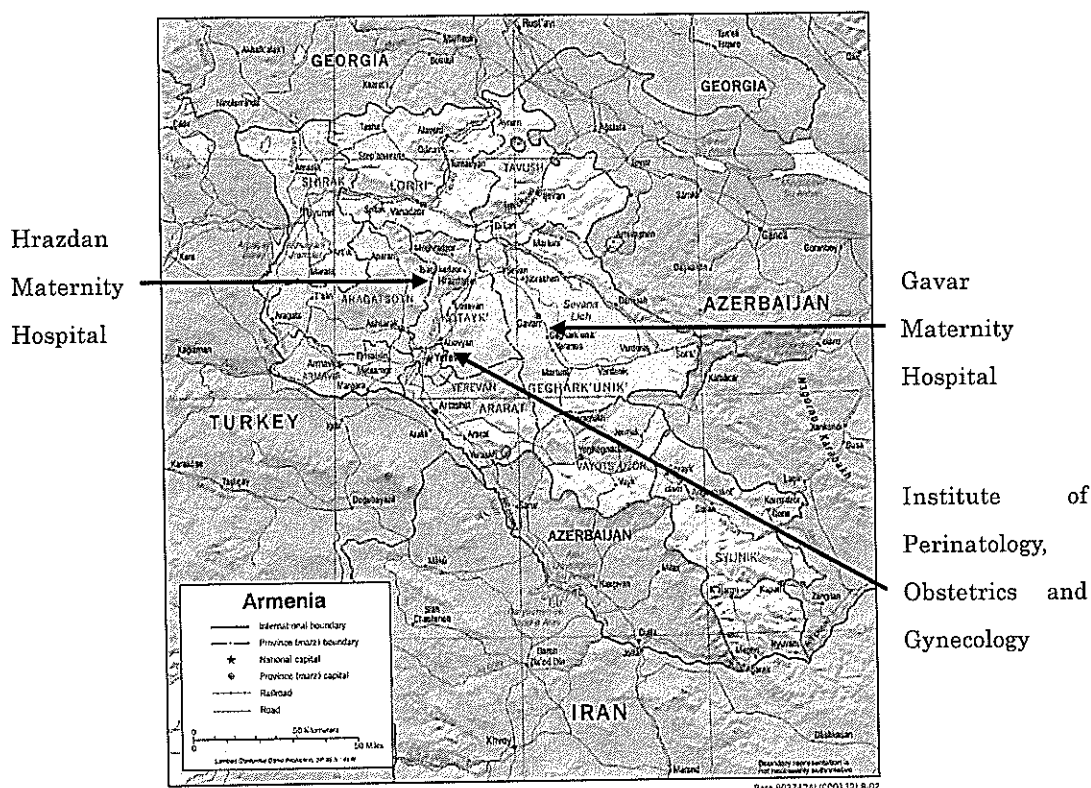


# Final Report for the JICA Reproductive Health Project in Armenia

30 November 2006

Professor Razmik ABRAHAMIAN, Project manager  
Makiko NOGUCHI, Chief adviser  
Masaori OMIYA, Training/planning, Coordinator



### *Outline of the JICA Reproductive Health Project in Armenia*

In October 2004, the government of the Republic of Armenia and Japan International Cooperation Agency (JICA) have agreed to implement a cooperation between the two countries on the reproductive health care in Armenia for a period of two years from December 2004 to November 2006. Institute of Perinatology, Obstetrics and Gynecology (IPOG) in Yerevan, Gavar Maternity Hospital in Gegharkunik Marz<sup>1</sup>, Hrazdan Maternity Hospital in Kotayk Marz were the project sites.

The overall objectives of the project are to promote maternal and neonatal health in Armenia. Especially we targeted on: 1) that the health professionals learn about evidence-based medicine (EBM)<sup>2</sup> and take steps to integrate clinical experts with the best available scientific evidence, 2) the health professionals provide evidence-based practices to women and their neonates during pregnancy, labor and postpartum, and 3) the referral system is strengthened between IPOG and the Maternity Hospital of Gavar and Hrazdan for the better Primary Health Care system.

<sup>1</sup> Marz is a name of region in Armenia. There are 10 Marzes and the capital.

<sup>2</sup> EBM is an idea of medical decision making based not only on a physiological theory, the individual expertise, or the patient value, but on the evidence (scientific basis). It is proved that the evidence-based practices to women during pregnancy, labor and postpartum and their neonate improve the subjective and objective outcomes.

## I . Outputs of the project

Following the Output from the description in PDM

<Output1>The health professionals at the project sites learn about the evidence-based medicine (EBM) and take steps to integrate clinical experience with the best available scientific evidence.

### 1. Development of the materials

- 1) Educational materials for the Seminars and in-service training (INSET)
  - Seminar 1: 8 handouts (English, Japanese, Armenian)
  - Seminar 2: 2 handouts (English, Armenian)
  - INSET 1: 2 handouts (English, Armenian)
  - INSET 2: 8 handouts (English, Armenian)
  - INSET 3: 15 handouts (English, Japanese, Russian, Armenian)
  - INSET 6: 3 handouts (English, Japanese, Armenian)
  - Workshop for the WHO Reproductive Health Library: 2 handouts (English, Armenian)
- 2) Compiled the handouts and some posters as below into two books, "The teaching materials of JICA Reproductive Health Project in Armenia."
  - (English edition, Armenian edition)
- 3) 12 Posters for the project and training program
  - Poster of the EBM seminar: 2
  - Poster of the Reproductive Health Project: 2
  - Poster of the neonatology seminar: 2
  - Poster of the classification of practices in normal birth: 2
    - (English version, Armenian version)
  - Poster about the in-service training: 2
    - (English version, Armenian version)
  - Poster of the Project schema: 2 (English version, Armenian version)
- 4) 2 Leaflets
  - Leaflet of the Reproductive Health Project: 2
    - (English version, Armenian version)
- 5) 2 Medical Dictionaries for Obstetrics, Gynecology and Pediatrics
  - (Armenian-English-Russian, English-Russian-Armenian)
  - This dictionary is the first medical glossary of Armenian, English and Russian.

### 2. Establishment of the EBM Media Library in IPOG on December 6, 2005

Set a notebook PC and a printer and educational materials as below

- The WHO Reproductive Health Library No.7 (CD ROM)
- The WHO Reproductive Health Library No.8 (CD ROM)
- Interactive Gynecological Ultrasound Guide (CD ROM)
- 9Month Miracle (CD ROM)
- The History of Japan's Educational Development (CD ROM)
- Williams Obstetrics 21<sup>st</sup> Edition
- A guide to effective care in pregnancy and childbirth
- Obstetrics myths versus research realities

### 3. Conducted the baseline and end-line survey and analysis the date.

Baseline survey: Implemented from February to March 2005

End-line survey: Implemented from September to October 2006.

#### 1) Facility based survey 1 : Analysis of maternal death

Chart review and interview to the health professional at the project sites.

Baseline: There is a maternal death at Hrazdan Maternity Hospital on 4 June, 2004

Diagnosis is primigravida, pregnancy 35 weeks 1day, twins and complication of hyperthyroidism.

End-line: There are two maternal deaths at IPOG in 2005 and 2006.

The cases are referred from regions urgently.

They had already died at the arrival to the hospital..

#### 2) Facility based survey 2: Analysis of childbirth experience

Conduct the interview to women after the childbirth following the original interview guide.

Participants of the baseline survey on 3-6 May, 2005				
No	age	Para	hospital	the day of interview
1	26	0-P	IPOG	post 2 days after the childbirth
2	19	0-P	IPOG	post 4 days after the preterm delivery
3	25	1-P	IPOG	post 1 days after the childbirth
4	23	1-P	IPOG	post 4 days after the preterm delivery
5	23	0-P	IPOG	the day of the delivery
6	26	2-P	IPOG	post 1 day after the childbirth
7	24	1-P	IPOG	post 1 day after the childbirth
8	24	0-P	IPOG	post 2 days after the childbirth
9	17	0-P	IPOG	post 2 days after the childbirth
10	28	3-P	Gavar	post 1 day after the childbirth
11	25	2-P	Gavar	post 1 day after the childbirth
12	29	2-P	Gavar	the day after the breech delivery
13	23	1-P	Gavar	the day after the childbirth
14	22	1-P	Gavar	post 3 days after the childbirth
15	28	2-P	Gavar	post 2 days after the childbirth
16	22	1-P	Hrazdan	post 1 day after the Cesarean Section
17	23	0-P	Hrazdan	post 1 day after the childbirth
18	16	0-P	Hrazdan	post 2 days after the childbirth
19	27	0-P	Hrazdan	the day after the childbirth

Participants of the end-line survey on 3-5 Oct. 2006				
No	age	Para	hospital	the day of interview
1	20	0-P	Gavar	post 3 days after the childbirth
2	23	1-P	Gavar	post 4 days after the childbirth
3	20	0-P	Gavar	post 5 days after the Cesarean Section
4	18	0-P	Gavar	post 3 days after the childbirth
5	23	1-P	Gavar	post 2 days after the childbirth
6	35	2-P	Hrazdan	post 4 days after the childbirth
7	23	0-P	Hrazdan	post 2 days after the childbirth
8	24	1-P	Hrazdan	post 2 days after the childbirth
9	20	1-P	Hrazdan	post 2 days after the preterm delivery
10	24	1-P	IPOG	post 2 days after the preterm delivery
11	29	1-P	IPOG	post 2 days after the childbirth
12	25	1-P	IPOG	post 2 days after the childbirth
13	30	0-P	IPOG	post 3 days after the preterm delivery

## Outline of the results

### Key expressions of women at the baseline survey

- You can't help the childbirth.
- Labor pain was quite different from what I had expected.
- Labor pain is terrible.
- They told to me that labor pain is bearable.
- I wish my family is not in the delivery room.
- I can have childbirth with obstetrician.
- Medical intervention at birth is necessarily.
- I wouldn't have childbirth at now.
- I think epidemiology is necessarily for normal birth.
- I relay to obstetrician to conduct me correctly.

### Key expression of women at the end-line survey

- I walked around during the labor because the pain was reduced.
- I sit in a comfortable position with cushion during the childbirth
- The new delivery chair is very comfortable and useful.
- I had childbirth sitting position.
- I had empathic support from medical professionals.
- I was not alone all the time.
- I satisfied with my mother-in-law attended the childbirth.
- It is good not to have enema.
- Labor pain was hard for me, but I have done it.
- My husband was waiting out of the hospital.

## 3) Facility based survey 3:

Develop the questionnaire for the survey.

The framework of the questionnaire as below

- Demographics
- Frequency of post-graduate training
- Application of medical information
- Knowledge, attitude and practice about evidence-based medicine (EBM)

Conduct the questionnaire survey at the start and end of the project on February, 2005 and October, 2006.

