7 収集資料

MEETING of JICA FP/MCH PROJECT

ON

February 23,1996

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AGENDA

1.30 PM - Introduction

1.35 PM - Opening ceremony by chairman

1.45 pM - Presentation " Summery of IMR Survey "
by...Dr.Suriya Rattanaparinya

2.15 PM - Presentation " Summery of FP and MCH Project "
by...Dr.Kamron Chaisiri

3.00 PM - Discussion

4.00 PM - Finish

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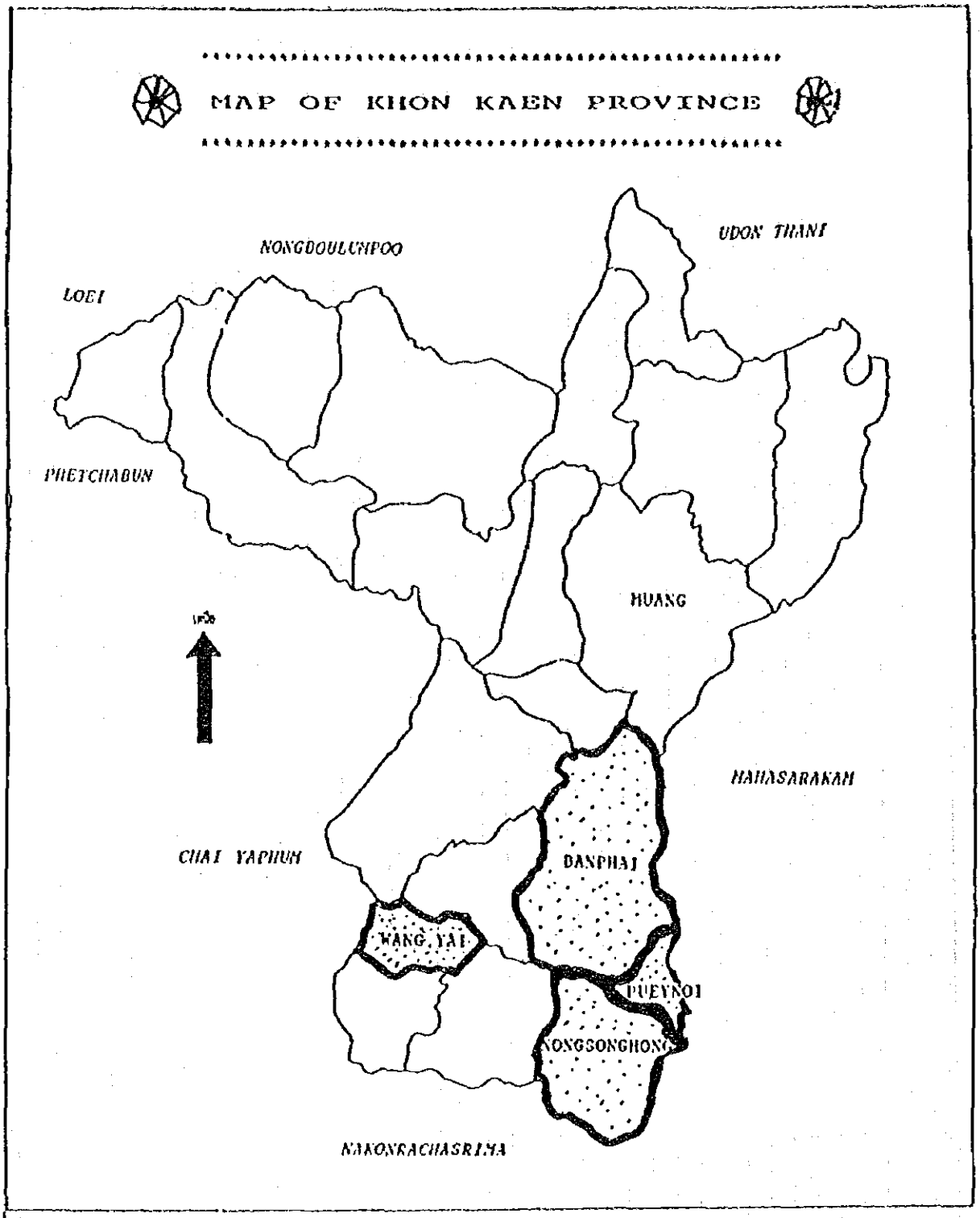
List of Supported Equipment by JICA FP/MCH

KHON KAEN PROVINCIAL HEALTH OFFICE

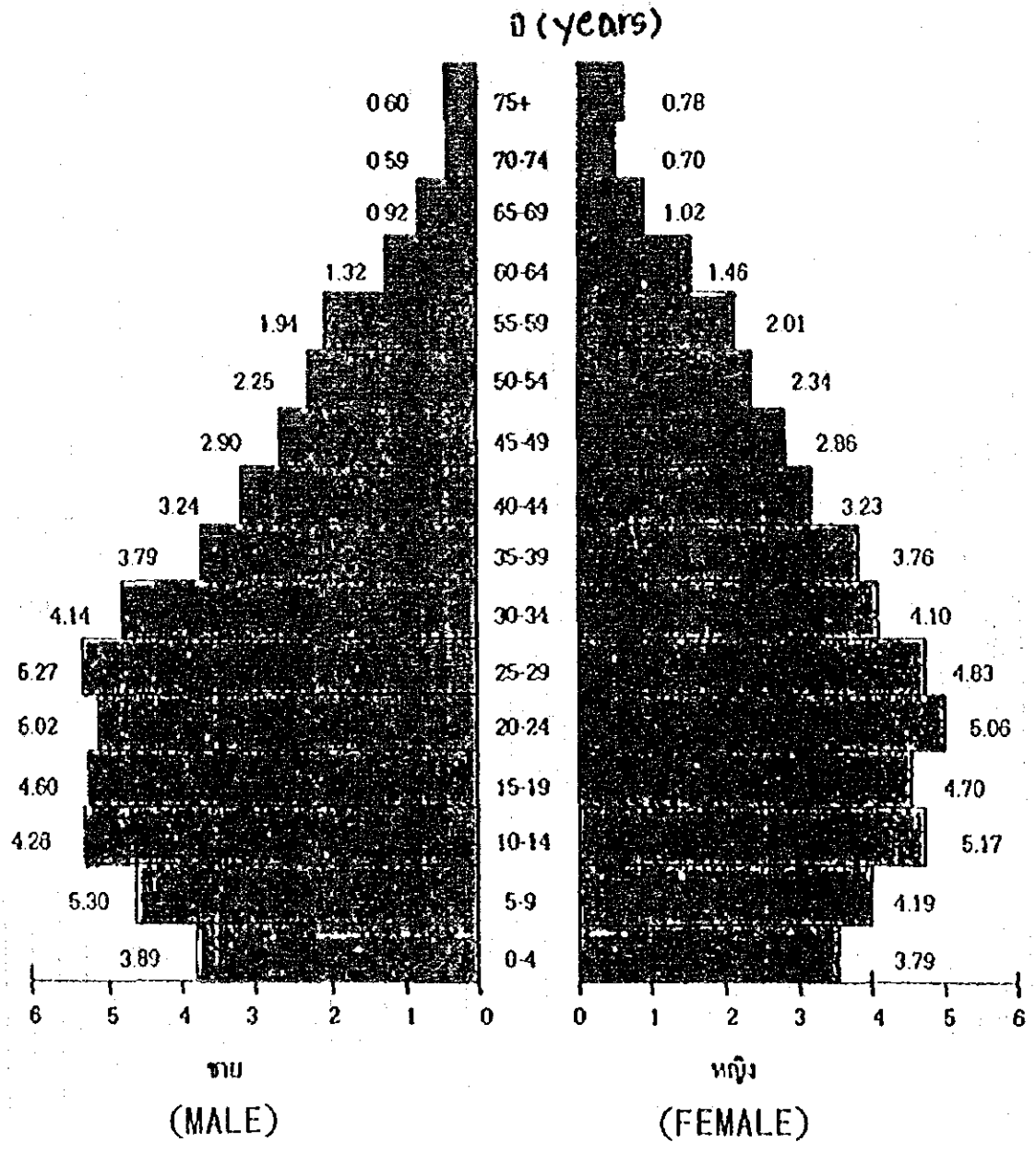
Item	Q'ty	PPHO	BANPHAI	PUEYNOI	WANGYAI	NONGSONGHONG
1.Motorcycle (1992)	22	-	10	3	3	6
2.Motorcycle (1995)	27	-	17	1	2	7
3.Autoclave (1992)	35	-	19	3	3	10
4.Infant Icubator(1992)	3	-	-	1	1	1
5.Bilirubinometer(1992)	2	-	-	-	1	1 จ่ายรพ.บ้านฝึม
6.Infant Warmer (1992)	2	-	-	-	1	1
7.Fetal heart detection (1992)	1	-	-	1	-	-
8.Newborn Respirator (1992)	1	-	1	-	-	-
9.Neonatal Monitor(1992)	1	-	1	-	-	-
10.Transparency marker(1992)	2	1	1	-	-	-
11.Electric Scanner(1992)	1	1	-	-	-	-
12.Hematocrit Centrifuge	8	-	2	2	2	2


MAP OF KHON KAEN PROVINCE
NONGDOULUHPOO
UDON THANI
LOEI
PHETCHABUN
HUANG
MAHASARAKAM
CHAI YAPHUH
BANPHAI
WANG YAI
PUEYNOI
NONGSONGHONG
NAKONRACHASRIMA

POPULATION OF…
KHON KAEN PROVINCE 〈1994〉

ปิรามิดประชากร จังหวัดขอนแก่น

แผนภูมิที่ 1 ปิระมิดประชากรปี 2537 จำแนกตามกลุ่มอายุ จังหวัดขอนแก่น



KHON KAEN PROVINCE

GENERAL INFORMATION

AREA : 10,145.3 kms^2

DIVIDED INTO

20	Districts
4	Sub-districts
197	Tambons
1,944	Villages
339,403	Households

POPULATION

Male	846,605
Female	842,892
total	1,689,497

RELIGION

99 % BUDDHIST

MCH REPORT...PPHO

INDICATORS	GOAL	1991	1992	1993	1994	1995	*survey 1995*
1.MOTHERNAL MORTARITY RATE	0.3:1000	0.8	0.1	0.1	0.08	0.06	-
2.INFANT MORTALITY RATE (0-1 YEAR)	23:1000	9.1	5.5	8.6	8.8	2.81	-
3.INFANT MORTALITY RATE (0-5 YEARS)	35:1000	*no record*	6.6	*no record*	3.72	2.30	-
4.NEWBORN BIRTH WEIGHT UNDER 2,500 G.	< 7 %	5.7	6.3	5.5	3.4	3.5	*6.8*
5.NEWBORN BIRTH WEIGHT > 3,000 G.	> 70 %	56.6	59.4	61.9	47.16	39.7	*57.8*
6.ANC 4 TIME	75 %	87.3	78.5	67.7	67.8	64.6	*84.67*
7.DELIVERRY BY HEALT WORKER and TRA	80 %	70.8	79.8	61.6	74.5	93.5	*94.48*
8.PNC 3 TIMES	70 %	84.7	79.1	60.0	65.7	58.7	*60.5*
9.NEONATAL CARE 3 TIMES	70 %	88.1	79.6	61.8	68.6	60.7	-

MCH REPORT...BANPHAI DISTRICT

INDICATORS	GOAL	1991	1992	1993	1994	1995
1.MOTHERNAL MORTARITY RATE	0.3:1000	0	0	no record	no record	0.77
2.INFANT MORTALITY RATE (0-1 YEAR)	23:1000	-	-	0.02	-	0.77
3.INFANT MORTALITY RATE (0-5 YEARS)	35:100	-	-	1.18	-	0.77
4.NEWBORN BIRTH WEIGHT UNDER 2,500 G.	< 7 %	-	-	-	2.9	3.3
5.NEWBORN BIRTH WEIGHT > 3,000 G.	> 70 %	-	65.0	63.5	68.2	65.7
6.ANC 4 TIME	75 %	-	77.6	91.40	83.97	84.33
7.DELIVERRY BY HEALT WORKER and TRA	80 %	-	-	91.11	98.2	96.27
8.PNC 3 TIMES	70 %	-	-	94.41	96.6	98.8
9.NEONATAL CARE 3 TIMES	70 %	-	83.9	94.9	98.5	99.9

MCH REPORT...PUEYNOI DISTRICT

INDICATORS	GOAL	1991	1992	1993	1994	1995
1.MOTHERNAL MORTARITY RATE	0.3:1000	0	0	0	0	0
2.INFANT MORTALITY RATE (0-1 YEAR)	23:1000	10.75	17.48	12.99	6.67	3.22
3.INFANT MORTALITY RATE (0-5 YEARS)	35:1000	2.10	4.29	9.74	1.39	3.22
4.NEWBORN BIRTH WEIGHT UNDER 2,500 G.	< 7 %	4.32	5.6	4.22	7.33	6.63
5.NEWBORN BIRTH WEIGHT > 3,000 G.	> 70 %	45.65	68.52	66.88	64.67	88.95
6.ANC 4 TIME	75 %	83.01	100.0	72.36	91.0	72.24
7.DELIVERRY BY HEALT WORKER and TRA	80 %	99.06	94.57	85.96	85.33	74.73
8.PNC 3 TIMES	70 %	94.03	88.24	78.33	85.67	70.04
9.NEONATAL CARE 3 TIMES	70 %	92.92	96.64	95.36	90.0	73.29

MCH REPORT...WANG YAI DISTRICT

INDICATORS	GOAL	1991	1992	1993	1994	1995
1.MOTHERNAL MORTARITY RATE	0.3:1000	-	-	-	-	-
2.INFANT MORTALITY RATE (0-1 YEAR)	23:1000	-	-	32.3	0.04	-
3.INFANT MORTALITY RATE (0-5 YEARS)	35:1000	-	6.2	-	0.04	-
4.NEWBORN BIRTH WEIGHT UNDER 2,500 G.	< 7 %	7.85	5.58	4.69	3.68	3.4
5.NEWBORN BIRTH WEIGHT > 3,000 G.	> 70 %	66.4	66.7	45.9	62.9	63.7
6.ANC 4 TIME	75 %	74.56	65.1	73.8	70.96	96.0
7.DELIVERRY BY HEALT WORKER and TRA	80 %	81.14	81.90	75.0	96.2	96.0
8.PNC 3 TIMES	70 %	70.49	72.78	68.1	90.15	94.50
9.NEONATAL CARE 3 TIMES	70 %	85.08	88.90	71.9	85.86	96.0

MCH REPORT...NONGSONGHONG DISTRICT

INDICATORS	GOAL	1991	1992	1993	1994	1995
1.MOTHERNAL MORTARITY RATE	0.3:1000	-	-	-	-	-
2.INFANT MORTALITY RATE (0-1 YEAR)	23:1000	15.38	5.6	-	7.63	2.54
3.INFANT MORTALITY RATE (0-5 YEARS)	35:1000	15.38	14.0	-	2.86	13.70
4.NEWBORN BIRTH WEIGHT UNDER 2,500 G.	< 7 %	9.19	8.27	8.78	4.6	3.3
5.NEWBORN BIRTH WEIGHT > 3,000 G.	> 70 %	54.59	48.27	54.72	67.0	68.8
6.ANC 4 TIME	75 %	75.28	86.20	85.13	95.33	98.20
7.DELIVERRY BY HEALT WORKER and TRA	80 %	94.25	85.51	95.27	93.20	95.35
8.PNC 3 TIMES	70 %	74.71	78.62	93.24	94.8	92.5
9.NEONATAL CARE 3 TIMES	70 %	74.71	86.2	98.64	95.0	95.0

FP of KHON KAEN PROVINCE

INDICATOR	GOAL	1991	1992	1993	1994	1995	*SURVEY 1995*
1. CPR	77 %	73.0	72.7	74.6	72.7	75.4	*85.75*
2.INCREASE RATE	1.2 %	1.4	1.14	1.1	1.1	0.94	*no record*
3.PERMANENT FP METHOD	34 %	no record	39.1	40.9	39.9	43.34	*43.02*

FP of BANPHAI DISTRICT

INDICATOR	GOAL	1991	1992	1993	1994	1995
1. CPR	77 %	-	62.8	64.2	65.6	64.6
2.INCREASE RATE	1.2 %	-	1.2	1.02	1.4	2.0
3.PERMANENT FP METHOD	34 %	-	39.5	39.5	45.1	40.3

FP of PUEY NOI DISTRICT

INDICATOR	GOAL	1991	1992	1993	1994	1995
1. CPR	77 %	-	58.5	59.5	61.3	62.0
2.INCREASE RATE	1.2 %	-	1.3	1.5	1.1	1.3
3.PERMANENT FP METHOD	34 %	-	32.0	32.2	33.0	33.0

FP of WANG YAI DISTRICT

INDICATOR	GOAL	1991	1992	1993	1994	1995
1. CPR	77 %	-	55.2	60.7	57.0	56.9
2.INCREASE RATE	1.2 %	-	1.3	1.2	1.0	1.1
3.PERMANENT FP METHOD	34 %	-	26.5	26.3	26.1	26.1

FP of NONGSONGHONG DISTRICT

INDICATOR	GOAL	1991	1992	1993	1994	1995
1. CPR	77 %	-	57.0	55.7	56.7	57.5
2.INCREASE RATE	1.2 %	-	1.5	1.2	1.1	1.0
3.PERMANENT FP METHOD	34 %	-	35.4	34.8	35.1	35.3

ข้อมูลจากการสำรวจข้อมูลพื้นฐาน

FP of BANPHAI DISTRICT

INDICATOR	GOAL	1991	1992	1993	1994	1995
1. CPR	77 %	-	-	85.74	85.37	88.02
2.INCREASE RATE	1.2 %	-	-	1.3	-	0.66
3.PERMANENT FP METHOD	34 %	-	-	36.8	39.67	37.87

FP of PUEY NOI DISTRICT

INDICATOR	GOAL	1991	1992	1993	1994	1995
1. CPR	77 %	83.7	80.1	83.27	83.68	85.71
2.INCREASE RATE	1.2 %	-	1.3	1.5	1.1	1.3
3.PERMANENT FP METHOD	34 %	43.3	41.2	46.19	47.03	49.47

FP of WANG YAI DISTRICT

INDICATOR	GOAL	1991	1992	1993	1994	1995
1. CPR	77 %	75.37	75.66	83.36	81.07	82.38
2.INCREASE RATE	1.2 %	0.70	1.09	1.1	1.2	0.99
3.PERMANENT FP METHOD	34 %	24.58	25.45	27.94	24.98	25.75

FP of NONGSONGHONG DISTRICT

INDICATOR	GOAL	1991	1992	1993	1994	1995
1. CPR	77 %	83.74	76.2	79.19	84.4	89.4
2.INCREASE RATE	1.2 %	1.2	1.2	1.4	1.4	1.0
3.PERMANENT FP METHOD	34 %	40.01	40.4	38.64	44.15	44.66

REPORT

OF

JICA FP / MCH PROJECT
IN

HEALTH PROMOTION CENTER
REGION 6, KHON KAEN

1991-1995

CONTENTS

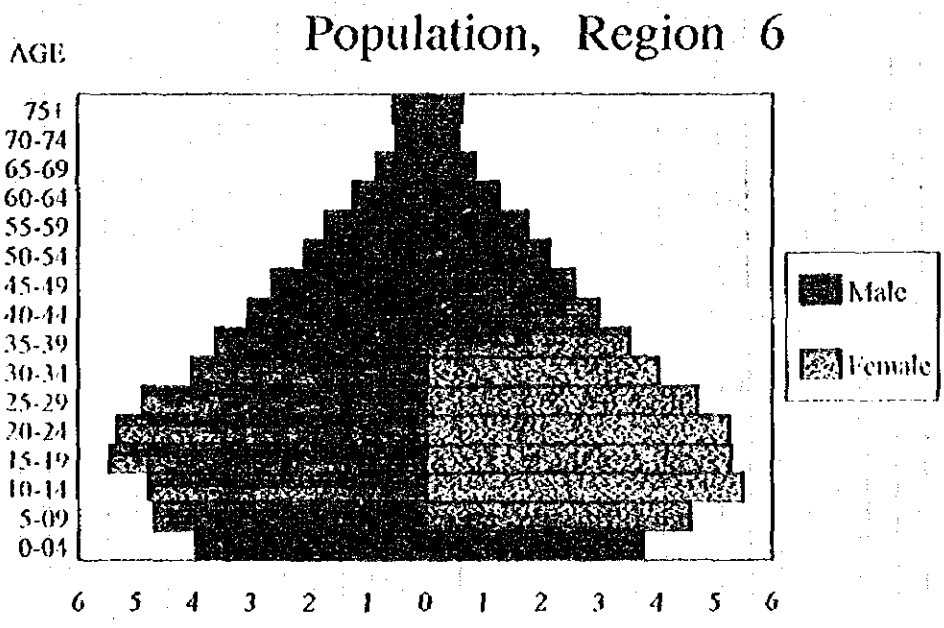
INTRODUCTION

The Family Planning and Maternal and Child Health Project was jointly established in June, 1991 by The Department of Health , Ministry of Public Health and Japan International Cooperation Agency with a view to contributing to the improvement of the health status of communities in the northeastern part of Thailand especially Ubon-rachathani, Surin , Buriram and Khon Kaen by promoting and strengthening family planning and maternal and child health activities.

