Improving the Acceptance and Quality of Voluntary Surgical Contraception (VSC) Services through the Identification, Screening, Referral and Follow-up of VSC Clients

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Abstrak

Untuk meningkatkan penerimaan serta kualitas pelayanan kontrasepsi mantap telah dilakukan penelitian di 4 daerah perkotaan di Indonesia dengan mengatasi masalah yang ada pada sistem identifikasi, penyaringan, rujukan dan tindak lanjut (IPRT) peserta kontrasepsi mantap dewasa ini. Penelitian operasional ini dilaksanakan dalam 3 tahap, analisa masalah, uji coba selama 1 tahun dan penilaian. Sebelum tahap uji coba, petugas lini lapangan telah mendapat latihan untuk dapat melakukan identifikasi, penyaringan, rujukan dan tindak lanjut peserta kontrasepsi mantap. Bahan-bahan kontrasepsi mantap seperti misalnya bahan KIE dan pedoman IPRT serta formulir-formulir telah dikembangkan untuk menunjang aktivitas, juga di tiap daerah penelitian telah dikembangkan sistem IPRT untuk menjamin terlaksananya program. Hasil penelitian menunjukkan peningkatan jumlah peserta kontrasepsi mantap sebesar 140 %. Penelitian juga berhasil menguji serta menilai kelemahan dan kekuatan dari intervensi yang dilaksanakan. Pengalaman dari penelitian menunjukkan bahwa peningkatan program kontrasepsi mantap harus meliputi (a) koordinasi intersektoral, b) pengembangan sistem IPRT yang mencakup semua instansi yang terlibat serta bahan-bahan penunjangnya, (c) pengembangan bahan KIE, dan (d) pelatihan petugas lini lapangan.

Abstract

A study was done in four urban areas in Indonesia to improve the acceptance and quality of voluntary surgical contraception services provided to clients by addressing problems in the current identification-screening-referral-follow-up (ISRF) system. This operation research was conducted in three phases, problem analysis, a year of implementation and evaluation. Prior to the implementation phase the front line personnel were trained to be able to identify, screen, refer and follow-up the client. Voluntary Surgical Contraception (VSC) materials such as Information-education-communication (IEC) materials and ISRF system were developed in each area to ensure the success of the program. The impact of the study has been substantial, resulting in a 140 percent increase in VSC acceptance. The project also succeeded in field-testing and assessing some of the weaknesses and strengths of the intervention. The lesson learned from this project was, that the up-scaling of the VSC program should include strategies for (a) inter-sectoral coordination, (b) development of an ISRF system and its supporting materials by all institutions involved, (c) development of IEC materials and (d) training of front line personnel (FLP).

Keywords : Acceptance, Quality, Voluntary Surgical Contraception.

INTRODUCTION

The National Family Planning Coordinating Board *(BKKBN)* has provided a variety of effective temporary contraceptive methods to eligible couples. Permanent contraceptive methods are still not officially included in the program, but its promotion and coordination have been the responsibility of a non-governmental organization, the *Perkumpulan Kontrasepsi Mantap Indonesia (PKMI, Indonesian Association for Secure Contraception)* since 1974.

The most salient programmatic weakness of the voluntary surgical contraception (VSC) system is the network linking the community and the non-VSC family planning providers with the VSC service points. This is most clearly manifested in the inadequate iden-

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tification of potential acceptors, screening and referral of pre-acceptors, and the post-surgical follow-up of acceptors (ISRF). The absence of a clearly defined ISRF system is further exacerbated by the inadequate knowledge among health providers and outreach workers who have the greatest contact with potential acceptors[2]. Taking into account the growing number of VSC service centers, it is critical that this support network be firmly established and the ISRF system efficiently managed.

