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**IMPLANT USERS:
OVER FIVE YEARS AFTER INSERTION
(Further Analysis of Previous Study Data)**

by

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**THE POPULATION COUNCIL
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EXECUTIVE SUMMARY

This secondary analysis report presented the characteristics of a sub-group of 235 women who are overdue in getting NORPLANT® implants removed after five years, factors related to the risk of non-removal after five years, and issues related to accessing information about removal of implants.

The main source of data for the present study is the “NORPLANT® Implants Assessment Study: Insertion, Use, and Removal” carried out in Indonesia during April 1996. This study consisted of a representative sample of 2,979 current and former NORPLANT® users who had an insertion (April 1, 1987 - March 31, 1991), five or more years prior to the 1996. The selected sample represented 14 provinces, 50 districts, 150 sub-districts, and 300 villages using stratified, multi-stage, probability proportional to size.

The secondary analysis used simple cross tabulations of characteristics and the current use status to study the characteristics of the sample women. The relative risk ratio values were calculated to understand factors related to the risk of not getting implants removed after five years.

The main findings show that the majority of women who were overdue for implants removal were aged 35 years and older, had 3 or more living children, had either no education or had not complete primary school, spent most of their time outside of the home, had husbands who had a minimum of a primary school education and worked as farmers or fishermen, and belonged to “Pre-welfare” or “Welfare one” categories. This group of women also came from the Java-Bali regions, rural areas, used implants for more than 6 years, and had their implants inserted in 1990 and 1991. The data also indicates that the majority of women who had not had their implants removed did not want to have more children at the time of insertion. The overwhelming majority of the women were informed about the need implants removal after five years, while two-thirds were not informed about a removal fee. As expected, the majority of these women had implants inserted during “Safari.”

The relative risk analysis suggests that women with the following selected characteristics are more likely not to have implants removed after five years of use than other women. The characteristics identified include women who are 40 years or older; who want to limit births; who have either not gone to school or have not completed their primary school education; whose husbands have not gone to school;

who spend most of their work time outside the home; who are poor (i.e. Pre-welfare and Welfare-One families); who are from the Java-Bali regions and rural areas; who at the time of insertion did not receive removal information about the need for five-year removal and the requisite removal fee; and who had implants inserted five years earlier or were due to have removals. These findings suggest that this group of women need to be contacted and counseled on the importance of implants removal after five years of use. Additionally, the program should emphasize the importance to providing information on the need to have implants removed after five years of use at the time of insertion.

The women's access to removal information was found to be difficult for four reasons: (1) lack of knowledge among field workers and volunteers about the consequences of late removal; (2) the perception on the part of field workers and volunteers that they are being evaluated based on the number of new acceptors; (3) the fee attached to the removal services; and (4) a lack of the records at the grass root level showing family planning use by method.

The program priorities and implications highlighted by the study are as follows:

- Priority groups for removal of implants are women aged 40 years and over, who want to limit births, who have not gone to school or completed their primary education, whose husbands have not attended school, who spend most of their work time outside the home, who are poor (i.e. pre-welfare and welfare-one families), who come from the Java-Bali regions and rural areas, who did not receive removal information at the time of insertion, and who had implants inserted in the previous year or are due to have removals.
- Provision of an alternative contraceptive method to women who are older or do not want to have more children, particularly vasectomy or tubectomy, will have a significant impact in changing the women's behavior in getting implants removed after five years. Additionally, women who want to limit births and do not want to adopt another method should be told that implants need to be reinserted after the first set are removed.
- Government subsidy for implants removal could be directed towards women who are poor by making removal services available through private clinics.

- Clinics should stay open beyond their current schedules, particularly after 4 pm to cater women who work outside of the home.
- Refresher training and BKKBN's link and match approach should receive special attention at the community level to provide removal services.
- Considering that proper removal training for the providers is very crucial in preventing future back-log problem, a follow-up study on “Providers’ Perspectives Regarding the Impact of Training” should be conducted.
- BKKBN will soon be introducing IMPLANON, a single rod implant, into the family planning program. Experience with the injectable contraceptives (three types) program has shown that providers sometimes interchange one type of injectable contraceptive for another during a repeat visit if there is a shortage of a particular injectable. Since this problem might also occur with the implants program, the logistics system needs to ensure an uninterrupted supply of the different implants at all times.

