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# Socio-cultural and Economic Determinants of Contraceptive Use in the Lao People's Democratic Republic

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*The challenge will be to adopt IEC activities for minority groups, who currently express high levels of demand and the lowest levels of knowledge and use of contraception*

There is a lack of detailed information about population issues in the Lao People's Democratic Republic. The available estimates are based on the results of the most recent national census, which was taken in 1985, and a multi-round survey of a sub-sample of the population conducted during the period 1988-1991 (Frisen, 1991; D'Souza, 1992; State Statistical Centre, 1993). No contraceptive prevalence survey has ever been undertaken on a large scale, although a limited demographic and health survey was carried out in one district of the Vientiane Municipality in 1991 (Foley and Vongsak, 1991).

With a total fertility rate of 6.7 children per woman and an annual population growth rate of 2.9 per cent (ESCAP, 1992), fertility in the Lao People's Democratic Republic is among the highest in the world. The total population was estimated at 4,469,000 in mid-1992, with a doubling time of only 24 years. Other important features of the country's population include ethnic diversity (about 68 registered ethnic groups), low density (18 persons per square kilometre), unequal distribution of settlements with a large majority living along the Mekong River, and low urbanization (under 20 per cent).

It seems that, at least in recent years, resources have not been able to meet the needs of the population: food has to be imported, and health, education and social services are generally inadequate in terms of quantity, quality and coverage. In view of this situation, there would seem to be justification for initiating a policy advocating control of population growth. However, population density is very low, a significant proportion of the people have emigrated as a result of previous hostilities, and the Government is concerned about the large population size of neighbouring countries. All these factors have resulted in the Government adopting a pro-natalist policy, although it is one that is in line with the country's potential for economic development (Robinson, 1989; UNFPA, 1988). Therefore, it is not fertility limitation but birth spacing that has recently been proposed and officially endorsed as part of a national policy to protect the health of mothers and children. Indeed, both maternal and infant mortality are at alarmingly high levels: around 6.5 and 117 per thousand live births, respectively (UNICEF, 1992).

Before preparing the details of a national birth-spacing programme, however, it was necessary to explore the demand for contraceptive services. This was done through a series of household surveys, interviewing women and their husbands about their actual and ideal family size, their knowledge of contraceptive methods and sources of supplies, and their current and potential use of contraception (Morris and others, 1981). This quantitative approach was complemented by a qualitative investigation of people's perceptions, attitudes and reactions about fertility and contraception, which will be detailed elsewhere (Escoffier-Fauveau, 1993), the main purpose of this article being to present the results of the household surveys.

For couples in the Lao People's Democratic Republic as well as elsewhere, the choice of having children or limiting or spacing births is based on a complex mix of interrelated factors. Not all of these factors are easily measurable. In this study, we have chosen six indicators to analyse the socio-cultural and economic determinants of contraception. They are: (a) place of residence (urban, semi-urban, rural), (b) ethnic group (three main groups), (c) perception of economic status by the interviewer (three groups), (d) years spent at school (a proxy for education), (e) possession of items of communication with the modern world (radio, television, bicycle, motorcycle) and (f) personal experience (number of living children). It was felt that, as an indicator, occupation or employment status would be too unreliable to assess under prevailing conditions, where almost everyone is involved in several income-generating activities; specifically, most people are engaged in agriculture in addition to other activities.

In this article, we examine the distribution of these factors with regard to knowledge of the fecund period during the menstrual cycle, knowledge of various contraceptive methods and their source of supply, ideal family size and composition, demand for limitation or spacing of births, ever- and current use of contraception, reasons for non-use or for stopping use, satisfaction with the currently used method, and readiness to pay for contraception.

## General characteristics of the population

The Lao People's Democratic Republic is a land-locked country in the heart of Indochina bordered by China to the north, Myanmar to the north-west, Thailand to the west (with the Mekong River forming the border for over 1,500 km), Viet Nam to the east (with the Annamitic cordillera forming the border), and Cambodia to the south. The country is composed of 17 provinces, 12 of them bordering the Mekong River. Communication between the people and the capital city of Vientiane or between provinces is still very difficult if surface transport must be relied upon. Agriculture is devoted mainly to the production of rice, which is grown in flooded paddy fields in the valleys or on slopes in hilly areas. Hydro-power, timber and other forest products are the main exports.

A high proportion of the population (about 65 per cent) live along the Mekong River and in the lowlands. Referred to as "lowlander" in this article, these people are mainly "Lao Loum", or ethnic Lao of T'ai (Thai) origin. They are Buddhist and speak languages of the Thai group. The rest of the population, about 35 per cent of the total, are scattered in the country's vast hilly and mountainous areas. They are either "midlanders" from the "Lao Theung" ethnic group, mainly aboriginal animists speaking languages of the Mon-Khmer group, or "highlanders" from the "Lao Soung" ethnic group. The latter group includes several minorities originating from Myanmar, or parts of China;

the are animists and speak languages of the Tibeto-Burman or the Miao-Yao groups. This simple classification of the population into three main ethnic groups is based on geographic and linguistic criteria. The proportions of the three ethnic groups comprising the population are about 50 per cent lowlanders, 40 per cent midlanders and 10 per cent highlanders, although these approximations vary considerably according to different reports and surveys, and also over time. Since the end of hostilities in 1975, there have been attempts to integrate various minorities and resettle whole villages in the lowlands, partly as an effort to reduce "slash-and-burn" agricultural practices.