JICA FP/MCH project office is located in Health Promotion Center (HPC), Region 6 Khon Kaen which has 7 provinces under responsibility. During 1991 to 1995, inputs under the assistance of JICA to HPC region 6 include equipment, training and technical consultants.

Demographic Data, Region 6, 1995

Population		=	7.08	Millions
Population Density		=	108.72	per Square Km
Population by Age Group :				
0 - 14	years	=	24.52	%
15 - 59	years	=	69.72	%
60 +	years	=	5.76	%
W R A		=	22.39 %	
M W R A		=	16.12	%
Growth Rate		=	1.2	



Activities and Accomplishment

1. Strengthening of family planning and maternal and child health care activities and its related information, education and communication activities at provincial level.

1.1 IMPROVING THE QUALITY OF MATERNAL AND CHILD HOSPITAL (MCH) SERVICES BY SUPPORTING THE MEDICAL AND IE&C EQUIPMENTS (List in Annex I)

A. Health education activities which need equipment for IE&C. Health education is very important part of health services including MCH and family planning services.

Antenatal Class : There are many health education topics to educate pregnant women. Each pregnant woman attends the class in different topic in each visit for example during her first trimester she should know about fertilization and HIV infection, during her second trimester she should know about nutrition, proper behavior for pregnant women, exercise and breast feeding, during her third trimester she should know about complication in pregnancy, preparation for delivery and breast feeding again. Not only pregnant women attend the class but also her relatives . There are roughly 50 attendants per day.

Family Planning Class : There are about 40 attendants per days.

Well child clinic : There is one set of video tape and television for providing health education to the parents. There are about 40 attendants per day.

Post partum ward : There are two floors for postpartum mothers: Each floor has one set of video tape and television for providing health education to parents and thier relatives. There are average 5,500 postpartum mothers per year.

B. Antenatal Care

There were 6397 cases of delivery in 1991 at MCH hospital. Stillbirth rate was 7.46 per 1000 livebirths and Early neonatal mortality rate was 7.00 per 1000 livebirths in the same year. Good quality of antenatal cares is the necessary procedure to reduce perinatal mortality. Ultrasonography and fetal cardiotocography supported by JICA are useful medical equipment to assist doctors and nurses to diagnose the fetal anomaly and detect fetal jeopardy. Anencephaly and hydrocephalus are most common fetal anomalies diagnosed by Ultrasonography. Antepartum fetal well being is the most often indication for using fetal monitor to detect fetal asphyxia since these cases needed to terminate the pregnancy to decrease fetal morbidity at birth.The average 4,635 cases of antenatal visits per year during 1992 to 1995. About 15 % of them are high risk cases which required further investigations. One problem of our region is anemia in pregnancy which has many causes such as iron deficiency. one important cause of Thai people is haemoglobinopathy which has high incidence of carriers in northeastern part of Thailand. In 1994 MCH hospital found 33.44 % of screened pregnant women have hemoglobinopathy. JICA provided us electronic cell counter which is very useful for screening anemia. Some important statistics which reflect the quality of services are shown in Annex II

C. Delivery care

There are 6397 cases of delivery with the caesaraen section rate 6.9 % in 1991. In the year 1995 the caesaraen section rose to 9.9 % due to early detection of the fetal complications especially fetal distress. Even the number of doctors is decreasing, the numbers of nurses are stable, the uses of the medical equipments supported by JICA to increase quality and facilities such as delivery beds, anesthetic machine, and fetal monitors (Annex I) are very helpful to improve the delivery care. The very clear figure of this issue is the decreasing of the early neonatal death rate from 7.00 in 1991 to 3.19 per 1000 livebirths in 1995. (Annex II)

D. Newborn Intensive Care Service

The newborn intensive care unit (NICU) is also an important section in reducing the neonatal mortality and morbidity. There were 731 cases of newborn in 1992 up to 1331 cases in 1994 which needed observation or any kind of treatments in this unit. Most of the cases were delivery in this hospital. The most common causes of death were Respiratory distress syndrome, Birth asphyxia, Prematurity and sepsis.

JICA supported many medical equipment to this unit such as Newborn respirator, suction and infusion pump etc. for improving the quality of services to decrease mortality and morbidity of the newborn.

Even the impact of these activities can not reflect dramatically in statistics Shown in Annex II (except early neonatal death rate which has declined rapidly from 6.85 in 1993 to 3.19 in 1995) but the quality of MCH hospital services is improving.

1.2 JAPANESE EXPERTS

JICA dispatched 8 long term experts and 10 short term experts. (Expertise and names listed in Annex III) They gave many important suggestions for improving our services. Some suggestions lead to organized and implemented training program for improving the quality of antenatal care (Antenatal Service Development Training Program) in 1995. Some of experts did surveys and researches which are useful for improving the health services.

1.3 I, E and C ACTIVITIES

A) Mass media seminar on FP/MCH

Participants were :

- Head or representative of television stations channel 3, 4, 5, 7, 9 and head of television program sections.
- Head of radio stations

- Head of radio program sections
- Head of Health education and public relation sections and health promotion section of Provincial public health offices.
- HPC personnel
- Health educators from Family health division.
- Journalists.

Total numbers of 129 participants, most of them come from region 6 and 7. FP/MCH information materials which were provided to each participant for health education and public relations were 50 short printed articles and 8 radio spots in a cassette tape for radio programs. More than that each television station was provided 4 TV spots in a video tape and each province was provided 25 radio spots in 25 phonograph records.

Evaluation

- Mass media personnel gave very good cooperation in dissemination the FP/MCH information during first three months after seminar.
- Four provinces in region 6 and four provinces in region 7 organized "The Mass Media association" and organized the mass media seminar in 1995. The rest provinces plan to arrage seminar in 1996.

B). Training section was provided I E and C equipments such as Video and television sets, overhead projector and slide projector for training and public relation activities. HPC region 6 has about 2200 trainees, 400 Thai visitors and 150 foreigner visitors per year.

2. Promoting the education for personnel in the field of FP/MCH.

2.1 IUD insertion training for register nurses from provincial public health offices and community hospitals in region 6, 7 and two provinces in region 5

Number of trainees : 1993 = 64

1994 = 63

Total numbers = 127

Evaluations (One year after training) Activities of trained health personnel :

- 28.6 % of them are supervisors.
- 14.3 % of them arranged the IUD insertion training in their provinces (5 provinces)
- 31.4 % of them are instructors in practical part.
- 20.85 % of them are pure service providers.
- 2.85 % of them had no IUD insertion activities.
- Each trained health personnel provided IUD insertion 4 cases per month.

2.2 T Cu 380 A insertion training for technical nurses and midwives from community hospitals and health stations in region 6, 7 and two provinces in region 5 .

Number of trainees : 1993 = 86

1994 = 10

Total number = 96

Evaluation (After one year training) All trained health personnel are pure service providers. Each person provided IUD insertion 3.5 cases per month. 12.06 % of them had no IUD insertion activities.

The impact of these activities could not show clearly because family planning program of our region has been already achieved. (Shown in Annex IV). However these training courses are useful for northeastern part of Thailand because IUD prevalence rate is highest in the country. (Annex IV)

2.3 Maternal and child health services development training for registered nurses and technical nurses from community hospitals and health stations in region 6, 7 and two provinces in region 5.

Number of trainees : 1993 = 104

1994 = 141

1995 = 158

1996 = 85

Total numbers = 487

Evaluation

After training, every province in region 6 and region7 organized the similar training course at provincial level during 1993 to 1995. Total number of trainees were 577 persons in region 6 and 461 persons in region 7.

The impact of this activity can improve only the coverage of ANC service (shown in Annex IV) but cannot show the improvement of the quality of the services. The perinatal death rate, Maternal mortality rate, Low Birth Weight and Anemia in pregnancy have not improved during 1992 - 1995.

2.4 Antenatal Care service development training for registered nurse from community hospitals.

This training course emphasized on antenatal care for improving quality. The total numbers of trainees were 47 persons (16 from Kalasin, 13 from Loei, 13 from NongKai, 2 from Surin and 2 from Buriram).

Evaluation was planned to evaluate after training for 6 months and one year (The first group started in November 1995 and the last group finished training in January 1996).

2.5 Training on research methodology for middle-level manpower of Health Promotion Center, region 6 in 1993

Number of trainees = 30

Evaluation

- Trainees developed 5 research projects during training course.
- Four research projects finished in 1995. Abstracts of researchs are shown in annex V
- Titles of 5 researches are :

1) A study of using video cassette for preparing husband participation during labor.
2) A study of using Mother and Child Health Card for postpartum self-care.
3) A study of characteristics of teenage pregnant women in Khon Kaen.
4) A study of dental health problems and oral care behaviors in private primary school children, Khon Kaen municipality.
5) A study of physical health, psychological and social aspects of HIV positive pregnant women. (Not finished)

2.6 Training on program evaluation for middle-level manpower of HPC region 6 in 1994.

Number of trainees = 30

Evaluation

- Trainees developed 6 evaluation projects during training course.

- Titles of the Projects are :

1) Evaluation of the MIS development project of HPC region 6
2) Evaluation of the Dental health care in children aged 0 - 2 years by parents project.
3) Evaluation of the Primary school student growth surveillance project.
4) Evaluation of the student leader in health promotion project.
5) Evaluation of the Family health in slum community project, Udorn province.
6) Evaluation of the Model mother selection project, Khon Kaen province.

2.7 Training and observation study abroad

Four HPC personnel visited Japan for training and observation study in FP/MCH field.

Two HPC personnel visited Indonesia and one visited Egypt for observation study and exchange experiences in the field of FP/MCH with JICA experts and counter part in those countries.

3. Formulating the management system on health information in the field of FP/MCH

PATIENT MANAGEMENT SYSTEM

Maternal and Child Hospital proposed the Patient Management System since 1992. In the beginning 2 sets of personal computer were used for general purposes. Until 1993, the system has been implemented in the hospital. It was designed on the LAN (Local Area Network) and all programs and database files were located in the server and can share the file from several users. Therefore operators do not have to transfer data

via floppy diskette. The equipment were settled at the registration room at out patient section of the hospital. This system was designed by JICA short term experts in Health Information System (Dr. Masayuki Hayashi) and Information System Engineer (Mr. Yasuji Noyori). The system accumulate the patient personal information and also the summary information of the patients admitted to this hospital. Since the original program was designed on dBASE IV in English which caused the problems for Thai operators. However HPC region 6 reconized that this system is useful to store patient informatin and medical hystory completly. So Thai programmer from Khon Kaen University was contact by Thai goverment budget to modify the user interface. The program was tested and trained to the operator simultaneously. The system was completely started in January 1994 which helped the registration of the patients fast and correctly. This also saved a lot of time for those who lost their patient identification card.

4. Promoting research in the field of FP/MCH

There are three research projects were developed and implemented. Research abstracts are shown in Annex VI

Research titles are :

1. Family Health Development by Community Project.
2. Comparative Study of Family Planning Knowledge, Attitudes and Practice of Adolescent Mothers and Mothers aged 21 - 35.(FP KAP Study)

Research findings of both studies were disseminated to related organizations. Findings of the FP KAP Study lead to developed and implemented new project which is the Family Health Education Model for Primary School Student Project. The final goal of this project is to reduce the adolescent mother rate.

3. Health Status and Child Caring during First Year for Low Birth Weight Newborn at Maternal and Child Hospital, Khon Kaen.

This research showed that most of the LBW newborn are term pregnancy with the mortality rate 4.8 / 1000 livebirths. After one year, only 50 % have normal nutritional status. This result suggested that nutrition and supplementary food should emphasized to them after discharge from the hospital.

CONCLUSION

All activities under JICA technical assistance during the period of 1991 to 1995 have been implemented as planned. The contribution results the great increase the coverage rate of MCH services and improves the knowledge and technique level of health personnel in northeastern part of Thailand. However, the impact of the project has not shown the result in reducing Maternal mortality rate, Perinatal mortality rate, Low birth weight rate, and Anemia in pregnancy rate during 1991 to 1995. Further reduction of these rates needs more time, higher quality of care and proper strategy.

Annex I

Total Number of Equipment

	Equipment List	YEAR					
	Medical equipment for MCH service	1991	1992	1993	1994	1995	Total
1	Newborn Respirator				1		1
2	Fetal Cardiotocograph			1		2	3
3	Suction Pump				1	1	2
4	Syringe Infusion Pump				2		2
5	Vacuum Extractor					1	1
6	Anesthetic Machine			1			1
7	Hematocrit Centrifuge	1					1
8	Electronic Cell Counter		1				1
9	Ultrasound		1				1
10	Physician Scale			5			5
11	Delivery Bed					1	1
12	Pulse Oximeter					1	1
1	Micro-computer	1	4		2		7
2	Note book					1	1
3	Printer (Dot-matrix)	1			2		3
4	Printer (Laser)		1				1
5	Printer (Inkjet)					1	1
6	Copy Printer					1	1
7	Overhead Projector	1					1
8	Slide Projector	3					3
9	Slide Synchronizer Record	1					1
10	Programmable Dissolve	1					1
11	TV set	5		5 *			10
12	VDO Tape Player	5		5 *			10
13	Video Camera		1				1
14	Public Address Speakers			10 *			10

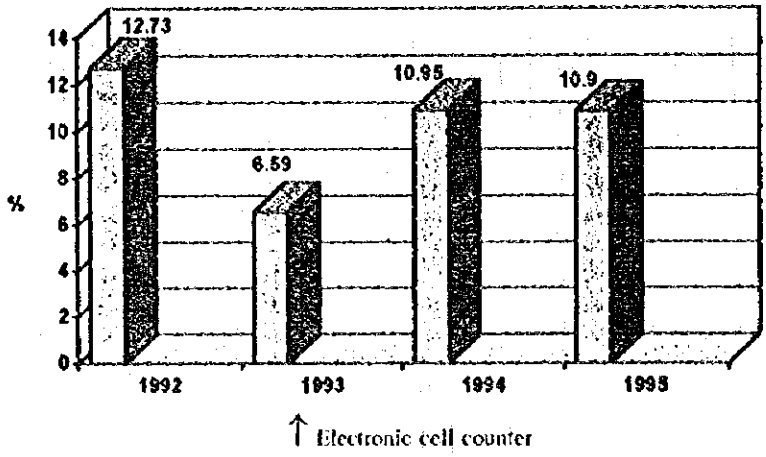
	Equipment for Office and Field Activit	1991	1992	1993	1994	1995	Total
1	Microbus	1		1			2
2	Photocopy Machine	2					2
3	Electronic Typewriter	2	1	1			4
4	Telecopier (Faxsimile)	1					1
5	Air-condition	2					2

* Used in research project which distribute to the health office and village

Annex II

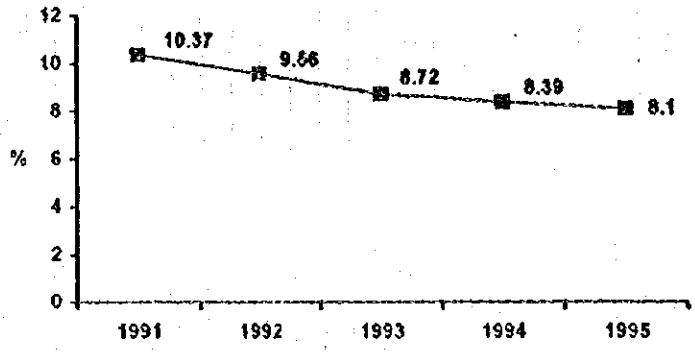
Maternal and Child Hospital Data

1. Anemia in Pregnancy (Hematocrit < 33%)



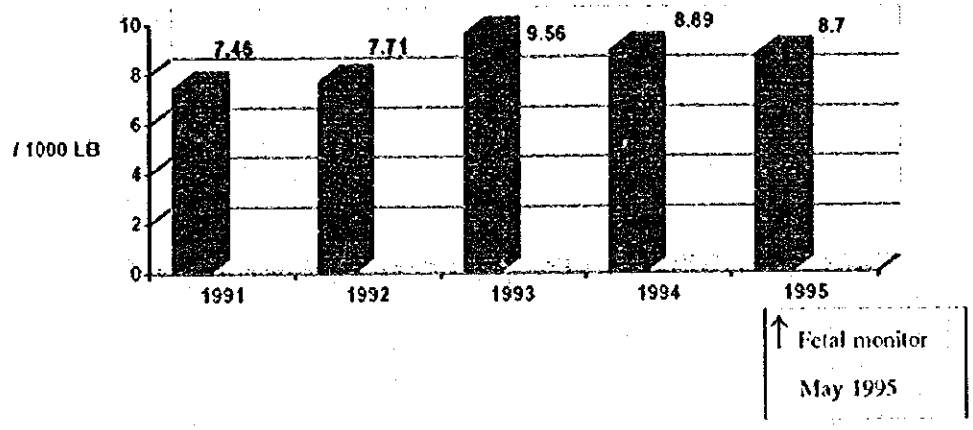
Anemic rate in pregnancy has declined gradually in general. But in 1993, it declined sharply. No specific cause could be found.