INTRODUCTION

Over the past decade, the Government of Indonesia (GOI) has actively promoted the use of NORPLANT[®], a newly developed contraceptive technology. In Indonesia, the first study of NORPLANT[®] was conducted in May 1981. The study included 813 women from Jakarta's Raden Saleh Clinic, a facility of the Department of Obstetrics and Gynecology, University of Indonesia's School of Medicine, and Hasan Hospital, Bandung. After 19 months, the study was expanded to selected centers in teaching hospitals. Subsequently, in January 1986, NORPLANT[®] was formally registered with the Ministry of Health. There are now more NORPLANT[®] users in Indonesia than in any other country in the world.

Indonesia started providing NORPLANT[®] implants through its national family planning program, particularly through conducting "Safaris." This activity began in 1987/88. Since then, issues of quality of care and removal services relating to NORPLANT[®] have been topics for discussion.

Over the past eight years, there have been a number of studies conducted in Indonesia which addressed various issues relating to NORPLANT[®]. These studies addressed topics such as training, technical competence, equipment and supplies, facilities, counseling, early removal, 5-year removal, monitoring, tracking system, follow-up, complications, and failure rate. The most notable studies were: "Users' Attitudes about NORPLANT[®] Contraceptive Subdermal Implants" conducted by Yayasan Kusuma Buana (YKB) in 1988-89, "Service Delivery Systems and Quality of Care in the Implementation of NORPLANT[®] in Indonesia" supported by the Population Council in 1990, "NORPLANT[®] Use-Dynamics Study" and "Review of NORPLANT[®] Acceptor Tracking System" sponsored by the Population Council's ANE OR/TA Project, funded by USAID, and "Training Assessment Study" in 1993 conducted jointly by the National Family Planning Coordinating Board (BKKBN), the Obstetric and Gynecology Association of Indonesia (POGI), and JHPIEGO. Issues on removal services were broadly taken up by the 1992 Use-Dynamics Study which provided data on continuation and removal rates.

The most recent study, conducted in 1996, focused on NORPLANT[®] insertion, use, and removal. This study looked at the experience of users who had an insertion between April 1, 1987 and March 31, 1991. A representative sample of 2,979 current and former NORPLANT[®] users were interviewed. The sample was selected using a stratified, multi-stage probability proportion to size from 300 villages

representing 14 provinces, 50 districts, and 150 sub-districts. Data collection was done through a structured questionnaire which consisted of five sections. Three of the sections were directed at three different groups of acceptors: 1) Post-removal NORPLANT® users; 2) overdue NORPLANT® users; and 3) pregnant NORPLANT® users. The final report focused primarily on NORPLANT® users experience during insertion, use, and removal and also presented continuation and removal rates. Very little analysis was done with regard to acceptors who had not had their NORPLANT® implants removed. Though the number of women in the study with overdue NORPLANT® removals is small (i.e. 235 cases), it is important to know who these women are in terms of their characteristics and how they differ from the women who eventually did have their implants removed. From a programmatic point of view, the characteristics of these women might provide guidance as to what strategic policies, information, and service issues are important for this group.

STUDY OBJECTIVES

At the request of USAID/Jakarta, the Population Council conducted a secondary analysis of a sub-sample of the 1996 “NORPLANT® Implants Assessment Study.” The secondary analysis included the following:

- analysis of characteristics of a sub-group of 235 women overdue for the removal of NORPLANT® implants;
- comparison of characteristics of women overdue for removal of NORPLANT® implants with women who already had NORPLANT® removed;
- identification of factors related to the risk of not getting implants removed after five years; and supplemental information on removal difficulties based on qualitative studies carried out during the NORPLANT® assessment study in 1996, and other sources of data.

SOURCES OF DATA

The main source of data for the present study comes from the “NORPLANT® Implants Assessment Study: Insertion, Use, and Removal” carried out in Indonesia in 1996. This study consisted of a representative sample of 2,979 current and former NORPLANT® users who had an insertion five or more years before the study (April

1, 1987 - March 31, 1991) was conducted in April 1996. The sample selected represented 14 provinces, 50 districts, 150 sub-districts, and 300 villages using stratified, multi-stage, probability proportional to size. This study consisted of both quantitative and qualitative research components. The quantitative component used a structured five-page questionnaire containing questions on the characteristics and the acceptors' experience with NORPLANT® implants. One section of the questionnaire was devoted entirely to women who had not had their implants removed at the time of the study. For details, see the 1996 "NORPLANT® Implants Assessment Study: Insertion, Use, and Removal by Andrew A. Fisher, et al.