Results of the Questionnaire			
		baseline(Feb, 2005) n=277	endline(Oct, 2006) n=165
Participants			
place	IPOG	161	89
	Hrazdan	61	40
	Gavar	55	36
Age	M±SD	39.3±11.3	41.5±10.7
	range	21—67	20—69
	median	38.0	40.0
	mode	25.0	36.0
occupation	obs. & gynecologist	45(16.2)	36(21.8)
	neonatologist	14(5.1)	12(7.3)
	midwife	64(23.1)	53(32.1)
	gyne. Nurse	19(6.9)	12(7.3)
	pediatric nurse	26(9.4)	24(14.5)
	common nurse	65(23.5)	22(13.3)
	resident	22(7.9)	—
	nursing student	15(5.4)	—
	others	7(2.5)	6(3.6)
year of profession	M±SD	18.9±11.3	19.6±11.0
	range	1—45	1—46
	median	18.5	19.0
	mode	19.0	16.0
training			
frequency	≥5	49(18.7)	65(39.4)
	3~4	40(15.3)	30(18.2)
	1~2	110(42.0)	52(31.5)
	0	63(24.0)	18(10.9)
place	Yerevan	157(59.9)	81(49.1)
	workplace	114(43.5)	89(53.9)
	others	64(42.1)	24(14.5)
	JICA program	0	122(73.9)
	IPOG		57
	Hrazdan		33
	Gavar		32
EBM	known	100(36.1)	158(95.8)
	unknown	177(63.9)	4(2.4)
apply to practice	always	25(25.0)	63(39.9)
	often	40(40.0)	77(48.7)
	sometimes	24(24.0)	14(8.9)
	rarely	8(8.0)	2(1.3)
	never	1(1.0)	1(0.6)
	no answer	2(2.0)	1(0.6)
childbirth care	yes, providing	90(34.4)	55(33.3)
	yes, have provided	17(6.5)	16(9.7)
	no	155(59.2)	94(57.0)

Health professionals who is providing or has provided childbirth care and participated the JICA training program (INSET) at the end-line survey is 60.

The following results express the attitude and practice of the participants about childbirth care. These questions have clear evidence.<sup>3</sup>

baseline	n=107						
endline : childbirth care	n=71						
endline : JICA tr. + childbirth care	n=60						
	Practice of the act in your service			Your personal opinion about the act			
	Yes, we do	No, we do not	N.A	Agree	Disagree	Neither	N.A
Monitoring the woman's physical and emotional well-being throughout labour and delivery and at the conclusion of the birth process	103 (96.3)	4 (3.7)	0	102 (95.4)	1 (0.9)	0	4 (3.7)
	67(94.4)	2(2.8)	2(2.8)	65(91.5)	0	0	6(8.5)
	56(93.3)	2(3.3)	2(3.3)	54(90.0)	0	0	6(10.0)
Risk assessment of pregnancy during perinatal period and throughout labour	103 (96.2)	2 (1.9)	2 (1.9)	99 (92.6)	3 (2.8)	1 (0.9)	4 (3.7)
	67(94.4)	0	4(5.6)	63(88.7)	0	0	8(11.3)
	56(93.3)	0	4(6.7)	52(86.7)	0	0	8(13.3)
Respecting women's privacy in the birthing place	93 (86.9)	12 (11.2)	2 (1.9)	92 (86.0)	5 (4.7)	4 (3.7)	6 (5.6)
	65(91.5)	2(2.8)	4(5.6)	62(87.3)	3(4.2)	1(1.4)	5(7.0)
	55(91.7)	1(1.7)	4(6.7)	52(86.7)	2(3.3)	1(1.7)	5(8.3)
Respecting women's choice companions during labour and birth	80 (74.8)	21 (19.6)	6 (5.6)	86 (80.4)	11 (10.3)	3 (2.8)	7 (6.5)
	63(88.7)	3(4.2)	5(7.0)	61(85.9)	3(4.2)	2(2.8)	5(7.0)
	54(90.0)	0	5(8.3)	52(86.7)	1(1.7)	2(3.3)	5(8.3)
Giving women information and explanation as much as they desire	97 (90.6)	5 (4.7)	5 (4.7)	101 (94.4)	0	0	6 (5.6)
	69(97.2)	1(1.4)	1(1.4)	64(90.1)	1(1.4)	0	6(8.5)
	59(98.3)	0	1(1.7)	54(90.0)	0	0	6(10.0)
Fetal monitoring with intermitted auscultation	103 (96.3)	3 (2.8)	1 (0.9)	98 (91.6)	3 (2.8)	0	6 (5.6)
	69(97.2)	0	2(2.8)	63(88.7)	0	0	8(11.3)
	58(96.7)	0	2(3.3)	53(88.3)	0	0	7(11.7)

	Practice of the act in your service			Your personal opinion about the act			
	Yes, we do	No, we do not	N.A	Agree	Disagree	Neither	N.A
Routine early amniotomy in the first stage of labour	19 (17.8)	82 (76.6)	6 (5.6)	30 (28.0)	67 (62.6)	5 (4.7)	5 (4.7)
	5(7.0)	59(83.1)	7(9.9)	21(29.6)	41(57.7)	2(2.8)	7(9.9)
	3(5.0)	51(85.0)	6(10.0)	19(31.7)	34(56.7)	0	7(11.7)
Routine use of enema for delivery	62 (57.9)	43 (40.2)	2 (1.9)	60 (56.1)	41 (38.3)	4 (3.7)	2 (1.9)
	6(8.5)	59(83.1)	6(8.5)	26(36.6)	36(50.7)	2(2.8)	7(9.9)
	5(8.3)	50(83.3)	5(8.3)	24(40.0)	28(46.7)	1(1.7)	7(11.7)
Routine use of pubic shaving for delivery	68 (63.6)	37 (34.6)	2 (1.8)	71 (66.4)	34 (31.8)	1 (0.9)	1(0.9)
	7(9.9)	57(80.3)	7(9.9)	30(42.3)	30(42.3)	4(5.6)	7(9.9)
	5(8.3)	49(81.7)	6(10.0)	27(45.0)	23(38.3)	3(5.0)	7(11.7)
Empathic support for women by a caregiver during labour and birth	97 (90.7)	7 (6.5)	3 (2.8)	99 (92.5)	1 (0.9)	0	7 (6.6)
	64(90.1)	2(2.8)	5(7.0)	62(87.3)	1(1.4)	0	8(11.3)
	53(88.3)	2(3.3)	5(8.3)	51(85.0)	1(1.7)	0	8(13.3)
Careful monitoring of progress of labour, for instance the use of partograph	69 (64.5)	35 (32.7)	3 (2.8)	82 (76.6)	13 (12.1)	5 (4.7)	7 (6.6)
	50(70.4)	17(23.9)	4(5.6)	54(76.1)	4(5.6)	4(5.6)	9(12.7)
	39(65.0)	17(28.3)	4(6.7)	43(71.7)	4(6.7)	4(6.7)	9(15.0)
Offering oral fluids during labour and delivery	72 (67.3)	30 (28.0)	5 (4.7)	80 (74.7)	17 (15.9)	8 (7.5)	2 (1.9)
	57(80.3)	7(9.9)	7(9.9)	57(80.3)	4(5.6)	2(2.8)	8(11.3)
	48(80.0)	5(8.3)	7(11.7)	48(80.0)	2(3.3)	2(3.3)	8(13.3)
Routine intravenous infusion in labour	61 (57.0)	43 (40.2)	3 (2.8)	65 (60.7)	34 (31.8)	3 (2.8)	5 (4.7)
	29(40.8)	37(52.1)	5(7.0)	36(50.7)	22(31.0)	2(2.8)	11(15.5)
	23(38.3)	32(53.3)	5(8.3)	31(51.7)	16(26.7)	2(3.3)	11(18.3)
Routine use of the supine position during in labour	51 (47.7)	53 (49.5)	3 (2.8)	41 (38.3)	59 (55.1)	5 (4.7)	2 (1.9)
	10(14.1)	54(76.1)	7(9.9)	20(28.2)	38(53.5)	5(7.0)	8(11.3)
	8(13.3)	46(76.7)	6(10.0)	20(33.3)	29(48.3)	3(5.0)	8(13.3)

<sup>3</sup> WHO Division of Family Health (1996), Care in normal birth: A practical Guide (WHO/FRH/MSM/96.24)

	Practice of the act in your service			Your personal opinion about the act			
	Yes, we do	No, we do not	N.A	Agree	Disagree	Neither	N.A
Sustained, directed bearing down efforts (Valsalva manoeuvre) during the second stage of labour	89 (83.2)	16 (15.0)	2 (1.8)	91 (85.0)	11 (10.3)	2 (1.9)	3 (2.8)
	48(67.6)	18(25.4)	5(7.0)	57(80.3)	4(5.6)	3(4.2)	7(9.9)
	37(61.7)	18(30.0)	5(8.3)	46(76.7)	4(6.7)	3(5.0)	7(11.7)
Liberal or routine use of episiotomy	26 (24.3)	78 (72.9)	3 (2.8)	32 (29.9)	72 (67.3)	0	3 (2.8)
	3(4.2)	61(85.9)	7(9.9)	21(29.6)	40(56.3)	4(5.6)	6(8.5)
	3(5.0)	51(85.0)	6(10.0)	21(35.0)	31(51.7)	2(3.3)	6(10.0)
Routine use of lithotomy position during labour	66 (61.7)	37 (34.6)	4 (3.7)	46 (43.0)	52 (48.6)	4 (3.7)	5 (4.7)
	15(21.1)	50(70.4)	6(8.5)	22(31.0)	39(54.9)	4(5.6)	6(8.5)
	12(20.0)	43(71.7)	5(8.3)	19(31.7)	32(53.3)	3(5.0)	6(10.0)
Routine revision (manual exploration) of the uterus after delivery	13 (12.1)	91 (85.0)	3 (2.8)	32 (30.0)	73 (68.2)	1 (0.9)	1(0.9)
	4(5.6)	62(87.3)	5(7.0)	18(25.4)	43(60.6)	5(7.0)	5(7.0)
	4(6.7)	52(86.7)	4(6.7)	17(28.3)	34(56.7)	4(6.7)	5(8.3)
Prevention of hypothermia of the baby	81 (75.7)	20 (18.7)	6 (5.6)	80 (74.8)	17 (15.9)	3 (2.8)	7 (6.5)
	60(84.5)	4(5.6)	7(9.9)	57(80.3)	4(5.6)	2(2.8)	8(11.3)
	50(83.3)	3(5.0)	7(11.7)	48(80.0)	3(5.0)	1(1.7)	8(13.3)
Early skin-to-skin contact between mother and child	105 (98.0)	1 (1.0)	1 (1.0)	105 (98.0)	1(1.0)	0	1 (1.0)
	68(95.8)	0	3(4.2)	64(90.1)	0	0	7(9.9)
	57(95.0)	0	3(5.0)	54(90.0)	0	0	6(10.0)
Support of the initiation of breast-feeding within 1 hour postpartum	105 (98.1)	2 (1.9)	0	105 (98.0)	1(1.0)	1(1.0)	0
	65(91.5)	1(1.4)	5(7.0)	62(87.3)	1(1.4)	1(1.4)	7(9.9)
	55(91.7)	0	5(8.3)	53(88.3)	0	0	7(11.7)

#### 4) Facility based survey 4: Health statistics of the project's sites

Collect the data from the project sites. And analyze the data and develop the indicators to evaluate the reproductive health at the project sites.