With regard to health, traditional medicines (plants and plant products) are used mostly in villages and by ethnic minorities; in these settings, such medicines are always the first to be used by those seeking curative health care. Preventive health care is only slowly being implemented. As for public health services, these are under the responsibility of each province's health department. There are 17 provincial hospitals and about 120 district hospitals, the latter being inadequately equipped and poorly attended. As a result and especially since the liberalisation of the economy in 1989, the private sector has been flourishing, with pharmaceutical sellers and private practitioners being located practically everywhere.

Except for three pilot birth-spacing clinics in the capital, there is no way for couples to obtain government supplied family planning services. Abortion is illegal, and surgical sterilization is restricted to medically justified cases: for example, women must have at least five children to be allowed to undergo sterilization. Therefore, people who want to use a modern contraceptive must either purchase their supplies from the private sector locally, or cross the border to do so in a neighbouring country.

## Data and methods

A household survey was conducted in seven provinces by the provincial maternal and child health (MCH)departments; the analysis of the data was centralized at the Institute of Maternal and Child Health in Vientiane. In most provinces, the provincial Lao Women's Union cooperated in these tasks, with financial support being provided by various non-governmental organizations (NGOs).

The objective of the survey was to explore the demand for contraception among the population potentially targeted by the forthcoming birth-spacing programme, and thus to compile baseline data for future evaluation. In view of the difficulties of accessing the remotest villages, the sample was drawn from a list of "reasonably accessible" villages in randomly selected districts of the seven provinces. (Except for Khammuone and Savannakhet provinces, most of the districts surveyed are not far from the Mekong River.) It is therefore likely that the population surveyed had a slightly better knowledge and higher use of contraception than the average of the general population. A list of 10 villages accessible in one day from district towns was randomly drawn in each of the surveyed districts. The choice of 20 families in each selected village was either systematic when a list of all the families was available, or random when there was no list.

The questionnaire was administered to one currently married woman of reproductive age in each of the selected households. In many cases, the husband also attended the interview and was encouraged to answer, but his presence was not required systematically if he was working outside the home. Each team comprised two female surveyors, at least one of whom was medically trained. After completion of the interview, the surveyors were encouraged to expand on the issues addressed during the interview, taking the opportunity to describe various contraceptive methods, to explain the practice of safe contraception and to rectify any wrong ideas about contraception. The supervisors' role also included a systematic review of the completed questionnaires at the end of each day in order to detect any error and code the answers.

## Results

### General characteristics of the sample population

A total of 4,154 currently married women of reproductive age were interviewed. They were scattered in 22 districts within the seven provinces; 54 per cent were living in rural areas, 23 per cent in semi-urban areas (small towns), and 23 per cent in urban areas (provincial capitals or the national capital, Vientiane). Of the total, almost 83 per cent were from the lowlander group, almost 13 per cent from the midlander group, and almost 3 per cent from the highlander group. Another 2 per cent (66 women) belonged to other or unspecified ethnic groups, including people of Vietnamese and Chinese derivation, most of whom were living in cities (table 1 ).

**Table 1: General characteristics of the sample population in sevenprovinces of the Lao People's Democratic Republic, Fertility-Contraception Survey, 1993**

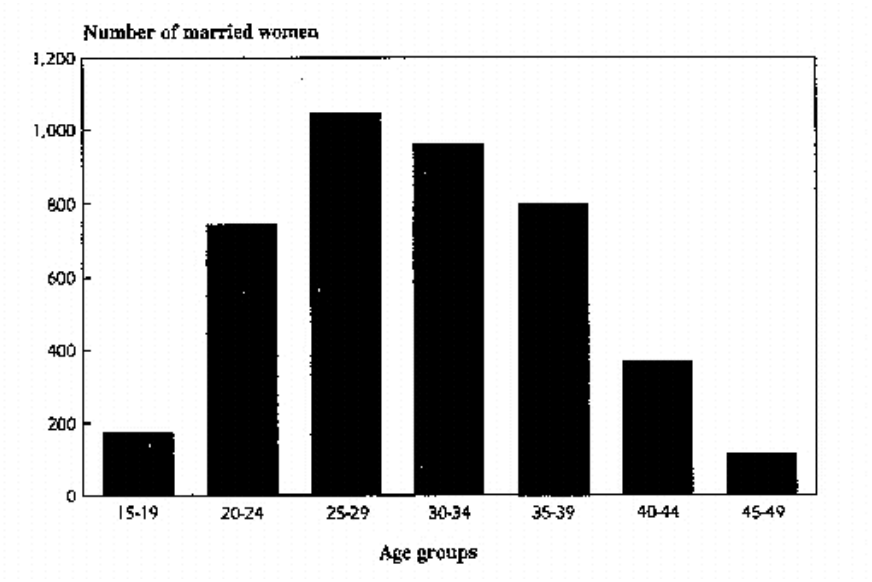
| | Percentage of total sample | Mean age (years) | Mean years at school | Percentage with no schooling | Percentage poor[a] | Percentage possessing items of communication[b] | |
|---|---|---|---|---|---|---|---|
| | | | | | | None | 1-3 items |
| Lowlanders (N=3,440) | 83 | 30.6 | 4.5 | 15 | 35 | 23 | 35 |
| Midlanders (N=532) | 13 | 29.1 | 1.6 | 49 | 70 | 56 | 2 |
| Highlanders (N=116) | 3 | 29.9 | 1.4 | 64 | 56 | 29 | 4 |
| Other and unspecified (N=66) | 2 | 32.1 | 4.8 | 16 | 20 | 4 | 70 |
| Urban (N=968) | 23 | 31.7 | 6.2 | 9 | 20 | 8 | 53 |
| Semi-urban (N=961) | 23 | 30.4 | 4.4 | 13 | 31 | 23 | 23 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Rural (N=2,225) | 54 | 29.9 | 2.9 | 28 | 52 | 38 | 7 |
| All (N=4,154) | 100 | 30.4[c] | 4.0[d] | 20 | 40 | 27 | 22 |
| Median | | 30.0 | 4.0 | | | | |

