

Demographic Health Survey : Xay Thani District of Vientiane Prefecture, Lao People's Democratic Republic

*There appears to be a large, latent, unmet need
for modern contraceptive spacing methods*

By Peter J. Foley and Davone Vongsak*

This article contains a sectoral demographic and health survey primarily intended to give policy makers concrete data on the demographic and health situation in Xay Thani district, which is located within a 30-60 kilometre radius of Vientiane, capital city of the Lao People's Democratic Republic (Lao PDR).

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There are 123 villages in Xay Thani, the total population of which is approximately 200,000. Thirty villages were selected in a proportional probability random sampling. Lists of married women of reproductive age (MWRA) for each village selected were used to sample systematically these women aged 15 to 44 years old. The questionnaire was modelled after the DHS (Demographic and Health Surveys) administered by IRD (the Institute for Resource Development). The sample size was 1,608. Tests of sample error of the sample mean and standard error of the sample proportions at the 95 per cent confidence interval for the sets of data presented below indicate a small range of error. The data presented, therefore, can be taken to represent the demographic and health situation of Xay Thani district.

Given Xay Thani's close proximity to the capital and therefore the

Table 1: Frequencies of married women of reproductive age according to possession of selected household items

Indicator	Frequency	%
Have electricity?		
Yes	953	59.4
No	649	40.4
Have radio?		
Yes	887	55.4
No	715	44.6
Have television?		
Yes	403	25.2
No	1,197	74.8
Have refrigerator?		
Yes	145	9.1
No	1,454	90.9
Have bicycle?		
Yes	1,146	71.4
No	458	28.6
Have motorcycle?		
Yes	205	12.8
No	1,398	87.2
Have car?		
Yes	27	1.7
No	1,574	98.3

Table 2: Percentage distribution of married women of reproductive age by husband's occupation and respondent's occupation

Occupation	Husband %	Wife %
Government employee	22.7	5.8
Private employee	6.4	1.1
Farmer	61.6	67.4
Labourer	6.5	1.2
Shopkeeper	1.0	6.2
Other	1.8	18.3
	N = 1,588	N = 1,593

availability of health and social services not available in many other parts of Lao PDR, the social, economic and health conditions in Xay Thani are likely to be better than in most areas of the country. For example, Xay Thani has a paved road that circles around the district. There is a regular bus service. The District Hospital is located along this paved road. Many goods, including contraceptives, come from neighbouring Thailand and can be found in the local markets. The extent of the difference between Vientiane and the rest of Lao PDR is typified by the ratio of population per physician. The United Nations Development Programme (UNDP) lists Vientiane's ratio of one doctor per 1,400 persons, whereas for the rest of the country, there was only one doctor per 12,600 people in the year 1989.

Thus, findings of the DHS may be taken as a best-case scenario of conditions in Lao PDR. Nevertheless, [table 1](#) shows that 85 per cent of the Xay Thani population are without motor transport and 40 per cent are without electricity.

Although Xay Thani is within Vientiane prefecture, [table 2](#) shows that over 60 per cent of the community are involved in farming.

The mean age of the respondents was 29 years. The age distribution is shown in [table 3](#) on the next page.

Questions concerning respondents' ability to read a newspaper and those about the level of education produced nearly identical profiles of the population. The survey found that approximately 81 per cent of the MWRA respondents could read a newspaper. The 19 per cent who were unable to read corresponds to the percentage of MWRA with no formal education.

Table 3: Percentage distribution of married women of reproductive age, by age group

Age group (years)	%
15-19	5.1
20-24	20.9
25-29	27.3
30-34	22.4
35-39	16.6
40-44	7.7
Total	100

N = 1,605

Table 4: Percentage distribution of married women of reproductive age, by number of years of formal education

Years of education	% married women
None	19.1
1-4	35.5
5-8	35.2
9+	10.2
Total	100

N=1,605

Table 5: Percentage distribution of married women of reproductive age according to years of formal education, by age group

Age group (years)	Educational level (years)			
	None	1-4	5-8	9+
15-19	9.8	34.1	50.0	6.1
20-24	5.7	27.8	49.8	16.7
25-29	11.4	32.9	41.8	13.9
30-34	19.8	42.6	29.5	8.1
35-39	37.1	40.4	17.6	4.9
40-44	47.6	34.7	16.9	0.8

N = 1,605

Interestingly, there is a marked disparity between levels of education among age groups. That 87 per cent of the 35-39-year-old age group and 48 per cent of the 40-44-year-old age group are without any formal education is noteworthy. Based on both the levels of education and the ability to read a newspaper, the estimated literacy rate is 80 per cent among Xay Thani's MWRA.

This literacy rate is in sharp contrast UNDP's estimate of adult literacy for Laotian females being 35 per cent in 1989. In Xay Thani at least, it appears that the majority of MWRA have the potential to educate themselves through reading. Another potential source of education in Xay Thani is through radio and television where the survey found that 55 per cent of the respondents owned radios and 25 per cent owned televisions. Importantly, 85 per cent of the MWRA responding said they found it acceptable for "family planning information to be provided on radio or television".