Statistics of IPOG	2004	2005	2006(-9)	Statistics of Hrazdan Maternity Hospital	2004	2005	2006(-9)
registration of pregnancy	834	1073	890	registration of pregnancy	919	1750	1200
outpatient of antenatal care	4100	4250	2902	outpatient of antenatal care	1823	3560	2520
outpatient total	4112	4380	3600	outpatient total	3038	7081	4859
delivery	1911	2119	1806	delivery	939	846	686
livebirth	1891	2053	1837	livebirth	922	835	690
still birth	30	36	29	still birth	17	10	6
preterm delivery	335	325	238	preterm delivery	73	71	91
operational delivery				operational delivery			
cesarean section	684	731	543	cesarean section	73	101	87
forceps delivery	2	-	-	forceps delivery	5	2	3
vacuum delivery	4	-	-	vacuum delivery	0	0	0
episiotomy	366	275	198	episiotomy	59	75	45
laceration 1+	63	45	30	laceration 1+	34	38	49
laceration 2	43	16	21	laceration 2	5	2	2
laceration 3	0	2	1	laceration 3	0	0	0
prolonged labor	184	196	163	prolonged labor	181	155	52
Induced + acceleration	184	155	129	Induced + acceleration	124	110	43
abortion	445	217	207	abortion	225	225	100
induced abortion	138	128	144	induced abortion	78	46	53
spontaneous abortion	307	89	63	spontaneous abortion			
newborn	1881	2083	1837	newborn	699	727	575
normal	1582	1824	1588	normal	223	119	110
abnormal	299	259	249	abnormal	96	71	55
low birth weight (<2500)	285	259	201	low birth weight (<2500)	125	130	91
low apgar score (<7)	175	146	132	low apgar score (<7)			
morbidity				morbidity			
ecchymosis	13	3	1	ecchymosis	0	0	0
hemorrhage (obstetrics)	21	17	13	hemorrhage (obstetrics)	46	38	21
sepsis (obstetrics)	14	11	3	sepsis (obstetrics)	0	0	0
abruptio placenta, placenta previa	250	209	187	abruptio placenta, placenta previa	17	19	11
Referral case to IPOG	715	850	809	Referral case to IPOG	18	21	16
pregnant before the onset	715	820	729	pregnant before the onset	32	30	25
pregnant after the onset	408	56	60	pregnant after the onset	1	0	0
postpartum	40	40	35	postpartum	6	5	8
newborn (including child hospital)	0	3	4	newborn (including child hospital)			
mortality				mortality			
maternal death	0	1	1	maternal death	1	0	0
neonatal death	22	28	23	neonatal death	14	3	7
perinatal death	52	48	41	perinatal death	17	13	13

\*First degree lacerations involve the fourchette, perineal skin and little part of vaginal wall, not muscles. Second degree lacerations involved the perineal skin, vaginal wall and muscles, not included the external sphincter of anus. Third degree lacerations involves not only the perineal skin, vaginal wall and perineal muscles, but the external sphincter and the wall of anus, too.

\*First degree lacerations involve the fourchette, perineal skin and little part of vaginal wall, not muscles. Second degree lacerations involved the perineal skin, vaginal wall and muscles, not included the external sphincter of anus. Third degree lacerations involves not only the perineal skin, vaginal wall and perineal muscles, but the external sphincter and the wall of anus, too.



*Statistics of Gavar Maternity Hospital*

	2004	2005	2006(till Sep.)
registration of pregnancy	566	558	409
outpatient of antenatal care	1525	1470	1221
outpatient total	3389	3439	2290
delivery	618	713	340
livebirth	610	712	338
still birth	8	7	2
preterm delivery	63	42	17
operational delivery			
cesarean section	26	41	20
forceps delivery	0	0	0
vacuum delivery	0	0	0
episiotomy	13	22	9
laceration 1*	54	59	20
laceration 2	48	52	15
laceration 3	0	0	0
prolonged labor	69	63	36
Induced + acceleration	69	59	32
abortion			
induced abortion	142	119	87
spontaneous abortion	64	52	8
newborn			
normal	557	655	319
abnormal	59	57	19
low birth weight (<2500)	68	50	21
low apgar score (<7)	28	26	11
morbidity			
ecrampsia	1	0	0
hemorrhage (obstetrics)	24	35	16
sepsis (obstetrics)	1	0	0
abruptio placenta, placenta previa	1	2	4
Referral case to IPOG			
pregnant before the onset	0	5	5
pregnant after the onset	0	0	0
postpartum	2	2	2
newborn (including child hospital)	2	4	3
mortality			
maternal death	0	0	0
neonatal death	1	4	3
perinatal death	9	11	5

\*First degree lacerations involve the fourchette, perineal skin and little part of vaginal wall, not muscles.  
Second degree lacerations involved the perineal skin, vaginal wall and muscles, not included the external sphincter of anus. Third degree lacerations involves not only the perineal skin, vaginal wall and perineal muscles, but the external sphincter and the wall of anus, too.

*Indicators of project sites*

	2004	2005	2006(-Sep.)
number of maternal mortality			
IPOG	0	1	1
Hrazdan	1	0	0
Gavar	0	0	0
foetal death rate (/1000lb)			
IPOG	15.7	17.0	15.5
Hrazdan	18.1	11.8	8.7
Gavar	12.9	9.8	4.9
neonatal mortality rate (/1000lb)			
IPOG	11.7	13.4	12.5
Hrazdan	15.2	3.6	10.2
Gavar	1.0	5.0	8.9
perinatal mortality rate (/1000lb)			
IPOG	27.6	23.0	22.3
Hrazdan	18.4	15.6	19.1
Gavar	14.8	15.4	14.8
preterm delivery prop. (/1000lb)			
IPOG	17.5%	15.3%	12.8%
Hrazdan	7.8%	8.4%	13.3%
Gavar	10.2%	5.9%	5.0%
cesarean section prop. (/lb)			
IPOG	35.8%	34.5%	29.0%
Hrazdan	7.6%	11.5%	12.7%
Gavar	4.2%	5.8%	5.9%
forceps delivery prop. (/lb)			
IPOG	0.10%	-	-
Hrazdan	0.50%	0.20%	0.40%
Gavar	-	-	-
vacuum delivery prop. (/lb)			
IPOG	0.20%	-	-
Hrazdan	-	-	-
Gavar	-	-	-
episiotomy prop. (/lb)			
IPOG	19.2%	13.0%	10.5%
Hrazdan	7.3%	8.9%	5.6%
Gavar	2.1%	3.1%	2.6%
* laceration 1 prop. (/lb)			
IPOG	3.3%	2.1%	1.6%
Hrazdan	3.6%	4.5%	7.1%
Gavar	8.7%	8.3%	5.9%
laceration 2 prop. (/lb)			
IPOG	2.3%	0.8%	1.1%
Hrazdan	0.5%	0.2%	0.3%
Gavar	7.8%	7.3%	4.4%
laceration 3 prop. (/lb)			
IPOG	-	0.1%	0.1%
Hrazdan	-	-	-
Gavar	-	-	-

	2004	2005	2006(-Sep.)
prolonged labor prop. (/lb)			
IPOG	9.6%	9.2%	8.7%
Hrazdan	17.1%	18.3%	7.6%
Gavar	11.2%	8.8%	10.6%
induced & accelerated labor prop. (/lb)			
IPOG	9.6%	7.3%	6.9%
Hrazdan	13.2%	13.0%	6.3%
Gavar	11.2%	8.3%	9.4%
low birth weight prop. (/newborn)			
IPOG	15.2%	12.4%	10.9%
Hrazdan	10.6%	8.3%	8.0%
Gavar	11.0%	7.0%	13.3%
low apgar score prop. (/newborn)			
IPOG	9.4%	7.0%	7.2%
Hrazdan	13.6%	15.4%	11.4%
Gavar	4.5%	3.7%	3.3%
ecrampsia incidence rate (/1000lb)			
IPOG	6.8	1.4	0.5
Hrazdan	-	-	-
Gavar	1.6	-	-
hemorrhage(obstetrics) incidence rate (/1000lb)			
IPOG	11.0	8.0	7.0
Hrazdan	49.0	44.9	30.6
Gavar	38.8	49.0	47.0
sepsis (obstetrics) incidence rate (/1000lb)			
IPOG	7.3	5.2	1.6
Hrazdan	-	-	-
Gavar	1.6	-	-
placental incidence (abruptio, previa) rate (/1000lb)			
IPOG	130	98.6	100.2
Hrazdan	18.1	22.5	18.0
Gavar	1.6	2.8	11.8

\*First degree lacerations involve the fourchette, perineal skin and little part of vaginal wall, not muscles.  
Second degree lacerations involved the perineal skin, vaginal wall and muscles, not included the external sphincter of anus. Third degree lacerations involves not only the perineal skin, vaginal wall and perineal muscles, but the external sphincter and the wall of anus, too.

5) National health statistics and indicators

Collect the data from the Ministry of Health, Armenia.

### Health Statistics in Armenia

Ministry of Health, Armenia

	2000	2001	2002	2003	2004	2005
the number of maternal death	25	8	6	7	14	10
maternal mortality rate	69.3	23.9	17.7	19.0	36.7	26.2
perinatal mortality rate	16.6	17.3	15.2	14.8	15.6	14.6
late stillbirth rate	8.4	8.3	7.3	8.0	7.7	7.9
early neonatal mortality rate	8.2	9.0	7.9	6.8	7.9	6.7
neonatal mortality rate	9.5	10.7	9.3	8.1	7.4	8.2
infant mortality rate	15.6	15.4	14.0	12.0	11.6	12.3
under-five mortality rate	19.2	18.5	19.5	14.5	14.9	14.5
total fertility rate (children per women)		1.2			1.4	1.5
urban		1.2			1.3	1.3
rural		1.3			1.5	1.5
total number of live birth	36096	33529	33840	36825	36122	38162
the number of delivery at home	792	512	411	365	202	160
percent of home birth (%)	20.7	1.6	1.3	1.0	0.7	0.6
maternal death at home	0	2	1	-	1	1
rate of cesarean section (%)	7.2	7.6	8.1	8.8	9.5	9.3
total number of abortion	18533	17476	15592	17144	16942	17114
induced	10451	9874	8861	9365	9693	9658
spontaneous	8082	7602	6731	7779	7249	7456
livebirth /1 abortion (SA+IA)	4.5	4.4	5.0	4.7	5.3	5.1
induced abortion /1000 lb	335	317	301	297	282	274
congenital abnormalities of newborn rate (/1000lb)	18.2	17.2	18	15.8	13.6	11.8

#### 4. Conducted the workshop for the WHO Reproductive Health Library

Objects:

- 1) To learn what is the evidence for perinatology and midwifery care
- 2) To learn about the directions of WHO Reproductive Health Library
- 3) To learn how to use a personal computer

## Participant

date	participant	position	place
28-Apr-05	Arakelyan, Iren	Obstetrics & gynecologist	IPOG
	Arutunyan, Armenuhi	Midwife	
	Kazaryan, Shogik	Midwife	
	Matsuda, Tomohiro	JICA expert, Lecturer	
	Noguchi, Makiko	JICA expert	
	Onyanyan, Susanna	Interpreter	
5-May-05	Kuroyan, Paruyr	Neonatologist	Gavar
	Melkonyan, Narine	Midwife	
	Arzumanyan, Elya	Midwife	
	Matsuda, Tomohiro	JICA expert, Lecturer	
	Noguchi, Makiko	JICA expert	
	Onyanyan, Susanna	Interpreter	
6-May-05	Narimanyan, Gohar	Obstetrics & gynecologist	Hrazdan
	Stepanyan, Lidush	Obstetrics & gynecologist	
	Melkonyan, Gohar	Neonatologist	
	Narimanyan, Levon	Anesthesiologist	
	Matsuda, Tomohiro	JICA expert, Lecturer	
	Noguchi, Makiko	JICA expert	
	Onyanyan, Susanna	Interpreter	

