



CHAPTER IV

RESULTS OF THE STUDY

The study involved 264 samples, the results are presented under different headings dealing with the main aspects of the study.

GENERAL CHARACTERISTIC OF THE STUDY:

Table 4.1 Antenatal Care Coverage of pregnant women

Attendance of ANC Service	Number	Percentage
Yes	133	50.4
If yes ANC Service Attended, Number of visits		
- < 4 visits	75	56.0
- \geq 4 visits	58	44.0
No	131	49.6
Total	264	100.0

As shown in Table 4.1, 133 of the 264 (50.4%) women had ANC attended and 131 pregnant women (49.6%) had no ANC attendance.

It was also seen that among 133 pregnant women who had ANC attendance, 75 cases (56.0%) had ANC attendance of less than 4 visits, 58 cases (44.0%) had ANC attendance of 4 visits or more.



SOCIOECONOMIC FACTORS:

Table 4.2 Effects of Age on Attendance of ANC Service

Age Group (Years)	No		Attendance of ANC Service					
			Yes		No		Total	
	No	%	No	%	No	%	No	%
15-19	36	13.6	26	72.2	10	27.8	36	100
20-24	83	31.4	51	61.4	32	38.6	83	100
25-29	50	18.9	28	56.0	22	44.0	50	100
30-34	51	19.3	19	37.3	32	62.7	51	100
≥ 35	44	16.7	9	20.5	35	79.5	44	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 30.84$; $df = 4$; $P < 0.001$

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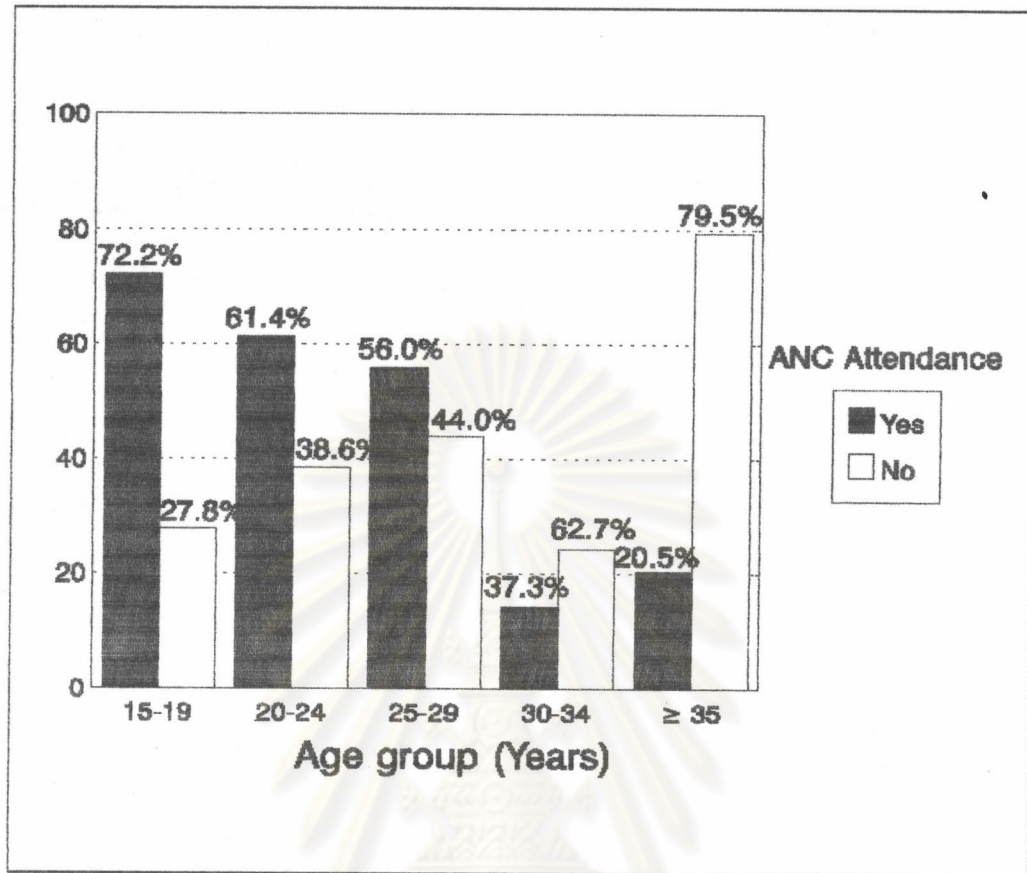


Figure 4.1. Proportion of ANC Attendance by Age

The pregnant women who were aged of less than 30 years were more likely to attend ANC than were those over the age of 30 years. It was noted that the pregnant women whose age between 15-29 years were more likely to attend ANC. The percentage of ANC attendance were 72.9%, 61.4% and 56.0% respectively. Whereas those whose age between 30-35 years or more were least likely to attend ANC. Therefore, they were the most vulnerable groups who need more encouragement to attend ANC (see figure 4.1).

As shown in Table 4.2, most (31.4%) of the sample were aged 20–24 years. There was a significant difference between the attendance of ANC service between those aged less than 30 and those in the other age groups.