The purpose of this study is to improve the effectiveness and quality of VSC services by addressing problems in the current ISRF system. More specifically, the project aimed at the following: (1) to improve the capability of frontline personnel [private physician, private midwife, field workers and family planning clinic staff in the *Puskesmas* (subdistrict health center) and the maternity clinic to identify potential clients, provide correct information about VSC, screen both male and female clients, arrange referrals, and follow-up post-surgical clients for appropriate action, (2) to improve the knowledge of potential clients about the nature of the service, location, and cost, (3) to develop a support system to enable the *PKMI* to coordinate ISRF management efforts with the staff of *BKKBN* and the Ministry of Health at the provincial and regency levels, and (4) to shift from a mostly female postpartum clientele seeking tubectomy at delivery to both interval tubectomy clients and vasectomy clients.

MATERIALS AND METHODS

The framework of this study is a client-flow model which describes the movement of clients through the ISRF subsystems of VSC (Figure 1). The preferred course is the potential client is : (1) informed of and counseled regarding methods and services, (2) screened according to prescribed criteria, (3) medically examined, (4) referred to a VSC center, (5) counseled at the VSC facility to ensure understanding of the VSC procedure and its consequences, (6) provided VSC if desired and criteria are met, and (7) followed up for complications. The primary concern is to provide each of these items effectively and with the most efficient utilization of resources.

Phase I of the study assessed problems in each component of the ISRF subsystems, determined opportunities for improvement in the VSC system, and developed strategies for implementation. In Phase II, the alternative solutions were field tested for a year, and then evaluated in Phase III.

Intervention

To achieve the objectives, the following interventions were developed and tested: (1) a system of frontline personnel (FLP) identification, screening, referral and follow-up of VSC clients, (2) supporting materials such as manuals and screening forms to facilitate proper implementation and management, and (3) IEC (Information-education-communication) materials and training sessions to improve the knowledge of providers and clients regarding VSC. The screening procedures were developed to ensure that prescribed VSC practices would be followed and appropriate clients are referred to VSC centers. The referral procedures served to link non-VSC family planning providers to VSC centers. Follow-up procedures were deployed to ensure that all post surgical clients are contacted and treated for complications.

Sites

Four project sites in subdistricts were selected in Medan, Jakarta, Semarang and Denpasar, because they had relatively successful VSC program efforts, relatively high acceptance of VSC by the population, and at least some *PKMI* trained VSC counselors at VSC service facilities.

Data collection

Data were collected from FLP at the VSC and non-VSC facilities, comprising of private nurse midwives, private physicians, Family Planning Field Workers *(PLKB)*, and Voluntary Contraceptive Distribution Centers *(PPKBD)*. Data collection techniques included: (1) indepth interviews, (2) focus group discussions, (3) direct observations, (4) discussions with government officials, and (5) service data.

RESULTS AND DISCUSSION

FLP were selected, trained and supported to identify and inform potential clients, screen and determine the clients interest in VSC, refer client to appropriate VSC facilities, and follow them up after acceptance. As a result of these interventions, VSC acceptance in the areas studied increased 140 percent from 254 to 599 sterilizations during the 12 month intervention period. This was a substantial increase compared to the national increase of about 10 percent.

Impact of Interventions on ISRF

Project results show improvements in identification, screening and referral while follow up by FLP still

remains low. Although the preferred process for VSC acceptors was identification and receipt of VSC information, screening, and then referral to a VSC facility, many clients came directly to VSC facilities after learning about the location and availability of VSC services. The number of VSC clients with referral letters from FLP increased, but the percentage of clients without a referral letter remained substantial. Among the various FLP deployed for ISRF, the combination of PLKB/ PPLBD were the most effective FLP except for Denpasar. The following describes the impact of interventions on ISRF activities (see Table 1, Table 2, and Table 3).

Identification (determine VSC eligibility and inform client)

Identification of potential acceptors through the application of the wellfare criteria is the first step in the ISRF process. The wellfare criteria emphasize marital harmony, parity (2 or more) and age (wife at least 25 years). FLP were trained to recognize the eligible VSC population, contact those who meet the criteria, and provide IEC to them. Upon wellfare identification, some clients went directly to VSC facilities while others required additional screening and referral by the FLP.