2. Low Birth Weight (< 2500 grams)



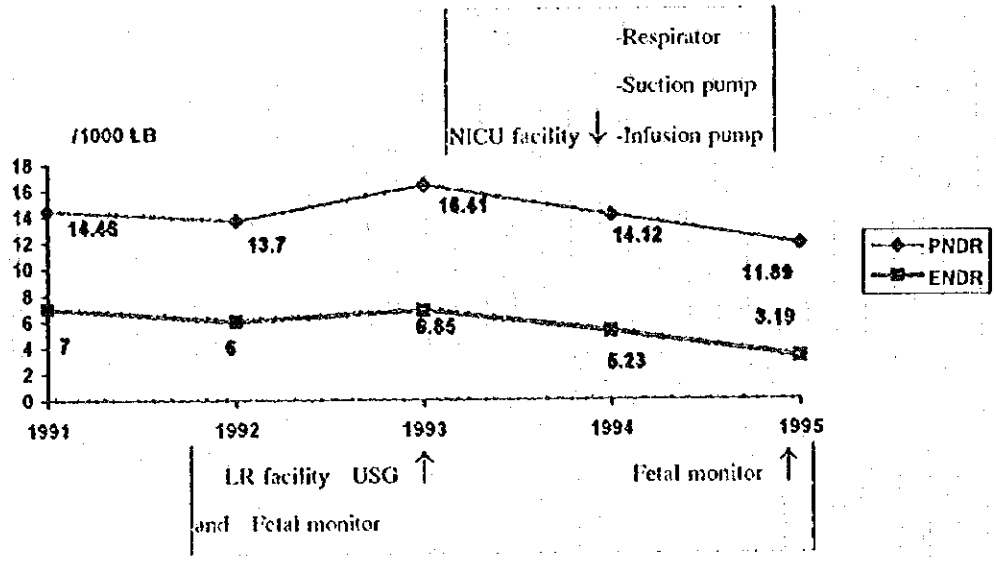
Low birth weight (LBW) rate has declined gradually. In 1995 the total number of LBW babies were 428, only 38.72 % of them we could find out the related factors. Three leading factors were twins pregnancy (14.49 %) mothers aged under 20 (7.7 %) and Thalassemia mothers (4.44 %).

3. Stillbirth Rate (per 1000 Livebirths)



Stillbirth rate (SBR) had increased rapidly from 7.46 in 1991 to 9.56 in 1993. After that it has declined gradually. JICA provided two fetal cardiotocograph in May 1995, one is in Antenatal clinic, another is in labour room. 73.6 % and 56.5 % of stillbirths were LBW babies in 1994 and 1995 respectively.

4. Early Neonatal Death Rate (ENDR) and Perinatal Death Rate (PNDR)
(per 1000 Livebirths)



PNDR and ENDR has declined during 1993 to 1995, especially ENDR declined rapidly from 6.85 in 1993 to 3.19 in 1995. ENDR is a good quality indicator for intrapartum care and neonatal care. During 1992 - 1995, 50 % of total earlyneonatal deaths were Respiratory distress syndrome, 19.6 % were Birth asphyxia, 14.9 % were Congenital anomaly which equal to Sepsis.

Annex III

List of Japanese Experts

Long-term experts.

1). Team Leader

Dr. Teizo	Sugiyama	Jun 27, 1991 - Jun 26, 1994
Dr. Naoshi	Kuji	Jun 1, 1994 - May 31, 1996

2). FP/MCH Experts

Ms. Shoko	Okumura	Jun 27, 1991 - Sep 30, 1992
Ms. Shizuko	Otsuki	Jun 28, 1993 - Mah 31, 1995
Ms. Ritsuli	Nagahama	May 31, 1995 - May 31, 1996

3). I, E and C Experts

Mr. Naoto	Nakagawa	Sep 20,1991 - sep 19,1993

4). Coordinators

Mr. Shigemi	Yasui	Jun 27, 1991 - Jun 26, 1993
Mr. Shinya	Iwayanagi	Jun 14, 1993 - May 31,1996

Short Term Experts

Kenji	Hayashi	Jan 7, 1992 - Jan 17,1992	Planning
Masayuki	Hayashi	Dec 21,1992 - Feb 27,1993	Health Information
Masayuki	Hayashi	Jul 10, 1993 - Aug 22, 1993	Health Information
Yasuji	Noyori	Jul 10, 1993 - Aug 22, 1993	Information System Engineering
Tetsuro	Kiyotani	Jul 15, 1993 - Jul 25, 1993	System Analysis
Naoshi	Kuji	Feb 9, 1994 - Feb 17, 1994	Ob - Gyn
Atsuko	Aoyama	Jun 17, 1994 - Jul 14,1994	Neonatology
Yasuko	Ando	Yun 17, 1994 - Jul 14,1994	Neonatal Care
Shuzo	Kanagawa	Nov 28, 1994 - Dec 24, 1994	Neonatology
Chigiri	Komatsu	Nov 28, 1994 - Dec 24, 1994	Neonatal Care
Taeru	Kitabayashi	Nov 7, 1995 - Dec 4, 1995	Neonatology
Masayuki	Hayashi	Nov 19, 1995 - Dec 28, 1995	Health Information

Annex IV

FP / MCH Data
Region 6, 1995

Family Planning Data :

Contraceptive Prevalence Rate (CPR)by Report

Method	% of MWRA		
	Region 6	Northeast	Country
Female sterilization	29.37	26.3	22.8
Oral Pills	12.93	13.6	14.2
IUD	10.01	10.7	6.2
Injection	8.47	10.0	1.8
Implant	1.47	1.6	1.3
Male sterilization	1.19	2.1	4.5
Total (CPR)	63.42	64.5	60.0
	77.43 (Survey)		

Maternal and Child Health Data :

	Region 6				Region 7
PNDR	11.4	11.4	12.8	10.3	11.8
MMR	0.1	0.2	0.2	0.1	0.1
LBW	8.0	8.4	7.1	8.0	8.3
ANC	69.1	72.4	81.4	88.5	81.4
ANEMIA	11.1	9.34	9.4	10.4	13.3
Delivery by Health personnel and Trained TBA*	83.9	83.4	87.7	85.4	

* Trained TBA ≈ 5 %

ANNEX V

Effects of Training on Research Methodology

RESEARCH ABSTRACTS

1). A Study of Using Video Cassette for Preparing Husband Participation During Labour.

This research is Quasi Experiment Research. There is an experiment group without control group. The purpose of this study was to study using Video cassette for preparing husband participation during labour. The sample was composed of 100 husbands who took their primigravidas attended the prenatal clinic in the Health Promotion Center Region 6 Khon Kaen. All subjects were selected by the purposive sampling technique. The sample was interview after and before received video cassette for preparing husband participation during labour for 9 minutes.

Tools for data collection are questionnaires and video cassette : Care for wife during labour. Which were constructed by the researcher. Data were collected both before and after the study and were analysed by computer using Epi Info Program and SPSS Program. The analysis for percentage , frequency distribution, arithmetic means, standard deviation and test for differential significance by pair t-test.

The result of the study can be summarized :

1. After the study, the sample gained significantly higher mean scores on knowledge about care for wife during labour than before the study. ($p < 0.001$)
2. After the study, the sample gained significantly higher mean score on need care for wife during labour than before the study. ($p<0.001$)

3. The Video Cassette : care for wife during labour is good media and useful. Good property in sequences of picture, content, consistency, time, music and sound, language used, Understand in wording, effective stimuli and excellent media , for preparing husband participation.

2). A Study of Using Mother and Child Health Card for Postpartum Selfcare.

The postpartum care of five provinces in region 6 still have some area that not reach the target of Seventh Plan. That lead to the IMR and MMR still high, because of health personnel could not cover service in target group and take care of post partum mother and her baby by standard. The aim of this research is to study the rate of using Mother and Child Health Card, rate of postpartum care by qualified services, satisfaction of postpartum mother and health,personnel to mother and child health card, participation of volunteer to help each other. The target population is in Boung Kam district, Nong Kai province, divided into 2 groups. The first group is postpartum mother who use Mother and Child Health card which have 280 cases. The second group is health personnel who provide services which have 13 persons (from Boung Kam district hospital and 12 health centers). Data was collected by interviewing during 25 - 27 May 1994, 27 - 28 July 1994, 29 - 30 August 1994 and 12 - 16 October 1994. The data was analyzed in descriptive statistics as percentage and frequency.

The result of the research is 97.5 % of postpartum mothers used Mother and child Health card. In fiscal year 1993, 87.9 % of postpartum mothers had 3 times of qualified postpartum care and increase to 95.3 % in fiscal year 1994. The coverage rate of 3 times qualified infant care in fiscal year 1993 was 87.8 % and increase to 95.3 % in fiscal year 1994. 97.9 % of postpartum mothers have satisfied to using Mother and Child Health card for taking care themselves and their

babies. 100 % of health personnel have satisfied to using the card and want to continue using it. 80.7 % of members in families of postpartum mothers were interested in the card and motivated the postpartum mothers to follow the suggestions in the card. 46.2 % of volunteers had participation in giving advice about using the card.

The suggestions to improve Mother and Child Health card are :

- 76.9 % of health personnel suggested to improve the pattern of the card, 30.8 % suggested to improve about card language, 53.8 % suggested to improve the information about abnormal finding in infant, 46.2 % suggested to improve the information about abnormal finding in mother.
- 8.6 % of postpartum mothers had some suggestion for improving the card. Their suggestions are to improve size of the card to improve card language to be easier to understand for every level. It should be smaller and handy, also should have name and last name of holder, and should be more attractive color and should add more information about the abnormal sign and symptoms so they can take care themselves in some way.

The findings of this research will be used as a basic data for planning to develop mother and child health service , especially postpartum care for reducing Infant mortality rate and maternal mortality rate.

3). A Study of Characteristics of Teenage Pregnant Women in Khon Kaen.

This is a cross-sectional study. The study aimed to describe the characteristics of pregnant women aged under 20 years old. Finding could contribute to formulate the effective family planning program as well as for further study. All women with the current age of 25 years old or younger who had ever

been pregnant before 20 years of age were studied. Structured questionnaires were used for data collection.

A total of 226 women, 68 from two subdistricts of Mueng district and 158 from two subdistrict of Munja district of Khon Kaen province, were interviewed . Most of them were farmers, 61.1 % with the average monthly income of 3200 bahts. Their educational attainment were mostly primary school (87.3 %) 63 % of them still lived with their parents.

Prior to their pregnant, approximately half of them did not recognize about contraception. Among those who did, 30.9 % reported that they don't know about contraception and 32.0 % were afraid of it . Most of them 79.6 %, realized that teenage pregnancy would effect their child health and 61.5 % of them foreseen that it won t cause their money problems. At fewer than one fourth of them expected that the pregnancy would effect their health.

The finding suggested that most of teenage pregnant women were aware of the problems they would face from the pregnancy. Some of them did not know about contraception. However, further study is needed for determining the factor related to teenage pregnancy. The study also suggested that family planning education at primary school children was considerably appropriate since it meets the target population.

4). Dental Health Problems an Oral Care Behaviors in Private Primary School Children, Khon Kaen Municipal.

The Seventh National Dental Health Development Plan set the main strategy to solve the oral health problem by implementing the oral health surveillance and promotion project in all sector of primary schools. The project has already be implemented in all public primary schools but not in private sector.

The objective of this research is to study dental status and oral health care behavior of private primary school students in municipal area of Khon Kaen province.

This research is a cross sectional pilot survey by random sampling. The target population were primary school students in 1994 education year in May 1994 to March 1995. 1508 students, 5 - 12 years old, were examined the oral health. 737 of them, aged 9 - 12 years old were interviewed about their oral health care behavior.

The results of the study were :

1. Dental caries in primary teeth : The highest of moderate and severe level of the disease occurred at 7 years old (93.3 %) which had mean DMF index 5.42 teeth per person.
2. Dental caries in permanent teeth : The highest incidence occurred at 11 years old. (58.5 %)
3. DMF index : The highest score was 1.33 teeth per person in 12 years old students. There were more decayed teeth than missing oral extracted teeth.
4. Periodontal status : 45.5 % of the 12 years old students had normal gingival of 4.45 from 6 sextants.
5. Oral health care behavior :
   - 80.82 % of the students brush their teeth at least two times a day.
   - 95.6 % of the students brush their teeth in the morning after getting up and 74.5 % of them brush again before going to bed . There are very few of them brush after meal.
   - 55.43 % of the students brush their teeth correctly.
6. Dental services : 65.3 % of the students who went to get dental services had tooth extraction.

Annex VI

Research Abstracts

1). Family Health development by Community Project.

The objective of this study is to increase knowledge of volunteer in the community to be able to transfer their knowledge to those women who have children under five years old and pregnant women so that they have knowledge of common diseases in children, can look after themselves and their children which include antenatal care, post partum care and family planning. The study was implemented by operations three days training cause for 2-3 volunteers in each target village in two subdistrict namely Ban-Mgue, Nongrua District and Na-Ngne, Kwaw Suanguang District, Khon Kaen Province. The training was emphasis on mother and child health , nutrition and family planning. The volunteers who had attended the training visited pregnant women , postpartum women and children under five years old. They advised them on pregnant care , postpartum care and feeding of children under five years old, breast feeding, supplementary food, vaccination according to their ages and family planning in the communities where their responsibilities. However these activities were monitored by the Public Health officers from the Sub-district health centers twice a month and officers from health promotion center Region 6 also visited and monitored once a month. Data were collected from pregnant women and women who have children under five years old by interview the target groups two times before and after study. Data were analyzed in percentage.

From the study it was found that contraceptive prevalence rate in mothers who have children under five years old were increased from 72.3 % to 77.6 % and the highest was permanent contraception 35.3 % . The pregnant women and mothers have knowledge of common diseases in the children increasingly but practice during

pregnancy and postpartum care before and after study were few different including the low birth weight rate.

It was indicated that the little improvement of such activities because volunteers were changed during study and some volunteers had no times to carry out the work in their communities. Therefore some of activities were not successful as expected. For the mother and child health record book using it was found that the child growth and development were recorded only 16.9 % which were rather low, may be because they did not understand the importance of such mother and child health record book.

2). Comparative Study of Family Planning , Knowledge, Attitudes and Practice of adolescent Mothers and Mothers aged 21 - 35.

Adolescents are one of the most important groups of population and also are a target group in the Seventh National Socio-economic Development Plan. One main objective of the National Family Planning Plan is to reduce adolescent pregnancy rate to be not more than 10 percent. This study is a survey research. The main purposes of the study are to investigate the Knowledge, attitudes and practice relating to family planning of adolescent mothers and mothers aged 21-35.

Maternal and Child Health Hospital, Health Promotion Center Region 6, Khon Kaen has about 6000 - 6500 deliveries per year. In 1992 the adolescent pregnancy rate was 18.7 percent which was higher than the Seventh National Plan. The data in this study were collected at the post partum ward of the MCH hospital during July 1992 - March 1993 by using questionnaires. The total number of population were 827 which consisted of 440 adolescent mothers and 387 mothers age 21 - 35.

The summary of the research finding :

1. General background of subjects :

- Most of them in both groups finished their education at grade 6 87.1 percent of adolescents mothers and 78.6 percent of mothers aged 21 - 35.
- Marital status : 92.3 percent of adolescent mothers and 78.4 percent of mother aged 21 - 35 married without registration.
- Occupation : 70.0 percent of adolescent mother and 67.2 percent of mothers aged 21 - 35 are agricultural workers.
- The mean age at first pregnancy of adolescent mothers was 17.9 years old and 22.1 years old in mother aged 21 - 35.

2. Knowledge relating to family planning :

It was found that their majority source of information in both groups was their relatives and the next one was health personnel 90.5 percent, 85.0 percent and 63.9 percent of the adolescent mothers knew about oral pills, injectable hormone and IUD respectively while 88.9 percent , 87.4 percent and 67.8 percent of the mothers aged 21 - 35 knew the method which mentioned above. But when asked how to use the method , only 58.0 percent, 43.2 percent and 5.7 percent of adolescent mothers knew about using oral pills, injectable and IUD respectively while 62.2 percent , 54.1 percent and 8.0 percent of mothers aged 21 - 35 knew about using methods which mentioned above. When compared the family planning knowledge of the adolescent mother group and the older group it was found that the older group had better knowledge than the adolescent group ($p < 0.001$)

3. Attitudes towards family planning :

The majority of both groups have the positive attitudes towards family planning. There is one aspect that not the majority of both groups agree with which is who should be responsible in using contraceptive method. 51.8 percent of adolescent mothers and 55.7 percent of the older group agree that it should be the responsible of

both male and female. But only 13.4 percent of adolescent mother and 13.9 percent of the older group agree that it should be the responsible of female.

4. Family Planning Practice :

The most popular contraceptive method in both groups is oral pills. 37.7 percent, 4.5 percent and 1.4 percent of adolescent mothers and 40.3 percent, 16.5 percent and 13.95 percent of the older group used oral pills, injectable hormone and IUD respectively. It was found that the positive attitudes towards family planning had no relationship with the family planning practice in both groups ($p<0.005$)

5. Delivery Results :

The abnormal delivery rate and stillbirth rate were higher in adolescent mothers but it was not statistical significant. But the mean body weight of adolescent mother newborn was lower statistical significant. ($p<0.05$)

The data from this study could be useful for some administrators concerned to prepare projects both to prevent and to solve the adolescent pregnancy problem as well as to give them services.

3). Health Status and Child Caring during First Year for Low Birth Weight New Born at Maternal and Child Hospital, Khon Kaen.

This is a survey research. The objective of this research is to study the health status and child caring of the Low Birth Weight (LBW) newborn. During January to June 1993, there were 249 cases of LBW from 3079 livebirths. (LBW rate 8.09 %) 175 cases came to follow up and were interviewed and physical examination were done especially by Denver development screening test and Nutritional status surveillance for the children 0 -5 years.

The results of this study showed that 80.7 % (201 cases) of the LBW are between 2,000 to 2,499 grams. By Dubowitz scores 73.9 % (184 cases) are term pregnancy, and on 55.5 % (132 cases) attended the antenatal care less than 4

times or never attened. 230 cases responded by follow up or letters (92.3 % of 249 LBW cases), 15 cases were died after birth up to 9 months (Mortality rate 4.8 / 1000 Livebirths). The common causes of death were Respiration distress syndrome and Pneumonia.

175 cases of those who came to follow up at MCH hospital were 8 - 15 months old (70.2 % of 249 LBW cases). 81 % child caring by their mothers. 49.7 % of the LBW infant had normal nutritional status. The infant with 1st, 2nd and 3rd degree malnutrition were 44, 5.7 and 0.6 percents. Most of the Large muscle, Small muscle, Language and Social development were normal, only 4.6 and 4.0 % showed slow development in Large muscle and Language development.

The child caring in the first year : Only 35.4 % were breast fed only during first 4 months. Most of them were added since 3 months by rice, Sirilac, banana, or eggs. However 80.6 % still gave breast feeding to their infant until now. 75 % of the infant expected to have complete nutritional foods. 95.4 % came regularly for health checkup and 92 % got complete immunization. 96.6 % still used their MCH booklets. The common sickness in the past were Upper respiratory tract infection and diarrhea (74.3 , 12.0 %) which usually they went to the health center or clinic but 30.9 % did not reach the health service system.