The qualitative component of the study aimed at collecting information on removal issues, particularly knowledge about implants, perceived risk after five years of use, frequency of contact with clients, and availability of providers. Additionally, information was collected on field workers and volunteers' efforts to identify and inform women who used implants for more than five years. In-depth study was conducted interviewing 50 field workers and 50 community volunteers to gather this information. These in-depth interviews were conducted by trained senior researchers from the University of Indonesia. These data were later verified independently in two provinces, West Java and Lampung. The verification study showed no discrepancy in data provided by field workers and health centers in West Java, while some discrepancies, particularly misreporting of other method users as implants users, were noted between the two in Lampung.

Information regarding tracking of NORPLANT® implants acceptors was obtained from an operations research study which focused on the existing tracking system for NORPLANT® users. This study utilized a qualitative approach to collect data through 93 in-depth interviews with implants users, providers, field workers, and volunteers.

METHODOLOGY

The 1996 Indonesia NORPLANT® Assessment Study data set was broken down into two groups: women who had had their implants removed after five years of use, and women who had not had their implants removed. Both groups were potentially able to use the implants for at least five years.

A total of 15 variables were used to classify implants users. A study of the characteristics of the two groups consisted of cross tabulations between those women who had had their implants removed and those women who had not, according to demographics, socio-economic status, geographic region, urban/rural residence, duration of use, year of insertion, fertility intention at the time of implants insertion, whether or not informed of removal requirement after 5 years of use, whether informed of a removal fee, and whether implants were inserted during “Safari.”

The current age of women in years and number of living children are two demographic variables used for this analysis. Women were categorized into four age groups: less than 30 years, 30-34 years, 35-39 years, and 40 years and above. The number of living children is a continuous variable having five categories. Women’s and husband’s educational attainment each have four categories: no schooling (never went to school), less than primary school (went to school but never completed primary school), primary school (completed primary school), and middle school and higher (completed middle school, high school, or acquired diploma or degree from a college/university).

The three proxy variables for the economic condition of women and/or family are: whether most time is spent at home or outside of the home for daily activities, husband’s main occupation, and family welfare status. At present, Indonesian families have been categorized into five groups under the family welfare movement of the GOI: “Pre-welfare”, “Welfare one”, “Welfare two”, “Welfare three”, and “Welfare three plus”. The categorization is based on a total of 23 indicators which represent 5-key elements: (1) health condition, (2) educational level, (3) skills, (4) access to information media, and (5) financial support (Ministry of Population, 1997). “Pre-welfare” families are those who eat at least twice a day, have a single pair of clothes, have no access to health care and whose home has a mud floor. “Pre-welfare” families are considered poor and in need of total government subsidization for health care and education. “Welfare one” families are those who have meals regularly, are able to purchase new clothes, have a home with a cement floor, have a fixed income and have some illiterate family members. These families are considered to have difficulties in elevating themselves to a higher status despite the fact that they can meet their basic needs and support their family. Therefore, the government perceives that “welfare one” families need outside assistance. “Welfare two” families are those who have the potential to elevate themselves to a higher status without outside assistance but cannot be expected to support other families. “Welfare three” and “Welfare three plus” families are those who are affluent and can provide assistance to other families. Though the concept of family welfare has been

well conceived at the national level, all Indonesian families are yet to be identified as to their welfare level.

A second group of variables includes: geographical region (Java-Bali islands [six provinces], Outer Islands -I [10 provinces], and Outer Islands -II [11 provinces]), urban/rural residence, duration of implants use in months, and year of implants insertion. The sub-set of the sample is divided into three groups: those who used implants for 60-71 months, 72-83 months, and 84 months or more. Women who had their implants removed before five years of use were excluded from the analysis so that the two samples (women who had implants removed and women who did not have implants removed) are comparable. The year of insertion has six categories: 1987, 1988, 1989, 1990, and 1991.