These potential sources of education could be useful in helping MWRA acquire vital information to stem the high infant mortality rate (the UNDP estimate for Lao PDR was 117 per thousand in 1988) by using contraceptive spacing methods and treating their children with oral rehydration therapy (ORT). The survey results illustrate this point. Data indicate an infant mortality rate of 143 per thousand and a current diarrhoea rate for the youngest children of 12 per cent, but with only one fourth of mothers using ORT to treat children with diarrhoea.

The table below shows a high fertility rate among the older women and the corresponding rate of living children indicates a high child mortality

Table 6: Mean number of live births and mean number of living children by age group

Age group (years)	Mean live births	Mean living children
< 19	1.25	1.09
20-24	2.25	2.00
25-29	3.47	3.10
30-34	5.31	4.57
35-39	6.58	5.71
40-44	7.91	6.86
All	4.37	3.82

N= 1,545

Table 7: Percentage of married women of reproductive age who responded correctly to the question on when in the ovulation cycle was the safe period, by age group

Age group (years)	% correct response
15-19	12.7
20-24	16.0
25-29	14.4
30-34	17.4
35-39	15.4
40-44	17.9

N = 1,594

rate. Although an infant mortality rate cannot be determined from these data, the expected rate in all likelihood should be high. In any case, unless spacing practices increase, i.e. the contraceptive prevalence rate (CPR), a high rate of fertility and a correspondingly high rate of child mortality will continue.

Knowledge of reproductive fertility is very low. Approximately 86 per cent of Xay Thani's MWRA do not know at what point during their monthly cycle they have the greatest chance of becoming pregnant. This lack of knowledge is consistent throughout the age groups listed in [table 7](#).

The MWRA are equally ill-informed about contraceptives, as can be observed from [table 8](#). Three quarters or more of the MWRA of Xay Thani have no knowledge of IUDs, condoms, tubectomy, vasectomy, periodic abstinence or withdrawal, as preventatives of pregnancies. For oral pills, those not knowing the method was 65 per cent. Knowledge of where to get modern contraceptive methods was almost negligible, with over 84 per cent or more of the women not knowing where to obtain the contraceptive methods listed in [table 8](#).

It is not unexpected, therefore, that the survey found that the CPR for Xay Thani to be 17.6 per cent for modern contraceptive methods (pill = 9.3; IUD = 3.0; injectable = 4.1; and others = 1.2 per cent) and 20.4 per cent for any method. Nor was it surprising to learn that 17 per cent of the MWRA interviewed were pregnant with an additional 3 per cent not sure.

Table 8: Percentage of married women of reproductive age knowing specific contraceptive method and percentage of ever use of a method

Family planning method	% knowledge of method	% ever use of method
Pill	35.3	13.6
IUD	23.1	4.7
Injectable	25.7	5.8
Condom	16.0	1.2
Tubectomy	19.8	1.9
Vasectomy	16.3	0.4
Abstinence	15.5	3.6
Withdrawal	12.1	1.1
Other	18.7	6.3

N = 1,595

Table 9: Percentage distribution of married women of reproductive age responded as to where to obtain modern contraceptives

Supply sources	% MWRA response
Government hospital	2.7
Government health centre	0.1
Family planning clinic	0.2
Private doctor	2.2
Private hospital	1.0
Drug-store/pharmacy	8.2
Friends/relatives	1.1
Other	0.1
Do not know	84.4
Total	100

N = 1,605

Table 10: Percentage of married women of reproductive age who are current contraceptive users and who are users of a modern method, by age group

Age group (years)	% use of any method	% use of modern method
< 19	3.6	1.8
20-24	13.2	12.1
25-29	23.3	20.8
30-34	22.3	18.5
35-39	23.8	20.3
40-44	24.5	20.9
	N = 1,349	N=1,349

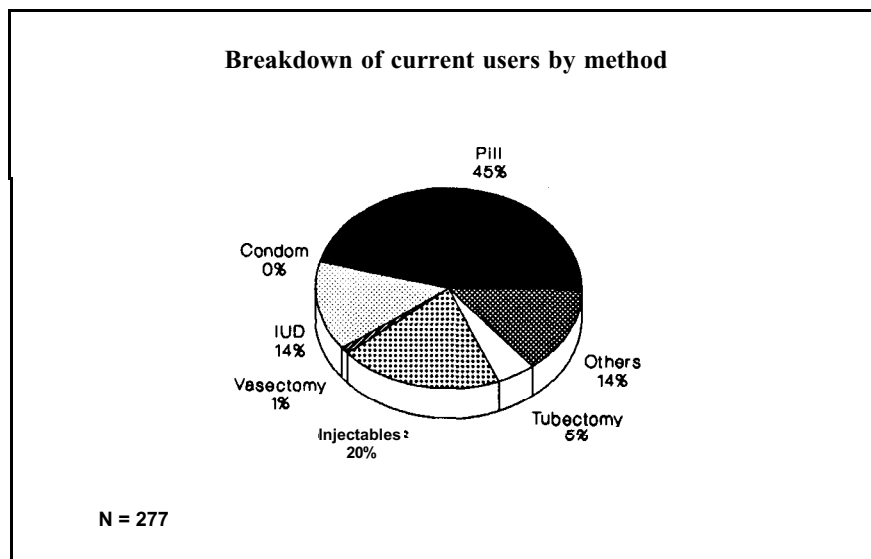
Table 10 indicates that married women below 20 years of age rarely use contraceptives. The 20-24-year-old cohort shows a CPR for modern contraceptive methods of only 12.1 per cent. The proportion of contraceptive use increases with the age of the MWRA.

