill after the initial few months following the initiation of free distribution. The inverse association between the price paid for the pill and continuation rates found in 1981 survey is not necessarily inconsistent with a dampening effect of free pills on continuation rates. For example the lower continuation rates among those paying for the pill could be due to resentment caused by awareness that the pill is supposed to be given out free but that they had to pay. This argument is not advanced as necessarily the most plausible one but rather to point out that while much evidence suggests that providing pills free does not lead to a deterioration in continuation rates, an adverse effect cannot be definitely ruled out based on the data presently available.

#### Other Impacts

Free pill distribution, of course, involves a substantial financial cost. The potential revenue that would be gained by sales if a charge were attached to pill distribution (provided mechanisms were established to ensure that the revenues were channelled back into the Program) are lost.

Thus for Thailand approximately two and a quarter million US dollars would have been generated if all the pills distributed through government outlets had been sold at the price charged prior to the free pill policy.<sup>6/</sup> If these funds could have been effectively recycled into the Program they would have made a substantial contribution to the budget. Indeed pilot projects are currently underway in Thailand to test the feasibility reinstating a charge for the pill precisely because of concern about lost revenues. This issue has become more salient as a result of a reduction in foreign aid for contraceptive supplies.

Another aspect of the free pill policy that is worth discussing is the impact it had on morale of staff at local Ministry of Public Health outlets. Since the income generated by pill sales prior to the free pill policy was usually used to help maintain the health stations, resentment against the loss of this income could have potentially arisen as a result of the policy change. While no extensive and systematic data have been collected on attitudes of local providers towards the free pill policy, some information was informally collected during visits to a number of health stations as part of the USAID Third Evaluation of the National Family Planning Program in 1978 and again by the senior author in 1982-83 during visits to a number of health stations in different parts of the country in the course of an otherwise unrelated project. The majority of personnel interviewed indicated they were favourable towards providing pills free mentioning that their clients liked the policy or that people in the areas were poor. Among the minority that said they did not favour the policy, some said that free provision of pills devalues their subjective worth or referred to the lost income that a charge would otherwise generate.<sup>7/</sup>

## Conclusions

In sum, evidence from Thailand indicates that providing pills free as opposed to charging even a modest price can result in a net increase in contraceptive prevalence through increasing acceptance beyond simple substitution for other methods and probably without adversely affecting continuation rates. Such a policy does, however, involve a substantial financial cost in terms of lost revenue. The extent to which the Thai experience would be repeated in other countries is difficult to judge. The rapid increase in contraceptive prevalence in Thailand that occurred during the last decade and a half suggests that there was a substantial potential demand for family planning services among much of the population and that barriers to acceptance were relatively unimportant. In countries where there is less receptivity to contraception, the difference between a nominal charge and free provision of pills may have little impact. Likewise where contraception is more widespread than it was in Thailand at the time the policy was introduced any increase in pill acceptance resulting from providing pills free might be more a result of substitution than of a genuine acceleration of prevalence in comparison with what happened in Thailand. Nevertheless, Thailand's experience suggests that providing contraceptive services free, especially free distribution of the pill, is an option that should not be overlooked as a means of increasing family planning acceptance.

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NOTES

- 1/ Official policy stipulated that less could be charged if the client could not afford the standard fee but informal reports indicated that, for the pill at least, almost all clients paid the full price (Research and Evaluation, National Family Planning Program, 1978).
- 2/ The annual number of new acceptors of all methods combined in the National Program peaked in 1981 at well over one million and declined slightly in 1982. The number of new pill acceptors peaked in 1980 at 6. . thousand and declined since then to 622 thousand in 1982. The general leveling off of new acceptors is an inevitable result of diminishing numbers of potential new acceptors (eligible non-users) as prevalence increases to high levels. Pill use is also affected by a substantial increase in sterilization which has received considerable emphasis in recent years by the National Program.
- 3/ Although the monthly new acceptor statistics do not permit distinguishing between late reports and actual new acceptors of the given month prior to 1978, it is unlikely that the immediate sharp increase following the introduction of the free pill policy was an artifact of late reports. This is evident from the fact that there is no parallel increase in acceptors of other methods at that time as is the case in the sharp increase between the second and third quarters of 1978. Late reports, of course, would affect statistics of acceptors of all methods and not only the pill.
- 4/ Since the survey was conducted at the end of 1977, it is not possible to extend the comparison of acceptors during October through December 1976 for the longer durations of use since the maximum number of months since acceptance for this subsample is 15 months.

- 5/ The proportion of pill acceptors interviewed for the 1977 survey who indicated they wanted more children (and thus were contracepting for spacing purposes) was lower than for those interviewed for the 1981 survey (27 versus 36 percent). Continuation rates in both surveys are also lower for women wanting more children than for those not wanting more as would be expected. For both categories of women, however, continuation rates were lower according to the 1981 compared to the 1977 survey and thus the increasing use of the pill for spacing cannot account for the decline in continuation rates.
- 6/ This calculation does not allow for the fact that there probably would have been fewer cycles distributed if there had been a charge for the pill. It also ignores the fact that some revenue is generated by unofficial charges anyway (although it is unknown how that money is used).
- 7/ There is some speculation that some local providers favour the policy because it enables them to charge clients unofficially and then pocket the income but this obviously was not mentioned in our interviews and, as the result of the 1981 continuation rate survey indicates, the majority of acceptors are indeed receiving the pill free.

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