Table 1. Percentage of FLP active in identification, screening, referral and follow-up of VSC clients

	FLP				FLP			
	PPKBD		PLKB		Priv.*Bidan*		Non-VSC	
	B	Fu	B	Fu	B	Fu	B	Fu
Identification								
- Tubectomy	83	97	95	97	94	100	94	100
- Vasectomy	83	97	95	97	77	88	65	73
n	53	56	46	49	84	26	54	30
Screening								
- Non-medical	43	94	70	97	91	92	77	100
- Medical	none	none	none	none	66	65	60	73
n	53	36	48	49	84	26	54	30
Referral								
- Referral by front-line	52	75	70	90	78	77	80	73
n	53	36	48	49	84	26	54	30
Follow-up								
- Follow-up by front-line personnel	58	72	72	75	74	42	74	53

Note : B = Baseline
Fu = Follow-up

Source : Baseline and Follow-up surveys

Table 2. Average and number of identification, screening, referral, acceptor and follow-up by Fronline Personnel

Site / Item	PLKB/PPKBD Average	n	Private Physician Average	n	Private Midwife Average	n	Non VSC facility Average	n
Jakarta								
Identification	98.8	18	n/a	19	5.4	14	20.0	6
Screening	87.5	18	n/a	19	4.2	14	16.2	6
Referral	5.7	18	1.2	19	0.7	14	2.5	6
Acceptor	1.4	18	0.1	19	0.3	14	0.2	6
Follow-up	1.8	18	n/a	19	0.4	14	0.3	6
Medan								
Identification	159	6	n/a	3	11.4	7	16.4	7
Screening	132.2	6	n/a	3	9.8	7	15.0	7
Referral	8.3	6	0	3	1.1	7	1.3	7
Acceptor	3.7	6	0.7	3	1.0	7	1.6	7
Follow-up	1	6	n/a	3	1.3	7	0.1	7
Semarang								
Identification	157	13	n/a	4	71	2	141.8	7
Screening	17	13	n/a	4	19	2	19.6	7
Referral	8.4	13	2.5	4	5.5	2	4.3	7
Acceptor	4.9	13	2.5	4	0	2	0.7	7
Follow-up	3.3	13	n/a	4	1	2	0.1	7
Denpasar								
Identification	31	13	n/a	0	17.2	14	48.1	10
Screening	8.9	13	n/a	0	8.9	14	16.5	10
Referral	0.4	13	2.5	0	2.1	14	6.2	10
Acceptor	0.1	13	2.5	0	0.8	14	0.3	10
Follow-up	0.1	13	n/a	0	1.6	14	4.7	10
Total								
Identification	103.5	50	n/a	26	15.2	37	56.9	30
Screening	54.1	50	n/a	26	8.4	37	16.8	30
Referral	5.3	50	1.3	26	1.6	37	3.9	30
Acceptor	2.2	50	0.5	26	0.6	37	0.9	30
Follow-up	1.6	50	n/a	26	0.9	37	1.7	30

n/a = not available
Note : April 1, 1989 to March 31, 1990
Source for all except acceptor : MIS (Management Information System)
Source of acceptor : Service statistics from VSC facilities

Table 3. Target achievement of *PPKBD/PLKB* in identifying, screening, referring and follow-up of VSC acceptors

Location	Identifying			Screening		Referring			Operationing			Follow-up		
	T	ACH	ACH		ACH	T		ACH	T		ACH	T		ACH
	N	N	%	N	%	N	N	%	N	N	%	N	N	%
Jakarta	1800	1779	98.8	1576	88.6	120	102	85	120	48	40	48	32	66.7
Medan	960	954	99.4	787	82.5	50	33	66	50	28	56	28	6	21.4
Semarang	2340	2042	87.3	221	10.8	120	109	90.8	120	73	60.8	73	43	58.9
Denpasar	800	403	50.4	116	28.8	?	5	?	?	3	?	3	1	33.3
Total	5900	5178	87.8	2700	88.6	290	249	85	290	152	40	152	82	54.0

Note :

T = Target
ACH = Achievement

Source : MIS from *PPKBD/PLKB*

The average *PLKB/PPKBD* identified and contacted 103.5 potential acceptors, followed by the non-VSC staff in *Puskesmas* and maternity clinic (56.9). The number of identifications done per midwife averaged much lower (15.2). The average number of identifications performed by *PLKB/PPKBD* was highest in Medan (159.0), followed closely by Semarang (157.0) and Jakarta (98.8). Denpasar averaged the lowest with only 31.0. Midwives were most active in Semarang (71.0), followed far behind by Denpasar (17.2). Medan (11.4) and Jakarta (5.4). The combination of *PLKB* and *PPKBD* (Kelian Banjar) in Denpasar did not prove effective for ISRF activities.