Table 4.3 Effects of Religion on Attendance of ANC Service

Religion	No	%	Attendance of ANC Service					
			Yes		No		Total	
			No	%	No	%	No	%
Hindu	124	47.0	82	66.1	42	33.9	124	100
Buddhist	140	53.0	51	36.4	89	63.6	140	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 22.03$; $df = 1$; $P < 0.001$

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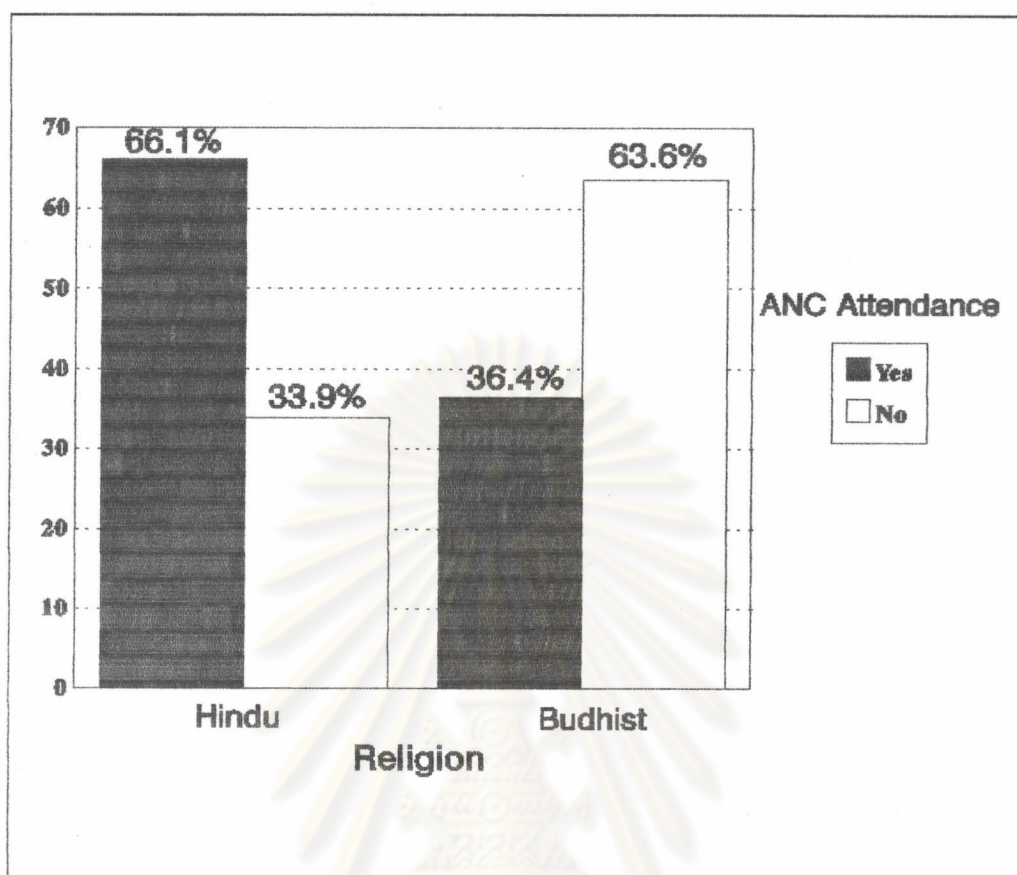


Figure 4.2 Proportion of ANC Attendance by Religion

As shown in Table 4.3, most (53.0%) of the sample were considered to be Buddhist religion. There was a significant difference between the attendance of ANC service between those considered to be Buddhist and those considered to be Hindu religion. It was noted that the pregnant women who were Hindu religion were more likely to attend ANC (66.1%) (see figure 4.2).

Table 4.4 Effects of Caste on Attendance of ANC Service

Caste	No	%	Attendance of ANC Service					
			Yes		No		Total	
			No	%	No	%	No	%
Brahmins	88	33.3	61	69.3	27	30.7	88	100
Chhetri	21	8.0	12	57.1	9	42.9	21	100
Tamang	119	45.1	45	37.8	74	62.2	119	100
Others	36	13.6	15	41.7	21	58.3	36	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 21.62$; $df = 3$; $P < 0.001$

As shown in Table 4.4, most (45.1%) of the sample were considered to be Tamang caste. There was a significant difference between attendance of ANC service between those considered to be Tamang caste and those considered to be other castes. It was observed that the more of the Brahmin caste women attended ANC (69.3%).

