

# An Appraisal of the Role of the Intra-Uterine Contraceptive Device for Family Planning in Malaysia\*

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*(Summary – The growing population in Malaysia poses serious economic and social problems unless the growth rate is reduced to 2% by 1985. There are indications that the family planning programme is failing. The author attributes this to insufficient usage of the IUCD and too much reliance on the Contraceptive Pill. Analysis of 73 IUCD acceptors in a series of 5201 total contraception acceptors reveal that the rate of complications among Malaysian women is no higher than other population series and, therefore, not the cause of poor usage of the IUCD. Other causes have been implicated and solutions offered and an immediate review of the family planning methods urged.)*

## Introduction

WITH THE ADVENT OF improved health measures, the problem of uncontrolled population growth has become universal. In Malaysia, the population at the end of 1967 was estimated to be 8,667,450 growing at the rate of 3% annually. This posed serious economic and social problems to the nation. It was estimated that if this rate was not reduced any effort made towards uplifting the standard of living of the people would be nullified. The National Family Planning Board, when formulating its policy and operational programme for the First Malaysia Plan, therefore, set up a target to reduce the rate of population growth to 2% by 1985.

The Family Planning Organisations offer many methods. Table A shows the number and percent of Acceptors by Method and Year.

It is noticed that Malaysia relies heavily on the Contraceptive Pill in the Family Planning Pro-

gramme and Population Control (Grand Total Average = 89.0%). What is striking is the fact that only 1.6% of the total acceptors were using the Intra-uterine Contraceptive Device (I.U.C.D.). In the Review of the First Malaysia Plan period (1966 – 1970) only 63% of new acceptors were found to be continuing users at the end of 12 months, while only 44% were estimated still to be continuing users after 24 months. In other words, at the end of 2 years more than half the number of acceptors have ceased reliable contraceptive practice and in subsequent years probably more. A low continuation rate forecasts reduced efficiency and failure of the operational programme which will become more apparent in subsequent years. An analysis of the level of education showed that in 1968, 49.0% of the acceptors had either no schooling or education only up to primary level. In 1973, probably because the programme was reaching more rural women, this percentage was increased to 73.9%.<sup>3</sup> It has been shown that the highest rate of pill-defaulters come from this group of acceptors. In Taiwan, Korea and Japan where the population growth rate has been successfully reduced in their mass population control programme, the IUCD is more heavily relied on as it provides constant protection against pregnancy, reduces the number of defaulters and is less costly budgetwise. The acceptance rate of IUCD in these countries is between 20% to 40%.

The exercise of this paper is three-fold:-

- (1) to determine whether the rate of complications of IUCD is higher among Malaysian women causing its low acceptance rate. If this is not the reason,

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**Table A - (Based on National Family Planning Board, Malaysia - Monthly Acceptors Report Oct. 1975)**

Period	Pill	IUCD	Sterilization	Others	Total
May - Dec. 1967 %	18,541 89.5	724 3.5	627 3.0	834 4.0	20,726 100
Jan. - Dec. 1968 %	69,337 92.5	1,173 1.6	2,609 3.5	1,816 2.4	74,935 100
Jan. - Dec. 1969 %	65,572 92.9	1,127 1.6	2,689 3.8	1,187 1.7	70,575 100
Jan. - Dec. 1970 %	49,601 88.6	801 1.4	3,474 6.2	2,105 3.8	55,981 100
Jan. - Dec. 1971 %	47,825 87.3	927 1.7	3,952 7.2	2,067 3.8	54,769 100
Jan. - Dec. 1972 %	48,938 86.8	1,138 2.0	3,867 6.8	2,474 4.4	56,417 100
Jan. - Dec. 1973 %	49,881 87.0	906 1.6	4,109 7.2	2,417 4.2	57,313 100
Jan. - Dec. 1974 %	53,734 87.1	801 1.3	4,181 6.8	2,964 4.8	61,680 100
Jan. - Oct. 1975 %	50,029 87.5	765 1.3	3,318 5.8	3,065 5.4	57,177 100

- (2) to look into the actual causes and,
- (3) to offer suggestions which may improve its acceptance.

A combined analysis of two 3-Year periods was made of the acceptors of IUCD at the University Hospital between April 1968 when its Family Planning Clinic started, to March 1971; and at the author's group practice clinics between January 1972 to December 1975.

### Analysis of Data

A total of 2,501 patients sought for and accepted a method of contraception. 73 or 2.9% were fitted with the Lippes Loop intrauterine contraceptive device. 45 of the 73 (i.e. 60%) of the IUCD were inserted by doctors who have had very little experience in introducing them i.e. by house officers and medical officers who have not had previous experience in insertions. In none of the patients was the IUCD inserted by the family planning clinic nurse.