Screening (determine "voluntary" criteria and interest in VSC)

FLP were trained to screen potential clients expressed interest in VSC after being contacted. A non-medical screening form was used by FLP to verify both the wellfare and "voluntary" criteria. The "voluntary" criteria includes knowledge of FLP methods, permanency of VSC, risk of surgery and sufficient time for decision making. Next the FLP asked whether the client was interested in receiving VSC. Screening in Semarang was more selective than at the other sites and involved two phases. The first phase screened the client for eligibility and interest while the second phase determined whether the client had decided to accept VSC. In the other three sites, screening ended with a determination of the client's interest but not a positive decision for sterilization. Thus clients recorded as screened in Semarang had much greater probability of receiving VSC after the double screening process.

Among all the FLP, the *PLKB/PPKBD* averaged the highest number of screening (54.1), with those in Medan being the most active. In all the four sites,the average number of screening done by the non-VSC FLP staff and the *bidans* was much lower (16.8 and 8.4 respectively).

Before the study, *PPKBD* were not actively screening VSC clients. As a result of implementing screening activities, the percentage of *PPKBD* screening rose substantially from 43 to 94 percent. Other FLP which had been more active in screening than PPKBD, further increased their screening activities.

The criteria for screening in Jakarta and Medan were less selective, thus resulting in a higher percentage of identified women being screened (89 to 83 percent respectively). In Semarang, where the two-phase screening process was more selective, some 11 percent of identified women were screened. The two-phase screening process which often required two or more visits proved more effective in identifying clients with a high probability of VSC acceptance.

Referral (presentation of referral letters at VSC facility)

The number of referred clients from *PLKB/PPKBD* tripled as a result of training and management support. *PPKBD* with a negligible role before the study worked

with *PLKB* to refer VSC clients. The average number of referrals varied from about 5 per *PLKB/ PPKBD* and 4 per non-VSC medical staff to 1.6 for midwife and 1.3 for private physicians. The most active *PLKB/ PPKBD* were in Medan and Semarang with approximately 8 referrals. Referral activities of private *bidan* and physicians were less because of their preference for temporary methods such as injectables, IUDs, and Pills.

In the three areas where *PLKB's* were active (Medan, Jakarta, and Semarang) 43 percent of VSC acceptors presented referral letters from *PLKB's* at the VSC facilities. Compared to the baseline, this is about double the percentage of VSC clients presenting referral letters.

Post-VSC Follow up by FLP

Complications and complaints of VSC acceptors require medical attention to assure the quality of service and avoid a negative impact on the program. *PPKBD* were instructed to visit post- acceptors at home during the first week after the operation. Medical FLP were directed to provide medical examinations to identify any complication. VSC clients were also advised to have a post-surgical check up at a nearby health provider or facility.

The project was not able to mobilize *PPKBD* to follow up post-VSC acceptors at the client's home. *PPKBD* realized that VSC facilities informed acceptors to return to a medical facility for a follow-up examination, and most clients returned on their own accord. Thus the percentage of VSC acceptors followed-up by *PPKBD* remained relatively small. In the four project areas, *PPKBD* made an average of only 1.6 follow-up visits, the highest in Semarang at 3.3. VSC follow-up requires better coordination between the VSC facilities and *PLKB/PPKBD.*

Where a communication problem exists between the VSC facility and PLKB/PPKBD, the VSC facility must (1) stress the need for a follow up medical examination, either at the VSC facility or a nearby medical provider, and (2) instruct the acceptor to identify post-surgical complications.