The third group of variables includes whether implants were inserted for spacing or limiting purposes, whether women were informed of the need to remove implants after five years, whether women were informed of the required fee for removal, and whether implants were inserted during "Safari." All of these variables refer back to the time of insertion and are restated at the time of the survey. Thus, the information obtained during the survey may be subject to recall lapse.

In order to identify the risk of not getting implants removed after five years, the relative risk ratio index which is commonly used to measure the strength of association between presence of a factor and occurrence of an event was estimated. An event, here, is defined as women not getting implants removed after five years of use. Factor refers to characteristics of women. After cross tabulation between the current use status (whether or not women had implants removed after five years) with various characteristics, variables were selected which are related to current use status. Each of the categories was translated into a dummy variable. The value is estimated as the ratio of two incidence rates; for example, the incidence rate of not getting implants removed in women aged 40 years old and above and the incidence rate of not getting implants removed in women aged less than 40 years. The 95 % confidence intervals indicates whether the null hypothesis that the implants were removed or not removed are the same. If the interval does not include the value of 1, we reject the null hypothesis that the two incidence rates are the same.

Qualitative data are also reported in order to supplement the findings of the quantitative data in the areas of access to removal information. An emic approach was used to obtain a clear understanding of field problems using the informant's perception in looking at their own problems and environment.

RESULTS

Characteristics

Table 1 presents demographic and socio-economic characteristics of NORPLANT® implants users by removal status. Of the 235 women who did not have their implants removed approximately one-third were aged 40 years or above. Slightly more than one-half of these women were between the ages of 30 and 39 years. Only 15 percent were below the age of 30. Compared to women who had their implants removed after five years of use, women who did not have their implants removed were older by about one year. At the time of the survey, the average age of women who had not had their implants removed was 36.2 years old, while the average age of women who had had their implants removed was 35.4 years.

The second panel of Table 1 indicates that more than one-half of the women who had not had their implants removed had between one and three living children. On average, women who still had implants had about 3.4 living children, which is similar to those women who had their implants removed (3.2).

Two-thirds of the women who did not have their implants removed had either no education (18 percent), or did not complete primary school (49 percent); one-fourth of the women had completed primary school, while less than one-tenth (8 percent) of the women had completed middle school or attained a higher education. Women who had their implants removed differed significantly in educational attainment, having had more education. Likewise, women who did not have their implants removed tended to be more likely to have husbands who had not gone to school, as compared to women who had had their implants removed.

A significantly higher proportion of women who had not had their implants removed spent most of their time outside of their home (47 percent) compared to those women who had their implants removed (32 percent). Among women who still had their implants, more than one-half (58 percent) had husbands who were engaged in agriculture or fishery. About 15 percent had husbands engaged in private business and 14 percent as temporary laborers. Only five percent of the women who had not had their implants removed had husbands who were working as government servants (civil service, army, or police).

Family welfare status is clearly related to current use status. Whether implants were removed after five years of use seemed to depend significantly upon welfare status. More than one-third of the women who had not had their implants removed were at the “Pre-welfare” stage. The percentage of women at the “Pre-welfare” stage is 13 points lower for women who had their implants removed. Only 6 percent of women who had not had their implants removed belong to the highest welfare group (“Welfare 3 plus”). On the other hand, among women who had their implants removed, more than one-tenth (11 percent) of families were in this group.

Table 1: Percentage Distribution of NORPLANT® Users Who Have Used the Method for at Least Five Years by Demographic and Socio-economic Characteristics According to Removal Status, 1996

Characteristics	NORPLANT® removed (N=1966)	NORPLANT® not yet removed (N=235)
<i>Current age</i>		
Less than 30 years	16.0	14.5
30 - 34	29.0	26.8
35 - 39	29.1	26.4
40 and above	25.8	32.3
Total	100.0	100.0
<i>Number of living children</i>		
1	12.4	10.1
2	28.4	27.5
3	22.9	25.2
4	16.7	15.1
5 or more	19.6	22.1
Total	100.0	100.0
<i>Educational level*</i>		
No schooling	12.0	17.9
Less than primary school	41.6	48.5
Primary school	34.5	25.5
Middle school or higher	11.9	8.1
Total	100.0	100.0

