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Demographic and Developmental Contexts of AIDS in Northern Thailand

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Northern Thailand has been the epi-centre of Thailand's national HIV/AIDS epidemic (Im-em, 1999), with AIDS accounting for 10-15% of all officially recorded causes of death in most of the region's provinces. However, in assessing its developmental impact, it is essential to place AIDS within a wider demographic context, to see how AIDS interacts with other ongoing demographic processes. The most powerful of these are age-selective, urbanward migration and, more importantly, the substantial fertility decline that is characteristic of eastern and southern Asia as whole.

There can be little doubt that in this wider region it is fertility decline that has been the driving force in demographic and socio-economic transformation. This impacts not only on population growth levels but also on population structures, so that most populations in East and Southeastern Asia are ageing much more rapidly than anywhere in the world, and at comparatively modest levels of economic development. These societies benefited in recent decades from falling child dependency (a significant contributor to the so-called Asian economic miracle pre-1997) but they now have to face the novel challenge of rapidly rising old-age dependency (Heller and Symansky, 1998). Thus, for Thailand, the UN medium-variant 2000 projections (with fairly conservative assumptions on continued fertility decline) indicate that while the country's population is likely to increase from 63 million in 2000 to 77 million in 2025 and 82 million in 2050, the proportion over age 60 will rise from 8% to 17% and 27% respectively.

Within this wider Asian context, this paper initially examines recent demographic interactions in northern Thailand, where there has been a remarkable combination, for a peripheral agrarian society, of rapid fertility decline from as early as the late 1960s, continuing out-migration to urban Thailand and abroad, and the highest incidence of HIV/AIDS in Thailand's national epidemic. Few, if any, comparable rural areas have experienced such a concentrated combination of all three demographic forces. Thus, while many rural areas of sub-Saharan Africa have appreciable out-migration and very high levels of HIV/AIDS (although not as high as their urban areas), these are not accompanied by significant, let alone rapid, fertility decline; similarly, while areas like rural China, Bali, Kerala and Mauritius have experienced rapid fertility decline, this has only rarely been accompanied by significant levels of both out-migration and AIDS.

Following this demographic overview, the paper then provides preliminary results from intensive studies in 2003-04 of eight villages to assess the developmental implications of these rapid demographic changes in northern Thailand.

Demographic Trends in Chiang Mai Province

This study of demographic-developmental interactions focuses on the rural parts of Chiang Mai province in northern Thailand (Figure 1). Of the 1.5 million provincial population, some 200,000 live in Chiang Mai city and a further 150,000 in its peri-urban fringes. The great bulk of the provincial population is rural, concentrated in several hundred villages in well-watered, intensively farmed valleys sharply bounded by forested mountain ranges.

Fertility decline

Chiang Mai and its adjacent provinces have experienced one of the world's most remarkable (and least known) fertility transitions, since in these peripheral, agrarian provinces total fertility rates of 6.5 per woman in the 1960s had been reduced to replacement level (2.25 at then current mortality levels) by the late 1980s, and to levels (1.5) even lower than most urbanised developed countries by the late 1990s.

For Thailand as a whole, Knodel et al. (1987) have convincingly explained the pervasiveness of fertility decline in terms of perceived population pressure, rising consumer aspirations, a truly national family planning programme based on a network of local health stations, and a cultural setting - Buddhism and relatively high levels of female autonomy - that has been tolerant of reproductive change; while the distinctive role of Chiang Mai province in the national fertility decline has been documented in a series of papers by Pardthaisong (e.g. 1978, 1986). The earliest fertility declines in Thailand were concentrated not only, as one would expect, in the Bangkok area of rapid urbanisation and socio-economic change, but also, quite remarkably, in the remote, agrarian, northern provinces of Chiang Mai and Lamphun. The critical factor was the successful introduction of family planning services in 1963 at the McCormick Christian Missionary Hospital in Chiang Mai city, seven years before the adoption by the Thai government in 1970 of a formal population policy to reduce population growth through a national family planning programme. Even more importantly, by the late 1960s the McCormick programme had been extended outside the city to dozens of villages served by a mobile family planning unit. A distinctive feature of the programme was its reliance on the injectable contraceptive, Depo Provera. During the course of the programme up to 1987, when the McCormick programme was absorbed by the Planned Parenthood Federation of Thailand, such injections accounted for 64% of the methods used by new acceptors.