#### I Parity

Parity	Number	%
Less than 4	43	57.4
4 - 5	14	20.7
6 or more	16	21.9

The Table on parity shows that the choice of patient was satisfactory. 57.4% of acceptors were in the less-than-4 Group. However, the percentage of acceptors in the 6-or-more Group was high. Ideally, these patients should have accepted tubal ligation.

#### II Education Level

Level	Number	%
Nil or primary school	39	52.0
Secondary school	23	31.9
Post secondary school	11	16.1

The majority of the IUCD acceptors were of the 'nil' or 'primary school education' group.

#### III Do you want another child?

Answer	Number	%
No, never	35	47.9
Yes	28	38.4
Maybe	10	13.7

Almost half of the acceptors do not desire anymore children but did not choose tubal ligation which is a more reliable method.

From Tables I & III, it can be seen that there were many patients who were not ideal acceptors.

#### IV Pregnancies

Size of Lippes Loop	No. inserted	Pregnancies
A (22.5 mm)	Nil	Nil
B (27.5 mm)	14	2
C (30.0 mm)	51	2
D (31.0 mm)	8	Nil

Of the 73 women who had the IUCD inserted, pregnancy occurred in an incidence of 5.3 per 100 insertions. An unusual case of IUCD associated with ante partum haemorrhage was reported by the author<sup>4</sup> (E.H. Tan, 1971). In Shanmugaratnam's series (1969) from Singapore, a pregnancy incidence of 3.5 per 100 insertions was reported.<sup>5</sup> The higher incidence in this series is attributed to the failure to insert size C Loops resulting in the high usage of size B loops in parous women. There were no nulliparous women in this series. It is the author's view, that more size C loops could have been inserted by more experienced insertors since in 12 of the 14 size B insertions were carried out by less experienced house officers.

#### V Bleeding

Varies in form, from spotting for a few days after insertion to menorrhagia or intermenstrual bleeding. Usually bleeding problems occur in the first two or three months, thereafter the incidence was less. 15 patients complained of bleeding but only in 3 was the bleeding severe enough for the patient to request removal, making removal rate from bleeding to be 4.1%. All these patients belong to the middle or upper income bracket. The results compare favourably with figures from Wilson et Lovell (1967) where the removal rate of 19% was quoted for middle or upper class women. In the indigent women the removal rate was 4.5%.

VI *Infection* was not a problem. Only 7 patients complained of excessive vaginal discharge which cleared up with vaginal pessary treatment.

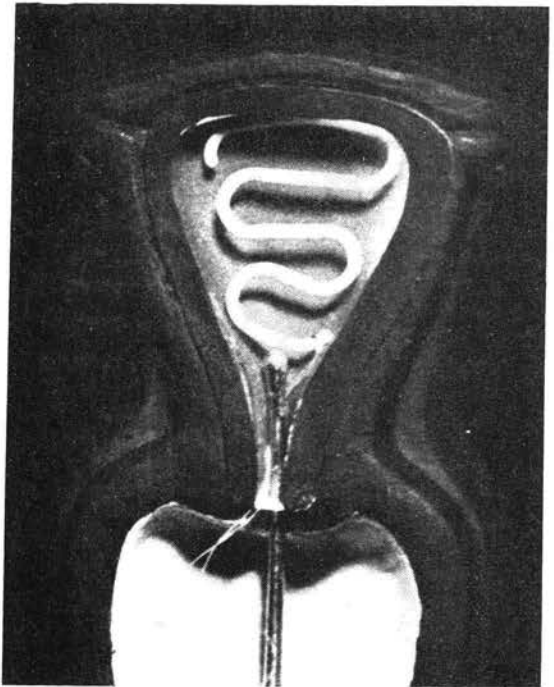
#### VII Pain

Only 5 patients complained of dysmenorrhoea, backache and abdominal discomfort. In 3, the Lippes Loop had to be removed because of severe dysmenorrhoea.

#### VIII Expulsion

The overall expulsion rate was 8.1% at the end of 12 months. This compares favourably with Shanmugaratnam's series of 19.1%

and IPPF net cumulative even rates 1972 of 14.8%<sup>7</sup>. Of these 6 patients, 3 had a reinsertion of a larger-sized Lippes Loop but the other 3 opted for another method of contraception. The author attributes the low expulsive rate to the observation of a compulsory step of using a probe to 'return' the stem of the loop from the cervical canal to the intra-uterine cavity after insertion. (See figure).



IX *Ectopic Pregnancies and Translocation* were absent from this series.

#### X Continuation rate

The overall continuation rate at two years is at a very satisfactory figure of 83.1%. Patients who do not return for follow-up at the end of the two-year period were considered as failures.

#### XI Racial Groups and Acceptance

Race	Number	%	Racial Composition of
			Family Planning Patients (%)
Chinese	40	54.8	45
Malays	3	4.1	25
Indians	19	26.0	20
Others	11	15.1	10

Bearing in mind the fact that only 25% of the Family Planning patients were Malays,

it is, nevertheless, evident that the Malays have not accepted the IUCD as readily as the other races. The 3 Malay acceptors in this series already have more than 6 pregnancies and have not been on any other forms of contraception previously.