Table 4.5 Effects of Education on attendance of ANC Service

Education	No	%	Attendance of ANC Service					
			Yes		No		Total	
			No	%	No	%	No	%
Illiterate	190	72.0	65	34.2	125	65.8	190	100
Literate	74	28.0	68	91.8	6	8.1	74	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 70.61$; $df = 1$; $P < 0.001$

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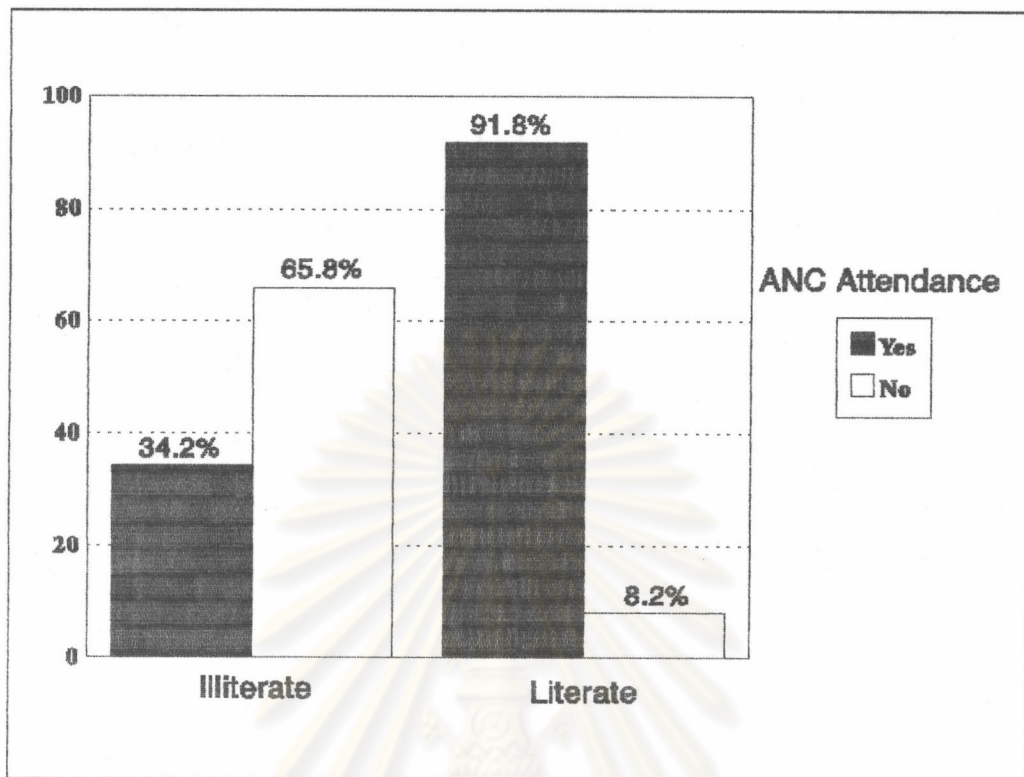


Figure 4.3 Proportion of ANC Attendance by Education

As shown in Table 4.5, most (72.0%) of the sample were considered to be illiterate. There was a significant difference between the attendance of ANC service between those considered to be illiterate and those considered to be literate; more than twice the proportion of literate women attended ANC (91.8%).

Table 4.6 Effects of Occupation on Attendance of ANC Service

Occupation	No %		Attendance of ANC Service					
			Yes		No		Total	
	No	%	No	%	No	%	No	%
Agriculture	127	48.1	66	52.0	61	48.0	127	100
Housewives	93	35.2	51	54.8	42	45.2	93	100
Self business	44	16.7	16	36.4	28	63.6	44	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 4.33$; $df = 3$ P 0.115

As shown in Table 4.6, most (48.1%) of the sampled women worked in agriculture. There was no significance difference between the attendance of ANC service and between those considered to be agriculture and those considered to be other occupation groups. But in this table it was shown that those women who were housewives tended to have not statistically significantly higher ANC attendance (54.8%).

Table 4.7 Effects of Type of Family on Attendance of ANC Service

Family type	Attendance of ANC Service									
	No		Yes				No		Total	
	No	%	No	%	No	%	No	%		
Single family	118	44.7	73	61.9	45	38.1	118	100		
Joint family	117	43.3	50	42.7	67	57.3	117	100		
Extended family	29	11.0	10	34.5	19	65.5	29	100		
Total	264	100.0	133		131		264			