## 5. Conducted the case conferences to update evidence-based knowledge and skills

date	participants	position
24-Jan-06	Abrahamyan, Razmik	Head of the IPOG
	Pogosyan, Andranik	Dputy of the obs-gyn department
	Bibulyan, Armen	Dputy of the second obs-gyn department
	Grigoryan, Vruyr	Obstetrician-gynecologist
	Harutjunyan, Nana	Obstetrician-gynecologist
	Takeuchi, Masato	Obstetrician-gynecologist, JICA expert
	Nogushi, Makiko	Chief adviser of JICA Reproductive Health Project in Armenia
	Omiya, Masanori	Coordinator of JICA Reproductive Health Project in Armenia
	Petrosyan, Ruzan	Interpreter
25-Jan-06	Abrahamyan, Razmik	Head of the IPOG
	Pogosyan, Andranik	Dputy of the obs-gyn department
	Bibulyan, Armen	Dputy of the second obs-gyn department
	Abrahamyan, Sara	Resident
	Takeuchi, Masato	Obstetrician-gynecologist, JICA expert
	Nogushi, Makiko	Chief adviser of JICA Reproductive Health Project in Armenia
	Omiya, Masanori	Coordinator of JICA Reproductive Health Project in Armenia
	Petrosyan, Ruzan	Interpreter
2-May-06	Bibulyan, Armen	Dputy of the second obs-gyn department
	Abrahamyan, Sara	Resident
	Bhagat Singh Singhatia	Medical student (5th)
	Manvelyan, Vahan	Resident
	Takeuchi, Masato	Obstetrician-gynecologist, JICA expert
	Nogushi, Makiko	Chief adviser of JICA Reproductive Health Project in Armenia
	Omiya, Masanori	Coordinator of JICA Reproductive Health Project in Armenia
	Petrosyan, Ruzan	Interpreter
3-May-06	Chicoyan, Houbic	Head of Gavar Maternal Hospital
	Hovhannisyan, Vazganush	Head of the maternity department
	Grigoryan, Gayane	Therapist at women's consultation
	Hamaryan, Levine	Obstetrician-gynecologist
	Miribyan, Gohar	Obstetrician-gynecologist
	Takeuchi, Masato	Obstetrician-gynecologist, JICA expert
	Nogushi, Makiko	Chief adviser of JICA Reproductive Health Project in Armenia
	Omiya, Masanori	Coordinator of JICA Reproductive Health Project in Armenia
	Petrosyan, Ruzan	Interpreter
5-May-06	Narimanyan, Henrik	Head of Hrazdan maternal hospital
	Admyan, vanik	Obstetrics-gynecologist
	Asatryan, Irina	Obstetrics-gynecologist
	Melqumova, Anjela	Obstetrics-gynecologist
	Narimanyan, Gohar	Obstetrics-gynecologist
	Narine, Papyan	Obstetrics-gynecologist
	Stepanyan, Lidush	Obstetrics-gynecologist
	Eghiazaryan, Silva	Midwife
	Gevorgyan, Gayane	Midwife
	Papyan, Anush	Midwife
	Takeuchi, Masato	Obstetrician-gynecologist, JICA expert
	Nogushi, Makiko	Chief adviser of JICA Reproductive Health Project in Armenia
	Omiya, Masanori	Coordinator of JICA Reproductive Health Project in Armenia
	Petrosyan Ruzan	Interpreter
10-May-06	Bibulyan Armen	Dputy of the second obs-gyn department
	Abrahamyan, Sara	Resident
	Takeuchi, Masato	Obstetrician-gynecologist, JICA expert
	Nogushi, Makiko	Chief adviser of JICA Reproductive Health Project in Armenia
	Omiya, Masanori	Coordinator of JICA Reproductive Health Project in Armenia
	Petrosyan Ruzan	Interpreter

## 6. Conducted the seminars

### (1) Seminar 1

Title: EBM for Perinatology and Maternal Health Care

Date: 11 March 2005

Lecturer: Professor Chizuru Misago, Dr. Masato Takeuchi, Mw. Satoko Omuta, Dr. Hiroshi Takahashi

Participant: about 120

Health professionals at the project sites (Doctor, Midwife Nurse)

Ministry of Health, International organizations, NGO

Evaluation: Overall rating of the seminar was 4.97 out of 5.00 in an examination.

### (2) Seminar 2

Title: JICA Seminar on Newborn Medicine in Armenia

Date: 20, 21 July 2006

Lecturer: Professor Hiroshi Nishida

Participant: A total number of man days 120

	20-Jul-06	21-Jul-06
Neonatologist	13	14
Obs. & Gynecologist	11	11
Midwife	11	11
Nurse	15	15
Epidemiologist	1	1
Anesthetist	1	1
Resident	4	1
	56	54

Evaluation: Overall rating of the seminar was 5.00 (20, July) and 4.82 (21, July) out of 5.00 in the examinations.

## 7. Conducted the Counterpart Training Course in Japan

There are three times training course in Japan during the training.

Objects:

- 1) To learn about the practical way to introduce the best evidence for perinatology and midwifery care
- 2) To realize the clinical maternal practice in Japan
- 3) To realize the maternal health, maternal care and obstetrics in Japan
- 4) To explore the clinical specific way to introduce EBM to the project site

Participant:

period	participant	affiliation	position
18-26 December, 2004	Razmik Abrahamyan	IPOG	Director
	Henric Narimanyan	Hrazdan Maternal Hospital	Director
	Ovid Chuchoyan	Gavar Maternal Hospital	Director
	Hyke Grigoryan	Ministry of Health	Head of Department of International Relations
12- 29 March, 2006	Armen Kim Bibulyan	IPOG	Deputy of the Second Obs. Department
	Vahe Michael Gyulkhasyan	IPOG	Head of the Operative Gynecology Department
	Armenuhi Haroutunyan	IPOG	Chief Midwife
	Nazik Robert Davtyan	IPOG	Midwife at Delivery Room
	Gohar Henry Narimanyan	Hrazdan Maternal Hospital	Head of the Gynecological Department
	Tsovinar Arevshat Virabyan	Hrazdan Maternal Hospital	Midwife at Delivery Room
	Vazganush Zaven Hovhannisyan	Gavar Maternal Hospital	Head of the Obstetric Department
	Sona Mekhak Hakobyan	Gavar Maternal Hospital	Midwife at Delivery Room
	Vruyr Grigoryan	IPOG	Head of the Department of Obstetrics
27 Aug - 13 Sep, 2006	Narine Harutjunyan	IPOG	Obstetrician & Gynecologist
	Hasmik Petrosyan	IPOG	Obstetrician & Gynecologist
	Marusya Meloyan	IPOG	Midwife
	Flora Gharipyan	IPOG	Midwife
	Levon Narimanyan	Hrazdan Maternal Hospital	Head of the Department of Intensive Care Unit
	Valentina Hakobyan	Hrazdan Maternal Hospital	Midwife
	Larisa Grigoryan	Gavar Maternal Hospital	Obstetrician & Gynecologist
	Anush Adamyan	Gavar Maternal Hospital	Midwife

<output2> The health professionals at the project sites provide evidence-based practices to woman during pregnancy, labor, postpartum and neonates.

1. Conducted the in-service training (INSET)<sup>4</sup> for health professionals at the project's sites.

#### 1) The topics of the INSET

These topics are essential to training as they didn't know about it properly based on the result of the baseline survey and their request.

Midwifery care for childbirth

- (1) Personalized positions in labor and delivery
- (2) Supportive and empathetic care in pregnancy and labor
- (3) Offering oral fluids during labor and delivery
- (4) Empowerment of women in pregnancy, labor and postpartum

Risk management for childbirth

- (1) Risk assessment and screening for childbirth
- (2) Careful monitoring of the progress of labor
- (3) Fetal heart rate monitoring
- (4) Proper medical intervention for childbirth with a risk
- (5) Control and treatment for eclampsia and preterm delivery

#### 2) Schedule of the INSET

<sup>4</sup> In-service training is an integrated educational program for the health workers to learn and practice simultaneously. A session consists of lecture part and practical institution at the working place of participants. It aims not only to get knowledge or understanding but also to improve their actual clinical practice corresponding to the topic.

	INSET I	INSET II	INSET III	INSET IV	INSET V	INSET VI
lecturer	Makiko Noguchi	Dr. Masato Takeuchi	Dr. Masato Takeuchi Mw. Satoko Omuta	Dr. Masato Takeuchi	Dr. Masato Takeuchi	Mw. Satoko Omuta
<i>Hrazdan</i>	19-Sep-05 18	11-Oct-05 22 12-Oct-05 21 13-Oct-05 22 14-Oct-05 22	15-Nov-05 18 16-Nov-05 21		5-May-06 10 6-May-06 11	13-Jun-06 19
<i>Gavar</i>	14-Sep-05 19	17-Oct-05 24 18-Oct-05 17 18-Jan-00 18 20-Oct-05 17	17-Nov-05 18 18-Nov-05 17		3-May-06 5 4-May-06 5	14-Jun-06 23
<i>IPOG</i>	3-Oct-05 11	24-Oct-05 38 25-Oct-05 37 26-Oct-05 34	21-Nov-05 45 22-Nov-05 45 23-Nov-05 34	24-Jan-06 5 25-Jan-06 4	2-May-06 4 10-May-06 2	15-Jun-06 14 16-Jun-06 24

\* The boldface is the number of participant

\* Participants were selected from the health worker at the project sites correspond to the topic of the INSET

### (3) Participants of the INSET

The total number of man-days				
	Hrazdan	Gavar	IPOG	
INSET I	18	19	11	48
INSET II	87	76	109	272
INSET III	39	35	124	198
INSET IV	-	-	9	9
INSET V	21	10	6	37
INSET VI	19	23	38	80
total	184	163	297	644

Gavar Maternity Hospital	
name	position
1 Chichoyan, Hovik	Director of Gavar Maternal Hospital
2 Kuroyan, Paruyr	Prime of the Gavar Maternal hospital
3 Abrahamyan, Melanya A.	children's nurse
4 Adamyan, Anush	midwife
5 Amirkhanyan, Narine S.	children's nurse
6 Avetisyan, Karmen V.	children's nurse
7 Avetisyan, Manush Vachik	senior midwife at women's consultation
8 Bakhtikyan, Anna M.	nurse at operation room
9 Batkian, Alita	midwife
10 Dadoyan, Armine Jurik	midwife at women's consultation
11 Danielyan, Rita Rafik	midwife
12 Galeyan, Nina	new-born's nurse
13 Grigoryan, Gayane Vidok	Therapeutist at women's consultation dep
14 Grigoryan, Larisa Gurgun	obstetrician & gynecologist
15 Hakobyan, Galina Borik	senior nurse at gynaecological department
16 Hakobyan, Lucy V.	nurse
17 Hakobyan, Sona M.	midwife
18 Hakobyan, Victoria	nurse
19 Hamaryan, Levine Lyova	Head of the women's consultation dep.
20 Haydareyan, Eliza O.	anesthesiologist
21 Hayrapetyan, Gohar Sasha	nurse at gynaecological department
22 Hovhannisyan, Alita S.	nurse at the gynaecological department
23 Hovhannisyan, Vazganush Z.	head of the maternity department
24 Khachatryan, Elmira V.	nurse at the gynaecological department
25 Khachatryan, Naira Zilim	neonatologist
26 Khachikyan, Satik	nurse
27 Khandanyan, Greta V.	senior nurse
28 Kharabakhyan, Lida	midwife
29 Khasabokhlyan, Manya Paruyr	nurse at women's consultation
30 Martirosyan, Marlene	obstetrician & gynecologist
31 Mazmanyany, Gayane Rafik	pharmaceutist
32 Melqonyan, Gayane	post-delivery nurse
33 Melqonyan, Narine Jorik	senior nurse at children's department
34 Melqonyan, Varduhy	midwife
35 Miribyan, Gohar Vachagan	head of the gynecological department
36 Miribyan, Marina Henrik	nurse at operation room
37 Mkrtchyan, Nelly O.	nurse
38 Mkrtchyan, Varduhy	sonographer
39 Movsisyan, Hasmik	post-delivery nurse
40 Petrosyan, Armine	nurse
41 Safaryan, Karine G.	anesthesiologist
42 Sheloian, Seda Robert	midwife
43 Tadevosyan, Ruzanna	doctor at the laboratory
44 Vanyan, Rosa G.	nurse