Further evidence of a latent demand for family planning methods, particularly from women over 30 years -- of whom over 70 per cent do not want to be pregnant -- is indicated in table 11. The very high percentage of the 15-19-year old MWRA who want to be pregnant is noteworthy.

On the other hand, 71 per cent of the MWRA wanted a total of three children or more and the mean number of wanted children was almost five.

Table 11: Percentage of married women of reproductive age who desire to become pregnant, by age group

Age group (years)	% yes	% no	% unsure
15-19	43.0	44.3	12.7
20-24	29.4	57.4	13.2
25-29	26.8	64.6	8.7
30-34	21.3	70.5	8.2
35-39	22.3	71.2	6.5
40-44	21.1	73.2	5.7
	N=1,566		



This desire for so many children may be partially the result of a high infant mortality rate. Birth spacing could be a major factor in reducing this mortality rate while at the same time improving maternal health. Encouraging the 15-19-year-old age group to delay a first pregnancy (see [table 11](#)) would also have a positive impact on maternal and child health. The desire for spacing is strongly indicated in the finding that 75 per cent of the MWRA said that they intended to use a family planning method to avoid pregnancy at some time in the future.

Other important family health interventions are improved clean water supply and toilet facilities. In addition to the questionable purity of the majority of the population's water supply as impediments to family health, the survey also found that 58 per cent of the respondents reported having no toilet facilities.

Out of the 1,510 responses, only 6 per cent of the MWRA reported having no children under six years old. Although two thirds of the MWRA having children below six said they had health cards for their children, there were 766 missing cases.

More significant is the finding that 35 per cent of the MWRA said that their youngest child had not been given a vaccination to prevent disease.

Table 12: Percentage distribution of married women of reproductive age by source of drinking water and source of household water

Water source %	Drinking water %	Household water %
Rainwater	1.3	1.2
Well with cover	3.8	3.8
Well without cover	87.3	82.3
Piped into residence	3.2	3.1
Public tap	2.6	2.5
River or canal	1.7	7.1
Other	0.1	0
Total	100	100

N = 1,595 N = 1,585

Table 13: Percentage distribution of married women of reproductive age according to practice of boiling water before consumption

Response	%
Yes	84.0
No	12.3

N = 1,546

Table 14: Percentage distribution of married women of reproductive age by type of toilet facilities used

Type	%
Flush	1.2
Septic tank	21.6
Latrine	18.0
None	58.1
Other	1.1
Total	100

N = 1,600

Table 15: Percentage distribution of married women of reproductive age by number of children whose age is below six years

No. of children	%
0	6.4
1	33.6
2	45.1
3	13.8
4+	1.1
Total	100

N = 1,510

Table 16: Percentage distribution of married women of reproductive age who possess health card for youngest child under six years of age

Responses	%
Yes, card seen	21.3
Yes, card not seen	46.0
Do not know	32.1
Total	100

N = 839

Table 17: Percentage distribution of married women of reproductive age whose youngest child ever had vaccination to prevent him/her from getting disease

Response	%
Yes	63.4
No	35.0
Do not know	1.6
Total	100

N = 1,356



In Xay Thani district of the Lao People's Democratic Republic, the primary impediment to family planning using modern methods is the lack of knowledge about contraceptive methods and where to get them. (Photo courtesy of J. Danois)

In summary, the DHS of Xay Thani indicates a pressing need for education and provision of birth spacing methods, safe drinking water and sanitation in order to improve family health.

The data presented suggest that policy makers might consider development programmes that focus on latrine construction, digging covered wells or providing other means for supplying clean drinking water, and instituting literacy programmes. The high rate of illiteracy among the 35-44-year-old age group highlights the need for an adult literacy programme. The data further suggest that there is a large, latent, unmet need for modern contraceptive spacing methods in Lao PDR. There appears to be little objection to modern contraceptive methods and a desire by the vast majority of the women of Xay Thani to delay pregnancy in the future. The survey found that a primary impediment to family planning using modern methods was the lack of knowledge about contraceptive methods and where to get modern contraceptives. A comprehensive family planning programme might also be considered in order to overcome this obstacle.