In order to increase the probability of receiving follow up examinations and reduce the caseload of patients, VSC facility staff were trained to inform clients that they could either return to the VSC facility or go directly to a local medical provider. As a result, the percentage of tubectomy follow-up visits by clients to VSC facilities decreased from 83 percent to 66 percent. Hence some 34 percent of clients went directly to local medical FLP for check up.

Although records maintained by the project did not show a substantial increase in follow-up visits by *PLKB/PPKBD,* the percentage of VSC clients with follow-up medical examinations doubled. Initially only about 50 percent of VSC acceptors had follow up exams; this increased to 100 percent as a result of pre-acceptance FLP activities and information conveyed by VSC facility staff. In conclusion all VSC clients received follow up examinations by VSC facilities and local medical providers.

A comparison of the number of potential clients identified with the number completing screening, referral and acceptance indicates a high level of attrition. Frequently cited reasons for not accepting VSC were fear of the operation and of anesthesia, husband's disagreement, fear of religious proscription and of the failure of the procedure. Because VSC clients often take a longer period to decide and may require additional visits by FLP or contacts with a counselor, the impact of FLP is expected to continue beyond the relatively short period of the intervention phase. Suffice it to say that the intervention raised awareness of VSC, which has long-term implications for the success of the program. A study done by Stephen Mumford in the USA showed that the decision-making process leading to the operation requires 2-10 years.[3] Although this was expected and the overall increase of 140 percent in acceptance indicates increased demand, identification of eligible and interested clients should become more selective and target those with a greater probability of accepting VSC. Screening should also be more selective, resulting in potential acceptors who actually want VSC or require additional information from a counsellor before making the final decision.

Improved VSC knowledge of FLP

One major objective was to increase the quality of services and VSC acceptance by improving the capability and VSC knowledge of FLP. Key issues which should be understood by both the FLP and clients include: the irreversibility of VSC, the small probability of pregnancy, and that VSC is a minor surgical procedure. Medical FLP should also be aware of post-surgical complications. This knowledge is most critical for *PLKB* and *PPKBD,* had active in ISRF but have limited training.

The knowledge of FLP has improved as a result of training, field activities and supporting materials developed by the *PKMI.* Over 90 percent of *PLKB* and *PPKBD* understood that VSC is permanent, and recanalization is only available for special cases. Tubectomy and vasectomy pre-acceptors' knowledge was also adequate at 91 and 100 percent respectively.

This knowledge is crucial since misinformation about recanalization can have a negative impact on the VSC program. Because VSC is normally a permanent procedure, it is necessary to make sure the couple understands the irreversibility of the operation, before confirming the decision.[4]

Knowledge about the small probability of pregnancy improved for all FLP; nevertheless 15-30 percent still believed even after training that pregnancy can not occur. VSC acceptors knowledge remained low with 70 percent of tubectomy and 34 percent of vasectomy clients not realizing the post-surgical risk of pregnancy. For most FLP, knowledge that VSC is a minor surgery is adequate, but some 25 percent of *PPKBD* still think that vasectomy require major surgery. This perception needs to be changed to reduce the anxiety of the client and consequently increasing the number of acceptors. One of the factors which resulted in low acceptance of vasectomy in Sub-Saharan Africa was misconception about the method.[5]

Medical FLP knowledge of post-surgical complications such as bleeding and infection still requires improvement. Only 46 percent of non-VSC medical staff and 19-23 percent of midwives properly identified complications.

All FLP's should be able to identify couples eligible for VSC according to the wellfare (marital harmony, age and parity) criteria. Before the project was started, FLP's had only a vague idea of these criteria. After the implementation, some 83 percent of non-VSC staff, and 50 to 61 percent of midwives, knew all of the criteria.

For the screening of clients, FLP's must also know the "voluntary" criteria (knowledge of FLP methods, permanent nature of VSC, risk of VSC, and sufficient decision-making). FLP generally knew more about the wellfare than the "voluntary" criteria. Since "voluntary" criteria are difficult for *PLKB's* and *PPKBD's* to recall, it is important that FLP have screening forms to ensure that all criteria are met.