Hrazdan Maternity Hospital	
name	position
1 Narimanyan, Henrik Levon	Director of Hrazdan Maternal Hospital
2 Adamyan, Vanik Gekham	Prime of the Hrazdan Maternal Hospital
3 Abrahamyan, Karine	senior nurse
4 Asatryan Irina, Hambartsum	obstetrician & gynecologist
5 Balasanyan, Marine	nurse
6 Eghiazaryan, Silva	midwife
7 Gasparyan, Karine Hrant	obstetrician & gynecologist
8 Gevorgyan, Gayane Hajk	senior nurse
9 Gevorgyan, Lusine	midwife
10 Grigoryan, Maria	midwife
11 Hakobyan, Valentina Vahram	midwife
12 Hakobyan, Vergine	midwife
13 Harutjunyan, Armine	nurse
14 Karapetyan, Heghine	midwife
15 Khachatryan, Alverd Khoren	midwife
16 Madoyan, Haykanush Henrik	midwife
17 Manukyan, Satenik	midwife
18 Melqonyan, Gohar Donik	neonatologist
19 Melqumova, Anjela Samvel	obstetrician & gynecologist
20 Narimanyan, Gohar Henrik	obstetrician & gynecologist
21 Papyan, Anush	midwife
22 Papyan, Narine Melsik	obstetrician & gynecologist
23 Qosyan, Alvina	midwife
24 Sargsyan, Ruzanna Patvakan	neonatologist
25 Simonyan, Anush Gabriel	midwife
26 Stepanyan, Lidush Avdal	obstetrician & gynecologist
27 Vardanyan, Sijuzanna	midwife
28 Virabyan, Haykanush	midwife
29 Virabyan, Tsovinar Arevshat	midwife

Institute of Perinatology, Obstetrics and Gynecology (IPOG)		
name	position	
1 Abrahamyan, Razmik	Director of the IPOG	
2 Abrahamyan, Sara	ordinator	
3 Alexanyan, Karine	obstetrician & gynecologist	
4 Antonyan, Karine	resident	
5 Arakelyan, Iren	obstetrician & gynecologist	
6 Araqueyan, Hripsik	chief nurse at women's consultation	
7 Avagyan, Vardan	clinician-ordinator	
8 Avetisyan, Aida	nurse	
9 Avetisyan, Alla	epidemiologist	
10 Avetisyan, Anush Samvel	midwife	
11 Avetisyan, Kristine	ordinator	
12 Avetisyan, Venera	post-delivery midwife	
13 Ayvazyan, Naira	chief nurse at new-born's department	
14 Badalyan, Haykuhy Stepan	midwife	
15 Baghdasaryan, Flora	nurse	
16 Bhagat Singh Singhatia	medical student (5th)	
17 Bibulyan, Armen Kim	dupty of the second obst. department	
18 Danielyan, Ararat	obstetrician & gynecologist	
19 Darbinyan, Narine	midwife	
20 Dashyan, Ofelia	obstetrician & gynecologist	
21 Davtyan, Nazik	midwife	
22 Eghiazaryan, Donara	neonatologist	
23 Elayan, Hajkuhy	clinician-ordinator	
24 Engibaryan, Anna	clinician-ordinator	
25 Gasparyan, Narine	post-delivery midwife	
26 Gasparyan, Ofelya Razmik	midwife	
27 Gasparyan, Ruzan Zarzand	nurse	
28 Gekhamyan, Hasmik	obstetrician & gynecologist	
29 Gekhamyan, Karine	midwife	
30 Gevorgyan, Arman	clinician-ordinator	
31 Gevorgyan, Khachik	clinician-ordinator	
32 Gjulmnyan, Gayane	obstetrician & gynecologist	
33 Gogoryan, Ekhsik Papin	midwife	
34 Grigoryan, Lusine	midwife	
35 Grigoryan, Narine	clinician-ordinator	
36 Grigoryan, Tatevik	clinician-ordinator	
37 Grigoryan, Vruyr	obstetrician & gynecologist	
38 Hajrapetyan, Elena	clinician-ordinator	
39 Hakobyan, Anna	clinician-ordinator	
40 Harutjunyan, Armine Volodya	midwife	
41 Harutjunyan, Mesrop Meliton	candidate for the medical sciences	
42 Harutjunyan, Mihran Misha	obstetrician & gynecologist	
43 Harutjunyan, Nana	obstetrician & gynecologist	
44 Harutjunyan, Narine	midwife	
45 Hovhannisyan, Eleonora	midwife	
46 Hovhannisyan, Lilit	clinician-ordinator	
47 Ispiryian, Sona	obstetrician & gynecologist	
48 Jerkherjyan, Arshak Sargis	deputy of the CPOG	
49 Julhakyan, Karen	ordinator of obs. & gyn.	
50 Kamsaryan, Narine	obstetrician & gynecologist	
51 Karagulyan, Korjun	neonatologist	
52 Khachatryan, Lilya Grigor	midwife	
53 Khadinyan, Taron	obstetrician & gynecologist	
54 Khaktryan, Gayane	neonatologist	
55 Kharibyan, Flora Artyom	midwife	
56 Khazaryan, Aida	senior midwife	
57 Khazaryan, Narine	midwife	
58 Khazaryan, Nelly	aspirant at the department of obs. & gyn.	
59 Khechoyan, Lilya	obstetrician & gynecologist	
60 Khorukhchyan, Tatevik	resident (4-th year)	
61 Khrimyan, Anahit	obstetrician & gynecologist	
62 Khudaverdyan, Anna	obstetrician & gynecologist	
63 Khukasyan, Romela	obstetrician & gynecologist	
64 Makaryan, Sofija	clinician-ordinator	
65 Malkhasyan, Arevik	post-delivery midwife	
66 Manukyan, Balasan	ordinator	
67 Manvelyan, Vahan	clinician-ordinator	
68 Margaryan, Armine	post-delivery midwife	
69 Martirosyan, Amalia	midwife at women's consultation	
70 Martirosyan, Lidia	clinician-ordinator	
71 Martirosyan, Margo	clinician-ordinator	
72 Meliksetyan, Serine	head of the new-born's department	
73 Meloyan, Marusya Azat	midwife	
74 Mesropyan, Alina	midwife	
75 Mikoyan, Jermen	nurse	
76 Mirakhoryan, Susanna	midwife	
77 Mkhchyan, Anahit	obstetrician & gynecologist	
78 Mkrtchyan, Margarita	clinician-ordinator	
79 Mkrtchyan, Nara	clinician-ordinator	
80 Mnacakanyan, Armine	midwife	
81 Mnacakanyan, Haykush Ashot	midwife	
82 Ohanjanyan, Anna	clinician-ordinator	
83 Oznezyan, Ruzanna	obstetrician & gynecologist	
84 Papikyan, Armenuhy	obstetrician & gynecologist	
85 Petrosyan, Anahit	neonatologist	
86 Pogosyan, Andranik	deputy of the obs.-gyn. department	
87 Pogosyan, Gayane	post-delivery midwife	
88 Pogosyan, Svetlanna	post-delivery midwife	
89 Qalashyan, Alla	obstetrician & gynecologist	
90 Qalashyan, Julietta	neonatologist	
91 Qotanyan, Jasmen	obstetrician & gynecologist	
92 Sahakyan, Mher	clinician-ordinator	
93 Sahakyan, Varditer	midwife	
94 Sargsyan, Bella	obstetrician & gynecologist	
95 Sargsyan, Larisa	obstetrician & gynecologist	
96 Sargsyan, Nazely	obstetrician & gynecologist	
97 Saroyan, Mary	clinician-ordinator	
98 Shahbazyan, Marine	post-delivery midwife	
99 Susanyan, Ada Babken	obstetrician & gynecologist	
100 Tadevosyan, Anna	chief midwife	
101 Torosyan, Lusine	obstetrician & gynecologist	
102 Tsarukyan, Manushak	clinician-ordinator	
103 Vardanyan, Varsenik Bagrat	midwife	
104 Velicoyan, Emma	post-delivery midwife	
105 Verdyan, Karine	clinician-ordinator	
106 Zohrabyan, Karmen	obstetrician & gynecologist	

<outp3> The referral system is strengthened between IPOG and the Maternity Hospitals of Gavar and Hrazdan for the better delivery of Primary Health Care system.

1. Field mission: visited to the facility of the primary level of the two regions.

1) Kotayk Marz

Visited and had a workshop with the health workers at the primary facility.

(1) Polyclinic in Tsaghadzor on 27 January 2006

Participant of the workshop

participants	position
Midwife of the polyclinic	Regional midwife
Pediatric nurse of the polyclinic	Regional nurse
Henrik Narimanyan	Director of Hrazdan Maternity Hospital
Oluga Adamyan	Main specialist of health & social insurance of Kotayk regional administration
Masato Takeuchi	Obstetrics & Gynecologist, JICA expert
Makiko Noguchi	Chief adviser of the project
Masanori Omiya	Cordinator of the project
Karine Karamyan	Interpreter

## (2) Polyclinic at Megarador on 6 May 2006

### Participant of the workshop

participants	position
Director of the polyclinic	Dentist
Nurse of the polyclinic	Regional nurse
Oluga Adamyan	Main specialist of health & social insurance of Kotayk regional administration
Masato Takeuchi	Obstetrics & Gynecologist, JICA expert
Makiko Noguchi	Chief adviser of the project
Masanori Omiya	Coordinator of the project
Ruzan Petrosyan	Interpreter

## 2) Gegharkunik Marz

Visit to the facility of primary level to follow the health check by the mobile team of Gavar Maternity Hospital

### (1) Polyclinic at Tsaghadzor on 27 January 2006

#### Participant of the maternity health check and workshop

participants	position
Hovic Chichoyan	Director of Gavar Maternity Hospital
Meranya Gebalgyan	Director and Therapist of the polyclinic
Levine Hanaryan	Head of the womens' consultation Department of Gavar Maternity Hospital
Anush Adamyan	Midwife of Gavar Maternity Hospital
Gayane Grigoryan	Therapist of the womens' consultation Department of Gavar Maternity Hospital
Masato Takeuchi	Obstetrics & Gynecologist, JICA expert
Makiko Noguchi	Chief adviser of the project
Masanori Omiya	Coordinator of the project
Ruzan Petrosyan	Interpreter

## 2. Explore the referral system at the project sites

### 1) Hrazdan Maternity Hospital

- Discussed the Guideline of the hospital (original).