Characteristics	NORPLANT® removed (N=1966)	NORPLANT® not yet removed (N=235)
<i>Husband's Educational level**</i>		
No schooling	6.5	11.5
Less than primary school	29.2	32.8
Primary school	38.3	35.7
Middle school or higher	26.0	20.1
Total	100.0	100.0
<i>Place where most time spent*</i>		
Home	68.5	53.2
Outside home	31.5	46.8
Total	100.0	100.0
<i>Husband's main occupation</i>		
None	0.2	0.0
Government service	10.4	5.1
Private/commerce/trade	14.8	14.9
Agriculture/Fishery	52.3	58.3
Temporary labor	13.3	13.6
Other	8.8	8.1
Total	100.0	100.0
<i>Family Welfare Status*</i>		
Pre-welfare	22.1	34.9
Welfare one	27.7	25.1
Welfare two	30.2	26.4
Welfare three and plus	11.4	6.0
Not stated	8.6	7.7
Total	100.0	100.0

Note: Total may not add up to 100 because of "rounding" and "don't know" cases.

* Chi-square value is significant at 1% or below.

** Chi-square value is significant at 5% or below.

The main findings of Table 1 show that the majority of women who had not had their implants removed were aged 35 years and above, had 3 or more living children, either had no education or did not complete primary school, had husbands

with a minimum of a primary school education, spent most of their time outside of the home, had husbands who worked as farmers or fishermen, and belonged to “Pre-welfare” or “Welfare one” categories.

Table 2 presents characteristics of implants users according to geographical region, urban/rural residence, duration of use, and year of insertion. The first panel of Table 2 suggests that more than one-half (60 percent) of women who still had their implants came from the Java-Bali regions, 17 percent from Outer islands-I and 23 percent from Outer island-II. As compared to those women who had had their implants removed, 14 percent more women in the Java-Bali regions still had their implants. The percentage distribution between women who had not had their implants removed and women who had is significantly different if one considers geographical region and urban/rural residence. Although a large majority of both groups of women resided in rural areas, 5 percent of women who had not had their implants removed resided in urban areas.

The third panel of Table 2 indicates that the percentage distributions according to duration of use were significantly different between women who had had their implants removed and women who had not had removals. Among women who had not had their implants removed, 23 percent had used implants for 60-71 months, 41 percent for 72-83 months, and 36 percent for 84 months or more. The last panel of Table 2 presents percentage distribution according to year of implants insertion. Almost two-thirds of the women who had not had their implants removed had had their implants inserted during 1990 and 1991. The difference between women who had their implants removed and those who had not had removals was found to be 19 percentage points among women who had insertions in 1991 (4 percent versus 23 percent), 6 percent for 1987, and 9 percent each for 1988 and 1989.

Table 2: Percentage Distribution of NORPLANT® Users Who Have Used the Method for at Least Five Years by Region, Duration of Use, and Year of Insertion According to Removal Status, 1996

Characteristics	NORPLANT® removed (N=1966)	NORPLANT® not yet removed (N=235)
<i>Region*</i>		
Java- Bali Islands****	46.5	60.4
Outer Islands - I*****	29.6	16.6
Outer Islands - II*****	23.9	23.0
Total	100.0	100.0
<i>Area of Location**</i>		
Urban	10.3	5.5
Rural	89.7	94.5
Total	100.0	100.0
<i>Duration of Use in months*</i>		
60 - 71	93.7	23.0
72 - 83	4.7	41.3
84 and higher	1.6	35.7
Total	100.0	100.0
<i>Year of Insertion*</i>		
1987	13.6	7.7
1988	21.8	12.8
1989	25.9	17.0
1990	34.6	39.6
1991	4.0	23.0
Total	100.0	100.0

Note: Total may not add up to 100 because of “rounding” and “don’t know” cases.

* Chi-square value is significant at 1% or below.

** Chi-square value is significant at 5% or below.

*** A total of 9.86% has not been removed yet

**** A total of 4.64% has not been removed yet

***** A total of 7.73% has not been removed yet

In summary, the analysis indicates that the majority of women who had not had their implants removed came from the Java-Bali regions, rural areas, used implants for more than 6 years, and had their implants inserted in 1990 and 1991.