KHONKAEN HOSPITAL (DR.SIRIKIT DATA)

TOTAL SICK NB. (1995)	612	CASES
MORTALITY RATE	21.1 %	
REFERRED CASES (263)	42.9 %	
MR OF REFERRED CASES	33.1 %	
HOSPITAL STAY OF SICK NB.	18	DAY
DEAD <= 7 DAYS	81.4 %	

BW OF DEAD CASES

<1000 GM	12.6 %
1000 - <1500	31.1 %
1500 - <2500	27.7 %
>=2500	28.6 %
>3500	4.2 %

COMMON DESEASES OF NB.

1. PRETERM
2. RDS
3. BIRTH ASPHYXIA
4. SEPSIS
5. NEONATAL JAUNDICE

PROBLEMS

1. OVERCROWDED
2. SHORTAGE OF NURSE
3. NO NEONATOLOGIST
4. NOT ENOUGH EQUIPMENT

BIRTH ASPHYXIA

TOTAL	164 CASES
RECORDS	72 „
M.R. (26/72)	36.1 %
REFERRED CASES (38/72)	52.8 %
M.R. OF REFERRED CASES (17)	44.7 %
FIRST BABY (43)	59.7 %
GA PRETERM (26)	36.1 %
TERM (40)	55.5 %
POST TERM (6)	8.3 %
SEVERE BIRTH ASPYXIA	29.7 %
MODERATE	28.2 %
MILD	42.1 %

BIRTH ASPHYXIA (2)

HOSP. STAY (1 - 63 D)	10 DAYS
HYPOTHERMIA <36°C (21)	29.2 %
ON TUBE (47)	65.3 %
RDS (14)	19.4 %
ON RESPIRATOR (66)	91.6 %

BIRTH WIGHT

<=1000	5.6 %
>1000 - 1500 (8)	11.1 %
>1500 - 2500 (20)	27.8 %
>2500 - 3500 (20)	27.8 %
>=3500 (10)	13.9 %

RISK

ECLAMPSIA	8 CASE
POST TERM	6 „
BBA	5 „
PROLONG LABOR	5 „
DYSTOCIA	5 „
CORD COMPRESSION	4 „
BREECH PRESENTATION	4 „
CPD	3 „
VACUUM FAILURE	2 „
CHROMOSOME ABN	2 „
MATERNAT DM	1 „
MATERANT CARDIAC ARREST	1 „
LGA (>=4000 GM)	6 „

NB. DELIVERED IN KKH.	**1994**	**1995**
- LIVE BIRTH	2,584	2,814
- AVERAGE BW	3,020	3,040 GM.
- LBW (BW <2,500)	10.6 %	10.2 %
- PRETERM	3.2 %	2.9 %
- BIRTH ASPHYXIA	1.9 %	1.9 %
NEONATA MR		1.1 %
MATERANL HIV + VE	0.7 %	0.9 %
MATERAL HBe Ag VE		1.4 %
PERINATAL MR (:1000 LIVEBIRTHS)		26

PROTEIN ENERGY MALNUTRITION (PEM)

	1994	1995
1' PEM	20.6 %	21.2 %
2' PEM	7.6 %	8.8 %
3' PER	1.9 %	1.9 %

COMMON CAUSES OF DEAD

1. PRETERM + RDS	40.32 %
2. BIRTH ASPHYXIA	30.48 %
3. SEPSIS	22.13 %
4. ENCEPHALITIS	12.5 %
5. PRETERM	9.6 %

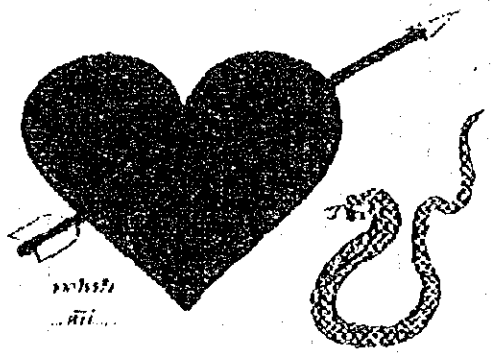
COMMON ADMITTED DISEASES

	1994	1995
1. PNEUMONIA	419	625
2. DIARRHEA	415	595
3. FEBRILE CONVULSION	263	310
4. DHF	306	188
5. PRETERM	136	178
6. ASTHMA	159	179
7. BIRTH ASPHYXIA	116	164
8. SEPSIS	109	131
9. VIRAL INFECTION		119
10. COMMON COLD		135
11. ANEMIA (861)	11.7 %	17.6 %

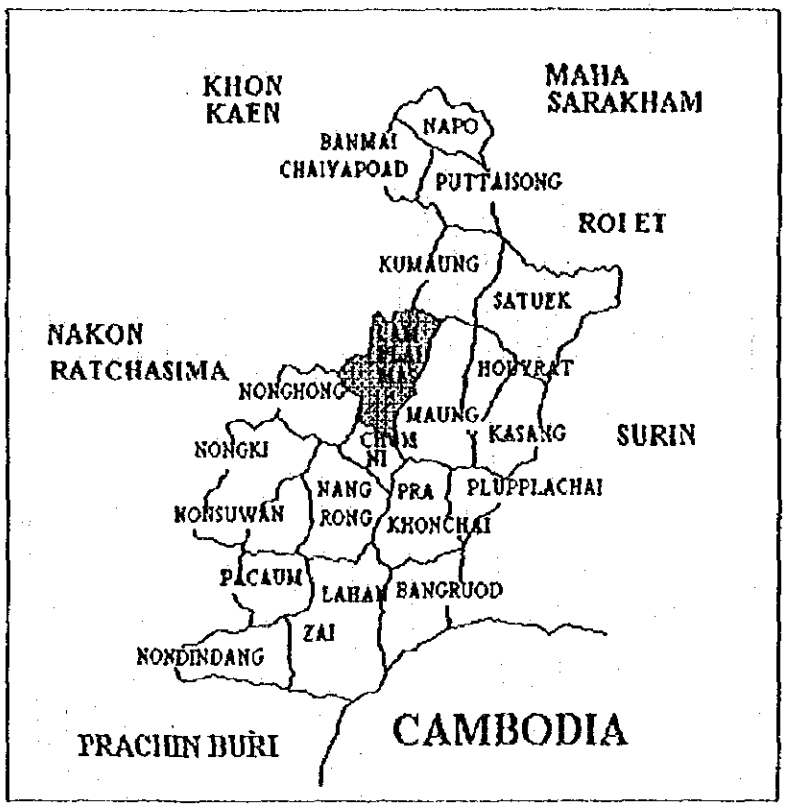
STATISTICS OF PEDIATRIC DEPARTMENT

	1993	1994	1995
TOTAL OPD	16,823	16,561	23,423
WELL BABY CLINIC	4,780	5,018	4,278
TOTAL ADMISSION	4,789	4,220	4,882
NB.DELIVERED IN KKH	2,209	2,584	2,814
MORTALITY RATE	4.7 %	3.3%	5.4 %
REFERRED CASES	27.9 %	22.4%	22.8 %
MR			14.3 %
CRITICAL CASES			478
NOSOCOMIAL INF.	6.1 %	4.6 %	6.2 %
INFANT MORTALITY RATE			3.9 %
NEONATAL MR			21.1 %
HOSPITAL STAY			7 DAYS

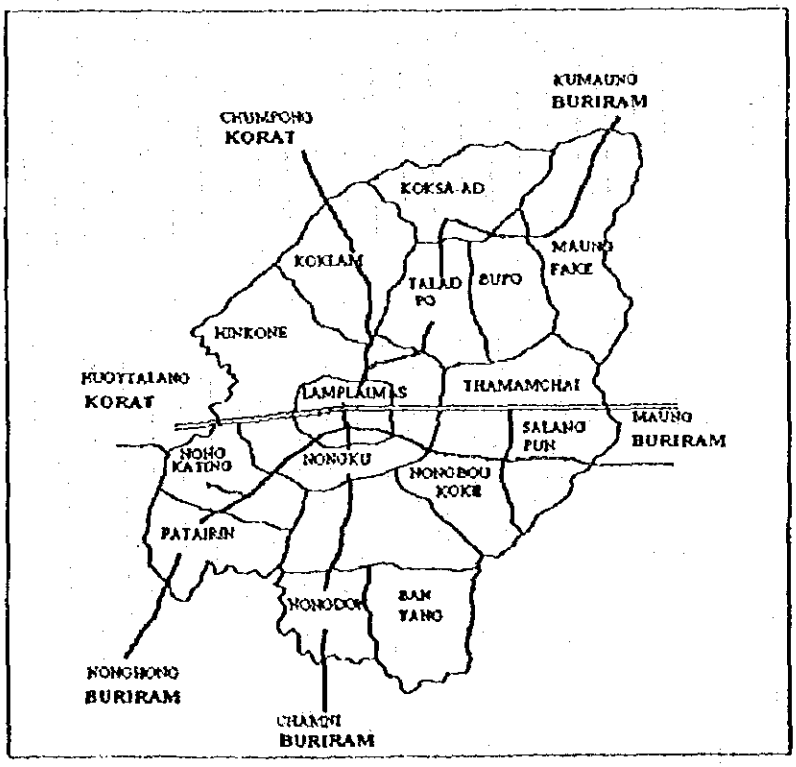
WELCOM TO
LAMPLAIMAT HOSPITAL



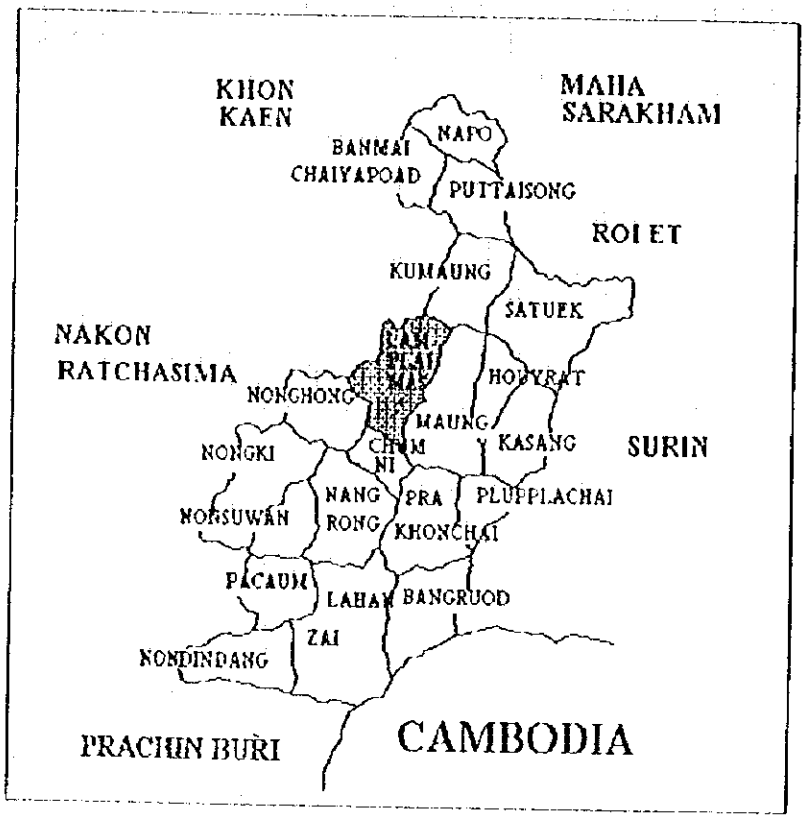
Map Of Buriram Province



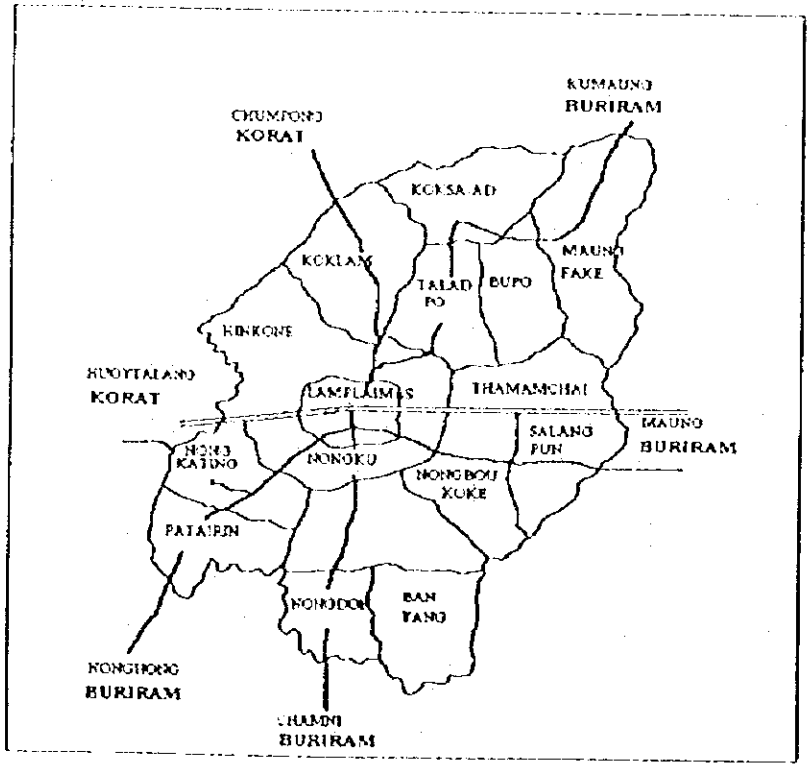
Map Of Lamplaimas District



Map Of Buriram Province



Map Of Lamplaimas District



LAMPLAIMAS DISTRICT

BURIRAM PROVINCE THAILAND

LOCATION

South plateau in North - Eastern region of Thailand

As a part Buriram province

350 kilometers from Bangkok

32 kilometers from Buriram

AREA

714.8 squar - kilometers

Divided into 16 sub-district 200 villages

SOCIO - ECONOMIC

GNP	7,600	Bath / person
Agriculture	75	%
Industry as migratory labour	25	%
Other	5	%

LANGUAGE

Thai

Thai - Laotian

Thai - Khumphugia

RELIGION

2 Christian Temples

118 Bhuddist Abbeys

Almost all are Bhuddism

EDUCATION

76	Primary schools
6	Secondary school
1	Private primary school

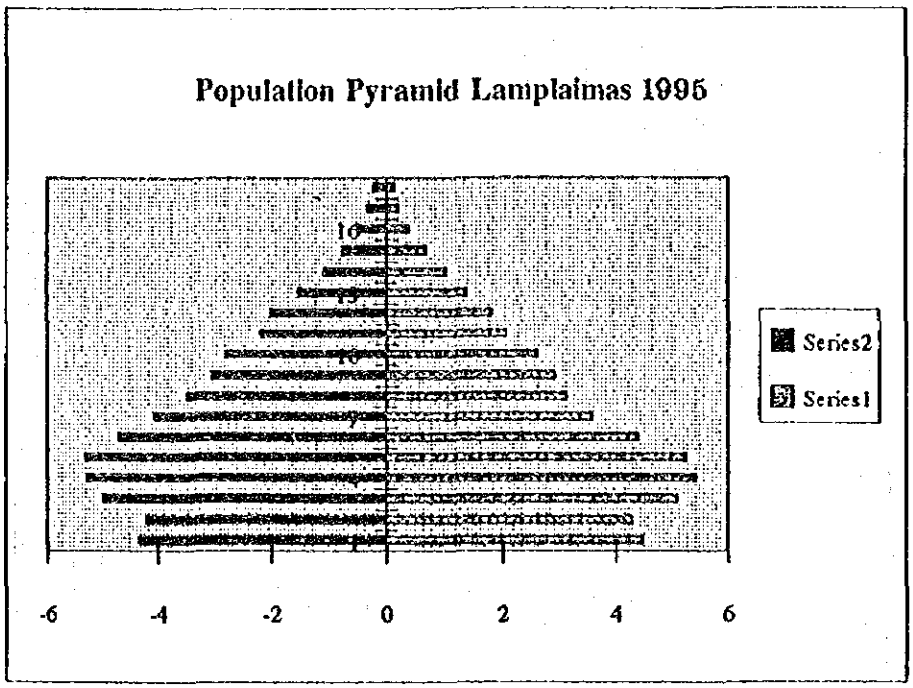
All the children have to finish primary school

POPULATION

Registed population	136,722	at october 1995
Remained in the area	94,906	(survey population at August 1995)
Households	18,823	
- Average	94.11	households per village
- Average	5.04	person per household

Sex ration Male to Female = 1 : 1.04

Population Density 132.77 person per squar-kilometer



Population growth rate	1.31	%
Birth rate	1.67	%
Death rate	0.36	%

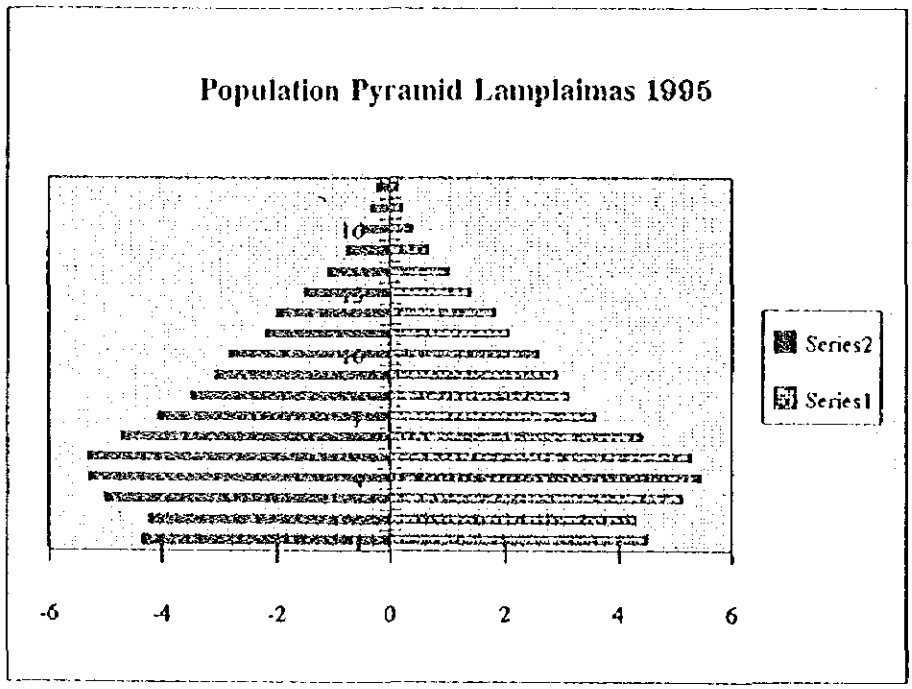
Expectation of life at birth 61.20 year of age

POPULATION

Registed population	136,722	at october 1995
Remained in the area	94,906	(survey population at August 1995)
Households	18,823	
- Average	94.11	households per village
- Average	6.04	person per household