χ^2 test: $\chi^2 = 11.89$; $df = 2$; $P < 0.001$

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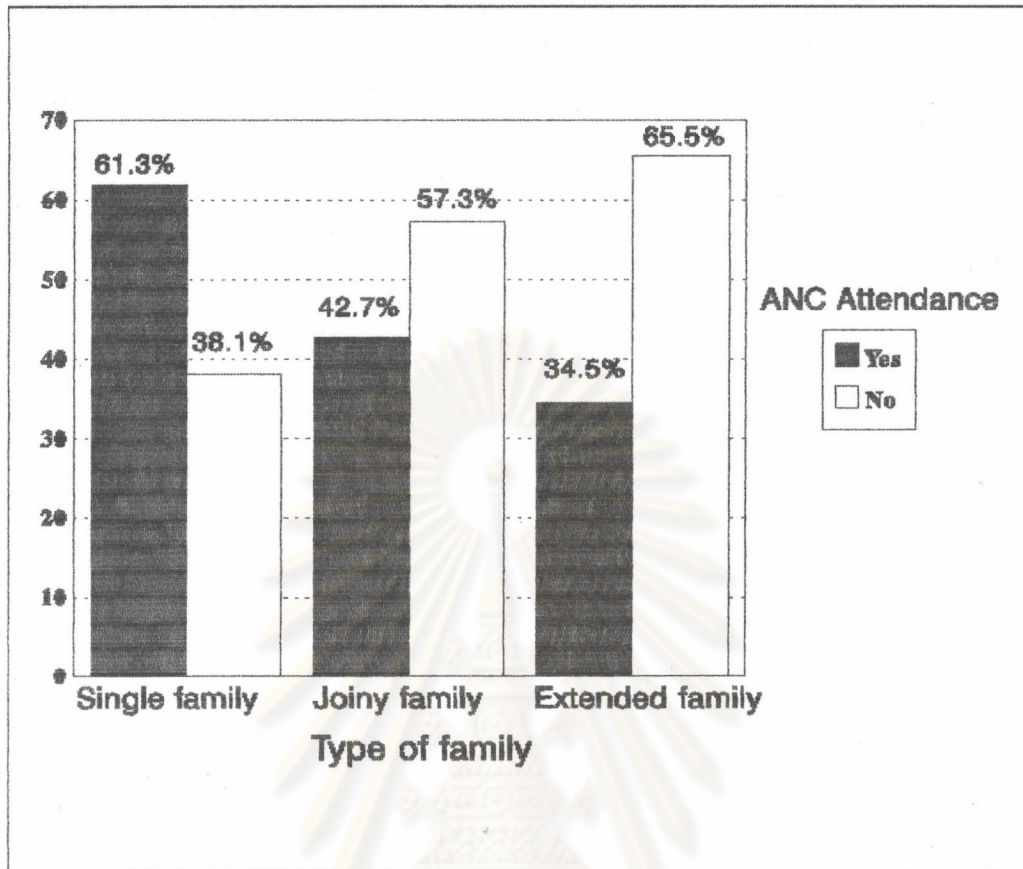


Figure 4.4 Proportion of ANC Attendance by Type of Family

As shown in Table 4.7, the total samples of 264, (44.7%) were single family, (44.3%) of them were joint family and only (11.0%) of them were extended family. There was a significant difference between the attendance of ANC service by the type of family, with greater proportion of the women from single family attending ANC (61.9%) (see figure 4.4).

Table 4.8 Effects of Family Annual Income on Attendance of ANC Service

Annual income	No %		Attendance of ANC Service					
			Yes		No		Total	
			No	%	No	%	No	%
< 5,000 Rs.	110	41.7	7	24.5	83	75.5	110	100
6-10,000 Rs.	118	44.7	75	63.6	43	36.4	118	100
≥ 11,000 Rs.	36	13.6	31	86.1	5	13.9	36	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 55.95$; $df = 2$ $P < 0.001$

As shown in Table 4.8, (41.7%) of the samples had family annual income of less than 5,000 rupees, (44.7%) had family annual income of 6-10,000 rupees and (13.6%) had family annual income of more than 11,000 rupees. There was a significant difference between the attendance of ANC service between those with family income of less than 5,000 rupees, those with less than 10,000 rupees and those with family annual income of more than 11,000 rupees; with more than twice the proportion of those with family income of more than 11,000 attending ANC (86.1%).

OBSTETRIC FACTORS:

Table 4.9 Effects of Gravida on Attendance of ANC Service

Gravida	No		Attendance of ANC Service					
			Yes		No		Total	
	No	%	No	%	No	%	No	%
1-2	49	18.6	35	71.4	14	28.6	49	100
3-4	44	16.7	22	50.0	22	50.0	44	100
≥ 5	171	64.8	76	44.4	95	55.6	171	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 11.10$; $df = 2$; $p < 0.001$

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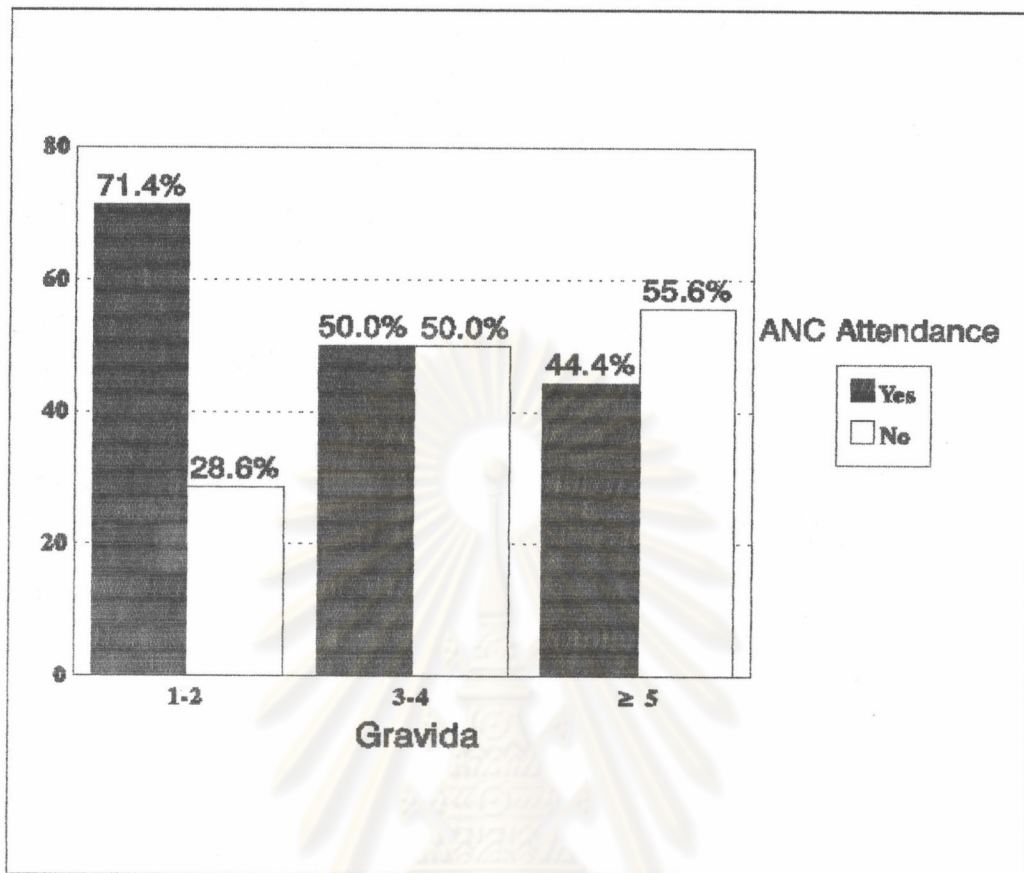