Table 3: Percentage Distribution of NORPLANT® Users Who Have Used the Method for at Least Five Years by Purpose of Using the Method, Information on Duration of Use, Information on Removal Fee, and Insertion Service Location According to Removal Status, 1996

Characteristics	NORPLANT® removed (N=1966)	NORPLANT® not yet removed (N=235)
<i>Purpose of Using the Method*</i>		
Spacing	43.3	23.4
Limiting	56.7	76.6
Total	100.0	100.0
<i>Whether Informed of Removal after 5 years of use**</i>		
Yes	94.9	90.6
No	5.1	9.4
Total	100.0	100.0
<i>Whether Informed of Removal Fee</i>		
Yes	25.0	28.4
No	72.4	68.6
Don't remember	2.6	3.1
Total	100.0	100.0
<i>Whether Insertion was done during Safari</i>		
Yes	79.8	77.9
No	20.2	22.1
Total	100.0	100.0

Note: Total may not add up to 100 because of "rounding" and "don't know" cases.

* Chi-square value is significant at 1% or below.

** Chi-square value is significant at 5% or below.

Table 3 presents characteristics according to fertility intention at the time of implants insertion, whether or not informed of removal requirement after 5 years of use, whether informed of a removal fee, and whether the implants were inserted during "Safari." It is clear from the first panel of the table that the majority of women who had not had their implants removed (77 percent) used implants for the purpose of limiting births, while about one-half (57 percent) of the women who had

had their implants removed also used implants for limiting births. This suggests that women who used implants with the intention of limiting births were less likely to have them removed than those who used implants for spacing purposes.

The majority of implants users were informed of the need for removal after 5 years. Nine percent of the women who had not had their implants removed said that they were not informed of the need for removal after five years. This figure is higher by only 4 percentage points when compared to women who had had their implants removed. With regard to information about fee for removal, 28 percent of women who had not had their implants removed reported being informed about a fee, while 69 percent said they were not informed. These figures are not significantly different from women who had their implants removed. More than three-fourths of the women who had not had their implants removed had their implants inserted during “Safari,” while 22 percent did not have insertions during “Safari.”

To summarize, the above data indicates that the majority of women who had not had their implants removed did not want to have more children at the time of insertion. An overwhelming majority of the women were informed of the need for five year removal, while two-thirds were not informed about a removal fee. As expected, the majority of women had their implants inserted during “Safari”.

Factors related to not getting implants removed

Table 4 presents the relative risk ratio index of not getting implants removed after five years of use by various factors. The index indicates that, in the sample, women aged 40 years or more were 33 percent more likely not to get implants removed. The 95% confidence bounds suggest that the incidence rates for the two groups - women 40 years and older and women less than 40 years of age - are not the same. Different levels of educational attainment by women seems to effect the incidence rate of implants removal. Women who did not attend school are 51 percent more likely not to have had their implants removed as compared to women who attended school. Although the effect is smaller for those who went to school, the index suggests that women who went to school but did not complete primary school are 28 percent more likely not to have had their implants removed. Similarly, women whose husbands did not go to school are 72 percent more likely not to have had their implants removed as women whose husbands had gone to school.

The incidence rates for removals by women who spent most of their time outside of the home versus women who spent most of their time at home were found

to be significantly different. Women who spent most of their time outside of the home were 77 percent more likely not to have had their implants removed compared to women who spent most of their time at home.

Table 4: Relative risk of not getting the NORPLANT® Implants removed after five years by various characteristics, 1996

<i>Variable</i>	<i>Risk Value</i>	<i>95% confidence bounds</i>	
Woman's age 40 years or above	1.33	1.03	1.71
Woman's education			
No schooling	1.51	1.11	2.05
Primary not completed	1.28	1.01	1.63
Husband's education No schooling	1.72	1.19	2.48
Most time spent outside the home	1.77	1.39	2.26
Welfare status: Pre welfare/Welfare-one	1.45	1.13	1.85
Region: Java-Bali	1.66	1.29	2.12
Urban/rural Residence: Rural	1.86	1.08	3.19
Fertility Intention: Limiter	2.29	1.71	3.06
No information on removal after 5 years	1.66	1.07	2.57
Inserted during Safari	0.90	0.68	1.21
No information on removal fee	0.85	0.65	1.12
72 -83 months use	7.48	6.05	9.26
84 months use or more	9.99	8.27	12.09
Insertion in 1990	1.21	0.95	1.55
Insertion in 1991	4.64	3.62	5.95

Women who are classified in the “Pre-welfare/Welfare-one” group were 45 percent more likely not to have had their implants removed compared to the rest of the sample. Similarly, women from the Java-Bali regions and rural areas were more

likely not to have had their implants removed as their counterparts. Sixty-six percent of women from the Java-Bali regions were more likely not to have had their implants removed as compared to women from other islands. Likewise, eighty-six percent of women from rural areas were more likely not to have had their implants removed as compared to urban women. In anticipating regional difficulties, more safety type of removal services had been conducted in the regions outside Java-Bali.