Sex ration — Male to Female = 1 : 1.04

Population Density — 132.77 person per squar-kilometer



Population growth rate	1.31	%
Birth rate	1.67	%
Death rate	0.36	%

Expectation of life at birth 61.20 year of age

LAMPLAIMAS HOSPITAL

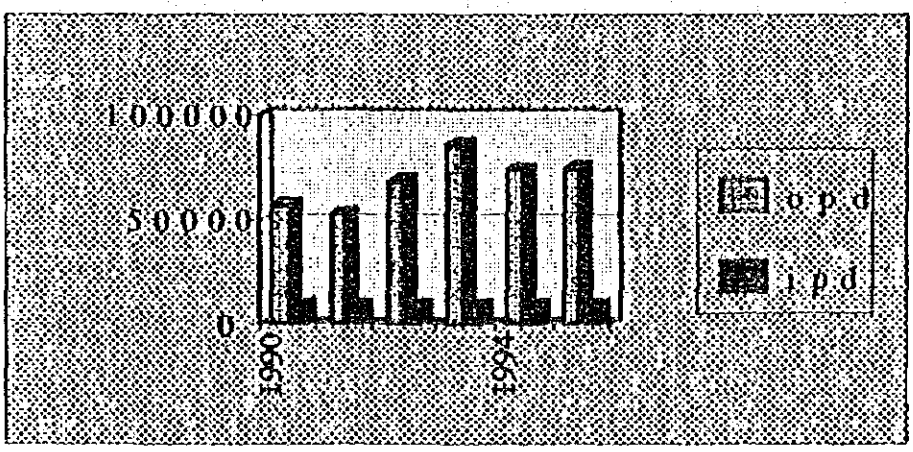
Established as a health center since 1964

Became a 90 beds hospital in the year of 1995

personal

total physicians	6	(Ratio 1:15,818 to population)
pediatrician	1	
surgeon	1	
general practisioner	4	
dentist	2	(Ratio 1: 47,453 to population)
pharmacist	2	(Ratio 1: 47,453 to population)
nurses	52	(Ratio 1: 1,825 to population)
others	77	
total	**145**	

Activity



Average opd / opd = 8.047673

Average day / admission = 2.73 day

Bed occupational rate = 114.31 %

LAMPLAIMAS HOSPITAL

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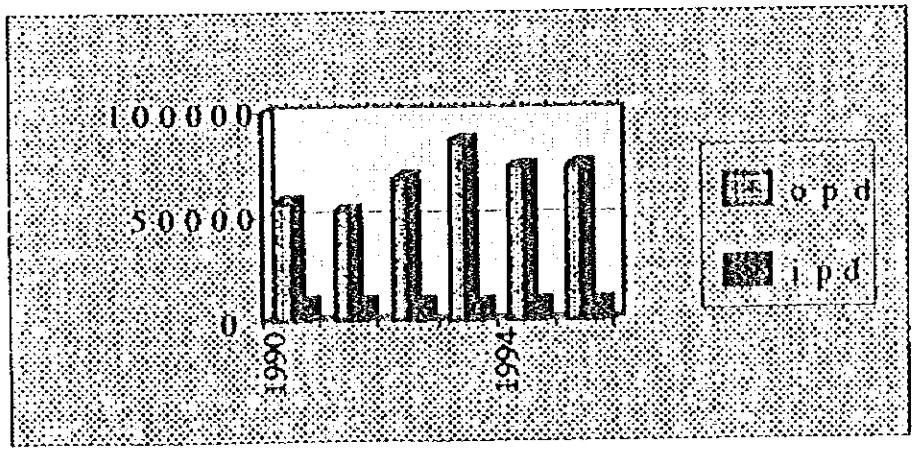


Average opd / opd = 8.047673

Average day / admission = 2.73 day

Bed occupational rate = 114.31 %

HEALTH STATUS

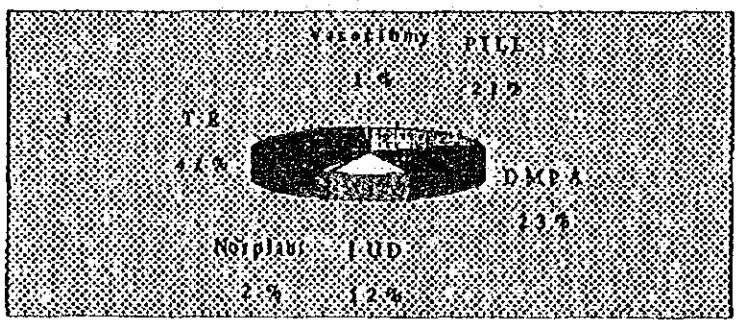
Infant Mortality rate 12.7 %

Immunization

BCG	100	%
DPT	100	%
OPV	100	%
Measles	100	%

Family planning

Lamplaimas 1995



Usage Coverage 80.9 %

Nutrientional status

first degree mal - nutriention	13.17	%
second degree mal - nutriention	0.8	%

Sanitation

Latrine	100	% of household
rain water container	98.88	% of consumer required

Health Resourses

90 beds community hospital	1
Health center	15
Private heath care center	200
Health officer (person)	45
village heath volunteer (person)	1664

HEALTH STATUS

Infant Mortality rate 12.7 %

Immunization

BCG	100	%
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Family planning

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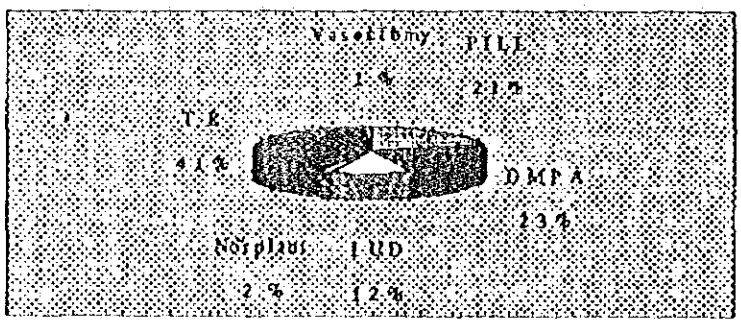

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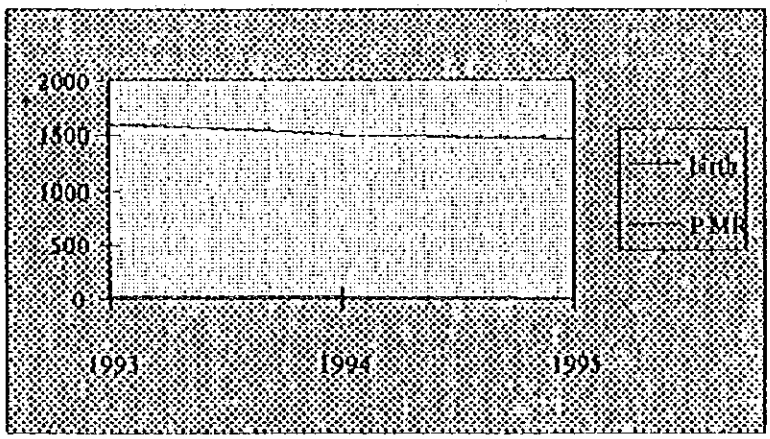
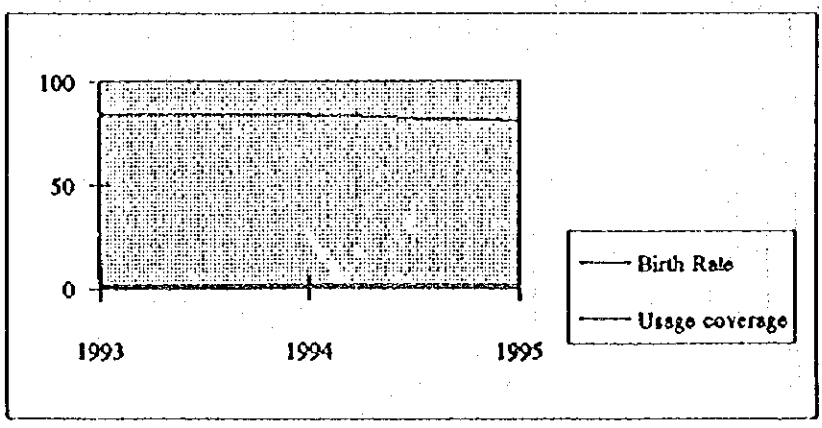
	1993	1994	1995
TOTAL DELIVERY	1601	1493	1457
TOTAL BIRTH	1612	1503	1466
PERINATAL MORTALITY RATE	11.87	14.07	7.5
(percent per 1,000 live birth)			
BIRTH RATE	1.36	1.43	1.67
USAGE COVERAGE	83.93	83.66	80.9





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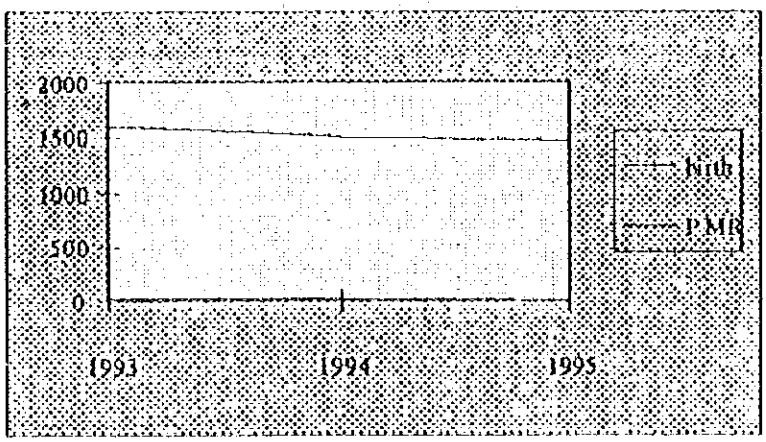
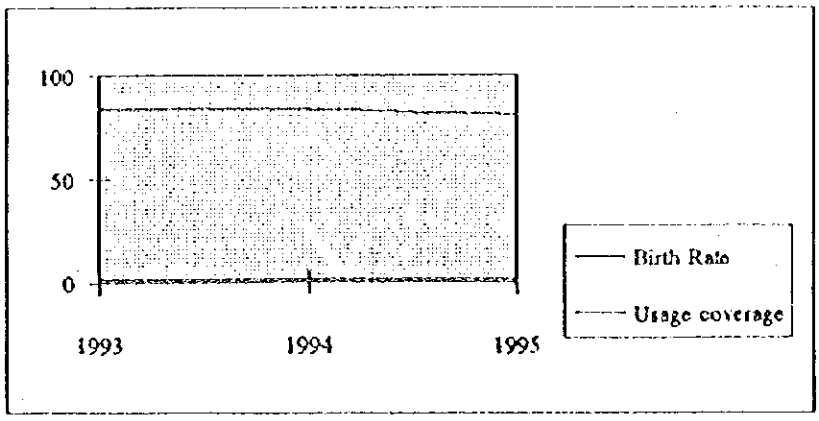
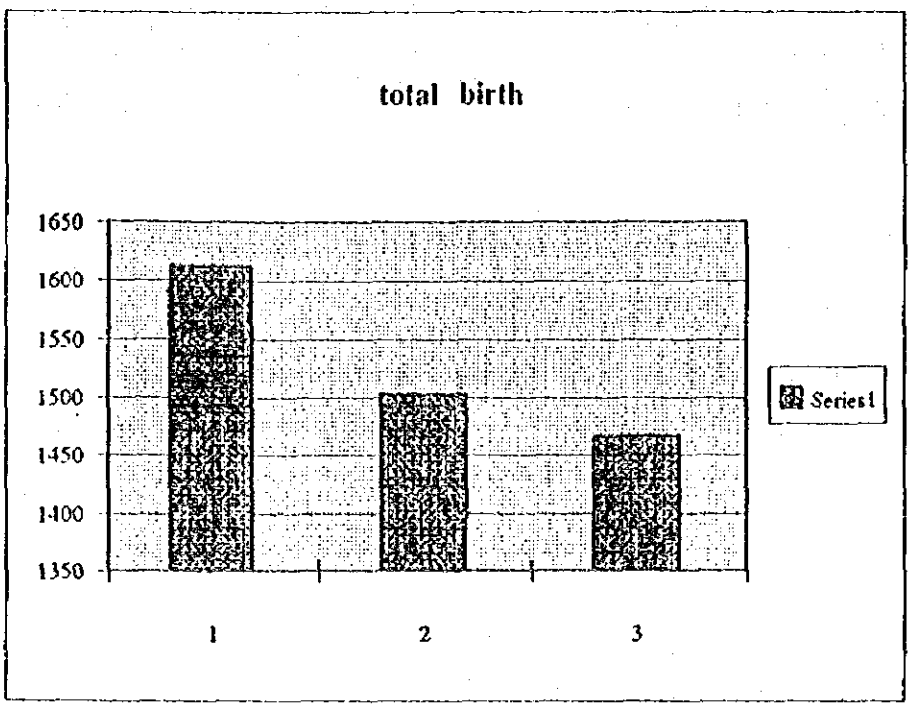
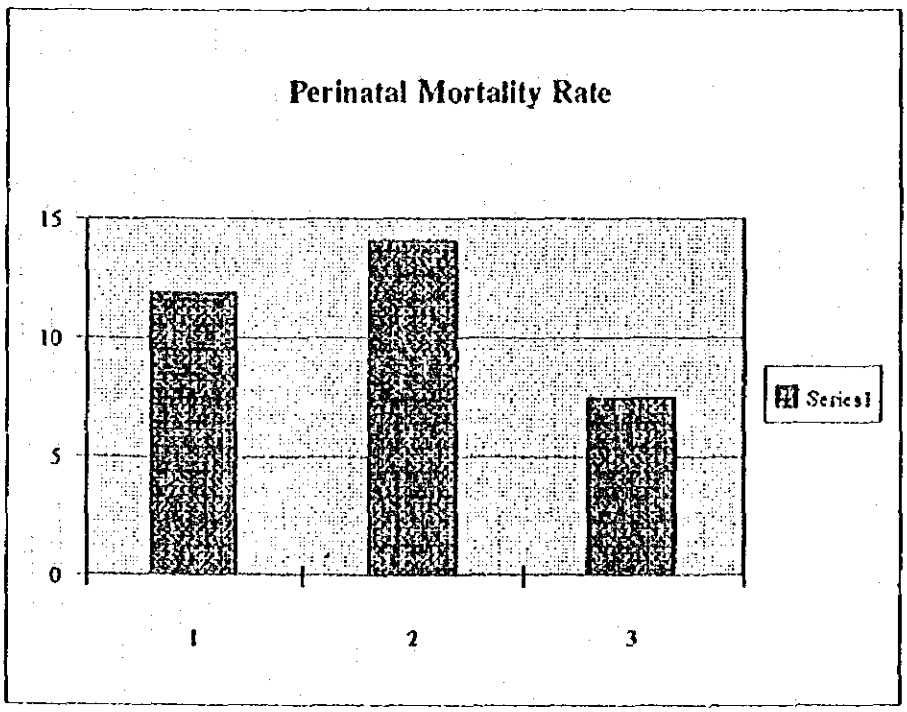
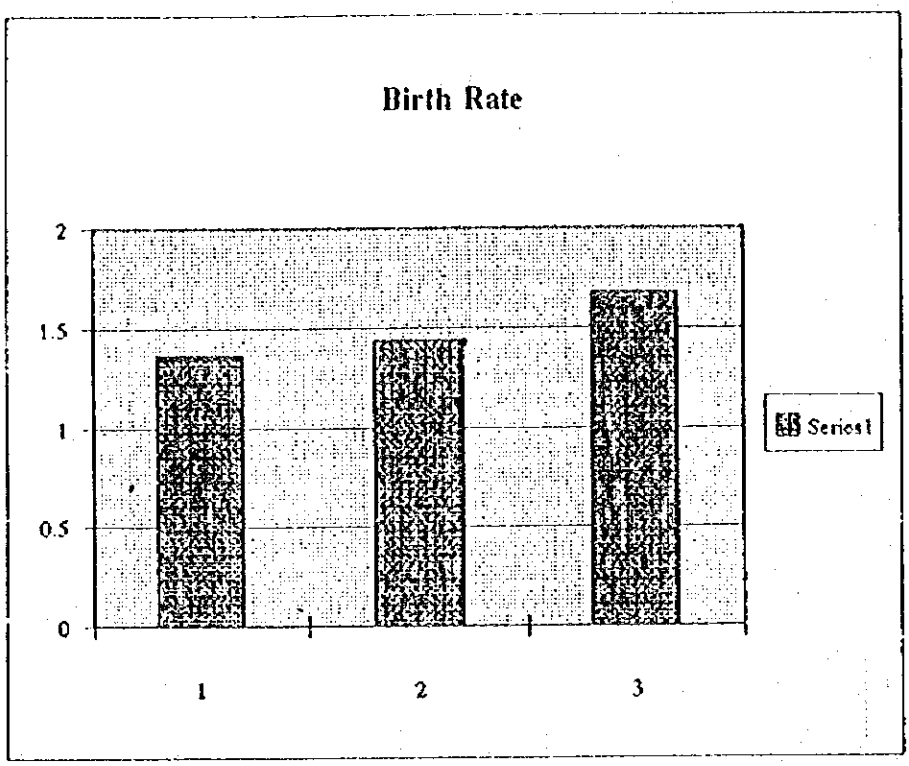
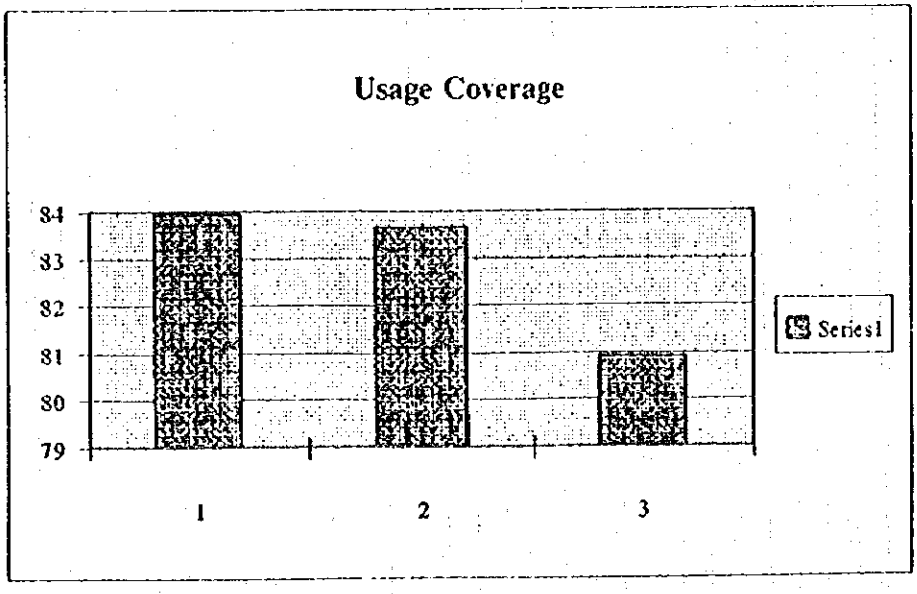





total birth
1650
1600
1550
1500
1450
1400
1350
1
2
3
Series1


Perinatal Mortality Rate
15
10
5
0
1
2
3
Series1


Birth Rate
2
1.5
1
0.5
0
1
2
3
Series1


Usage Coverage
84
83
82
81
80
79
1
2
3
Series1

EQUIPMENT DONATED FROM JICA TO LAMPLAIMAT

Equipment_Donated Form JICA to Lamplaimat

	Date	Number	Section	Utilization	
1. Physician Scale	31/3/93	1	Promotion Dep.	1,864	Time
2. Newborn Respirator	26/3/93	1	Ward 2	2,375	Hrs.
3. Bilirubinometer	8/4/93	1	Ward 2	210	Time
4. Infant Incubator, (Atom)	26/3/93	2	Ward 2	137	Time
5. Pulse Oximeter	24/4/95	1	Ward 2	24	Time
6. Infusion Pump	24/4/95	1	Ward 2	547	Time
7. Infant Warmer	21/3/94	1	Waed 2	4	Time
8. Infant Warmer 3200 D	21/4/94	1	Labour Room	2,557	Time
9. Atom Fetal Dropper DD 20	24/4/93	1	Labour Room	524	Time
10. Baby Scale	8/4/93	1	Promotion Dep.	132	Time
11. Motorcycle	25/3/93	1	Promotion Dep.	23,924	Kms
			Lam. Heath center		
1. Hematocrit Centrifuge	25/3/93	3	"	72	Time
2. Motorcycle	25/3/93	15	"	-	
3. Auto Clave	25/3/93	15	"	2,160	Time
4. Baby Scale (BB-200)	8/4/93	15	"	2,100	Time
5. Physician Scale (Detecto)	8/4/93	3	"	840	Time
6. Length Board	8/4/93	12	"	1,680	Time
7. Physician Scale (KC 21 M)	8/4/93	4	"	560	Time
8. Baby Scale (YAMATO)	8/4/93	11	"	1,540	Time