*Notes*: a = Includes families judged "very poor" and "poor";
b = Either/or radio, television, bicycle, motorcycle;
c = Age range: 16-50 years; standard deviation 7.0;
d = Range: 0-18 years; standard deviation 3.3.

*Mean age*: The mean age of the women interviewed was 30.4 years (median 30; range 16-50 years), with 21 per cent being under 25 years and 31 per cent over 34 years (figure). On average, at the time of the interview, women from the minority groups were one year younger than lowlander women; urban women were almost two years older than rural women.

**Figure: Age distribution of women in the sample Fertility-Contraception Survey, 1993**




*Source*:
Fertility and Contraception Survey in seven provinces of the Lao People's Democratic Republic, the MCH Institute, 1993.

*Attendance at school*: Twenty per cent of all women had never been to school, 64 per cent attended between one and seven years of school and 16 per cent attended school for more than seven years (mean years of school attendance: 4.0). On average, urban women had twice as much schooling as rural women. Midlander and highlander women had fewer opportunities to attend school. Thus, their average attendance was only 1.6 and 1.4 years, respectively, compared with lowlander women who had an average of 4.5 years of schooling.

*Economic status*: In the opinion of the interviewers, 9 per cent of all the women could be considered "very poor", 31 per cent "poor", 59 per cent "reasonably comfortable", and 1 per cent "rich". Greater proportions of midlanders (70 per cent) and highlanders (56 per cent) than lowlanders (35 per cent) were termed poor or very poor.

*Possession of items of communication* (radio, television, bicycle, motorcycle): Twenty-seven per cent of the entire sample had none of these items (56 per cent of that portion being midlanders), while 22 per cent had 3-4 items (2 per cent of them being midlanders and 4 per cent highlanders). Only 9 per cent had all four items of communication.

### Nuptiality and fertility

Table 2 shows some characteristics of the sample grouped by ethnicity, residence, education and economic status. Midlander women and very poor women tended to marry one year earlier than the average age of marriage, i.e. 19.3 years, whereas urban and more educated women tended to marry one year later than the average.

**Table 2: Fertility characteristics by selected groups, Fertility-Contraception Survey in seven provinces of the Lao People's Democratic Republic, 1993**

| | Mean age at marriage | Mean no. of pregnancies | Mean no. of live births[c] | Mean no. of live children | Mean no. of deceased children | Mean ideal no. of children |
|---|---|---|---|---|---|---|
| Lowlanders | 19.4 | 4.8 | 4.1 | 3.6 | .4 | 4.0 |
| Midlanders | 18.1 | 5.0 | 4.3 | 3.1 | 1.2 | 4.7 |
| Highlanders | 19.6 | 4.1 | 3.4 | 2.8 | .6 | 4.2 |
| Urban | 20.5 | 4.6 | 3.8 | 3.5 | .2 | 4.0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Semi-urban | 19.1 | 4.8 | 4.2 | 3.7 | .4 | 3.9 |
| Rural | 18.8 | 4.9 | 4.3 | 3.5 | .8 | 4.0 |
| No schooling | 19.0 | 6.2 | 5.3 | 4.2 | 1.1 | 4.6 |
| 1-7 years | 19.1 | 4.8 | 4.2 | 3.6 | .5 | 4.0 |
| 8+ years | 20.5 | 3.2 | 2.7 | 2.5 | .2 | 3.7 |
| Very poor | 18.6 | 5.2 | 4.4 | 3.4 | 1.0 | 4.1 |
| Poor | 19.2 | 5.0 | 4.3 | 3.6 | .7 | 4.1 |
| Not poor | 19.4 | 4.7 | 4.0 | 3.5 | .4 | 4.1 |
| All | 19.3[a] | 4.8 | 4.1 | 3.5 | .5 | 4.1[b] |
| Median | 19.0 | 4.0 | 4.0 | 3.0 | | 4.0 |

*Notes*: a= Age at first marriage, range: 11-42 years, standard deviation 3.7;

b = Ideal number of boys, 2.05; girls, 2.03.

c = Estimated total fertility rate for the whole sample: 5.7 children per woman.

On average, women in the sample had had 4.8 pregnancies, 4.1 live births, and 3.5 currently living children. Midlander women were found to marry younger and on average have more births and more child deaths. Although highlander women tended to marry at the same age as the lowlanders, they had fewer births, and therefore fewer living children at the same age as lowlanders. These features need to be supplemented by a comparison of age-specific fertility rates and total fertility rates.