For the successful referral of pre-acceptors to VSC facilities, FLP and clients must know (1) the location, (2) the cost of the service, and (3) service days and hours. Before the project was started, many FLP's did not know the location of a VSC facility. After the project, FLP showed substantial improvement in knowledge about both public and private VSC facilities. In particular, *PPKBD* and *PLKB*, previously knowing only public facilities, became aware of VSC services and costs, in both public and private facilities.

The most important direct source of referrals was the *PLKB* who provide a referral letter. This letter is required for requesting free services. Some 91 percent of *PLKB's* correctly knew the referral procedures, including service days and hours. Direct observations of clients referred by the FLP also confirm that they knew more VSC methods and procedures compared to clients who came by themselves.

Utilization of Supporting Materials

Supporting materials were developed by members of the project team and the *PKMI* for the training of FLP, referral to VSC facilities and distribution to VSC clients (see Table 4 and Table 5). ISRF materials

Table 4. Distribution of identification, screening and referral materials

Type of Personnel	Type of ISRF Material				
	Screening, Referral, follow-up Guidelines	Identification List	Screening Form		Referral Form
			Non Medical	Medical	
Sub *PPKBD*	+	+	+	-	-
PPKBDPKBD	+	+	+	-	+
PLKB	+	+	+	-	+
PPLKB	+	-	-	-	-
FP Clinic's Head (Non-VSC Facility)	+	-	+	+	+
Private midwife	+	-	+	+	+
Private Physician		-	-	-	+
VSC Facility*	+	-	-	-	+

Note : * VSC facility is provided with referral forms for the acceptor for follow-up at the nearest health facility

Table 5. Distribution of IEC materials

Type of Personnel	Type of Material					
	Pocket Size Booklet (VSC Manual)	Anatomical Model	Poster	Tub/Vas	Leaflet Pre-operative	Post-operative
Sub *PPKBD*	+	-	-	+	-	-
KBDPKBD	+	-	-	+	+	-
PLKB	+	+ (small)	-	+	+	-
PPLKB	+	+ (small)	-	+	-	-
FP Clinic's Head (Non-VSC Facility)	+	+ (large)	+	+	+	-
Private midwife	+	+ (large)	+	+	+	-
Private Physician	+	+ (large)	+	+	+	-
VSC Facility	+	+ (large)	+	+	+	+
Acceptors	-	-	-	+	-	-

included (1) identification and screening guidelines and forms, (2) referral guideline and list of VSC facilities, and (3) follow-up manuals and forms. The guidelines for ISRF were produced on a single card with color coded instructions covering each component. The guidelines were considered very useful by the FLP. The screening form was useful to 80 to 100 percent of the FLP's. The referral form was most useful for the *PLKB* (85%) who also provide the referral letter. Only about half of the FLP found the follow up form useful.

Other IEC materials such as VSC training manuals, anatomical models for explaining the VSC procedure, and posters and leaflets for clients were also found to be appropriate and should be reproduced for national distribution.

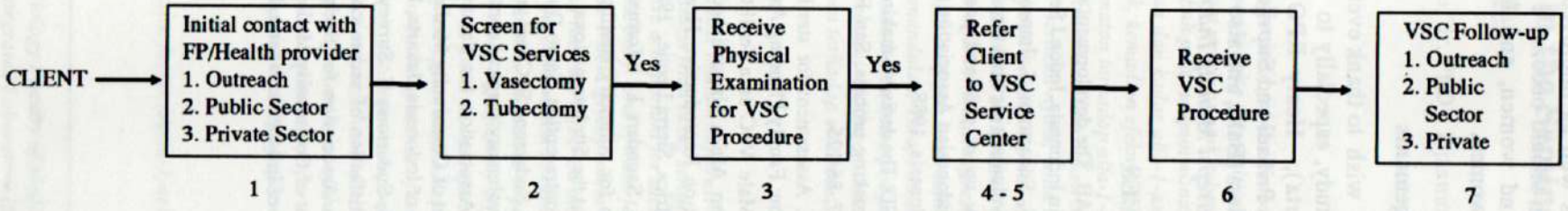
Proportion of *Postpartum*/Interval VSC acceptors