The pre-eminent role of this programme in the province's early fertility decline is strongly implied by the following evidence:

there was only a very modest trend towards later age at marriage among females, with the singulate mean age at marriage for women being 20.6 years in 1960, 21.2 in 1970 and 23.0 in 1980 and 1990;

not until well into the 1970s was this peripheral and largely rural population significantly exposed to modernising influences like cars, motorcycles, secondary education and television (even as late as the 1980 census, only 16% of the 25-29 female cohort had ever attended a secondary school);

the prevalence rates for contraceptive use among married women reported in the 1980 and 1990 censuses were generally higher in rural areas (except for the minority hill-tribe populations) than in Chiang Mai city.

Out-migration

In contrast to fertility decline, the pattern of out-migration from Chiang Mai province (and the Northern Region generally) shows distinctiveness in only some of its detailed elements, notably the recruitment of young women for sex work elsewhere in Thailand and abroad. Generally, the migration pattern is typical of the rural peripheries of less developed countries, with such areas becoming increasingly incorporated from the 1960s into modern centralised states through transportation and mass media linkages, capitalist penetration and economic exchanges. This incorporation has been accompanied by permanent and temporary migration to major urban centres.

Initially, under conditions of high fertility, urbanward migration was stimulated by population pressure and the associated fragmentation of agricultural holdings. Subsequently, from the 1970s, a marked sectoral and spatial dualism has developed within the Thai economy, with government development policies prioritising export-oriented manufacturing, tourism and other service industries. Thus, while these activities have expanded considerably in Bangkok and adjacent

areas, the wider agricultural economy has been starved of public investment and compromised by government pricing policies. There is widely reported pessimism on the prospects for peasant farming and on the levels of rural indebtedness. This reflects, in material terms, the unfavourable balance between low output prices for crops and high input costs for fertilisers, pesticides, seeds and labour, and more insidiously the way in which the expansion of consumerism, education and mass media undermines the status of farming lifestyles. Most recently, peasant farming in communities near cities is being threatened by extensive land purchases by urban elites for golf courses, resorts, housing estates or simply speculation - a process that has been detailed for villages near Chiang Mai city (Singhanetra-Renard et al., 1996; Ritchie, 1996).

The bulk of urbanward migration, invariably within Thailand but occasionally abroad on work contracts (Jones and Pardthaisong, 1999), has been in the form of circular, often seasonal, movements, and even longer-term migrants often see themselves merely as sojourners in the city helping to support their families in the countryside. An additional diversification of farming families' income, and therefore enhanced security, comes from family members who, with modern transportation developments, are able to commute to centres like Chiang Mai city, not necessarily for regular employment but often for part-time or irregular work as petty traders, construction workers, etc. Consequently, many rural families, and indeed individuals, have multiple sources of sustenance in several locations.

HIV/AIDS

The reasons for Thailand's national epidemic are well understood (Ford and Koetsawang, 1991; Sittitjai et al., 1992). They centre on the easy access of males to sexual services, facilitating high risk behaviour and multiple sexual-partner relations. At the core of the sexual culture is a 'double standard' which permits single and married men considerable freedom in sexual relations without strong social sanctions, while young women are expected to preserve pre-marital virginity and wives to remain faithful to their husbands. This 'standard' can only be met by ready access of males to commercial sexworkers.

A ready supply of female sexworkers from peripheral rural areas is assured by the resources/aspirations gap associated with modernisation, and by the deeply rooted cultural expectation in Thai society that daughters, much more than sons, should provide substantial material support for parents and younger siblings (Yoddumnern-Attig et al., 1992). Young women of little education from poor families in peripheral areas often view sex work - in distant urban locations and for a limited period - as a 'short-cut' option for meeting their family obligations (Phongphaichit, 1982; Muecke, 1992).

This is the national context of sexual culture and HIV/AIDS transmission within which the upper Northern region holds an important and distinctive position. HIV prevalence rates among samples of sexworkers, STD patients, military conscripts and women attending ante-natal clinics have been found to be appreciably higher (2-3 times) in the upper Northern region than in the rest of Thailand. Table 1 further demonstrates this for officially recorded (but, of course, heavily under-diagnosed and under-reported) cases of HIV/AIDS.