Figure 4.5 Proportion of ANC Attendance by Gravida

As shown in Table 4.9, most (64.8%) of the sample were considered to be gravida over 5. There was a significant difference between the attendance of ANC service between those considered to be gravida 1-2, 3-4 and 5 over.

From this Figure, it was noted that pregnant women with 1-2 gravida had highest proportion of attendance of ANC service (71.4%) (see figure 4.5).

Table 4.10 Effects of Under five children on Attendance of ANC Service

Number of children under 5 years of age	Attendance of ANC Service							
	No	%	Yes		No		Total	
			No	%	No	%	No	%
1	100	37.1	54	54.0	46	46.0	100	100
2	164	62.1	79	48.2	85	51.8	164	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 0.52$; $df = 1$; $P 0.47$

As shown in Table 4.10, most (62.1%) of the sample had two children with the age of under five years. There was no significant difference between the attendance of ANC service between those two children under five and those with one child under five.

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Table 4.11 Effects of Previous Obstetric Complications on attendance of ANC Service

Status	Attendance of ANC Service							
	No	%	Yes		No		Total	
			No	%	No	%	No	%
Without complication	116	43.9	54	46.6	62	53.4	116	100
With complications	148	56.1	79	53.4	69	46.6	148	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 0.95$; $df = 1$; $P = 0.328$

As shown in Table 4.11, most (56.1%) of women in the sample were with previous obstetric complications during their pregnancy. There was no significant difference between the attendance of ANC service between those with a previous obstetric complications and those without previous obstetric complications.

Table 4.12 Effects of Present Obstetric Complications
on Attendance of ANC Service

Status	No %		Attendance of ANC Service					
			Yes		No		Total	
	No	%	No	%	No	%	No	%
Without complication	99	37.5	39	39.4	60	60.6	99	100
With complication	165	62.5	94	57.0	71	43.0	165	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 6.96$; $df = 1$ $P < 0.001$

As shown in Table 4.12, most (62.5%) of the women in the sample were with present obstetric complications. There was a significant difference between the attendance of ANC service between those with present obstetric complications and those without obstetric complications; it was shown that highest proportion of those with present obstetric complications women attending ANC (57.0%).

ACCESSIBILITY OF ANC SERVICE:

Table 4.13 Effects of ANC Service Available on Attendance of ANC Service

ANC service available	Attendance of ANC Service									
	No		Yes						Total	
	No	%	No		%		No		%	
			No	%	No	%	No	%	No	%
Yes	224	84.8	123	54.9	101	45.1	224	100		
No	40	15.2	10	25.0	30	75.0	40	100		
Total	264	100.0	133		131		264			

χ^2 test: $\chi^2 = 10.98$; $df = 1$ $P < 0.001$

As shown in Table 4.13, most (84.8%) of women in the sample had ANC service available nearby their village. There was a significant difference between the attendance of ANC service between those women considered to be in the area that ANC service was available and those considered to be ANC service was not available; with a highest proportion of ANC service available, it was found that women attended ANC (54.9%).

Table 4.14 Effects of Distance from Home to MCH clinic in relation to ANC Attendance

Distance	No	%	Attendance of ANC Service					
			Yes		No		Total	
			No	%	No	%	No	%
< 3 Kilometer	125	47.3	40	32.0	85	68.0	125	100
4-6 Kilometer	79	29.9	44	55.7	35	44.3	79	100
≥ 7 Kilometer	60	22.7	49	81.7	11	1.8	60	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 41.28$; $df = 2$ $P < 0.001$

As shown in Table 4.14, most (47.3%) of the sample lived less than 3 kilometers from MCH clinic. There was a significant difference between the attendance of ANC service between those who lived less than 3 kilometers distance, those who lived 4-6 kilometers and those who lived 7 kilometers or more; it was noted that a greater proportion of those with 7 kilometers far away from their home to MCH clinic women attending ANC (81.7%).