It was found that fertility intention and whether information is provided about removal of implants after 5 years at the time of insertion does have an impact on whether women get their implants removed. Women who intended to limit births were more than twice as likely not to have had their implants removed as women whose intention at the time of insertion was spacing. The risk of not getting implants removed is 66 percent higher for women who did not get information about the need for 5 year removal at the time of insertion as compared to women who did get this information.

The incidence rates associated with women not getting implants removed are found to differ depending on duration of implants use and year of insertion. Women who used implants for 72-83 months are seven and one half times more likely not to have had their implants removed as compared to the rest of the women in the sample. The incidence rate is even higher (10 times higher) when considering women who have used implants for 84 months or more. In regard to year of insertion, women who had their implants inserted in 1991 are four and a half times as likely not to have had their implants removed as women who had their implants inserted earlier. The 1991 cohort had just reached five-year period and were still waiting for removal, while the older cohort had reached over five-year period.

The relative risk analysis suggests that women with selected characteristics are more likely not to have implants removed than other women. The analysis identified that women who are 40 years or older; who want to limit births; who have not gone to school or completed their primary education; whose husbands have not gone to school; who spend most of their work time outside the home; who are poor (i.e. Pre-welfare/Welfare-one families); who are from the Java-Bali regions and rural areas; who did not receive removal information at the time of insertion; and who had insertion of implants five years earlier or were due to have removals need to be contacted and counseled on the importance of implants removal after five years of use. Additionally, the program should also give importance to providing information on the five year removal requirement at the time of insertion.

Access to removal information

The qualitative study identified several difficulties concerning non-removal of implants after five years of use. Field workers and community volunteers felt that their lack of information was one of the major factors. Their lack of knowledge about the consequences of late removal (side-effects or ectopic pregnancy) prompted them not to seriously follow-up overdue users. As a result, overdue users had no information on the importance of removal after five years. While some field workers and volunteers had this information, they did not want to provide it as it might scare users and create a bad reputation for the program, especially since there were already bad rumors about the side-effects of implants. An informant reported,

“I think the side-effects of using NORPLANT® implants for more than five years is just like other contraceptive methods, that the acceptor will have an increasing risk of pregnancy. I did not tell her in advance in order not to scare her off.”

Not only was detailed information about NORPLANT® implants lacking among field workers and volunteers, but their knowledge about other methods also was found to be insufficient. As a result of this, they tended to provide only the positive aspects of implants in order to be able to meet their target. Even though a method-specific family planning target does not exist at present, many field workers and volunteers still think they are being evaluated based on number of new acceptors. A family planning field worker said,

“My most important task as a field worker is to ensure the success of the family planning program in my area. For the NORPLANT® program, my job is to help the volunteers to recruit more acceptors.”

After the implants were inserted, field workers and volunteers made at least three visits to follow-up acceptors with complaints or signs of side-effects. These visits were not meant to inform women about implants removal after 5 years. Prior to insertion of implants, women who belonged to “Pre-welfare” and “Welfare one” families (“poor families”) were contacted at their home and advised to go to a “Safari”, to have their implants removed. Women at higher welfare levels were advised to go to private facilities where they had to pay for removals. The same

advice was also given for implants insertion. Naturally, women who were advised to go to the “Safari”, had to wait until it was organized in their areas. A volunteer said,

“Many acceptors from ‘Pre-welfare’ and ‘Welfare one’ groups do not have enough money to go to the private clinic for NORPLANT® removal, thus they have to wait for the Safari services.”

Lack of records specific to implants users was another problem identified by the qualitative study. Most of the community volunteers who were interviewed had a record showing current family planning use status but lacked method specific information. However, some did not have a record or list because they claimed that they had memorized the names of all the users in their locality.