The total fertility rate estimated for the whole sample by the indirect Brass method (United Nations, 1983) was 5.7 children per married woman. Bearing in mind that the sample comprises women living in "accessible" villages, it is not surprising that their TFR is one point lower than the national estimate.

The mean ideal number of children that the respondents wanted was found to be 4.1, with insignificant variations according to residence or economic status. Educated women wished to have 3.7 children, whereas illiterate women wished to have over 4.6 children. Overall, there was no gender preference in the ideal family composition, but closer examination indicates that the ethnic Lao, the rich and the educated women expressed a slight preference for girls, whereas the poor, the illiterate and the women from minority groups expressed a slight preference for boys (data not shown).

### Knowledge of fecund period, desire for subsequent births

With regard to knowledge of the fecund period and desire for subsequent births, only 14 per cent of the respondents seemed to know that the fecund period is in the middle of the interval between menstruations (table 3 ), while 23 per cent thought that their fecund period occurs immediately after menstruation; 58 per cent had no opinion about when that period occurred. Place of residence, economic status, possession of communication items and years spent in school, all made a difference as expected with regard to those having correct knowledge about the fecund period, but none of these factors made a significant difference among those who believed that the fecund period occurs just after menstruation. Also, personal experience, i.e. the number of living children, made no difference concerning this knowledge. Overall, 60 per cent of the respondents said they wanted no additional children (the "limiters"), 24 per cent wished to delay their next pregnancy (the "spacers"), and only 4 per cent wanted a child as soon as possible (table 4 ). Therefore, at least 84 per cent of the women surveyed are potential users of contraception, not taking into account the 12 per cent who were currently pregnant and were not asked to express their wish in this regard. The figure rises to 92 per cent among women who had already reached the "ideal family size" of four living children, and remains remarkably constant among the various groups, except for the highlander women who had relatively more "spacers" and fewer "limiters" (and also fewer currently pregnant women).

**Table 3: Knowledge of relationship between fecund period andmenstruation: Fertility-Contraception Survey of seven provinces of the Lao People's Democratic Republic, 1993**

| Selected variables/characteristics | Fecund period (percentages) | | | |
|---|---|---|---|---|
| | In the middle of the interval between menstruations | Immediately after menstruation | Before menstruation | Don't know |
| Urban | 26 | 21 | 5 | 47 |
| Semi-urban | 13 | 24 | 6 | 57 |
| Rural | 9 | 23 | 4 | 64 |
| Lowlanders | 15 | 24 | 5 | 56 |
| Midlanders | 13 | 19 | 2 | 67 |
| Highlanders | 2 | 6 | 1 | 91 |
| Very poor | 6 | 12 | 2 | 80 |
| Poor | 11 | 22 | 3 | 65 |
| Not poor | 17 | 24 | 6 | 53 |
| Possess no items | 10 | 21 | 4 | 66 |
| 1-2 items | 13 | 24 | 4 | 59 |
| 3-4 items | 25 | 23 | 7 | 46 |
| No schooling | 8 | 21 | 3 | 69 |

| | | | | |
|---|---|---|---|---|
| 1-7 years | 12 | 24 | 4 | 60 |
| 8+ years | 30 | 21 | 8 | 41 |
| No living children | 11 | 18 | 3 | 68 |
| 1-3 living children | 15 | 25 | 6 | 55 |
| 4-6 living children | 15 | 21 | 5 | 60 |
| 7+ living children | 9 | 24 | 4 | 64 |
| All | 14 | 23 | 5 | 58 |

**Table 4. Percentage of currently married women in seven provinces of theLao People's Democratic Republic who wished to stop having children,to postpone next pregnancy, or to have a child as soon aspossible: Fertility-Contraception Survey, 1993.**

| | Want no more children | Want to delay next pregnancy | Want to have a child as soon as possible | Currently pregnant |
|---|---|---|---|---|
| Lowlanders | 63 | 22 | 3 | 12 |
| Midlanders | 58 | 27 | 6 | 10 |
| Highlanders | 45 | 30 | 19 | 6 |
| Urban | 61 | 27 | 3 | 10 |
| Semi-urban | 64 | 23 | 2 | 11 |
| Rural | 61 | 22 | 4 | 13 |
| Very poor | 60 | 22 | 4 | 14 |
| Poor | 61 | 22 | 3 | 14 |
| Not Poor | 62 | 24 | 4 | 10 |
| No schooling | 68 | 6 | 4 | 12 |
| 1-7 years | 64 | 22 | 3 | 11 |
| 8+ years | 45 | 38 | 4 | 13 |
| No living children | 5 | 18 | 29 | 48 |
| 1-3 living children | 40 | 43 | 4 | 13 |
| 4-6 living children | 87 | 5 | 0 | 7 |
| 7+ living children | 91 | 2 | 0 | 7 |
| Possess no items | 57 | 25 | 3 | 15 |
| 1-2 items | 61 | 23 | 4 | 12 |
| 3-4 items | 61 | 27 | 3 | 9 |
| All | 60 | 24 | 4 | 12 |

## Knowledge of contraception

Overall, 79 per cent of all the women surveyed had heard about at least one modern contraceptive method (table 5; these figures include unprompted and prompted answers). More than half of the women knew about modern contraceptive methods such as daily and monthly pills, injectables, IUDs, or female sterilization. About 40 per cent had heard about condoms or vasectomy, and 15 per cent had heard about contraceptive implants, a method available only outside the country. The mean number of methods known (five in the whole sample, four when modern methods only are considered) was lower among illiterate, rural and isolated women. The number was lowest among the midlanders (two methods) and highlanders (1.5 methods) who combine all of these characteristics.