The following factors underpin this remarkable regional concentration:

The obligations of daughters to their parents are thought to be embedded particularly strongly in the Upper North. Traditionally this is a matrilineal and matrilocal society in which daughters eventually inherit from their parents (Potter, 1977), although this system is being undermined increasingly by modern education and the extension to the area of national, generally male-centric, family and civil law (Singhanetra-Renard et al., 1996).

There is a high representation of Northern women in the Thai sexworking industry. Thus, sample surveys of sexworking establishments in Bangkok, the Central region and Udon Thani (Northeastern Thailand) by Podhisita et al. (1994) and Archavanitkul and Guest (1994) reveal that over 60% of workers came from the Northern region, predominantly from the Upper North provinces of Chiang Rai, Phayao and Chiang Mai. Unlike sexworkers from other origins, the majority of the Northern women were unmarried and had become sexworkers in their teens. These findings must reflect the cultural embedment and tolerance of prostitution in Northern society, and also the way in which Northern women, because of their paler skin, are thought to be particularly attractive to Thai men; this also helps to account for the demand for Northern Thai sexworkers elsewhere in Asia, particularly Malaysia, Singapore and Japan.

There has been a significant problem of drug addiction in northern Thailand. While the cultivation of opium poppies in the 'Golden Triangle' between Myanmar, northern Thailand and Laos is now largely confined to Myanmar, much of the heroin produced is clandestinely exported via northern Thailand. The associated heroin dependency impacts on HIV/AIDS directly through needle sharing and indirectly through the selling of daughters into the sex trade to feed the 'habit' of parents.

A significant population turnover in parts of the region, and therefore the bringing into contact of infected and uninfected persons, has been cited by Singhanetra-Renard (1997). She refers, in particular, to the economic dynamism and building boom in Chiang Mai city, the region's important role in national and international tourism, and the growing passage of clandestine international migrants through the region from Myanmar and China.

However, the peak of the epidemic has now passed, with the following annual cases of new AIDS notifications for Chiang Mai province typifying the national situation: 1999, 1,644 cases; 2000, 1,727; 2001, 1,367; 2002, 877; 2003, 819. This reflects a strong, and widely regarded as successful, government policy to promote condom use and enforce closure of the more oppressive brothels, especially in rural areas. Anecdotal evidence from the study area suggests also that a growing awareness of HIV/AIDS vulnerability and the visibility of local AIDS deaths has moderated the traditional levels of sexual networking practiced by married males.

Demographic interactions and socio-economic implications

Figure 2 illustrates how the demographic trends discussed above impact on the current age structure, bearing in mind the different chronologies of the demographic changes and the different age groups directly affected. Figure 2 suggests that all three components of change combine to reduce the size of the young adult cohorts (c.18-40 years) that are so important for maintaining the economic base of local communities. Thus, even though the three elements of demographic change are not causally related to a large extent (except in the case of particular forms of migration leading to AIDS), their impacts on the demographic structure, and through this on the socio-economic system, reinforce one another. This is empirically illustrated in the 1970-2000 census population pyramids for Chiang Mai province (Figure 3). They clearly reveal the ageing of the population structure consequent mainly on rapid fertility decline, with the dominant cohorts moving progressively from 5-14 in 1970 to 35-44 in 2000. However, the immediate impression that there will not be major problems with the aged dependency ratio until well into this century, when the bulge cohort moves into retirement, needs to be qualified. First, in dominantly rural, peripheral provinces like Chiang Mai, the recorded population (despite being nominally based on place of usual residence) will have included substantial numbers of young adult migrants not currently, or even usually, residing in the province; and, second, the

demographic impact of AIDS may not have become particularly apparent by 2000.

To consider how the socio-economic system might be expected to adapt to this rapidly changing demographic context, and to consider what sort of policy intervention might be necessary to stimulate appropriate adaptation, micro-level, intensive studies are required at village community level. Consequently, the author and co-researchers Tieng Pardthaisong and Liwa Pardthaisong-Chaipanich are currently undertaking such work, which is addressing key issues like:

Is the reduced rural labour force impacting significantly on local wage levels, bidding them up and undermining the viability of some enterprises?