Table 4.15 Effects of Convenient of Transportation on Attendance of ANC Service

Convenient of Transportation	No		Attendance of ANC Service					
	%		Yes		No		Total	
	No	%	No	%	No	%	No	%
Convenient	102	38.6	83	81.4	19	18.6	102	100
Inconvenient	162	61.4	50	30.9	112	69.1	162	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 61.87$; $df = 1$; $P < 0.001$

As shown in Table 4.15, most (61.4%) of the women in the sample had a inconvenient of transportation. There was a significant difference between the attendance of ANC service between those women with inconvenient of transportation and those with convenient of transportation; with highest proportion of those with convenient transportation women attending ANC (81.5%).

Table 4.16 Effects of Travel Cost for ANC service on Attendance of ANC Service

Travel cost for ANC service	No		Attendance of ANC Service					
	%		Yes		No		Total	
	No	%	No	%	No	%	No	%
Expensive	243	92.0	119	49.0	124	51.0	243	100
Inexpensive	21	8.0	14	66.7	7	33.3	21	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 1.77$; $df = 1$; $P = 0.183$

As shown in Table 4.16, most (92.0%) of the sample responded that the travel cost was expensive from home to hospital. There was no significant difference between the attendance of ANC service between those women who responded the travel cost was expensive and those women who responded that the travel cost was inexpensive; but it was observed that those inexpensive travel cost for ANC service women possessed a greater proportion of attendance at ANC (66.7%).

HEALTH SERVICE FACTORS:

Table 4.17 Effects of Service Cost for ANC Service on Attendance of ANC Service

Service cost for ANC Service	Attendance of ANC Service							
	No		Yes		No		Total	
	No	%	No	%	No	%	No	%
Yes	15	19.3	45	88.2	6	11.8	15	100
No	213	80.7	88	41.3	125	58.7	213	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 169$; $df = 1$; $P < 0.001$

As shown in table 4.17, most (80.7%) of the women in the sample had no service cost for ANC service. There was a significant difference between the attendance of ANC service between those with service cost for ANC and those with no service cost for ANC; it was found that those with service cost for ANC had more than twice proportion of ANC attendance (88.2%)

Table 4.18 Effects of Waiting Time for ANC Service on Attendance of ANC Service

Waiting time	No		Attendance of ANC Service					
			< 4		≥ 4		Total	
	No	%	No	%	No	%	No	%
< 1 hour	10	7.5	7	70.0	3	30.0	10	100
2-3 hours	101	76.9	56	55.4	45	44.6	101	100
≥ 3 hours	10	7.5	12	54.5	10	45.5	10	100
Total	264	100.0	133		131		264	

No ANC = 131 χ^2 test: $\chi^2 = 0.82$; df = 2; P > 0.001

As shown in Table 4.18, most (76.9%) women had waiting time of 2-3 hours for ANC service. There was no significant difference between the attendance of ANC service between those women with waiting time of 2-3 hours, those with less than 1 hour and more than 3 hours.

Table 4.19 Effects of Pink Card of Pregnant Women on Attendance of ANC Service

Pink card	No %		Attendance of ANC Service					
			Yes		No		Total	
	No	%	No	%	No	%	No	%
With pink card	117	44.3	112	95.7	5	4.3	117	100
Without pink card	147	55.7	21	14.3	126	85.7	147	100
Total	264	100.0	133		131		264	