**Table 5: Percentage of married women in seven provinces of the Lao People's Democratic Republic who knew about selected contraceptive methods (unprompted and prompted): Fertility-Contraception Survey, 1993**

| | Possession of items of communication | | | Ethnic group | | | Years at school | | | Residence | | | All |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1-2 | 3-4 | Low | Middle | High | 0 | 1-7 | 8+ | Urban | Semi-urban | Rural | |
| Any modern method | | | | | | | | | | | | | 79 |
| Daily pill | 52 | 69 | 88 | 76 | 28 | 19 | 46 | 72 | 83 | 87 | 74 | 58 | 65 |
| Monthly pill | 47 | 59 | 75 | 65 | 24 | 17 | 38 | 61 | 75 | 76 | 65 | 48 | 55 |
| Injectable | 48 | 65 | 87 | 72 | 22 | 19 | 42 | 67 | 82 | 86 | 72 | 52 | 60 |
| IUD | 37 | 57 | 82 | 64 | 21 | 17 | 33 | 59 | 80 | 82 | 65 | 42 | 53 |
| Condom | 30 | 44 | 73 | 51 | 18 | 16 | 23 | 47 | 71 | 75 | 49 | 31 | 43 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Implant | 12 | 14 | 30 | 19 | 7 | 1 | 7 | 18 | 23 | 27 | 22 | 10 | 15 |
| Tubectomy | 53 | 71 | 90 | 78 | 27 | 25 | 48 | 73 | 87 | 90 | 78 | 58 | 68 |
| Vasectomy | 27 | 36 | 62 | 43 | 14 | 8 | 19 | 41 | 53 | 64 | 42 | 26 | 36 |
| Withdrawal | 14 | 17 | 42 | 24 | 7 | 8 | 8 | 21 | 39 | 44 | 17 | 12 | 20 |
| Periodic abstinence | 21 | 30 | 59 | 37 | 11 | 12 | 16 | 33 | 57 | 61 | 29 | 23 | 31 |
| Traditional | 35 | 40 | 50 | 45 | 18 | 11 | 29 | 43 | 47 | 52 | 39 | 36 | 38 |
| Know zero method | 29 | 15 | 2 | 9 | 63 | 70 | 40 | 14 | 4 | 2 | 10 | 24 | 17 |
| Mean number of methods known | 3.7 | 5.0 | 7.3 | 5.5 | 2.0 | 1.5 | 3.0 | 5.2 | 6.9 | 7.5 | 4.8 | 4.1 | 5.0 * |

* *Notes*:

Mean number of modern methods known: 3.9. Percentages are not cumulative.

Of the women who knew at least one modern contraceptive method, 17 per cent said they would go to the nearest MCH clinic to obtain a supply (table 6 ), 32 per cent would go to the provincial hospital, 16 per cent to a private provider and 3 per cent to a provider abroad; 32 per cent did not know where to go. Overall, almost half of the potential users said they would go to the public sector to obtain contraceptives, which is an interesting finding in view of the absence of an official family planning programme in the public sector.

**Table 6. Knowledge of the source of procurement of modern contraceptive methods (percentage of women who knew at least one moderncontraceptive method: Fertility-Contraception Survey in sevenprovinces of the Lao People's Democratic Republic, 1993.**

| | Nearest MCH clinic | Provincial hospital | Private practitioner | Abroad | Don't know |
|---|---|---|---|---|---|
| Urban | 9 | 53 | 18 | 2 | 17 |
| Semi-urban | 23 | 14 | 19 | 5 | 40 |
| Rural | 19 | 28 | 10 | 2 | 41 |
| Lowlanders | 18 | 32 | 17 | 3 | 31 |
| Midlanders | 10 | 20 | 7 | 0 | 62 |
| Highlanders | 16 | 47 | 11 | 0 | 26 |
| Very poor | 11 | 29 | 6 | 0 | 53 |
| Poor | 18 | 29 | 10 | 2 | 42 |
| Not poor | 18 | 33 | 17 | 4 | 29 |
| Possess no items | 17 | 28 | 10 | 1 | 44 |
| 1-2 items | 16 | 30 | 16 | 2 | 36 |
| 3-4 items | 17 | 40 | 20 | 5 | 18 |
| No schooling | 12 | 24 | 15 | 1 | 48 |
| 1-7 years | 17 | 31 | 17 | 3 | 32 |
| 8+ years | 18 | 42 | 15 | 4 | 21 |
| All | 17 | 32 | 16 | 3 | 17 |

The proportion of women who did not know where to go reached 41 per cent among the rural women, 44 per cent among those who did not possess any item of communication, 48 per cent among those who never attended school, 53 per cent among the very poor, and 62 per cent among the midlanders.

## Practice of contraception

*Ever use*: When respondents were asked whether they had ever used a contraceptive method, 29 per cent of them said they had (32 per cent of them being lowlanders, but only 8 per cent midlanders and 5 per cent highlanders) (table 7). There were proportionally more ever-users among the urban than rural women, mature than young women, high parity than low parity women, better off than poor women, educated than illiterate women and, of course, among those who possessed items of communication (almost 50 per cent) than among those who did not. The most striking determinants of contraceptive use were ethnic group and economic status.