SURVEY ON
INFANT MORTALITY RATE
BY JICA ,
KHONKEAN UNIVERSITY,
AND
LAMPLAIMAT HOSPITAL

Form 1,2,3 Survey on Infant Mortality Rate by JICA Khonkean University and Lamplaimat Hospital

Table 1 Total Delivery in 1993 and 1994

	1993	1994
	N	N
Total Delivery	1,601	1,493
Total Birth	1,612	1,503
Male : Female	823 : 789	795 : 708

Table 2 Birth Weight

	1993		1994	
	N	%	N	%
500-999 Gms	4	0.25	7	0.47
1,00-1,499 Gms	8	0.49	6	0.40
1,500-1,999 Gms	26	1.61	16	1.07
2,000-2,499 Gms	127	7.88	97	6.45
2,500-3,999 Gms	1,429	88.65	1,355	90.15
≥ 4,000 Gms	18	1.12	22	1.46
Total	1,612	100.0	1,503	100.0

Table 3 Average Birth Weight in Term Newborn

	1993		1994	
	$\bar{X}$	S.D.	$\bar{X}$	S.D.
Male	3033.27	348.73	3091.57	360.00
Female	3008.12	337.29	2999.09	348.00

Table 4 Mode of Delivery

	1993		1994	
	N	%	N	%
NL	1,513	93.85	1,385	92.15
V/E	26	1.62	38	2.53
F/E	20	1.25	22	1.46
C/S	53	3.28	58	3.86
Total	1,612	100.0	1,503	100.0

birth weight distribution

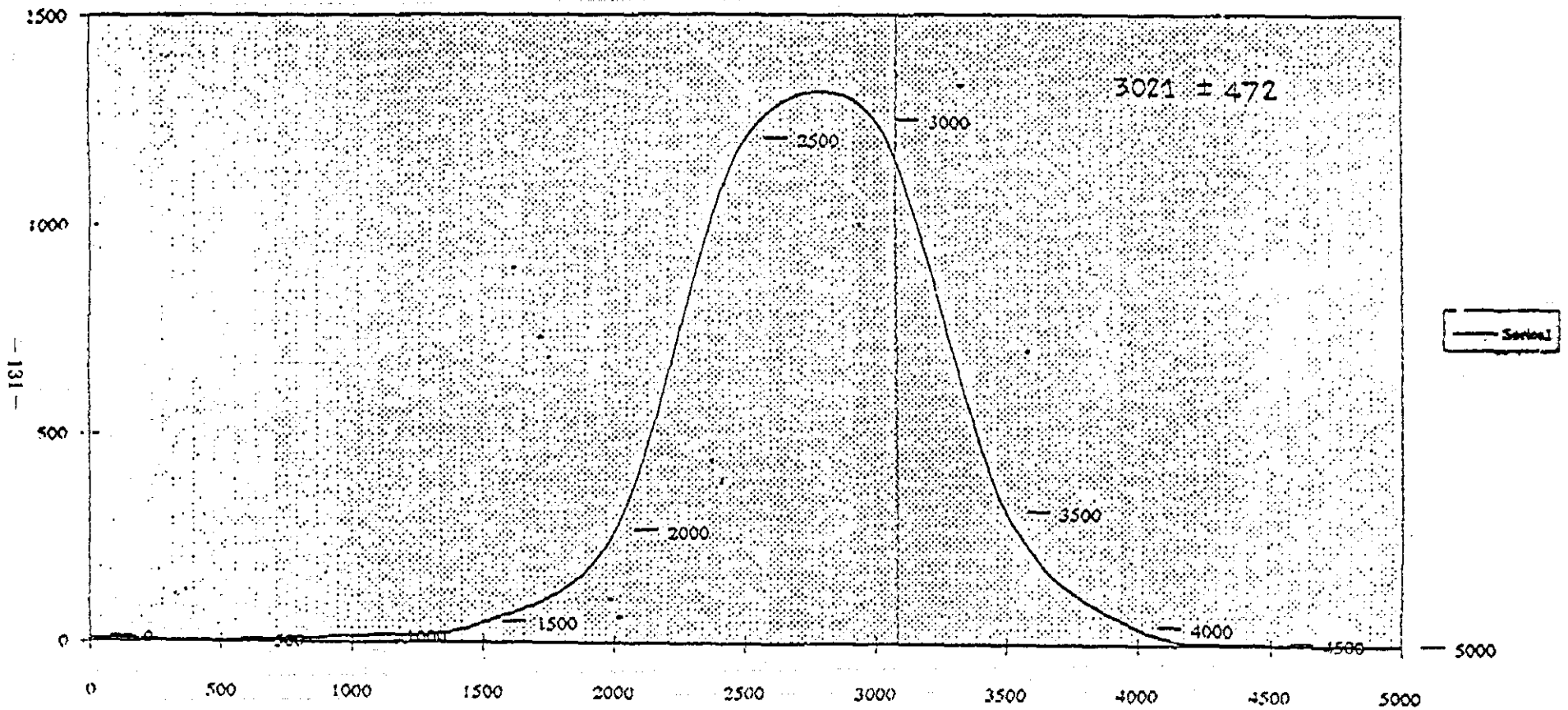


Table 5 Mortality Rates

	Stillbirth Rate (%)	PMR (%)	ENMR (%)	LNMR (%)	IMR(%)
1993	12.49	11.87	1.88	0.63	*
1994	10.05	14.07	8.74	2.02	12.71

* = Incomplete data

Table 6 Death Rate by Weight in 1994

	No. of Case	Death	%
500-1,499 Gms	13	7	53.65
1,500-1,999 Gms	16	1	6.25
2,000-2,499 Gms	97	1	1.03
>2,500 Gms	1,377	4	0.29

Table 5 Mortality Rates

	Stillbirth Rate (%)	PMR (%)	ENMR (%)	LNMR (%)	IMR(%)
1993	12.49	11.87	1.88	0.63	*
1994	10.05	14.07	8.74	2.02	12.71

* = Incomplete data

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	No. of Case	Death	%
500-1,499 Gms	13	7	53.85
1,500-1,999 Gms	16	1	6.25
2,000-2,499 Gms	97	1	1.03
>2,500 Gms	1,377	4	0.29

Table 7 Morbidity and Mortality by Birth Weight

birthweight	cum-freq	freqency	percent	%dead	%normal	%anomaly	%sick	%refer	%uncount	%unknown
0-500	9	9	0.29	100	0	0	0	0	0	0
500-1000	13	4	0.13	75	0	0	0	0	25	0
1000-15000	30	17	0.54	56.25	0	0	0	0	43.75	0
15000-2000	78	48	1.53	6.25	6.25	2.08	77.08	2.08	2.08	4.17
2000-2500	345	267	8.49	3.75	36.33	0.75	56.18	0.75	0	2.25
2500-3000	1543	1198	38.08	0.83	97.75	0.25	0.75	0	0	0.42
3000-3500	2791	1248	39.67	0.72	97.68	0.48	0.48	0	0.08	0.56
3500-4000	3105	314	9.98	0.96	96.18	0.64	0.96	0	0.32	0.96
4000-4500	3142	37	1.18	2.7	27.03	2.7	59.46	0	0	8.11
4500-5000	3146	4	0.13	0	25	25	50	0	0	0

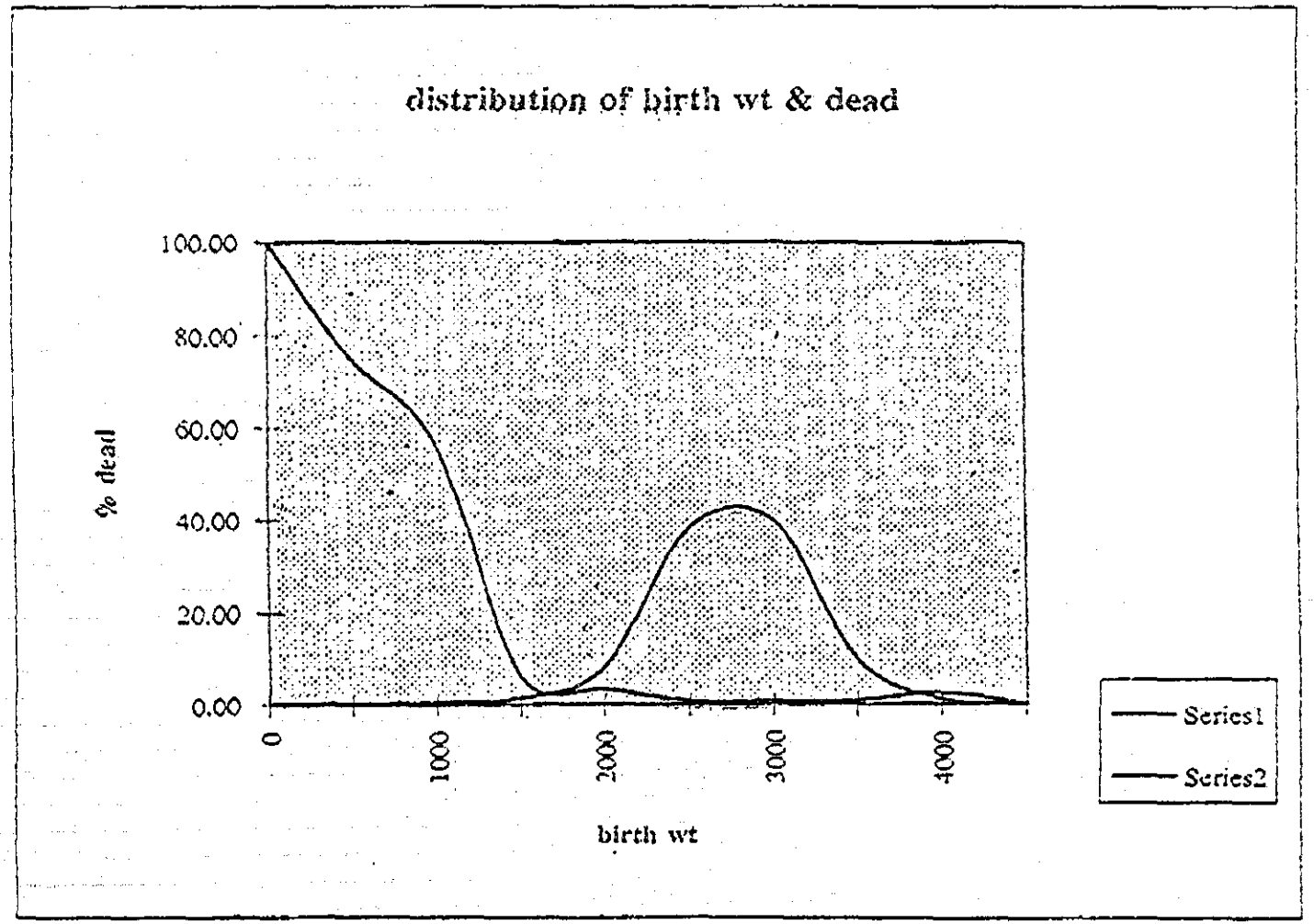
distribution of birth wt & dead
100.00
80.00
60.00
40.00
20.00
0.00
% dead
0
1000
2000
3000
4000
birth wt
Series1
Series2

Table 8 Stillbirth Cases

	1993 (%)	1994 (%)
Stillbirth Rate	12.49	10.05
Hct (average)	36.80	34.50
Weight of New-Born	2,667	2,580 (exclude <1,000 Gms)
Average Gestational age	36 wks	38 wks
Blood screening	all WNL	80% normal
		20% not done

Table 9 Cause of Stillbirth

	1993 cases		1994 cases
1. Unknown	10	1. Unknown	6
2. Fetal Distress	5	2. Fetal Distress	3
3. Trauma	2	3. Anencephaly	2
4. Anencephaly	2	4. Posterm	1
5. Abruptio placenta with Fetal Distress	2	5. Severe Pre eclampsia	1
		6. Placenta Fibrosis	1
		7. Unspecified	1

Table_10 Causes of Early Neonatal Mortality

	1993 cases		1994 cases)
1. Severe Birth Asphyxia (LGA)	1	1. RDS	7 (with sepsis 2)
		2. Sepsis	2 (Previous asphyxia)
2. RDS	1	3. MAS	2
3. Unspecified	1	4. Multiple anomaly and Preterm	1
		5. Birth Asphyxia	1

Table_11 Some disease in Early New-Born period

	1993	1994
Jaundice	22	19
Phototherapy	22	18
Blood Exchange	-	3
Incubator	59	40

Table_12 Result of ANC Blood Screening

		1993		1994	
		N	%	N	%
VDRL	(Total)	1,020	63.71*	1,548	97.66
	Positive	5	0.5**	1	0.07
HIV	(Total)	32	1.99	604	40.46
	Positive	1	3.13	7	1.16

* From Total ANC Cases

** Percentage of Total-Screening Cases

Form 4 The Study of Low Birth Weight Group 1 Year Follow Up

	LBW Group		Normal Group		
	N	%	N	%	P-value
1. Education					
1.1 Primary school	80	81.6	70	82.4	
1.2 Secondary school	14	14.3	8	9.4	
1.3 High school	4	4.1	6	7.1	0.546
1.4 Higher	0	0	1	1.2	
Total	98	100.0	85	100.0	
2. Occupation					
2.1 Housewife	4	4.1	6	7.1	
2.2 Agriculture	88	89.8	72	84.7	
2.3 Employee	3	3.1	2	2.4	0.803
2.4 Government Officer	0	0	2	2.4	
2.5 Merchant	3	3.1	3	3.5	
Total	98	100.0	85	100.0	
3. Economic Status (Income) (Bath/Year)					
0-6,000	23	23.5	3	3.5	
6,000-12,000	30	30.6	29	34.1	
12,000-24,000	21	21.4	17	20.0	0.000**
24,000-50,000	16	16.3	20	23.5	
>50,000	8	8.3	16	18.8	
Total	98	100.0	85	100.0	

** <0.001

	LBW Group		Normal Group		
	N	%	N	%	P-value
4. Prenatal Status					
Non	92	93.3	94	99.8	0.066
Disease	6	6.1	1	1.2	
Total	98	100.0	85	100.0	
5. Complication during Pregnancy					
Non	89	90.8	31	95.3	
Toxemia Of Pregnancy	3	3.1	0	0	
UTI	1	1.0	0	0	0.530
Other	5	5.1	4	4.7	
Total	98	100.0	85	100.0	
6. Malnutrition (Children)					
Normal	36	36.7	64	75.3	
PCM (1^{st})	47	47.9	20	23.5	0.000**
PCM (2^{nd})	15	15.3	1	1.2	
Total	98	100.0	85	100.0	

** <0.001

Symptom	LBW Group		Normal Group		
	$\bar{X}$	S.D.	$\bar{X}$	S.D.	P-value
Hyperbilirubin (0-7d)	.09	.29	.01	.11	.012**
Hyperbilirubin (7d-3m)	.03	.22	.01	.11	.46
Hyperbilirubin (4m-6m)	.01	.10	.00	.00	-
Hyperbilirubin (7m-12m)	.00	.00	.00	.00	-
Respiratory Tract (0-7d)	.14	.79	.00	.00	-
Respiratory Tract (7d-3m)	.29	.88	.28	.86	.92
Respiratory Tract (4m-6m)	.88	1.45	.95	1.29	.71
Respiratory Tract (7m-12m)	1.97	1.96	1.51	1.97	.18
CVS (0-7d)	.01	.10	.00	.00	-
CVS (7d-3m)	.00	.00	.00	.00	-
CVS (4m-6m)	.01	.10	.00	.00	-
CVS (7m-12m)	.01	.10	.00	.00	-
GI Tract (0-7d)	.01	.10	.00	.00	-
GI Tract (7d-3m)	.10	.37	.12	.39	.78
GI Tract (4m-6m)	.32	.65	.24	.67	.41
GI Tract (7m-12m)	.74	1.17	.87	1.31	.46
NS (0-7d)	.00	.00	.00	.00	-
NS (7d-3m)	.00	.00	.02	.22	-
NS (4m-6m)	.01	.10	.01	.10	.92
NS (7m-12m)	.09	.41	.01	.11	.07
Accident (0-7d)	.00	.00	.00	.00	-
Accident (7d-3m)	.00	.00	.00	.00	-
Accident (4m-6m)	.02	.14	.00	.00	-
Accident (7m-12m)	.07	.29	.01	.11	.07

** <.001

	LBW Group		Normal Group		
	$\bar{X}$	S.D.	$\bar{X}$	S.D.	P-value
Hx of Medical Treatment(0-7d)	.02	.14	.01	.11	.64
Hx of Medical Treatment(7d-3m)	.51	1.13	.44	.92	.62
Hx of Medical Treatment(4m-6m)	.84	1.31	1.04	1.33	.31
Hx of Medical Treatment(7m-12m)	1.89	1.89	1.78	1.61	.67
Pneumonia	.97	1.81	.53	1.10	.046*
Pharyngitis	.31	1.02	.19	.52	.32
Cold	3.03	2.25	2.35	2.12	.037*
Developement	1.04	.19	1.0	.00	-

* <0.05

SURIN PROVINCE

GENERAL INFORMATION

AREA

8,785 SQUARE KILOMETERS

DIVIDED INTO

13	DISTRICTS
2	SUB-DISTRICTS
158	TAMBONS
1912	VILLAGES
252502	HOUSEHOLES

POPULATION

MALE	664,990
FEMALE	665,032
TOTAL	1330,022

RELIGION

97 % BUDDHIST

OCCUPATION

80 % FARMERS

AVERAGE NUMBEROF	1994	1995
BIRTH RATE(1:1000)	15.52	12.80
DEAD RATE(1:1000)	3.21	3.83
INFANT MORTARITY RATE	2.28	3.79
MOTHERNAL MORTARITY RATE	0.28	0
INCREASE RATE	12.21	9.97

DATA ON_____

MCH REPORT

PPHO

NO.	INDICATOR	GOAL	RESULT		
			1993	1994	1995
1.	MOTHERNAL MORTARITY RATE	0.3:1000	0.17	0.28	0
2.	INFANT MORTARITY RATE (0-1ปี)	23:1000	3.59	2.28	3.79
3.	INFANT MORTARITY RATE (0-5ปี)	35:1000	0.97	0.88	0.88
4.	NEWBORN BIRTH WEIGHT UNDER 2,500 G.	<7%	10.86	8.65	9.15
5.	NEWBORN BIRTH WEIGHT>3,000 G	>70%	51.13	55.64	55.51
6.	ANC 4 TIMES	75%	84.47	81.57	74.24
7.	DELIVERY BY HEALTH WORKER AND TBA	80%	93.78	97.78	90.31
8.	PNC 3 TIMES	70%	65.17	73.34	62.17
9.	NEONATAL CARE 3 TIMES	70%	71.21	70.21	57.19