According to another study related to tracking of implants users, updating of records takes place during the monthly meeting of group leaders, field workers, and volunteers. With the help of volunteers, the clients are asked to visit the clinic for implants removal. Two volunteers encountered women who were due for removals but refused to have their implants removed simply because they felt the implants were suitable to their body (Prihartono, 1993).

Follow-up visits by clinic staff were often used to remind women about their next visit and their five year removal date, particularly women who were likely to, or planned to change their residence. A clinic card with their removal date was also supplied to each user. Local social gatherings (paguyuban) or health care sessions (posyandu) were used as a forum to inform women about five-year removal. Volunteers made home visits to women who did not visit the clinic, paguyuban or posyandu, to remind/counsel them about the importance of five-year removals.

Field workers and volunteers noted some additional difficulties in providing information and counseling about removal of implants after 5 years. These included additional responsibilities added onto their family welfare activities, wide geographical areas to cover, limited operational funds, and difficult terrain.

SUMMARY AND DISCUSSION

What did we learn so far from the above analysis?

1. Women who had not had their implants removed after five years of use were older than the women who had had removals. In addition, the educational attainment of women who had not had implants removed, and their husbands, was less than that of women who had had removals.
2. Women who had not had their implants removed were more likely to spend most of their time outside the home performing daily activities. The majority of these women belong to “Pre-welfare/Welfare-one” families and are considered poor.
3. The majority of women who had not had their implants removed after five years came from the Java-Bali regions. A slightly higher proportion of these women were from rural areas.
4. Among women who had not had their implants removed, there was a high proportion of women who used implants for six years or more. Among this group, the majority of women adopted implants in recent years, 1990 and 1991, as compared to women who had their implants removed after five years of use.
5. More women who had not had their implants removed used implants for limiting births rather than spacing, as compared to women who had their implants removed after five years.
6. The majority of women received information on five-year removal and removal fee at the time of insertion.

Over the years, the Indonesian family planning program has expanded to include new contraceptive technologies, improved quality of services, provision of services to the “hard to reach,” expansion of social marketing, and most recently, the addition of family welfare services. However, the level of resources needed to manage this expanded and diverse program has remained the same. Under these circumstances, the national program needs to prioritize the use of resources. The

above analysis shows that the program needs to concentrate on contacting and counseling special groups of women on the importance of implants removal after five years of use.

While there is a need to focus on special groups of women for removal of implants, certain priorities and implications need to be considered. As follows:

- Priority groups are women aged 40 years and over; who want to limit births; who have not gone to school or completed their primary education; whose husbands have not gone to school; who spend most of their work time outside the home; who are poor (i.e. pre-welfare/welfare-one families); who are from the Java-Bali regions and rural areas; who did not receive removal information at the time of insertion; and who had insertion of implants in the previous year or are due to have removals.
- Serious consideration should be given to providing an alternative contraceptive method, particularly vasectomy or tubectomy, to women who are older or do not want to have more children. If these women insist on using implants, they should be counseled and told about the importance of implants removal after five years of use. Additionally, women who want to limit births should be told that implants need to be reinserted after the removal of the first set of implants.
- Government subsidy for the removal of implants could be directed towards women who are poor. These women are presently being advised to wait for “Safari” for insertion and removal of implants. Rather than limiting services to “Safari,” these women could be asked to go to private clinics where they could get subsidized services.
- Special consideration should be given to women who work outside of their home. Clinics should stay open beyond their current schedule, preferably for an additional hour and after 4 pm.

- The high volume of clients in the Java-Bali region is due to the area's large population. The ratio between users and providers also is large and as a result it is difficult to improve the quality of services. Therefore, refresher training is important and BKKBN's link and match approach to providing removal services should receive special attention at the community level.

- Considering that proper removal training for the providers is very crucial in preventing future back-log problem, a follow-up study on "Providers' Perspectives Regarding the Impact of Training" should be conducted.

- BKKBN will soon be introducing IMPLANON, a single rod implant, into the family planning program. Experience with the injectable contraceptives (three types) program has shown that providers sometimes interchange one type of injectable contraceptive for another during a repeat visit if there is a shortage of a particular injectable. Since this problem might also occur with the implants program, the logistics system needs to ensure an uninterrupted supply of the different implants at all times.

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