**Table 7: Percentage of currently married women aged 15 to 49 years whohad ever used and who were current users of contraceptive methods(both modern and traditional): Fertility-Contraception Survey in seven provinces of the Lao People's Democratic Republic, 1993**

| | Ever used * | Currently using * |
|---|---|---|
| Lowlanders | 32 | 21 |
| Midlanders | 8 | 2 |
| Highlanders | 5 | 2 |
| Urban | 45 | 30 |
| Semi-urban | 36 | 25 |
| Rural | 18 | 11 |

| | | |
|---|---|---|
| 15-24 years of age | 14 | 9 |
| 25-34 years of age | 31 | 20 |
| 35+ years of age | 35 | 23 |
| No living children | 7 | 2 |
| 1-3 living children | 26 | 18 |
| 4-6 living children | 35 | 23 |
| 7+ living children | 32 | 18 |
| Very poor | 8 | 3 |
| Poor | 19 | 11 |
| Not poor | 36 | 25 |
| No schooling | 13 | 8 |
| 1-7 years | 30 | 19 |
| 8+ years | 40 | 27 |
| Possess no items | 14 | 8 |
| 1-2 items | 27 | 16 |
| 3-4 items | 49 | 35 |
| All | 29 | 19 |
| N = | 1,185 | 774 |

* *Notes*: Percentage of all women interviewed in each subgroup.

*Current use*: Current users of contraceptive methods did not exceed 19 per cent of the sample (65 per cent of them being ever-users), and most of them were lowlanders, with the same determinants as for the ever-users (3 per cent "very poor" compared with 40 per cent "rich"). Only 2 per cent of the women with no living children were current users.

*Most used methods*: Overall, the most used methods among current users were the following, in order of popularity: female surgical sterilization (27 per cent of users, table 8 ), daily pill (21 per cent), periodic abstinence (16 per cent), monthly pill (13 per cent), injectable (11 per cent), IUD (7 per cent), withdrawal (2 per cent), condom, implants and traditional medicine (1 per cent each). There was only one case of vasectomy reported in the whole sample.

**Table 8: Contraceptive methods used by current users (percentage of users only), Fertility-Contraception Survey in seven provinces of the Lao People's Democratic Republic, 1993**

| Methods | Number | % of users | % of total sample |
|---|---|---|---|
| Tubal ligation | 210 | 27 | 5.1 |
| Daily pill | 165 | 21 | 4.0 |
| Monthly pill | 101 | 13 | 2.4 |
| Injectable | 87 | 11 | 2.1 |
| IUD | 50 | 7 | 1.2 |
| Condom | 5 | 1 | .1 |
| Implant | 6 | 1 | .1 |
| Vasectomy | 1 | 0 | .0 |
| Total modern methods | 624 | 81 | 15.1 |
| Periodic abstinence | 119 | 16 | 2.9 |
| Withdrawal | 18 | 2 | .4 |
| Traditional plant preparations | 13 | 1 | .2 |
| Total traditional | 150 | 19 | 3.5 |
| Total methods | 774 | 100 | 18.6 |

The major determinants of female surgical sterilization were urban residence (proximity to the provincial hospital) and achievement of the desired family size; education and economic status did not discriminate (table 9 ). Economic status, however, did discriminate with regard to the use of oral contraceptives (both daily and monthly pills), poorer women making the most use of them. More users of injectables were found in rural than urban households and in households with no items of communication than in modern households.

**Table 9: Modern contraceptive method mix used by current users: Fertility-Contraception Surveyin seven provinces of the Lao People's Democratic Republic, 1993**

| | Residence | | | Living children | | | | Ethnic group | | | Years at school | | | Socio-economic status | | | Possession of items of communication | | | All |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Urban | Semi-urban | Rural | 0 | 1-3 | 4-6 | 7+ | Low | Middle | High | 0 | 1-7 | 8+ | Very Poor | poor | Not poor | 0 | 1-2 | 3-4 | |
| Tubal ligation | 38 | 40 | 25 | - | 31 | 41 | 26 | 34 | 18 | 100 | 34 | 30 | 30 | 33 | 25 | 35 | 17 | 26 | 36 | 34 |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily pill | 24 | 25 | 26 | - | 32 | 22 | 23 | 26 | 27 | 0 | 34 | 24 | 35 | 33 | 33 | 25 | 26 | 27 | 29 | 25 |
| Monthly pill | 10 | 16 | 22 | - | 15 | 14 | 25 | 16 | 27 | 0 | 21 | 19 | 9 | 33 | 25 | 14 | 28 | 20 | 11 | 17 |
| Injectable | 11 | 11 | 21 | - | 14 | 15 | 9 | 13 | 18 | 0 | 11 | 16 | 11 | 0 | 10 | 15 | 24 | 19 | 9 | 15 |
| IUD | 12 | 7 | 6 | - | 7 | 8 | 15 | 8 | 9 | 0 | 0 | 9 | 11 | 0 | 5 | 9 | 4 | 7 | 11 | 8 |
| Condom | 3 | 0 | 0 | - | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 2 | 1 |
| Implant | 1 | 1 | 0 | - | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 0 | 2 | 1 | 2 | 1 | 0 | 1 |
| Vasectomy | 1 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

* Percentage of modern users only (N = 624).