## Discussion

Malaysia has the task of lowering the rate of population growth so as to maintain or elevate the standard of living. Analysis of the acceptors in the National Family Planning Programme shows that the acceptance rate of IUCD is relatively low and falling (See Table A) compared to other countries where successful mass population control programme has been carried out.

Comparison of 1957 and 1970 Census unadjusted figures showed an average annual population growth of 2.6%<sup>8</sup>. On the basis of the results of the Population Census 1970, the revised estimated population growth rate for the period 1970-1975 is 2.7%. That the National Family Planning Programme is losing its impact can be shown by the following Table B of Target Population and Achievement 1971-1975.<sup>3</sup> There has been no significant rise in the number of acceptors for the past few years and the achievement rate for the Target Population Rate is in fact decreasing.

**Table B**

### Target Population and Achievement 1971 - 1975

Year	Target Population to be reached	Actual No. of Acceptors	Achievement (%)
1971	80,000	54,767	68.5
1972	100,000	56,417	56.4
1973	120,000	57,312	47.8
1974	140,000	-	-
1975	160,000	-	-
Total	600,000		

Compounded to this is the problem of age composition. The very large number of young people who are and will be maturing to reproductive ages means that even if fertility rates continue to decline population growth will continue at a relatively high rate for several decades.<sup>8</sup> These findings underline the need for increased effort and a revision of policy planning in the years to come, if at all, Malaysia is to reach the Target Population Growth Rate of 2.0% by 1985.

From the above problems specific to the Malaysian Context, a case can be made to increase the usage of IUCD to 20-40% in the country's future Family Planning Programme. Malaysia's Family Planning Population is a young one with a low degree of educational level in the majority of acceptors. A high Continuation Rate is necessary to ensure success in lowering the population growth rate in the next ten years. The Contraceptive Pill is the most convenient method. It enjoys a high acceptance rate but it unfortunately suffers from low continuation rate since 73% of the acceptors are less educated and lack sustained motivation. Injectable Preparations have yet to prove successful in Malaysia because of bleeding problems and prolonged amenorrhoea. They seem suitable only in those who have completed their families and do not wish to be sterilised i.e. the older population group. Also experience in their use is still limited. An increase in the use of sterilization has been achieved. (See Table A). However, its emphasis will not solve the population control problem of the increasing number of young mothers who have not completed the family and need a reversible method. The use of the menstrual extractor is controversial, while termination of pregnancies other than on medical grounds, by any method is still illegal in this country and fraught with possible complications. The increased usage of the IUCD can be emphasised in future policies provided it can be shown that the complication rate among Malaysians is no higher than in other populations where its use has been successful and accepted.

This series has shown that the complication rate is comparable if not lower than the average figures given by the International Planned Parenthood Federation and also the various other studies quoted. This then is not the cause for the lower acceptance rate.

Probable causes and implementations to improve the acceptance of IUCD among Malaysian women are discussed below:-

1. *Personal Bias* towards a more convenient pill method by clinical staff should be minimised. Another study similar to the one done by the author but on a larger scale and under more optimal conditions could confirm that with adequate training and ready availability of well-trained insertors, the acceptance rate can be raised and the complication rate reduced among Malaysian women.
2. At present the IUCDs are *inserted mainly by doctors*. Suburban patients motivated to accept this method often have to travel

to town health centres for insertions. It is felt that family planning nurses or midwives at health centres could be trained to insert the IUCD. The availability of these insertors could improve acceptance rate and it has been shown by studies carried out in New York City, Kentucky and Pakistan that they do not increase the number of complications.

3. *The use of 'second-generation' copper impregnated IUCDs* have lowered complication rates.<sup>9</sup> Copper 7 IUCDs have also been used with success in nulliparous women desiring contraception. Although the cost factor may initially look inhibitive on the large scale for population control, they may prove more economical than the contraceptive pill in the long term.
4. *Beginner and Refresher Courses in Family Planning* should be conducted regularly. They can be used to motivate general practitioners particularly those in the rural areas to recommend use of IUCDs and to allow them practical experience in the proper method of insertion. Likewise paramedical personnel could also be trained.
5. *The poor acceptability rate among the Malays* must also be investigated to improve mass population control since they form about 50% of the population of Malaysia. Between 1957-1970, the Malay urban population grew at a much faster rate (5.4%) than that of the Chinese (2.8%) or the Indians (3.2%). Although this may be taken to represent urbanisation of Malays, it cannot be denied

that the rural Malay population also has increased when compared to the other races (Malays 2.8%, Chinese 1.9%, Indians 1.9%). Cultural traits must not be ignored. Fear, suspicion, embarrassment of pelvic examination can be overcome by education and information as well as improving the approach to these patients.

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