Translated from Armenian into English (69 pages) for the session.

- Discussed about the referral system

Make the English version of the referral sheets (4 types) for the session.

- Had a workshop about the referral system on 6 May 2006.

Participants	Position
1 Henrik Narimanyan	Head of Hrazdan maternal hospital
2 Vanik Admyan	Obstetrics-gynecologist
3 Irina Asatryan	Obstetrics-gynecologist
4 Anjela Melqumova	Obstetrics-gynecologist
5 Gohar Narimanyan	Obstetrics-gynecologist
6 Narine Papyan	Obstetrics-gynecologist
7 Lidush Stepanyan	Obstetrics-gynecologist
8 Melqonyan Gohar	Neonatologist
9 Hakobyan Vergine	Midwife
10 Eghiazaryan Silva	Midwife
11 Papyan Anush	Midwife
12 Masato Takeuchi	Obstetrician-gynecologist, JICA expert
13 Makiko Noguchi	Chief adviser of "Reproductive Health Project" in Armenia
14 Masanori Omiya	Coordinator of "Reproductive Health Project" in Armenia
15 Petrosyan Ruzan	Interpreter



## 2) Gavar Maternity Hospital

- Discussed about the referral system

Make the English version of the referral sheets for the session.

- Had a workshop about the referral system on 4 May 2006.

Participants	Position
1 Hobick Chicoyan	Head of Gavar Maternal Hospital
2 Vazganush Hovhannisyan	Head of the maternity department
3 Gayane Grigoryan	Therapist at women's consultation
4 Levine Hamaryan	Obstetrician-gynecologist
5 Gohar Miribyan	Obstetrician-gynecologist
6 Masato Takeuchi	Obstetrician-gynecologist, JICA expert
7 Makiko Noguchi	Chief adviser of "Reproductive Health Project" in Armenia
8 Masanori Omiya	Coordinator of "Reproductive Health Project" in Armenia
9 Petrosyan Ruzan	Interpreter

## II. Schedule of the activities (Plan and actual of operation)

Activities for each Output (Output No. in the PDM and its description;

Activities		2004 2005												2006											
		12/	1/	2/	3/	4/	5/	6/	7/	8/	9/	10/	11/	12/	1/	2/	3/	4/	5/	6/	7/	8/	9/	10/	11/
1-1	Develop the teaching materials about EBM and evidence-based practices.																								
1-2	Conduct seminars and workshops for evidence-based maternal health service.																								
1-3	Develop internet environments to get the best evidence for maternal health service.																								
1-4	Conduct training to obtain and integrate scientific evidence for practical expertise.																								
1-5	Conduct clinical conference to update evidence-based knowledge and skills.																								
<Addition>	Conduct the baseline and end-line survey																								

Year month Activitieies	2004 2005	2006 12/ 1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 10/ 11/ 12/ 1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 10/ 11
<p>2-1 Improvement the health check-up for the pregnant women at the hospitals and increase medical check services to rural communities.</p> <p>2-2 Improvement monitoring and assessment tools to the woman's physical and mental well-being.</p> <p>2-3 Conducting the in-service training in:</p> <ul style="list-style-type: none"> <li>- Evidence-based antenatal, labor, postpartum and neonatal clinical care.</li> <li>- Principles and skills of support to women and their families.</li> <li>- Risk assessment and the use of appropriate medical technologies.</li> </ul> <p>3-1 Develop the standard manual of the referral system between IPOG and the Maternity hospitals.</p> <p>3-2 Enhance the reporting system between IPOG and the Maternity Hospitals to share clinical information of high-risk clients.</p> <p>3-3 Conduct periodically meetings between professionals working at IPOG and the Maternity Hospitals.</p>		<p>*no activities were carried out under this items as the need for such intervention by the project was assessed to be low.</p>

### III. Track Record of the Inputs

#### 1. Japanese experts dispatched by JICA

name	speciality	terms of the dispatch		M/M	affiliation	mission
		from	till			
Makiko Noguchi	chief adviser	18-Jan-05	14-Jun-05	4.93	The University of Tokyo	Administration, INSET
Masnorio Omiya	Training/Planning & Coordinator	18-Jan-05	30-Apr-05	3.43	Jupiter Co., LTD	Coordination, accounting
Yoshiyuki Murai	Training/Planning & Coordinator	30-Apr-05	14-Jun-05	1.53	Japan International Cooperation Center	Coordination, accounting
Makiko Noguchi	chief adviser	6-Aug-05	5-Feb-06	6.13	The University of Tokyo	Administration
Masnorio Omiya	Training/Planning & Coordinator	6-Aug-05	5-Feb-06	6.13	Jupiter Co., LTD	Coordination, accounting
Makiko Noguchi	chief adviser	11-Apr-06	31-Jul-06	3.76	The University of Tokyo	Administration
Masnorio Omiya	Training/Planning & Coordinator	11-Apr-06	31-Jul-06	3.76	Jupiter Co., LTD	Coordination, accounting
Makiko Noguchi	chief adviser	23-Sep-06	2-Dec-06	2.36	The University of Tokyo	Administration
Masnorio Omiya	Training/Planning & Coordinator	23-Sep-06	2-Dec-06	2.36	Jupiter Co., LTD	Coordination, accounting
Masato Takeuchi	Obstetrics and Perinatology	5-Mar-05	13-Mar-05	0.30	Sakuragawa geriatric care facility	Seminar 1
Satoko Omuta	Midwifery care	5-Mar-05	13-Mar-05	0.30	Kasuga Midwifery Clinic	Seminar 1
Chizuru Misago	Epidemiology	8-Mar-05	13-Mar-05	0.20	Tsuda College	Seminar 1
Hiroshi Takahashi	Public Health	8-Mar-05	16-Mar-05	0.30	Japan International Cooperation Agency	Seminar 1
Tomohiro Matsuda	Epidemiology	24-Apr-05	14-May-05	0.70	National Institute of Public Health	baseline survey, workshop
Masato Takeuchi	Obstetrics and Perinatology	9-Oct-05	28-Oct-05	0.66	Sakuragawa geriatric care facility	INSET 2
Masato Takeuchi	Obstetrics and Perinatology	12-Nov-05	25-Nov-05	0.46	Sakuragawa geriatric care facility	INSET 3
Satoko Omuta	Midwifery care	12-Nov-05	25-Nov-05	0.46	Kasuga Midwifery Clinic	INSET 3
Masato Takeuchi	Obstetrics and Perinatology	21-Jan-06	30-Jan-06	0.33	Sakuragawa geriatric care facility	INSET 4, Direction
Masato Takeuchi	Obstetrics and Perinatology	29-Apr-06	14-May-06	0.53	Sakuragawa geriatric care facility	INSET 5
Satoko Omuta	Midwifery care	11-Jun-06	18-Jun-06	0.26	Kasuga Midwifery Clinic	INSET 6
Hiroshi Nishida	Neonatology	17-Jul-06	24-Jul-06	0.26	Tokyo Women's Medical University	Seminar 2

The sum total of M/M is 39.15

#### 2. C/P training course in Japan

period	participant	affiliation	position
18-26 December, 2004	Razmik Abrahamyan	IPOG	Director
	Henric Narimanyan	Hrazdan Maternal Hospital	Director
	Ovid Chuchoyan	Gavar Maternal Hospital	Director
	Hyke Grigoryan	Ministry of Health	Head of Department of International Relations
	Armen Kim Blbulyan	IPOG	Deputy of the Second Obs. Department
12- 29 March, 2006	Vahe Michael Gyulhasyan	IPOG	Head of the Operative Gynecology Department
	Armenuhi Haroutunyan	IPOG	Chief Midwife
	Nazik Robert Davtyan	IPOG	Midwife at Delivery Room
	Gohar Henry Narimanyan	Hrazdan Maternal Hospital	Head of the Gynecological Department
	Tsovinar Arevshat Virabyan	Hrazdan Maternal Hospital	Midwife at Delivery Room
	Vazganush Zaven Hovhannissyan	Gavar Maternal Hospital	Head of the Obstetric Department
	Sona Mekhak Hakobyan	Gavar Maternal Hospital	Midwife at Delivery Room
	Vruyr Grigoryan	IPOG	Head of the Department of Obstetrics
	Narine Harutjunyan	IPOG	Obstetrician & Gynecologist
27 Aug - 13 Sep, 2006	Hasmik Petrosyan	IPOG	Obstetrician & Gynecologist
	Marusya Meloyan	IPOG	Midwife
	Flora Gharipyan	IPOG	Midwife
	Levon Narimanyan	Hrazdan Maternal Hospital	Head of the Department of Intensive Care Unit
	Valentina Hakobyan	Hrazdan Maternal Hospital	Midwife
	Larisa Grigoryan	Gavar Maternal Hospital	Obstetrician & Gynecologist
	Anush Adamyan	Gavar Maternal Hospital	Midwife

The visiting list

- 1) The first training course : 18 - 26 December 2004
  - (1) JICA Headquarters
  - (2) JICA Tokyo International Center
  - (3) National Center for Child Health of Development
  - (4) St. Luke's International Hospital
  - (5) Higashi Futyu Hospital
  - (6) Kasuga Midwifery Clinic

2) The second training course : 12 - 29 March 2006

- (1) JICA Headquarters
- (2) JICA Tokyo International Center
- (3) International Medical Center of Japan
- (4) Japan Red Cross Medical Center
- (5) St. Luke's International Hospital
- (6) Aiwa Maternity Hospital
- (7) Kasuga Midwifery Clinic
- (8) St. Luke's Nursing College
- (9) National Institute of Public Health

3) The third training course : 27 August - 13 September 2006

- (1) JICA Headquarters
- (2) JICA Tokyo International Center
- (3) Japan Red Cross Medical Center
- (4) Tokyo Women's Medical University
- (5) Nagasaki University
- (6) Aiwa Maternity Hospital
- (7) Kasuga Midwifery Clinic

3. Equipment

1) A equipment which was supplied: Car

TOYOTA Land Cruiser Prado GSX Safari SPL/T

Total 45096.09 US\$ (Including the cost of insurance, additional parts)

Date of order: 14 September, 2005

Date of receipt: 5 December, 2005

Date of delivery: 30 November 2006 (to IPOG)

The car was used by the JICA experts to visit the project sites.

After the project, it will be used for the future medical work by IPOG.

2) The necessary equipment of the technical cooperation project

The main aim of the equipment as below

- For delivery room at the project sites: ultrasonic doppler, tatami unit, sofa, nursing pillow, essential oils
- For the INSET and seminar: educational materials and goods
- For EBM library at the project sites: PC, printer and accompaniment
- For the JICA Reproductive Health Project's office

The following is the equipment list.