To what extent has there been replacement immigrant labour from adjacent Myanmar and Laos? Has such labour been attracted as much for exploitation as for replacement?

What is the impact of a reduced labour force on the upkeep of traditional, community-maintained irrigation systems that are vital for agricultural production, flood control and soil retention?

Is the traditional family-based system of support for the elderly in Thailand coping at a time of increased longevity for the elderly and falling numbers of adult children (the traditional carers)? There have been some influential, fairly optimistic assessments of the robustness and demographic viability of the traditional system of support for the elderly in Thailand. Knodel et al. (2000) suggest that even after appreciable national fertility decline, the great majority of the elderly in the near future will have 2 or 3 adult children to care for them. Such assessments, however, have been made at an early stage of the AIDS epidemic and/or are based on national studies, not on analyses of the communities in northern Thailand most afflicted by AIDS; and a recent paper from the same research team (Wachter et al., 2002) shows that the loss of an adult child will have much more serious implications for currently middle-aged, as opposed to currently elderly, parents.

Village Studies Methodology

Based on a preliminary investigation of the issues considered in this paper (Pardthaisong-Chaipanich, 2000; Jones and Pardthaisong, 2000), survey work, key-contact interviews and analysis of official data have been undertaken in 2003-04 in eight villages in Chiang Mai province (different villages from the four surveyed in the preliminary investigation).

The villages were selected to represent the range of human ecological settings in northern Thailand: villages within commuting range of Chiang Mai city but not dominated by it (villages A, B, Area 1; see Figure 1); agricultural heartland villages (C, D, Area 2); lowland villages near the Myanmar border accessible to migrant labour (E, F, Area 3); and hill-tribe villages which have a very different set of cultural conditions and where the pace of demographic change has been much slower (G, H, Area 4; hill-tribe populations had not been covered in the preliminary study). Indicators for the sub-districts of Chiang Mai province (Figures 4-6) illustrate the developmental-demographic gradient from Area 1 (high consumption, low fertility, high HIV) to Area 4 (low consumption, high fertility, low HIV).

In seven of the villages the number of households ranged from 132 to 275, so that sampling requirements suggested a target sample size of 50 in each village for the household survey; in the remaining case H, a hill-tribe village of 74 households, a sample of 30 was thought to be adequate. In a minority of cases where interviews could not be achieved in the original sample, replacement households were selected to ensure that the sample set of households was representative of the village in terms of number of household members, average age of members,

and number of generations (base information available from lists held by headman and Department of Public Health). The target sample size was achieved in all cases except the larger hill-tribe village G (sample of 40 rather than 50 because of fieldwork difficulties explained below).

While the sample households were selected on the basis of randomness, initially, and then representativeness, the individual respondents were chosen, wherever possible, as women of 15-59 with children, so as to reduce the *compositional* variability of response to attitudinal questions. In the aggregated sample of 372 respondents, 85% were female, 71% were females of 15-59, and 85% had at least one child, with little variability between the individual samples.

Brief profiles of the villages are now provided:

Villages A, B, San Patong District, are traditional paddy-farming villages which have seen employment diversification in recent decades because of improved road access (25-30 kms) to Chiang Mai city. Farming is now the main occupation in only 30% and 39% respectively of the survey households.

Villages C, D, Prao District, are outside normal commuting range of the city and remain largely agricultural, with 54% and 60% respectively of households dependent largely on farming.

Villages E, F, Mae Ai District, in the far north of the province close to Myanmar, are even more dependent on agriculture (73% and 70% respectively), but while Village E is a traditional irrigated rice-farming village, village F is on more undulating land accommodating both traditional peasant farming and large-scale capitalist orchards employing Burmese labour.

Villages G, H, Hot District, are both hill-tribe villages, but of very different character. Village G is inhabited by the Hmong, a hill-tribe dependant traditionally on 'slash and burn' farming, opium poppy cultivation at high altitudes, and periodic shifts of farming and village sites. Pressure from the Thai authorities has now encouraged settlement stability and a conversion to temperate vegetable growing. The Hmong are regarded by Thai authorities as one of the most 'difficult' hill-tribes, illustrated by ongoing disputes between Hmong farmers and forestry and national park authorities; this, and language difficulties, made interviewing difficult, hence the lower response rate here. Of all the hill-tribes, the Hmong are regarded as the most entrepreneurial, so that 38% of the surveyed households now depend for their livelihood largely on non-farming sources.