χ^2 test: $\chi^2 = 169.61$; $df = 1$; $P < 0.001$

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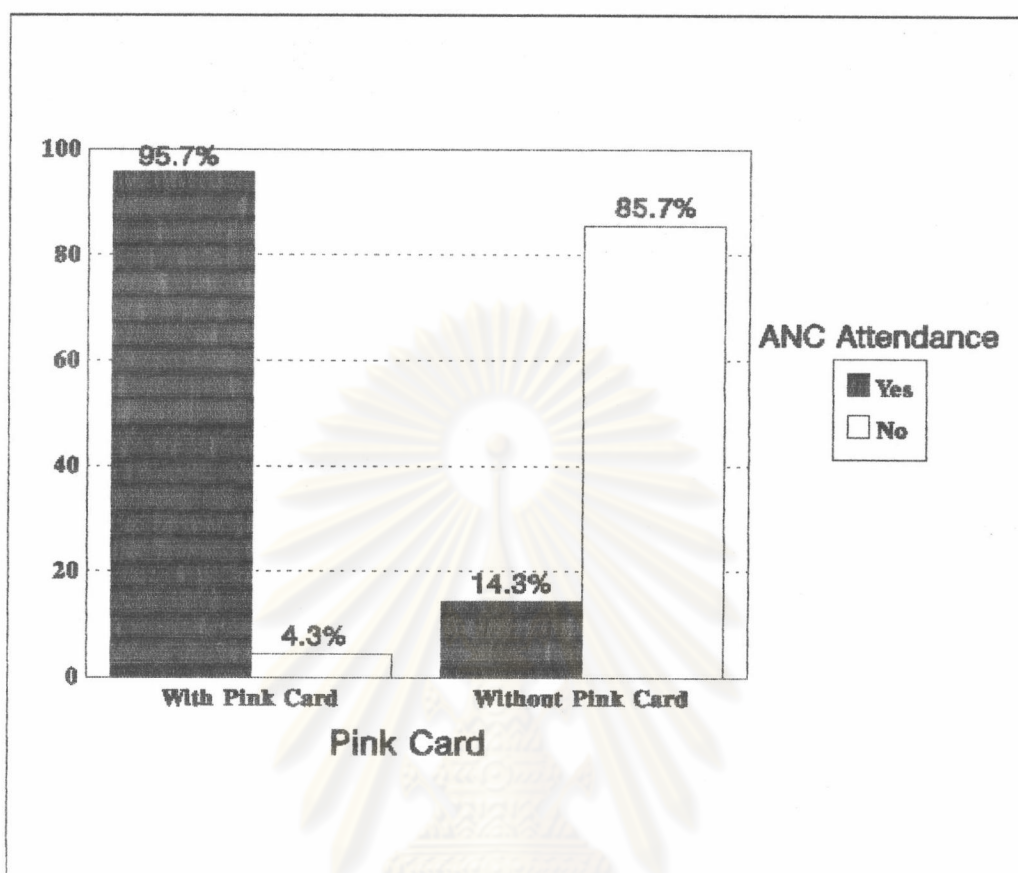


Figure 4.6 Proportion of ANC Attendance by Pink Card

As shown in Table 4.19, the total sample of 264, (55.7%) had no pink card. There was a significant difference between the attendance of ANC service between those considered to have pink card and those considered to have no pink card; with greater proportion of those with pink card attending ANC (86.1%) (see figure 4.6).

Table 4.20 Effects of Impression on Health Personnel on Attendance of ANC Service

Impression on health personnel	No	%	Attendance of ANC Service					
			< 4		≥ 4		Total	
			No	%	No	%	No	%
Good service and good attention	28	21.1	9	32.1	19	67.9	28	100
Bad service and bad attention	77	57.9	44	57.1	33	42.9	77	100
Others	28	21.0	22	78.6	6	21.4	28	100
Total	133		75		58		133	

No ANC = 131 χ^2 test: $\chi^2 = 12.31$; $df = 2$; $P < 0.001$

As shown in Table 4.20, most (57.9%) women agreed that health personnel provided bad service and bad attention. There was a significant difference between the attendance of ANC between those considered to be health personnel with bad service and bad attention, those considered to be health personnel with good service and good attention and others; with a greater proportion of those who agreed that health personnel provided good service and good attention for women attending ANC adequately.

Table 4.21 Number and Percentage Distribution of Source of Knowledge of Antenatal care Service of Pregnant Women

Sources of Knowledge	Number	Percentage
1. Health personnel	200	(75.7)
2. Husband	140	(53.0)
3. Traditional birth attendants	110	(41.6)
4. Friends	100	(37.9)
5. Previous experience with pregnancy	95	(35.9)
6. Mass campaign	80	(30.3)
7. Mothers	40	(15.1)
8. Books and Magazines	10	(3.7)

Table 4.21 shows the frequency distribution of sources of knowledge on antenatal care service of pregnant women. The most important source of knowledge was through health personnel (75.7%). The least important was from books and magazine (3.7%).

It was shown that knowledge from their husband were 140 and percentage was (53.0%), knowledge from traditional birth attendants were 110 and percentage was (41.6%), knowledge from friends were 100 and percentage was (37.8%), knowledge from previous experience on pregnancy were 95 and

percentage was (35.9%), knowledge from mass campaign were 80 and percentage was (30.3%) and knowledge from mothers were 40 and percentage was (15.1%).

KNOWLEDGE , ATTITUDE AND PRACTICE ON ANTENATAL CARE:

Table 4.22 Mean Score of Knowledge on Antenatal Care of Pregnant Women by ANC Attendance

ANC	Number	Mean	SD	t	p-value
Had ANC	133	8.77	3.70	-6.46	< 0.001
Had no ANC	131	2.31	1.92		
Total	264	5.54	2.81		

* * significant

Table 4.22 shows the mean score of knowledge on antenatal care of pregnant women by ANC attendance.

It was shown that pregnant women who had ANC attendance had mean score of knowledge at 8.77 ± 3.70 and those who had no ANC attendance had mean score of knowledge at 2.31 ± 1.92 . For the mean score of knowledge of the total cases was 5.54 ± 2.81 .

It was noted that between the mean score of knowledge of pregnant women and attendance of ANC service was statistically significant with P-value of < 0.001 .

So in this study, it was shown that there was an association between the mean score of knowledge of pregnant women and number of ANC attendance. It could be concluded that the score of knowledge on antenatal care of pregnant women who had ANC attendance would be higher than those who had no ANC attendance.