No	Description of Goods	Date	Quantity	Unit Price(JPY)	Amount(JPY) THOUSAND
1	SONY USB MOUSE PCGA -UMS5	20,01,05	4 PCS	6.3	25.2
2	SOFTWARE OFFICE 2003STANDARD ENGLISH	20,01,05	1 PCE		49.8
3	HP COLOR PRINTER DESKJET 5740	20,01,05	4 PCS	15.8	63.2
4	SOFTWARE NORTON SYSTEM WORKS 2005	20,01,05	1 PCE		8.4
5	MATSUNAGA AVR SVC-1500ND II	20,01,05	1 PCE		42
6	HP LASER PRINTER LASERJET 4250N	20,01,05	1 PCE		188
7	MATSUSHITA AC TAP WH2828-HP	20,01,05	1 PCE		2.3
8	CANON FAX B670	20,01,05	1 PCE		301
9	CANON CARTRIDGE BX-20	20,01,05	5 PCS	2.8	14
10	BUFFALO LAN CABLE ETP-C5E-10	20,01,05	2 PCS	720	1.44
11	BUFFALO SWITCHING HUB LSW-GT-8C	20,01,05	1 PCE		9.3
12	HP INK CARTRIDGE Y2067AA	20,01,05	4 PCS	6.6	26.4
13	PREGNANCY EXPERIENCE SPECIAL SUIT, F25 WITH INFANT MODEL 32518-000	20,01,05	1 PCE		142.5
14	MATERNITY NURSING SET, F30 32523-000	20,01,05	1 PCE		161.5
15	CD-ROM INTERA ACTIVE GYNECOLOGICAL ULTRASOUND GUIDE/CLINICAL EDITION	20,01,05	1 PCE		45
16	CD-ROM NINE MONTHS MIRACLE	20,01,05	1 PCE		10.5
17	MULTIMEDIA PROJECTOR ELP-735 EPSON	20,01,05	1 PCE		318
18	SCREEN DF-120E EPSON	20,01,05	1 PCE		187
19	NOTEBOOK COMPUTER VGN-A29GP SONY	20,01,05	3 PCS	298	894
20	FLOPPY DISK DRIVE PCGA-UFD5 SONY	20,01,05	4 PCS	11	44
21	NOTEBOOK COMPUTER VGN-K71B SONY	20,01,05	1 PCE		222
22	TRANSFORMER RW-33 ROAD WARRIOR	20,01,05	7 PCS	15.8	110.6
23	MEMORY VGP-MM512G SONY	20,01,05	1 PCE		44
24	SOFTWARE SPSS BASE 13.0 J FOR WIN	29,01,05	1 PCE		130
25	SOFTWARE NORTON INTERNET SECURITY 2005 3 USER ENGLISH	29,01,05	1 PCE		23.8
26	HP INK CARTRIDGE Q5942X	29,01,05	1 PCE		25.8
27	A GUIDE TO EFFECTIVE CARE IN PREGNANCY AND CHILDBIRTH 019263173X	29,01,05	4 PCS	5.8	27.2
28	TRANSPARENT FEMALE PELVISS A23B 11022-100	29,01,05	1 PCE		72.2
29	BOOKS	15,02,05	4 VOLS		73.984
30	VIDEO TAPE	15,02,05	1 PC		6.96
31	VIDEO TAPE RECORDER NV,SV120	15,02,05	1 SET		26
32	POINTER SASHI-40	15,02,05	2 PCS	3.9	7.8
33	5 SOFA 5504469	26,07,05	4 PCS	17.5	70
34	6 SOFACOVER 5504442	26,07,05	4 PCS	5.4	21.6
35	STOPWATCH ADMD002	06,08,05	7 PCS	1.94	13.58
36	PRINTCARTRIDGE Q5942X	06,08,05	2 PCS	24.7	49.4
37	INKCARTRIDGE hp130 C8767HJ	06,08,05	10 PCS	3.75	37.5
38	INKCARTRIDGE hp134 C9363HJ	06,08,05	10 PCS	4.15	41.5
39	ULTRASONIC DOPPLER FETAL HEART DETECTOR MODEL:ELITE 200 ED,30 WITH STANDARD AXCESSORRIES	06,08,05	3 PCS	161	483
40	"SONO JELLY" (SOFT), ULTRASONIC GEL FOR THE ABOVE 350G X 12/BOX	06,08,05	1 PCE	16	16
41	MEDICAL ACCESSORY (ESSENTIAL OIL X 40, BASE OIL X 15)	04,11,05	1 SET		299.3
42	LAVENDAR (15ml)	30,11,05	10		30.8
43	MELALEUCA (15ml)	30,11,05	6		16.6
44	CYPRESS (15 ml)	30,11,05	4		10
45	CHAMOMILE (15 ml)	30,11,05	10		38.3
46	FENNEL (15 ml)	30,11,05	4		7.3
47	SANDALWOOD (15 ml)	30,11,05	12		113.3
48	FRANKINCENSE (15 ml)	30,11,05	4		43.3
49	EUKALYPTUS (15 ml)	30,11,05	8		14.9
50	JUNIPER (15ml)	30,11,05	4		18.2
51	MAJORAM (15 ml)	30,11,05	4		10.5
52	BUFFALO LAN CABLE CATEGORY 5e STRAIGHT ETP-C5E-10BL	29,04,06	4 PCS	1	4
53	TATAMI UNIT, HIGH FLOOR BOX TYPE JPS-02	27,05,06	6 SETS	9.75	58.5
54	TATAMI UNIT, HIGH FLOOR DRAWER TYPE JPS-03	27,05,06	4 SETS	12.7	50.8
55	NURSING PILLOW, 04-16374 (RED)	27,05,06	5 PCS	3.2	16
56	NURSING PILLOW, 6525 (INDIAN COTTON MULTU BORDER)	27,05,06	5 PCS	2.8	14
57	POSITIONS FOR LABOURING OUT OF BED CHART	05,09,06	3		8
58	SQUATTING:THE POSITION FOR LABOR & BIRTH CHART	05,09,06	3		5.4
59	TOOLS FOR LABOR CHART	05,09,06	3		8
TOTAL					4803.654

These all equipments are provided to the project sites for the future work of the field of reproductive health in Armenia.

#### 4. Local expenses

The activity in Armenia consists of 4 times during the project term.

	the term
1 <sup>st</sup> phase	18 Jan, 2005 — 14 Jun, 2005
2 <sup>nd</sup> phase	7 Aug, 2005 — 5 Feb, 2006
3 <sup>rd</sup> phase	11 Apr, 2006 — 31 Jul, 2006
4 <sup>th</sup> phase	23 Sep, 2006 — 2 Dec, 2006

The expenditure of each fiscal year

Fiscal year	The quarter	Expenditure
2004	The fourth quarter (Jan.—Mar.)	19706.53 (US\$)
2005	The first quarter (Apr.—Jun.)	886182 (JPY)
	The second quarter (Jul.—Sep.)	6808.37 (US\$)
	The third quarter (Oct. —Dec.)	16285.39 (US\$)
	The fourth quarter (Jan.—Mar.)	3097.25 (US\$)
2006	The first quarter (Apr.—Jun.)	8901.46 (US\$)
	The second quarter (Jul.—Sep.)	12733.88 (US\$)
	The third quarter (Oct. —Dec.)	12297.66 (US\$)

Total: 79830.54(US\$) + 886182 (JPY)

The main account for the expenditure as below

- 3 times of the seminar and 33 times of the INSET
- Develop the educational materials, posters and dictionary
- Personal cost: Interpreter, translator and local staff
- Instruments and materials for the project office and activity

#### IV. The lesson and learn from the project

The JICA Reproductive Health Project is the first technical cooperation project between Japan and Armenia. There is no JICA office or embassy of Japan, and few Japanese in Armenia at the start of the project. Under the social situation, we had to find a way to conduct and administrate the work at all times and succeeded after several attempts. The lesson and learn are summarized from four features of the project.

First of all, the project consists of four short-term activities in Armenia. It means the limitation of the time for the training at the project's sites. We had to spend the time actually to launch and withdrawal the project at the start and end of each term. It was also difficult to keep local human resources because we could not employ the interval term or assurance of the next term. To conduct the training more efficiently and effectively even in the short term, we planned the training program based on the result of the baseline survey intended for the health professional at the project sites. At the end of the project, we had end-line survey as same as the baseline survey to evaluate the project. Even in short term project, baseline and end-line survey is necessarily to conduct and administrate a project. On one hand there is a demerit which we have to cope with; on the other, there is a merit. While the JICA expert was away, we could conduct the counterpart training course in Japan. The Armenian trainees were accompanied by the JICA expert during the training course. It brings a good result since the JICA experts could plan and coordinate with religious care. We were able to introduce the outcomes of the training course in Japan to the INSET.

Secondly, the Grant Aid Project for improvement of obstetrics service carried out at the same project sites together. From the basic design survey of the Grant Aid Project, we took account of multiplier effect. The Grant Project contributed essential and valuable equipment to the each project sites. We could use the equipment for the training program and the health professionals more facilitated their motivation after the equipment installed in the project sites. Actually, new medical equipment of obstetrics is a useful tool for health professionals and women. On the other hand, it tends to cause over-medicalisation. For example, proper cesarean section rate is 10 to 15% based on evidence. If the health professionals at the project sites aren't allowed to learn about EBM, they increased routine medical intervention, such as cesarean section using the new equipment. There is multiplier effect of the Grant Aid Project and the technical cooperation project. It is a good strategy for the target community, but coordination is indispensable, especially, between Human Development Department and Grant Aid Department of JICA, the Ministry of Foreign Affairs of Japan and Armenia, and the JICA experts, the consultant of the Grant aid project and the counterparts.

Thirdly, the lecturers of seminars and in-service training (INSET) from Japan are most reliable health professional for the project purpose. The concept of evidence-based perinatology and midwifery is also very important in Japan, but only a

minority of the specialist can practice the concept. Furthermore, a lecturer who can conduct the INSET or practical seminar is the few. Fortunately, the excellent Japanese professionals were willing to comply with our individual request and gave instruction. The arrangement by the JICA coordinator was very important for the seminar and the INSET, not to mention the lecturers. In brief, the success of the educational program depends on the qualities of a JICA expert, above all things, humanity is universal.

Finally, the counterparts maintained ownership of the project. Though they didn't know JICA technical cooperation project in detail since it was the first one in Armenia, they worked as hard as they can on the project and consider the JICA experts. To find out the best way for the project, there was a frank exchange of views at all times between the counterparts and the JICA experts. Especially, Professor Abrahamyan as project manager is always the project take into consideration. He is a man of importance not only in Armenia but international organization, for example World Health Organization, in the area of reproductive health. We planned the every project activities and common hardship brought mutual understanding through the daily conference. Generally speaking, communication is fundamental. In addition, the daily act, though trivial, is not to be trifled with. It is a way to keep their ownership, not to conduct the project smoothly.

In conclusion, the reproductive health project achieved the project purpose along with these features. Some lesson and learn from the project's field is particular to Armenia, but we suppose that there is a possibility to apply the strategy to other project.

#### V. The Project Design Matrix (PDM)

The first PDM (annex 1) agreed on 6 October, 2004.

JICA and the JICA experts discussed about PDM to revise for the mid-term evaluation on January, 2006. But the mid-term evaluation could not conduct, and the revision was postponed till final evaluation.

The PDM for evaluation (annex 2) was adopted as the framework of the evaluation exercise on the end of September, 2005.