One of the study's objectives was to increase the proportion of interval VSC acceptors. Although baseline data are not available, the percentage of interval VSC acceptors is improving in areas such as Jakarta (26.9) and Medan (38.3), where potential interval clients were actively identified. In Semarang with only 2.4 percent of interval acceptors, the FLP continued to target pregnant women who met the identification and screening criteria. Although the percentage of *postpartum* acceptors has remained high in Semarang, it may be noted here that the type of acceptors came closer to the selection criteria in Semarang than in the other study sites. Thus, 80 percent of Semarang acceptors were between 30-34 years of age, compared to the older characteristic of the acceptors in Jakarta, Medan and Denpasar. Furthermore, 60 percent of acceptors in Semarang had less than three children, the acceptors of Jakarta 33% and Medan 55%. Another study conducted in several provinces of Indonesia in 1990 revealed that the percentage of women who had undergone tubectomy at the age below 34 was 70%, and women with children less than 3 was 8,1%[4]. This shows that Semarang is ahead of other places.

In general the FLP prefer to target pregnant women for *postpartum* VSC since the probability of acceptance is higher. This is acceptable if proper identification and screening procedures are followed several months/weeks prior to child delivery. As the VSC program becomes more mature and satisfied acceptors discuss VSC with potential clients, the proportion of interval acceptors will naturally increase. Nevertheless additional effort should be made by *PLKB/PPKBD* to identify and screen interval clients in areas such as Semarang where traditionally only pregnant women were targeted for VSC IEC activities.

MODIFICATION OF THE ISRF STRATEGY AND EXPANSION OF PROJECT RESULTS

Several additional intervention components were introduced but require additional testing: (1) the use of satisfied acceptors for motivating clients, and (2) counseling of clients who have FP problems or concerns about their current method. These activities were tried based on the facts shown by other studies that pre-acceptors have had discussions with acceptors before undergoing the operation, and group approach was considered as a useful method to guide the pre-acceptors to their decision.[2,6,7,8]



Family Planning and Health Providers

1. Outreach Workers
   - FPFW
   - VCDC
   - Health

2. Public Sector
   - *Puskesmas* (subdistrict health center)
   - Hospital
   - Maternity Clinic

3. Private Sector
   - Physician
   - NMW (Nurse Midwifes)
   - FP Center
   - Maternity Clinic
   - Hospital

Figure 1. Screening, referral and follow-up of VSC clients-flow diagram

The study has shown that when *BKKBN* outreach workers and midwife are trained and supported by appropriate materials, VSC clients are better informed about available contraceptive methods and the number of acceptors substantially increased by over 100 percent.

In order that ISRF becomes an integral component of VSC service delivery, improved inter-sectoral coordination between the *BKKBN*, the Ministry of Health, local government and *PKMI* is required. A key factor in assuring ISRF activities is the supervision of the *BKKBN* FLP (supervisor of *PLKB, PLKB* and *PPKBD*) by the *KPL* (*kabupaten* level operational supervisor). To more effectively involve the *BKKBN* supervisors, it is also necessary that targets for identification and referral are established in order that VSC activities receive sufficient attention. A list of eligible couples meeting the *bahagia* criteria can be developed using available data. Some 5 to 10 percent of potentially eligible couples should become referrers to a VSC facility during a one year period.

Over 20,000 PKB and their supervisors have already been trained using manuals and guidelines developed by this study. This training will require additional re-enforcement through yearly refresher training and supervisory support, plus the production and dissemination of materials by the *BKKBN*, the Ministry of Health and the *PKMI*.

CONCLUSIONS

Voluntary sterilization has made a niche for itself despite the fact that it is not officially included in the national family planning program. Hence, the role of the *PKMI* remains an important one in the provision of technical support for the promotion of VSC and the coordination of its activities. Financial support and personnel from the *BKKBN* and their collaboration with the *MOH* facilities and medical staff are crucial for the sustainability of the program. A more streamlined system for implementing the program was developed and tested through this project. In the future, policy-makers and program managers need to expand the utilization of this system and the supporting materials. Through improved targeting and selection of clients, as well as improved services, permanent contraception should become a viable alternative for both men and women, and for both interval and *postpartum* women.

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