*Notes*:

*Sources of supplies*: Forty-four per cent of users of modern contraceptives obtained their supplies from private pharmacies (data not shown); 24 per cent obtained them from sources abroad (neighbouring countries mostly for female surgical sterilization and implants), 21 per cent from government hospitals, and 8 per cent from private practitioners). Private pharmacies were the main source of oral pills, injectables and condoms, while IUDs were supplied and inserted in equal shares by government hospitals and private clinics.

The women who had used a contraceptive method but stopped using it were mostly users of daily oral pills, followed by injectables and monthly pills. The main reasons for stopping use were side-effects (46 per cent), desire to become pregnant (21 per cent), and expense (11 per cent).

*Never use*: Asked why they had never used contraception, 37 per cent said that they feared side-effects, 24 per cent of the women who gave a reason said that they were not aware of the existence of contraceptive methods, 22 per cent said that they did not mind being pregnant, 8 per cent said that they preferred not to interfere with natural events, 4 per cent said that contraceptives were too expensive, 3 per cent mentioned that they had personal health problems, and a mere 0.5 per cent spoke about their husband's opposition to contraception. Not surprisingly, the women who said they did not know about contraceptive methods were found mostly among the poor, illiterate, rural, isolated women and among the minorities (see table 10). The women who said that they feared side-effects were found mostly among the educated, urban, well-off, high-parity women and among those who were most exposed to the outside world. These data indicate a need to develop a better means of transmitting information to potential users through information, education and communication (IEC) programmes.

**Table 10: Reasons for not using contraception among women who had never used it: Fertility-Contraception Survey in seven provinces of the Lao People's Democratic Republic, 1993**

| | Living children | | | | Socio-economic | | | Years at school | | | Residence | | | Possession | | | Ethnic Group | | | All |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 1-3 | 4-6 | 7+ | Very poor | Poor | Not poor | 0 | 1-7 | 8+ | Urban | Semi-urban | Rural | 0 | 1-2 | 3-4 | Low | Middle | High | |
| Fear of side-effects | 6 | 33 | 47 | 48 | 32 | 36 | 40 | 22 | 44 | 40 | 49 | 42 | 32 | 33 | 41 | 45 | 44 | 14 | 3 | 37 |
| Did not know about contraceptive methods | 20 | 23 | 27 | 26 | 44 | 25 | 20 | 43 | 20 | 7 | 6 | 19 | 32 | 33 | 22 | 6 | 17 | 54 | 56 | 24 |
| Don't mind being pregnant | 68 | 29 | 6 | 1 | 9 | 20 | 25 | 15 | 20 | 38 | 27 | 23 | 20 | 17 | 21 | 30 | 21 | 21 | 27 | 22 |
| Other reasons * | 6 | 15 | 20 | 24 | 15 | 19 | 15 | 20 | 16 | 15 | 18 | 15 | 16 | 16 | 15 | 19 | 18 | 12 | 14 | 17 * |

*Notes:* * = Other reasons include cost (judged too expensive, 4 per cent), let Nature decide (8 per cent), personal health problems (3 per cent), husband's opposition (0.5 per cent), and others (2 per cent).

Percentage of those who expressed a reason.

Asked whether they were ready to pay for obtaining a regular supply of contraceptives, 76 per cent of the respondents said they were ready, a fact that should be taken into account when deciding whether contraceptive services in the public sector should be for a fee or not. The proportion of those ready to pay rose to 93 per cent among the Lao Loum (compared with 56 per cent among the Lao Theung and 61 per cent among the Lao Soung), 89 per cent among the urban women, 93 per cent among the most educated, and 97 per cent among the rich and among those with 3-4 items of communication.

A set of sensitive questions about voluntary pregnancy termination produced results that need to be interpreted with caution. Asked whether they knew of neighbours who had voluntarily terminated a pregnancy, 16 per cent of the women who gave an answer (544 women out of 3,401) said they knew at least one such woman (13 per cent knew more than one). Urban women were more likely to have known such women than rural women (22 per cent versus 11 per cent).

Asked whether they ever had a voluntary pregnancy termination themselves, only 3 per cent of the 4,070 women who responded said they had. These 139 women were mostly Lao Loum, urban, well-off, educated, aged over 35 years, possessing 3-4 items of communication, and having over four living children. The methods used were aspiration and curettage in a private clinic for 55 per cent of the cases, followed in frequency by curettage in a government hospital (20 per cent) and traditional methods (13 per cent). These figures, probably largely underestimated, indicate that these induced abortions were performed as family-limitation procedures on women who could afford to pay for the procedure. (The authors remain doubtful about the number of induced abortions performed on young unmarried women and those carried out in remote areas).

Breast-feeding is traditionally considered the most important factor responsible for birth spacing. When asked whether they were still breast-feeding their youngest child, 97 per cent of the 2,015 women who responded said that their last child was breast-fed (33 per

cent exclusively, and 64 per cent partially). These proportions were remarkably constant accross educational, socio-economic and residential groups. The absolute level of these figures, however, cannot be interpreted in the absence of information on the age of their youngest child.