MCH REPORT

PRASAT DISTRICT

NO.	INDICATOR	GOAL	RESULT				
			1991	1992	1993	1994	1995
1.	MOTHERNAL MORTARITY RATE	0.3:1000	-	0.6	0	-	-
2.	INFANT MORTARITY RATE (0-1ปี)	23:1000	-	7.4	6.4	5.5	5.9
3.	INFANT MORTARITY RATE (0-5ปี)	35:1000	-	1.7	14.6	14.44	11.88
4.	NEWBORN BIRTH WEIGHT UNDER 2,500 G.	<7%	8.55	8.4	7.37	12.7	9.6
5.	NEWBORN BIRTH WEIGHT>3,000 G	>70%	33.04	44.08	50.99	51.10	52.08
6.	ANC 4 TIMES	75%	70.39	72.66	79.78	87.96	96.17
7.	DELIVERY BY HEALTH WORKER AND TBA	80%	57.24	55.54	70.25	81.09	91.29
8.	PNC 3 TIMES	70%	49.56	53.20	53.97	78.20	82.44
9.	NEONATAL CARE 3 TIMES	70%	49.56	53.20	53.97	78.06	82.31

MCH REPORT
THATOOM DISTRICT

NO.	INDICATOR	GOAL	RESULT				
			1991	1992	1993	1994	1995
1.	MOTHERNAL MORTARITY RATE	0.3:1000	--	0	0	0	0
2.	INFANT MORTARITY RATE (0-1)	23:1000	-	2	2	1	2
3.	INFANT MORTARITY RATE (0-5)	35:1000	-	0	0	0	0
4.	NEWBORN BIRTH WEIGHT UNDER 2,500 G.	<7%	-	5.12	3.75	0.5	5.71
5.	NEWBORN BIRTH WEIGHT>3,000 G	>70%	-	77.83	82.84	79.69	72.38
6.	ANC 4 TIMES	75%	-	94.78	70.15	85.98	57.38
7.	DELIVERY BY HEALTH WORKER AND TBA	80%	-	89.65	80.96	77.93	80.47
8.	PNC 3 TIMES	70%	-	71.06	73.72	69.79	61.9
9.	NEONATAL CARE 3 TIMES	70%	-	74.81	75.51	71.56	63.09

MCH REPORT
SRIKORAPHUM DISTRICT

NO.	INDICATOR	GOAL	RESULT				
			1991	1992	1993	1994	1995
1.	MOTHERNAL MORTARITY RATE	0.3:1000	0	0	0	0	0
2.	INFANT MORTARITY RATE (0-1ปี)	23:1000	12.25	12.25	11.36	9.87	2.68
3.	INFANT MORTARITY RATE (0-5ปี)	35:1000	-	-	-	-	-
4.	NEWBORN BIRTH WEIGHT UNDER 2,500 G.	<7%	35.00	36.60	28.40	15.68	11.50
5.	NEWBORN BIRTH WEIGHT>3,000 G	>70%	36.80	37.14	38.30	39.61	37.61
6.	ANC 4 TIMES	75%	37.08	74.05	75.68	95.26	100.00
7.	DELIVERY BY HEALTH WORKER AND TBA	80%	56.70	57.63	75.38	82.06	85.79
8.	PNC 3 TIMES	70%	52.80	68.20	70.38	76.29	79.08
9.	NEONATAL CARE 3 TIMES	70%	60.32	70.84	79.30	80.21	80.46

MCH REPORT

RATTANABURI DISTRICT

NO.	INDICATOR	GOAL	RESULT				
			1991	1992	1993	1994	1995
1.	MOTHERNAL MORTARITY RATE	0.3:1000	-	-	-	0.39	-
2.	INFANT MORTARITY RATE (0-1ปี)	23:1000	-	10.92	4,3	10.98	6.63
3.	INFANT MORTARITY RATE (0-5ปี)	35:1000	-	-	-	-	-
4.	NEWBORN BIRTH WEIGHT UNDER 2,500 G.	<7%	-	3.20	9.4	3.41	1.96
5.	NEWBORN BIRTH WEIGHT>3,000 G	>70%	-	67.20	76.0	51.65	64.10
6.	ANC 4 TIMES	75%	-	64.02	90.74	85.00	83.70
7.	DELIVERY BY HEALTH WORKER AND TBA	80%	-	86.20	95.16	79.00	79.00
8.	PNC 3 TIMES	70%	-	88.20	95.16	79.00	79.00
9.	NEONATAL CARE 3 TIMES	70%	-	86.20	95.16	79.00	79.00

FP.OF SURIN

SURVEY DATA

NO.	INDICATORS	GOAL	RESULT			
			1992	1993	1994	1995
1.	CPR	77%	66.8	78.56	78.05	79.05
2.	INCREASE RATE	1.2%	1.4	1.2	0.9	1.0
3.	PERMANENT METHOD OF FP.	34%	16.77	18.77	19.00	19.32

DATA FROM MINISTRY OF PUBLIC HEALTH

NO.	INDICATORS	GOAL	RESULT			
			1992	1993	1994	1995
1.	CPR	77%	-	-	-	-
2.	INCREASE RATE	1.2%	-	-	-	-
3.	PERMANENT METHOD OF FP.	34%	-	-	-	-

FP.OF PRASAT

NO.	INDICATORS	GOAL	RESULT			
			1992	1993	1994	1995
1.	CPR	77%	75.82	75.92	73.07	75.02
2.	INCREASE RATE	1.2%	0.74	0.86	0.63	0.55
3.	PERMANENT METHOD OF FP.	34%	13.08	13.4	13.06	13.82

FP.OF THATOOM

NO.	INDICATORS	GOAL	RESULT			
			1992	1993	1994	1995
1.	CPR	77%	71.3	77.8	76.6	82.4
2.	INCREASE RATE	1.2%	2	6.5	-1.2	5.8
3.	PERMANENT METHOD OF FP.	34%	17.4	17.5	17.6	18.6

PF.OF SRIKORAPHUM

NO.	INDICATORS	GOAL	RESULT			
			1992	1993	1994	1995
1.	CPR	77%	85.29	89.65	82.82	83.73
2.	INCREASE RATE	1.2%	0.58	0.91	0.11	1.05
3.	PERMANENT METHOD OF FP.	34%	15.62	20.59	20.56	20.07

FP.OF RATTANABURI

NO.	INDICATORS	GOAL	RESULT			
			1992	1993	1994	1995
1.	CPR	77%	76.88	88.87	84.30	83.73
2.	INCREASE RATE	1.2%	9.67	11.99	4.57	0.57
3.	PERMANENT METHOD OF FP.	34%	19.15	19.13	19.14	19.17

FAMILY PLANNING & MATERNAL AND CHILD HEALTH INFORMATION IN BURIRAM PROVINCE

1. The names of four Districts in cooperation target areas for promoting the activities of Family Planning & Maternal and Child Health Project are

1.1 Nangrong District

1.2 Prakonchai District

1.3 Lumplaimas District

1.4 Satuk District

2. The reasons for the selection of those four Districts as cooperation target areas are

First, the community hospital in this areas are the main in referal systems of our Province.

Second, even though they are the main referal system but still need to be approve the activities of Family Planning and Maternal & Child Health to be the guidance of their work.

Vital Statistics

District	Birth rate	Mortality rate	Growth rate
Nangrong	16.69	3.63	1.31
Prakonchai	14.41	3.12	1.13
Lumplaimas	12.90	3.19	0.97
Satuk	12.71	3.26	0.95
In Buriram Province	14.84	3.52	1.13

Maternal and Neonatal Mortality

District	Maternal Mortality	Neonatal Mortality
Nangrong	1.89	1.89
Prakonchai	-	3.34
Lumplaimas	-	0.59
Satuk	-	1.18
In Buriram Province	0.18	4.65

The average contraceptive prevalence rate in this province is 74.61 percent.

Nangrong District is 75.55 %

Prakonchai District is 79.00 %

Lumplaimas District is 79.45 %

Satuk District is 76.00 %

Buriram Provincial Public Health Office

TYPE	AMOUNT	SECTION
1. Motercycle SUZUKI RC 100	2 Unit	Health Promotion
2. Autoclave Model SAKURA	1 Set	Health Promotion
3. Baby scale capacity 20 kgs. BB-200	1 Set	Health Promotion
4. Micro computer set	2 set	" " "
5. Coppy printer	2 set	" " "

Buriram Provincial Public Health Office had received this following equipments from Japan International Cooperation Agency the Family Planning and Maternal and Child Health Project in 1994

1. Microbus NISSAN URVAN 2.5 Diesel	1 Unit
2. Motorcycle, HONDA TREAM 100 cc	10 Units
3. Motorcycle, SUZUKI RC 100	21 Units
4. Newborn Respirator Model BP-2001	2 Unit
5. Infant Incubator Model H-1000DPS	1 Unit
6. WAKO Billirubinometer complete with accessories	1 Unit
7. Atom Neonatal Monitor Model 6303	1 Unit
8. Portable Ultrasound Model ALOKA SSD-500	1 Unit
9. Baby Scale, Capacity 20 kgs, YAMATO	15 Sets
10. Baby Scale, Capacity 20 kgs BB-200	50 Sets
11. Physician's Scale Model KC 21M (adult)	15 Sets
12. Physician's scale Model DETECTO 2391	50 Units
13. Length Board Size W50 x 4102 x D1.6 CM	15 Sets
14. Length Board Size W50 x 1102 x D1.6 CM	50 Sets
15. Autoclave Model SAKURA TCS-1820	61 Sets

Buriram Provincial Public Health Office had received this following equipments from Japan International Cooperation Agency the Family Planning and Maternal and Child Health Project in 1995

1.Radiant warmer for newborn	4 u
2.Bilirubinometer	2 u
3.Hematocrit centrifuge	12 u
4.Pulse Oximeter	1 u
5.Infusion pump	4 u
6.Fetal Heart Detecter	4 u
7.Ultrasound	1 u
8.Motercycle	15 u
9.Computer set	2 u

Nangrong Hospital

TYPE	AMOUNT	SECTION
1. Infant Incubator Model H-1000D PS	1 Unit	Nursing
2. Motercycle SUZUKI RC 100	1 Unit	Health Promotion
3. Physician's Scale Model DETECTO 2391	1 Set	Health Promotion
4. Length board size W56 x L102 X D1.6 CM	1 Set	Health Promotion
5. Baby scale capacity 20 kgs. BB-200	1 Set	Health Promotion
6. Newborn Respirator Model BP-2001	1 Unit	Nursing
7. Radaint Warmer	1 Unit	Nursing
8. Computer set	1 Unit	Record data

Lumplaimas Hospital

TYPE	AMOUNT	SECTION
1. Newborn Respirator Model BP-2001	1 Unit	Nursing
2. Motercycle SUZUKI RC 100	1 Unit	Health Promotion
3. Physician's Scale Model DETECTO 2391	1 Set	Health Promotion
4. WAKO Billirubinometer	1 Unit	Nursing
5. Baby scale capacity 20 kgs. BB-200	1 Set	Health Promotion
6. Radaint warmer	1 set	Nursing
7. Pulse Oximeter	1 set	Nursing
8. Computer set	1 set	Record data

Satuk Hospital

TYPE	AMOUNT	SECTION
1. Portable Ultrasound Model ALOKA SSD-500	1 Set	Nursing
2. Motercycle SUZUKI RC 100	1 Unit	Health Promotion
3. Physician's scale Model DETECTO 2391	1 Set	Health Promotion
4. Length board size W50 x L102 x D1.6 CM	1 Set	Health Promotion
5. Baby scale capacity 20 kgs. BB-200	1 Set	Health Promotion
6. Radiat Warmer	1 Set	Nursing
7. Bilirubinometer	1 set	Nursing

Prakonchai Hospital

TYPE	AMOUNT	SECTION
1. Atom Neonatal Monitor Model 6303	1 Unit	Nursing
2. Motercycle SUZUKI RC 100	1 Unit	Health Promotion
3. Physician's Scale Model DETECTO 2391	1 Set	Health Promotion
4. Length board size W50 x L102 X D1.6 CM	1 Set	Health Promotion
5. Baby scale capacity 20 kgs. BB-200	1 Set	Health Promotion
6. Radaint Warmer	1 set	Nursing
7. Bilirubinometer	1 set	Nursing

Nangrong District

Health Center	Baby Scale	Length Board W50xL102 XD 1.6 cm	Length Board W50x4102 XD 1.6 cm	Physician Scale's Model Detecto	Physician Scale's KC 21M	Moter-cycle	Autoclave
Donmaifai	1	1	-	1	1	1	1
Nongkong	1	1	-	1	-	1	1
Bansing	1	1	-	1	-	1	1
Nongtonglim	1	1	-	1	1	1	1
Chumsang	1	1	1	-	-	1	1
Chareansuk	1	1	-	1	-	1	1
Nongsai	1	1	1	-	1	1	1
Pukwan	1	-	1	-	-	1	1
Sadao	1	1	-	1	-	1	1
Tungpo	1	1	-	1	-	1	1
Kokyang	1	-	-	1	-	1	1
Nongnha	1	-	-	1	-	1	1
Koktahing	1	1	-	1	-	1	1
Kanleang	1	1	-	1	-	1	1
Lumsaiyong	1	1	1	-	1	1	1
Total	15	12	4	11	4	15	15

* YAMATO

Prakonchai District

Health Center	Baby Scale	Length Board W50xL102 XD 1.6 cm	Length Board W50x4102 XD 1.6 cm	Physician Scale's Model Detecto	Physician Scale's KC 21M	Moter-cycle	Autoclave
Koksaadd	1	1	-	1	-	1	1
Kokmuang	1	-	-	1	-	1	1
Jorakemak *	1	1	1	-	-	1	1
Kokyang	1	1	-	1	-	1	1
Kaokok *	1	1	1	-	-	1	1
Salangtone	1	1	-	1	1	1	1
Bansai	1	1	-	1	-	1	1
Kokpraded	1	1	-	1	-	1	1
Takotapi *	1	-	1	1	-	1	1
Pintong	1	-	-	1	-	1	1
Nongbon *	1	1	1	-	1	1	1
Lalompanu	1	1	-	1	-	1	1
Bankokrang	1	1	-	1	-	1	1
Talungkao	1	1	-	1	1	1	1
Koksampun	1	1	-	1	1	1	1
Kokmakam	1	-	1	1	-	1	1
Total	16	12	4	13	4	16	16

* YAMATO

Satuk District

Health Center	Baby Scale	Length Board W50xL102 XD 1.6 cm	Length Board W50x4102 XD 1.6 cm	Physician Scale's Model Detecto	Physician Scale's XC 21M	Moter-cycle	Autoclave
Muanka	1	1	-	1	-	1	1
Chumsang	1	1	-	1	-	1	1
Nongyai	1	1	-	1	1	1	1
Sanamchai	1	1	-	1	-	1	1
Nalao *	1	1	1	-	-	1	1
Rontong *	1	1	1	-	1	1	1
Koksawang *	1	1	1	-	-	1	1
Kandong	1	1	-	1	1	1	1
Dongplong(Panam)	1	1	-	1	-	1	1
Srabua	1	1	-	1	-	1	1
Tungwang	1	1	-	1	-	1	1
Tamung	1	-	-	1	1	1	1
Sakae(Banmaprik)	1	-	-	1	-	1	1
Nongkroa	1	-	-	1	-	1	1
Total	14	11	3	11	4	14	14

* YAMATO

Lumplaimas District

Health Center	Baby Scale	Length Board W50xL102 XD 1.6 cm	Length Board W50x4102 XD 1.6 cm	Physician Scale's Model Detecto	Physician Scale's XC 21M	Moter-cycle	Autocar
Siliamnoi	1	1	-	1	-	1	1
Bantaladpho	1	1	-	1	-	1	1
Nongdon (Banyang)	1	1	1	-	1	1	1
KokKlang	1	-	1	-	-	1	1
Tamainchai	1	1	-	1	-	1	1
Koklam	1	1	-	1	-	1	1
Patairin	1	1	-	1	1	1	1
Koksaadd *	1	1	-	1	-	1	1
Krokpradu *	1	1	-	1	1	1	1
Nongpaonk * (Nongkrating)	1	1	-	1	-	1	1
Nontakrong *	1	1	-	1	-	1	1
Noogbuakok	1	1	-	1	-	1	1
Nongkrok	1	1	-	1	-	1	1
Nongmunpla	1	-	1	-	-	1	1
Bupho	1	-	1	-	-	1	1
Total	5	12	4	11	3	15	15

* YAMATO

JICA PROJECT

IN

UBONRATCHATANI PROVINCIAL PUBLIC

HEALTH OFFICE

APRIL / 1991 - APRIL / 1995

JICA

ON MAY, 1991 AGREED WITH THAI COV.

J

ON JEN, 1992 CO-OPERATED WITH PPHO.

I OBJECTIVE

FPR DEBELOP HEALTH STATUS IN PROMOTION OF FP & MCH

C MAIN ACTIVITIES OF JICA'S SUPPOR

1. OBSERVATION AND TRAINING PERSONNEL

A IN JAPAN (DR.TAWAT)

2. SHORT TIME EXPERT FROM JAPAN

- Epidemiolgist expert advised Ubon Health Personnel invole in formation System.