Table 4.23 Mean Score of Attitude towards antenatal Care of pregnant Women by ANC Attendance

ANC	Number	Mean	SD	t	P-value
Had ANC	133	61.17	9.48	-19.86	< 0.001
Had no ANC	131	41.30	5.80		
Total	264	51.23	7.64		

* * significant

Table 4.23 shows the mean score of attitude towards antenatal care of pregnant women by ANC attendance.

It was shown that the pregnant women with ANC attendance had the mean score at attitude of 61.17 ± 9.48 and those who had no ANC attendance had the mean score of attitude at 41.30 ± 5.80 .

It was noted that between the mean score of attitude towards antenatal care of pregnant women and the number of ANC attendance was statistically significant with the P-value of < 0.001 .

Therefore, in this study, it was shown that there was an association between the score of attitude towards antenatal care of pregnant women and the number of ANC attendance. It could be said that the score of the attitude towards antenatal care of pregnant women who had ANC attendance would be higher than those who had no ANC attendance.

Table 4.24 Mean Score of Practice on Antenatal care of Pregnant Women by ANC Attendance

ANC	Number	Mean	SD	t	P-value
Had ANC	133	6.03	2.60	-3.32	< 0.001
Had no ANC	131	2.71	1.31		
Total	264	4.37	1.95		

* * significant

Table 4.24 shows the mean score of practice on antenatal care of pregnant women by attendance.

In this table, it was shown that the pregnant women who had ANC attendance had the mean score of practice on antenatal care at 6.03 ± 2.60 and those pregnant women who had no ANC attendance had the mean score of practice on antenatal care at 2.71 ± 1.31 .

It was noted that between the mean score of the practice on antenatal care of pregnant women and the number of ANC attendance was statistically significant with P-value of < 0.001 .

Therefore, in this study, it was shown that there was an association between the score of practice on antenatal care of pregnant women and ANC attendance. It could be said that the score of practice on antenatal care of pregnant women who had ANC attendance would be better than those who had no ANC attendance.



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Table 4.25 Result of Multiple "logistic regression"
analysis

Dependent Variable: Attendance of ANC service

Yes = 133 Yes = 1
No = 131 No = 0

Variables	Coef	SE	p.value	OR	95% C.I.
Pink Card No = 0 Yes = 1	3.684	.924	< 0.001	39.816	6.50-243.65
Age < 30 = 0 ≥ 30 = 1	-2.399	.842	< 0.001	.090	.017-.472
Family type Single = 0 Extended = 1	-1.641	.757	0.030	.193	.043-.855
Travel cost Expensive = 1 Inexpensive = 0	-2.807	1.351	0.038	.060	.004-.853
Impression on health personnel Good service = 1 Bad service = 0	1.899	.953	0.046	6.680	1.031-43.281
Knowledge	-.112	.050	0.028	.894	.809-.987
Attitude	.223	.059	< 0.001	1.250	1.113-1.403
Practice	.571	.153	< 0.001	1.771	1.312-2.390
Constant	-10.488	2.429	< 0.001	-	-

Stepwise "logistic regression" was used to predict the strength of association between dependent variable and independent variables. It is powerful tool for the estimation of odds ratio for adjusted confounding variables. In this study, 21 predictor variables were included in the model. Both dependent and independent variables were recategorized to dichotomous variables that is attendance of ANC service e.g. yes and no.

In this study, stepwise logistic regression was used to predict the factors associated with attendance of ANC. The stepwise logistic analysis helps to estimate the *Beta* coefficient of each of the independent variables, standard error, odds ratio, and 95% confidence interval and statistical significant. The logistic regression model shown in Table 4.25 that there are eight variables which have statistically significant ($p < .05$) relation with attendance of ANC included pink card, age, family type, travel cost, impression on health personnel, score of knowledge on ANC, score of attitude towards ANC and score of practice on antenatal care of pregnant women.

From logistic regression analysis result the pink card was found to be very important. Because the effects of the possession of a pink card was so dominant, the logistic regression analysis was repeated for those with a pink card and showed that pregnant women with pink card have an odds of

attending ANC that is 39.82 times more than those without pink card.

The data showed that the women whose aged were more than 30 years old have an odds of attendance of ANC that is only 9 percent compared to those whose aged were less than 30 years old.

The data imply that the pregnant women who were extended family have an odds of attendance of ANC that is only 19 percent comparing to those with single family.

The result showed that women who had travel cost for ANC service was expensive have an odds of attendance of ANC service that is only 6 percent chance comparing to those who had inexpensive travel cost.

The pregnant women who agreed that health personnel provided good service and good attention have 7 times more prone to attend ANC comparing to those who agree with health personnel who provide bad service and bad attention.

Pregnant women who have high score of knowledge on ANC had an odds of 89 percent of attendance more than pregnant women who had low score of knowledge on ANC.

The odds ratio associated with the attitude score towards ANC of pregnant women was 1.25. This statistics shows an odds of attendance approximately 1.25 times greater with

high score of attitude towards ANC of pregnant women comparing to those with low attitude score towards ANC.

The odds ratio associated with the practice score was 1.77. This statistics show that an odd of attendance increases with high score of practice on ANC of pregnant women.



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