#### VI. Joint Coordination Conference (JCC)



## 1. JCC 1

Date: 17 October, 2006

### Participants

#### 1) Japanese side

Kiyoshi Ishii

Final Evaluation Team Leader

Central Asia and the Caucasus Team, Department of Asia II, JICA

Chizuru Misago

Professor

Department of International and Cultural Studies, Tsuda College

Akiko Endo

Associate Expert

Group III (Health I), Health Personnel Development Team,

Department of Human Development, JICA

Tami Sugihara

Researcher

Department of Social Development, Global Link Management

Makiko Noguchi

Chief adviser

JICA Reproductive Health Project in Armenia

Masanori Omiya

Training/Planning & Coordinator

JICA Reproductive Health Project in Armenia

#### 2) Armenian Side

Professor Razmik Abrahamiyan

Director of Institute of Perinatology Obstetrics and Gynecology (IPOG)

Hayk Grigoryan

Department of International Relations, Ministry of Health

Henrik Narimanyan  
Director of Hrazdan Maternity Hospital

Hovic Chicoyan  
Deirector of Gavar Maternity Hospital

Agenda:

- 1) Evaluation the implementation and achievements of the project.
- 2) Revision and finalization of Joint Evaluation Report

2. JCC 2

Date: 18 October, 2006

Participants

- 1) Japanese side  
Kiyoshi Ishii  
Final Evaluation Team Leader  
Central Asia and the Caucasus Team, Department of Asia II, JICA

Chizuru Misago  
Professor  
Department of International and Cultural Studies, Tsuda College

Akiko Endo  
Associate Expert  
Group III (Health I), Health Personnel Development Team,  
Department of Human Development, JICA

Tami Sugihara  
Researcher  
Department of Social Development, Global Link Management

Makiko Noguchi  
Chief adviser  
JICA Reproductive Health Project in Armenia

Masanori Omiya

Training/Planning & Coordinator  
JICA Reproductive Health Project in Armenia

2) Armenian Side

Professor Razmik Abrahamiyan  
Director of Institute of Perinatology Obstetrics and Gynecology (IPOG)

Hayk Grigoryan  
Department of International Relations, Ministry of Health

Henrik Narimanyan  
Director of Hrazdan Maternity Hospital

Hovic Chicyoyan  
Deirector of Gavar Maternity Hospital

Agenda:

- 1) Evaluation the implementation and achievements of the project.
- 2) Revision and finalization of Joint Evaluation Report

## ANNEX 1 PROJECT DESIGN MATRIX (PDM)

Narrative Summary		Indicators that can be verified	Means of verification	Important Assumption
<b>OVERALL GOAL</b>	To promote maternal and neonatal health in the Republic of Armenia.	1. Decrement of pregnant, parturient and puerperal women and neonates in Armenia which have severe complication associated with pregnancy and delivery. 2. Decrement of maternal mortality rate, perinatal mortality rate and neonatal mortality rate.	1. Statistics of Ministry of Health 2. Report of Ministry of Health	1. The reproductive health policies of Armenia are maintained.
<b>PURPOSE</b>	To promote maternal and neonatal health at Center of Perinatology, Obstetrics and Gynecology (CPOG), Maternity Hospital of Gavar and Maternity Hospital of Hrazdan.	1. Decrement of pregnant, parturient and puerperal women and neonates in the project site which have severe complication associated with pregnancy and delivery. 2. Decrement of neonates whose apgar score is 7 and below. 3. Enhancement of the degree of satisfaction of pregnant, parturient and puerperal women and health professionals.	1. Project activity report 2. Hospital records 3. Health statistics of the project sites 4. Client satisfaction test 5. Staff satisfaction test	1. Condition of economy and politics of Armenia does not become worse.
<b>OUTPUT</b>	1. The health professionals learn about Evidence-based Medicine (EBM), and take steps to integrate clinical expertise with the best available scientific evidence. 2. The health professionals provide evidence-based practices to women during pregnancy, labor and postpartum and their neonates. 3. The referral system is strengthened between CPOG and the	1-1 The health professionals comprehend the importance of evidence-based obstetrics and maternal health care. 1-2 The health professionals comprehend the practical way of providing evidence-based obstetrics	1. Project activity report 2. Hospital records 3. Health	1. Trained counterparts continue to work at the project sites.

<p>Maternity Hospitals for the better Primary Health Care system.</p>	<p>and maternal health care.  2-1 Pregnant women have the health check-up more than four times.  2-2 decrement of abnormal labor.  2-3 Decrement of perineal incision.  3-1 CPOG and Maternity Hospitals share the information of high-risk clients.  3-2 The clients who are referred to CPOG have a good prognosis.</p>	<p>statistics of the project sites</p>	
<p><b>ACTIVITIES</b>  1-1 Develop the teaching materials about EBM and evidence-based practices.  1-2 Conduct seminars and workshops for evidence-based maternal health service.  1-3 Develop internet environments to get the best scientific evidence for maternal health service.  1-4 Conduct training to obtain and integrate scientific evidence for practical expertise.  1-5 Conduct clinical conference to update evidence-based knowledge and skills.  1-6 Assess and monitor practices of the health professionals from the EBM point of view.  2-1 Improve the health check-up for the pregnant women at the hospitals and increase medical check services to rural communities.  2-2 Improve monitoring and assessment tools to the woman's physical and mental well-being.  2-3 Conduct the in-service training in:  - Evidence- based antenatal, labor, postpartum and neonatal clinical care.  - Principles and skills of support to women and their families.  - Risk management and the use of appropriate medical technology.  3-1 Develop the standard manual of the referral system between CPOG and the Maternity Hospitals.</p>	<p><b>INPUT</b>  <u>From Armenian Side;</u>  1) Project office at each project site (CPOG, Maternity Hospital of Gavar and Maternity Hospital of Hrazdan) and necessary facilities at the office in CPOG.  2) Personnel responsible for the Project and administrative person.  - Project Director  - Project Manager  - Person responsible for project operation at each project site  - Counterpart personnel at each project site  - Full-time secretary for the Project.  - Full-time interpreters for each Japanese expert.  3) Budget for Armenian personnel and operation of the Project.  4) Budget for training inside Armenia.</p> <p><u>From Japanese side;</u>  1) Dispatch of Japanese experts in the following fields:  - Chief Advisor</p>		<p>1. Project budget and stuffs are properly allocated as planned.</p>

<p>3-2 Enhance the reporting system between CPOG and the Maternity Hospitals to share clinical information of high-risk clients.</p> <p>3-3 Conduct periodically meetings between professionals working at CPOG and the Maternity Hospitals.</p>	<p>-Coordinator/ Training Planning          -Perinatal Epidemiology          -Perinatology          -Perinatal Care</p> <p>2) Training of Armenian counterparts in Japan.</p>	
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Narrative Summary		Objectively Verifiable Indicators		Means of Verification		Important Assumption	
Overall Goal							
Maternal and neonatal health in the Republic of Armenia is improved.		1 Maternal mortality rate, perinatal mortality rate and neonatal mortality rate in the Republic of Armenia are reduced.		1 Ministry of Health statistics Demographic and Health Survey (DHS)		Reproductive health policies of Armenia are maintained.	
Project Purpose		1 Cases of maternal, perinatal and neonatal deaths at the project sites are reduced. 2 Cases of severe complications associated with pregnancy and delivery (eclampsia, bleeding, sepsis, premature separation of placenta) are reduced. 3 The quality and contents of maternal and neonatal health services at the project sites (including the management system, patient services, etc.) are improved.		1 Hospital records, project activity report 2 Hospital records, project activity report 3 Questionnaire and interview on hospital staff		Political and economic conditions of Armenia do not get worse. Status of the three hospitals under the Government of Armenia remain unchanged.	
Outputs		1-1 All the health professionals providing maternal health services and care at the project sites (total of 167 persons) receive training on evidence-based medicine and how to practice it at least once. 1-2 Level of knowledge and understanding of the health professionals at the project sites is improved. 2-1 Pregnant women have the health check-up more than four times. 2-2 Rate of perineal incision is maintained below 20% and does not increase in a statistically significant manner since the start of the project 2-3 Rate of cesarean section does not increase in a statistically significant manner since the start of the project. 2-4 Number of neonates with apgar score of 7 and below is reduced. 2-5 Number of free-style delivery is increased. 2-6 Level of satisfaction of women associated with delivery is increased. 2-7 Level of satisfaction of the health professionals over their work is increased. 3-1 The quality and contents of the referral system (referral number and steps) are improved. 3-2 Patients who are referred to IPOG have improved prognosis.		1-1 Project activity report 1-2 Project activity report, questionnaire and interview on health professionals 2-1 Project activity report, interview of women 2-2 Project activity report, hospital records 2-3 Project activity report, hospital records 2-4 Project activity report, hospital records 2-5 Project activity report, review and assessment of clinical/health practices 2-6 Project activity report, interview of women 2-7 Project activity report, interview of health professionals 3-1 Project activity report, hospital records, interview with health professionals 3-2 Case reports, interview with health professionals		The three hospitals continue to maintain support towards the project.	
3 The referral system is strengthened between IPOG and the Maternity Hospitals of Gavar and Hrazdan for the better Primary Healthcare system.							

Activities			Inputs		
			Japanese Side	Armenian Side	
1	The health professionals at the project sites learn about the Evidence-based Medicine (EBM) and take steps to integrate clinical expertise with the best available scientific evidence.				
1-1	Develop teaching materials about EBM and evidence-based practices.		1) Dispatch of Japanese experts in the following fields: -Chief Advisor -Coordinator / Training Planning -Perinatal Epidemiology -Perinatology -Perinatal Care	1) Project office at each project site (IPOG, Maternity Hospital of Gavar and Hrazdan) and necessary facilities at the office in IPOG 2) Personnel responsible for the Project and administrative person -Project Director -Project Manager -Person responsible for project operation at each project site -Counterpart personnel at each project site -Full-time secretary for the Project -Full-time interpreters for each Japanese expert	Trained counterparts continue to work at the project sites.  Provision of equipment under the "Project for Improvement of Obstetrical Service in the Republic of Armenia" is carried out as planned.
1-2	Conduct seminars and workshops for evidence-based maternal health services.				
1-3	Develop the internet environment to get the best scientific evidence for maternal health services.				
1-4	Conduct training to obtain and integrate scientific evidence for practical expertise.				
1-5	Conduct clinical conference to update evidence-based knowledge and skills.				
1-6	Assess and monitor practices of the health professionals from the EBM point of view.				
2	The health professionals at the project sites provide evidence-based practices to women during pregnancy, labor and postpartum and their neonates.				
2-1	Improve the health check-up for the pregnant women at the hospitals and increase medical check services to rural communities.		2) Training of Armenian counterparts in Japan		
2-2	Conduct in-service training (INSET) for health professionals and support/strengthen the practice of evidence-based antenatal, labor, postpartum and neonatal clinical care with focus on principles and skills of support to women and their families, and risk management and the use of appropriate medical technology.				
3	The referral system is strengthened between IPOG and the Maternity Hospitals of Gavar and Hrazdan for the better Primary Healthcare system.				
3-1	Conduct workshops to discuss ways and means of reporting and referring patients to IPOG and develop a manual on the referral system.			3) Budget for Armenian personnel and operation of the Project	
3-2	Hold regular meetings and/or communication between professionals working at IPOG and the Maternity Hospitals of Gavar and Hrazdan.			4) Budget for training inside Armenia	
					<b>Pre-Conditions</b> Project budget and staff are properly allocated as planned.