3. PROVISTION FO EQUIPMENTS AND MATERIAL

4. TRAINING HEALTH PERSONNELS

DURATION

IN BBON PPHO. (1992-1995)

UBONRATCHATHANI PROVINCE

GENERAL INFORMATION

ARE : 16110.65 SQUARE KILOMETERS

DIVIDED INTO

19	DISTRICTS
5	SUB-DISTRICT
217	TAMBONS
2,282	VILLAGES
301,540	HOUSEHOLDS

ข้อมูลวันที่ 4 กันยายน 2538

POPULATION

MALE	872,652
FEMALE	865,242
TOTAL	1,737,894

RELIGION 95.01% BUDDHIST

OCCUPATION 80% FARMERS

AVERAGE NUMBER OF	1992	1993	1994	1995
BIRTH RATE (1:1000)	17.18	18.76	18.21	17.15
DEAD RATE (1:1000)	4.55	4.72	5.01	5.2
INFANT MORTALITY RATE	8.55	5.8	5.82	5.3
MOTHERNAL MORTALITY RATE	0.23	0.32	0.23	0.07
INCREASE RATE	1.32	1.4	1.32	1.28

III

DATA ON DECEMBER 31 1995

MEP OF UBONRATCHATNEE PROVINCE

MCH REPORT

PPHO

NO	INDICATOR	GOAL	1992	1993	1994	1995	
1	MOTHERAL MORTALITY RATE	0.3:1000	0.23	0.32	0.23	0.67	0.067
2	INFANT MORTALITY RATE(0-1 ปี)	23:1000	8.55	5.8	5.82	5.3	
3	INFANT MORTALITY RATE(0-5 ปี)	35:1000	2.38	2.02	2.39	1.58	
4	NEWBORN BITRH WEIGHT UNDER 2,500 G.	< 7 %	10.09	9.19	10.27	9.2	
5	NEWBORN BITRH WEIGHT > 3,000 G.	> 70 %	52.22	54.12	52.57	55.54	
6	ANC 4 TIME	75%	60.63	63.25	53.2	63.47	
7	DELIVERY BY HEALTH WORKB AND TBA	80%	84.25	84.19	88.78	90.98	
8	PNC 3 TIMES	70%	45.19	49.39	42.32	48.36	
9	NEONATAL CARE 3 TLMES	70%	42.85	47.96	40.92	48.22	

MCH REPORT

NAMYUUN DISTRICT

NO	INDICATOR	COVERAGE GOAL	1990	1991	1992	1993	1994	1995
1	MORHERAL MORTALITY RATE	0.3:1000	----------NO.RECORD----------					
2	INFANT MORTALITY RATE(0-1 ปี	23:1000	6.68	2.36	3.57	4.99	4.71	0
3	INFANT MORTALITY RATE(0-5 ปี	35:1000	4.22	3.55	2.97	7.76	4.71	0
4	NEWBORN BITRH WEIGHT UNDER 2,500 G.	< 7 %	6.24	7.22	7.58	9.91	9.6	7.71
5	NEWBORN BITRH WEIGHT > 3,000 G.	> 70 %	-	30.19	20.95	35.66	50.34	55.5
6	ANC 4 TIME	75%	96.56	87.75	99.3	81.25	59.77	55.94
7	DELIVERY BY HEALTH WORKE AND TBA	80%	67.5	68.2	84.4	79.4	53.8	99.94
8	PNC 3 TIMES	70%	67.5	68.2	61.05	75.64	45	54.05
9	NEONATAL CARE 3 TLMES	70%	67.5	68.2	61.05	75.64	45.06	54.74

MCH REPORT

TALSOOM DISTRICT

NO	INDICATOR	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	MORHERAL MORTALITY RATE	0.3:1000	-	1.88	2	-	-	0
2	INFANT MORTALITY RATE(0-1 ปี	23:1000	10.33	10.21	11.21	9.25	8.2	0
3	INFANT MORTALITY RATE(0-5 ปี	35:1000	13.22	13.17	12.28	10.11	9.1	0
4	NEWBORN BITRH WEIGHT UNDER 2,500 G.	< 7 %	1.53	2.5	2.3	2.4	2..22	12.42
5	NEWBORN BITRH WEIGHT > 3,000 G.	> 70 %	21.82	33.3	46.26	52.23	60.66	40.18
6	ANC 4 TIME	75%	83.16	86.65	95.6	80.76	82.22	80.29
7	DELIVERY BY HEALTH WORKE AND TBA	75%	43.91	73.3	73	88.86	90.96	92.66
8	PNC 3 TIMES	70%	68.5	79.46	82.11	85.09	85	86.79
9	NEONATAL CARE 3 TIMES	70%	68.5	79.46	82.11	85.07	85	86.79

MCH REPORT

TRAKARN DISTRICT

NO	INDICATOR	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	MORHERAL MORTALITY RATE	0.3:1000	0	0	0	1.36	0	0.57
2	INFANT MORTALITY RATE(0-1 ปี	23:1000	1.1	0.48	0.67	3.8	0	4.59
3	INFANT MORTALITY RATE(0-5 ปี	35:1000	0	0	0	1.6	0	0.98
4	NEWBORN BITRH WEIGHT UNDER 2,500 G.	< 7 %	0	4.37	5.07	1.69	8.93	9.57
5	NEWBORN BITRH WEIGHT > 3,000 G.	> 70 %	0	32.2	42.8	49.15	50.19	53.7
6	ANC 4 TIME	75%	73.08	78.46	82.08	95.8	53.09	70.6
7	DELIVERY BY HEALTH WORKE AND TBA	80%	98.45	95.91	88.63	89	93.2	100
8	PNC 3 TIMES	70%	0	86.9	82.08	80.33	40.07	59
9	NEONATAL CARE 3 TLMES	70%	0	87.44	82.08	80.33	46.45	59.2

MCH REPORT

PHOSAI DISTRICT

NO	INDICATORS	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	MORIBRAL MORTALITY RATE	0.3:1000	0	0	0	0	0	1.52
2	INFANT MORTALITY RATE(0-1 ปี	23:1000	0	0.48	0.33	0.22	0.03	4.57
3	INFANT MORTALITY RATE(0-5 ปี	35:1000	0	0.57	0.52	0.25	0.07	0.99
4	NEWBORN BITRH WEIGHT UNDER 2,500 G.	< 7 %	0	1.73	3.36	3.73	3.82	8.66
5	NEWBORN BITRH WEIGHT > 3,000 G.	> 70 %	0	75.31	68.07	49.25	74.43	64.27
6	ANC 4 TIME	75%	60.42	71.55	96.68	75.28	80.09	97.67
7	DELIVERY BY HEALTH WORKE AND TBA	80%	95	69.36	75.82	74.07	82.57	83.83
8	PNC 3 TIMES	70%	82.25	77.33	95.45	88.62	64.97	74.81
9	NEONATAL CARE 3 TLMES	70%	86.25	77.33	94.45	88.62	64.94	75.89

MCH REPORT

MUANG SAMSIP

NO	INDICATORS	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	MORHERAL MORTALITY RATE	0.3:1000	UNDER RECORD AND NO RECORD					
2	INFANT MORTALITY RATE(0-1 ปี)	23:1000	10.4	11.39	7.97	4.4	0	0.17
3	INFANT MORTALITY RATE(0-5 ปี)	35:1000	----------NO.RECORD----------					
4	NEWBORN BITRH WEIGHT UNDER 2,500 G.	< 7 %	3.62	4.05	1.52	1.76	7.92	8.09
5	NEWBORN BITRH WEIGHT > 3,000 G.	> 70 %	71.46	72.48	81.76	86.15	63.64	56.64
6	ANC 4 TIMB	75%	100	87.37	100	100	80.26	89.62
7	DELIVERY BY HEALTH WORKE AND TBA	80%	100	100	100	100	100	89.73
8	PNC 3 TIMES	70%	99.28	97.01	91.09	87.85	47.87	73.02
9	NEONATAL CARE 3 TLMES	70%	99.28	97.01	91.09	87.85	58.66	73.36

FP.OF UBONRATCHATHANI

SURVEY DATA

NO	INDICATORS	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	CPR	77%	75.4	76.3	78.94	79.46	79.46	79.41
2	INCREASE RATE	1.20%	1.5	1.5	1.3	1.4	1.39	1.19
3	PERMANENT METHOD OF FP.	34%	20.96	21.25	23.96	24.05	26.92	33.4

DATA FROM MINISTRY OF PUBLIC HEALTH

NO	INDICATORS	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	CPR	77%	63.7	65.7	66.9	62.2	-	-
2	INCREASE RATE	1.20%	1.4	1.5	1.3	1.4	-	-
3	PERMANENT METHOD OF FP.	34%	27	26.9	27	27.2	-	-

FP.OF NAMYUUN

NO	INDICATORS	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	CPR	77%	63.36	68.52	75.25	80.9	77.21	89.95
2	INCREASE RATE	1.20%	2.34	1.98	1.5	1.4	1.49	1.5
3	PERMANENT METHOD OF FP.	34%	13.9	16.29	17.54	16.9	21.11	19.92

FP.OF TALSOOM DISTRICT

NO	INDICATORS	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	CPR	77%	63.66	74.5	76.21	77.56	82.93	77.41
2	INCREASE RATE	1.20%	1.44	1.22	1.24	1.23	1.24	6.86
3	PERMANENT METHOD OF FP.	34%	8.8	16.09	16.48	22.59	32.22	20.82

FP.OF TRAKARN

NO	INDICATORS	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	CPR	77%	77.39	74.42	79.12	82.68	-	86.56
2	INCREASE RATE	1.20%	0	1.4	1.4	1.09	-	1.27
3	PERMANENT METHOD OF FP.	34%	21.7	22.5	23.7	21.19	-	25.98

FP.OF PHOSIA

NO	INDICATORS	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	CPR	77%	82.06	81.76	81.65	80.25	94.49	88.66
2	INCREASE RATE	1.20%	0	2.4	2.2	1.9	1.05	1.16
3	PERMANENT METHOD OF FP.	34%	24.7	25.52	25.52	23.28	23.28	21.95

FP.MUANG SAMSIP

NO	INDICATORS	GOAL	RESULT					
			1990	1991	1992	1993	1994	1995
1	CPR	77%	75.93	76.3	78.85	83.14	82.74	70.2
2	INCREASE RATE	1.20%	0.66	0.69	1.82	0.78	0	0.96
3	PERMANENT METHOD OF FP.	34%	32.14	32.69	38.76	48.1	0	48.94

Main Activivtes of Jicar's Support	Fiscal Year	Activities	Duration	Who's Responst
1. Observation and Training study in Japa	1992	- Health personnal go to Jica	1 Month (dec,92-Jan,93)	- DR. TAWAT
	1993	- Health personnal go to Japan	(Jan 1993)	- DR. PRAYONG
2. Short time Expert from Japan	1992	- Epidemiologist expert advised Ubon Health personnel involes information system	1 Day (Jan, 1993)	- Information Center - DR. SAMAN - Health promotion sector
		- IEC Expert for Advise and Planning to development and production	6 Months (March 1,93-August 31, 1993)	- Health promotion sector - Health Education and public Relation section
	1993	- Media About MCH & FP		
3. Provision Equipment and Material	1991	- Jica Support Equipment Mch & FP Equipment IEC Equipment (Ubon PPHO Recieved already)	(Jan 1992-Dec 1992)	- Health promtion sector Response to distribute District
	1993	- MCH & FP Equipment * Infant Warmer I set * Motorcycle 10	Feb-93	- mung Samsip - Posai District 4 - mung Yai Helth Center - Samrong Health Center - Song Khon Health Center - Phalai Health Center

Main Activivtes of Jicar's Support	Fiscal Year	Activities	Duration	Who's Responst
				- Seimuangmai 1 - namthang Health Center - 5 Waiting for Distribution
		- IEC Equipments	(Jan-Dec 1994)	
4. Training Health personnel	1992	- Seminar and Campaign	(10-14 Aug 1992)	- Health ED & public Relation sector - Health promotion sector - Health personnal from every District
	1993	- Health integated training Programm	(October 1993)	- HE Sector - HP Sector (Wait for Budget)
	1994	- Health Information Training		

EQUIPMENTS	LOCATION	DATA OUT COME	USING AFTER RECEVIED
1. INCUBATOR	PHOSAI HOSPITAL	PREMATUPE BABY 1-2 CASES/MONTH	11 CASES (FEB 93 - FEB 95)
	NAMYUUN HOSPITAL	PREMATUPE BABY 1-2 CASES/MONTH	40 CASES (APR 92 - JEN 95)
	TALSOOM HOSPITAL	PREMATUPE BABY 1-2 CASES/MONTH	6 CASES (APR 4 - JEN 95)
	TRAKARN HOSPITAL	PREMATUPE BABY 2-4 CASES/MONTH	28 CASES (APR 4 - JEN 95)
2. BILLIRUBINOMETER	NAMYUUN HOSPITAL	-	24 CASES
	TRAKARN HOSPITAL	-	285 CASES
3. INFANT WARMER	MUANGSAMSIB HOSPITAL	MILD JAUNDICE 2 CASES/MONTH	142 CASES (APR 92 - JAN 95)
	TRAKARN HOSPITAL	MILD JAUNDICE 10-12 CASES/MONTH	148 CASES (APR 92 - JUN 95)
4. NEONATAL MONITOR	AMNATJAREON HOSPITAL	JAUNDICE	191 CASES (APR 92 - JUN 95)
		PREMATURE	
		SEPSIS	
		PHD	

EQUIPMENTS	LOCATION	DATA OUT COME	USING AFTER RECEVIED
5. HEMATOCRIT -	MUANGSAMSIB HOSPITAL	-	3016 CASES (JUN 95)
CENTRIFUGE	TALSOOM HOSPITAL	-	1200 CASES (MAR 94-JUN 95)
	TRAKARN HOSPITAL	-	1800 CASES (JUN 95)
6. VDO EDITING	UBON PPHO	-	30 TIMES

Status of Mother and Child Health in Thailand in Plan 8

Dr. Wichai Tientavorn
Director of the Family Health Division

Mother and Child Health work began with its most important goal of reducing the rate of death of mother and infant. At that time of thirty years ago the infant mortality rate was 84.3 per 1000 live births in 1964-1965. In the following twenty years it reduced by half to 40.7 in the period 1985-1986 and at the end of Plan 6 it was 34.5. The latest reports in 1994 show that the infant mortality rate was 28.5 per 1000 live births. It is thought that by the end of Plan 7 in 1996 the number will be close to that set in Plan 7, which is 23 per 1000 live births, and in Plan 8 which is approaching the target is 18 per 1000 live births.

The maternal mortality rate has also reduced. The report of the Ministry of Public Health shows that about twenty years ago in 1973, the rate of maternal mortality was 1.7 per 1000 live births. Ten years later in 1984 it was 0.5 per 1000 live births. The latest data in 1994 has a value of 0.17 per 1000 live births (17 per 100,000) and in Plan 8 the target is 15 per 100,000 live births.

		MMR (reported)	IMR (estimated from surveys)
At the end of Plan 6	1991	0.2	34.5
	1992	0.2	32.5
	1993	0.17	30.5
	1994	0.17	28.5

Comparison of antenatal care coverage rate, delivery, postpartum care and of birth weight in years 1992, 1993 and 1994 and targets in the 7th Development Plan.

Item	Target %	Result in 1992 %	Result in 1993 %	Result in 1994 %
1. Antenatal care 4 times	75	68.06	72.27	72.63
2. Delivery by public health officer and traditional midwife who had been trained. (TBA)	80	90.41	91.11	95.02
3. Postpartum care for mother (3 times)	70	57.35	60.65	63.81
4. Postpartum care for infant (3 times)	70	54.45	58.59	62.63
5. Birth weight less than 2,500 g	7	9.04	8.54	8.00
6. Birth weight 3,000 g	70	56.73	58.78	60.00

Considering the coverage of mother and child health care service, it is seen that the rate of coverage over the last three years has increased for all activities, with the coverage for antenatal care and care during delivery has reached the target set (72.63% for antenatal care and if including private service as well the target is reached). However, if comparing the service target and the targets for infant mortality rate and birth weight (IMR at 28.5 in 1994 ---> 23.0 at the end of the Plan, LBW at 8.0 in 1994--->7.0 at the end of the Plan), it is still not very satisfactory since the target is not yet reached even though there are still 2 years to go until the end of the Plan. This, after consideration, is due to the quality of the service not being good enough.

Another important indicator which is capable of indicating the quality of service during pregnancy care and delivery care is the perinatal mortality rate for which the target is still not set in the 7th Plan. From the figures collected from the reports Kor.1 and Kor.2 of the Project on Improve Capability of health personnel in MCH in 1993 it is seen that the perinatal mortality rate over all the country was 10.3 for 1000 live births which when categorized according to the cause of perinatal death was found to be mostly due to causes which could be prevented if the care during pregnancy and delivery were of good quality.

Maternal mortality rate and perinatal mortality rate in 1993 (according to regions)

Region	Maternal mortality rate	Infant mortality rate
North	0.35	14.7
Northeast	0.18	9.9
Central	0.24	10.8
South	0.32	10.6

The causes of perinatal death in 1993 were:

1. Macerated Infant	28%
2. Asphyxia (lack of oxygen)	18%
3. Death from a specific cause	16%
4. Congenital anomaly	15%

After having considered the above causes of death, it was found that these causes of death could be reduced by increasing the quality of service for antenatal care, delivery and postpartum care by developing the potential and capability of medical and public health personnel, building conscience in self-care and developing technology in care for pregnant women.

For this year 1995, there are a lot of activities to reduce perinatal death both directly and indirectly. For examples, the project on improving capability of mother and child health personnel, the use of graph for delivery care, use of risk factors in ANC campaign for early registration of pregnancy with doctor, prevention and controlling high blood pressure in pregnant women, control and prevention of thalassemia, and eradication of tetanus in newborn babies.

In order to stress at the importance of perinaltal death, in the 8th Plan the target of Perinatal death is set to be not more than 10 per 1000 livebirths.

Apart from developing the service quality, developing potential of the personnel, giving knowledge and building realization in self care, in the 8th Plan we try to emphasize delopment of quality of the population particularly in children to give them physical growth and development in health, mental health, mood, social awareness and intellect. Also to provide clinics giving advice before marriage, to prevent and reduce the incidence of hereditary diseases such as Thalassemia, Down's syndrome. Stress is also given to encouraging the use of breast feeding, promoting the use of creches at work, promoting the development of children, protecting and devloping the health of mothers from infectious and non-infectious diseases such as AIDS, which is a problem which is increasing in severity, by promoting blood testing for AIDS without compulsion, including giving advice both before and after blood testing, promoting and producing personnel who can give advice about AIDS, educating and promoting that people with AIDS can stay in the familyand community without hate and social obstruction, promoting powdered milk for children who are born to mothers infected with the AIDS virus and the possibility of the use of antibiotics to reduce the infection of AIDS to the newborn. With regard to non-infectious diseases, there are the prevention and control of high blood pressure in pregnant women, which is an important cause of death in mothers, the correction of anaemia in pregnant women, the prevention of difficult deliveries, haemorrhage after delivery and children with insufficient oxygen by using the Partogram in caring for the delivery.

In the case of management, there is an adjustment of the structure of the central administration to give clearer separation of duties, concentrating on the role of Centres and Provincial offices in the analysis of problems and self-management of services, promotion of participation with private organizations and the community, promotion of giving service to groups by opportunity, and groups who are difficult to reach.

To conclude, in Plan 8 there is an emphasis on quality of service, developing the quality of the population and the participation of citizens, by using targets and methods in achieving the plan as follows:

Targets in the 8th National Public Health Development Plan

1. Maternal mortality rate. In pregnancy and delivery the average maternal death rate should not be more than 15 per 100,000 live births.
2. Mothers follow the ideal maternal health behaviour totally in not less than 36 % of mothers in the age group 21-35 years.
3. Pregnant women carry the AIDS virus in not more than 3% of cases.
4. Perinatal mortality rate of not more than 10 per 1000 live births.
5. Infant mortality rate of not more than 18 per 1000 live births.
6. Reduction in the incidence of newborns with thalassemia to below 1%.
7. New borns with birth weight below 2,500 gram of not more than 7%.
8. Children with development according to their age physically, mentally, emotionally and socially of not lower than 70%.
9. Children with growth according to standard measure in age, weight and height of not lower than 80%.
10. Children age 0-6 years to be rid of tooth decay of not lower than 20%.
11. Children being looked after according to the 10 Declarations for Children of not lower than 70%.

Strategies in the 8th Development Plan for National Public Health

1. Develop potentials of health officers at every level, volunteers and community in order to promote, prevent, watch out and provide mother and child health service.
2. Publicise to coverage target groups.
3. Promote involvement of family and community in looking after children by emphasizing the role of father and mother.
4. Develop and promote the use of technology in mother and child care to promote health.
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4. Perinatal mortality rate of not more than 10 per 1000 live births.
5. Infant mortality rate of not more than 18 per 1000 live births.
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