## Discussion

The sample of women interviewed in this survey represent women who will be "reasonably accessible" in the forthcoming birth-spacing programme; therefore, contraceptive knowledge and use are likely to be slightly greater than would be the case in a nationally representative sample. This is confirmed by a comparison of the relative proportions of urban and rural women in this survey and in national survey samples. The proportion of rural women in this survey was 54 per cent versus 77 per cent in a recent national survey (State Statistical Centre, 1993). Similarly, the proportion of ethnic minorities in this survey did not exceed 19 per cent, whereas the results of the last population census in 1985 indicated that such groups comprise between 30 and 40 per cent of the total population (Frisen, 1991). Bearing these points in mind, the following main lessons can be extracted from the present survey.

Among the "accessible" women of the Lao People's Democratic Republic, there is generally a consistent desire for families of four children with no gender preference, which is smaller than the average total fertility rate of the country. This situation is typical of early transition Asian societies. However, most women wish to reach their desired family size as soon as possible while they are still young, and then stop having children, which is not in harmony with the proposed policies to promote delayed child-bearing and birth spacing.

About one-fourth of all women and more than half (52 per cent) of those who expressed an opinion thought that their fecund period occurs immediately after menstruation. This belief has important implications with regard to fertility and for the need to provide correct information to clients as part of the forthcoming birth-spacing programme.

At least 84 per cent of the women are potential users of contraception, either because they have already reached their ideal family size (the "limiters"), or because they want to delay their next pregnancy (the "spacers"). The most likely targets for the birth-spacing programme are urban women with high education and low parity, as well as minority women. The demand is therefore considerable, and spread over all socio-economic groups. Less than one-fourth of this demand is met by modern contraceptive methods. The demand for spacing births, i.e. less than 25 per cent of all women, is much smaller than the demand for limiting births, with a relative clustering among minorities, urban and educated women, and those with one to three living children.

More than half of the women had heard about the five main modern contraceptive methods, such as daily and monthly pills, injectables and IUDs; female sterilization was the best known of all the methods. About 40 per cent had heard about condoms and vasectomy, and 15 per cent about implants.

About 50 per cent of those who knew about modern contraceptives said that they would go to the public sector to obtain them, which is surprising since at that time there was no established birth-spacing programme in most provinces. This indicates the existence of a *de facto* contraceptive delivery system in hospitals, focused mostly on clinical methods, IUD insertion and surgical sterilization. It is ethnic group, followed by school education and opportunities for communication with the outside world (through radio, television, or access to personal transport), that seem to be the best determinants of women's knowledge about contraception. Therefore, illiterate, isolated and minority women would comprise key targets for IEC activities, provided that such women can be reached by appropriate media.

About 30 per cent of all women interviewed had ever used contraception, and 15 per cent were current users of modern methods (almost all of them lowlanders). This is consistent with a contraceptive prevalence rate for modern methods of 18 per cent in the semi-urban district of Xay Thany reported in 1991 (Foley and Vongsak, 1991). The most popular modern methods used are female surgical sterilization, followed by daily and monthly pills, and injectables. The majority of these methods were obtained from the private sector and abroad (for surgical sterilization).

The survey revealed the popularity and availability of the Chinese monthly oral pill, which ranked third in current contraceptive use. This combination of a long-acting oestrogen (3 mg quinestrol) and a regular progestogen (12 mg norgestrel) shares the side-effects, complications and contraindications of other daily oral pills, but involves fewer user failures. Although this method has not received legal endorsement from the national health authorities, it cannot be overlooked in view of its popularity (Escoffier-Fauveau and Phimmasone, 1994). In any case, this additional pill increases the already broad range of contraceptives available to Lao couples, and contributes to ensuring continuation through several possibilities of switching methods. This is in sharp contrast with neighbouring countries where dominant birth-limiting methods are proposed either by Governments (IUD in Viet Nam, sterilization in China) or by the private sector (abortion in Cambodia). It is interesting to note that in the case of the Lao People's Democratic Republic this broad choice of contraceptive methods is due exclusively to the private sector. The forthcoming national birth-spacing programme will offer the daily pill, condom, IUD and injectables.

The main reasons the women had for not using contraception were fear of side-effects (37 per cent), followed by ignorance of contraceptive methods (24 per cent), which indicates the need to develop appropriate information programmes. The challenge will be to adapt IEC activities for minority groups, who currently express high levels of demand and the lowest levels of knowledge and use of contraception.

The question about the main reasons for not using contraception, however, did not allow for an open statement of opinions, and therefore the information obtained remains incomplete. The results of a concomitant qualitative study of fertility indicate that the most important determinants of contraceptive use also have to do with the availability and accessibility of modern methods, the degree of female autonomy, and the level of child mortality (Escoffier-Fauveau and Phimmasone, 1994).

A clear relationship between the contraceptive use rate and fertility does not emerge from this qsurvey, first because total fertility rates were not measured and second because the number of births, by ethnic group, are not comparable: highlander women tend to be younger and marry later than lowlanders.

In conclusion, the household survey on fertility and contraception presented in this article is the first of its kind conducted on a large scale in the Lao People's Democratic Republic. It reveals a high level of demand for contraception and a low rate of contraceptive use among couples who have reasonable accessibility to potential information and services. The survey will serve as a useful guide not only for developing the forthcoming birth-spacing programme, but also as a baseline against which to monitor and evaluate it.

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