Village H, a Karen community, is very different. The Karen are by far the largest and longest settled hill-tribe group in Thailand. They practice both shifting cultivation and paddy-farming, as well as forest gathering, at elevations lower than most hill-tribes, and environmentalists regard their farming practices as the most ecologically harmonious of all the hill-tribe groups (Laungaramsri, 2002). In this village all families depend almost exclusively on farming for their livelihood. Some of their members work in the commercial vegetable fields of the nearby Hmong village, although there is little social interaction between the two groups.

Study Results

Demographic Trends

Age structure representations of the 8 villages in 2001, based on annually up-dated files maintained by local health stations, are shown in Figure 7, and total fertility rates estimated from these data in Table 2. The progression of the age structure to top-heavy, developed-country levels is particularly advanced in villages A and B, but is also well underway in the other 4 lowland Thai villages (C-F); moreover, all 6 exhibit a surplus of deaths over births in the most recent 3-year period. The 2 hill-tribe villages (G-H) retain a more triangular structure, but clear evidence for the arrival even here of low fertility is shown in the severely reduced 0-4 cohort.

Although there are difficulties in estimating total fertility rates in populations that are both small and undergoing age-selective migration, it is notable that the estimated rates were substantially below replacement in 1990-95 in all 6 lowland villages and had dropped considerably more by 1995-2000 – to below half replacement level in 5 villages.

AIDS

Although the HIV/AIDS cases given in Table 2 are only estimates (those living with HIV/AIDS are particularly liable to under-recording), there is a striking difference in incidence between the lowland Thai villages (A-F) and the hill-tribe villages (G, H). This is confirmed by the survey data on respondents' experience of AIDS (Table 3).

It has often been hypothesised that the growing contact of hill-tribe populations with the lowland Thai through enhanced transportation and socio-economic linkages (commercial vegetable production, tourism, higher-level schooling, sex industry recruitment, etc) would make hill-tribe populations particularly vulnerable to HIV infection, given their low education levels, poverty and isolation from mainstream HIV-prevention campaigns. However, the evidence from this study is consistent with other micro-scale findings on the variability of such vulnerability (Beyrer et al., 1995; Sila, 1997; Chemsakul, 1998; Kunstadter et al., 2001; Pardthaisong-Chaipanich, 2003). These reveal that it is only some hill-tribe groups that have developed significant infection rates, notably the Akha, Yao and Shan (the Shan, who straddle the Myanmar border, are not strictly a hill-tribe group). Karen and Hmong hill-tribe groups, on the other hand, generally have very low infection rates, as confirmed by this study, despite the Hmong being significant users (although not injectors) of narcotics and having extensive commercial links with lowland and urban communities. Both Karen and Hmong have strong family and community controls on sexual behaviour. The Karen, in particular, actively discourage premarital and extra-marital sexual relationships, divorce, brothel recruitment, and illicit drug use and trading.

Migration

Respondents were asked to enumerate those they regarded as being members of their household. Of the 1605 enumerated in this way, 271 normally lived in the village less than 3 months a year, indicating a significant amount of temporary migration for education and work. Of the 271, the great majority are young (74% under 30, 96% under 45), showing that the ageing of the *normally resident* population is more advanced than shown in Figure 7. This further demonstrates the fragility of likely support for the current middle-aged cohorts when they move into retirement (even though 103 of the 271 absentees provide some financial support to families in their home village).

Only a very small minority of respondents (one in each of 5 villages) report the use of foreign labour in their households during the previous 12 months. However, in village F there is a large commercial fruit-growing enterprise employing over 100 Burmese labourers. These workers, often accompanied by their children, live in the company's compound, but are not included in the village lists of households and population (and not therefore in our survey). The workers are rotated every 3-4 years, allegedly because of registration and health (pesticide) problems. There is no evidence, therefore, for replacement migrant labour being used in peasant farming households; rather, foreign labour is used almost exclusively in occasional, large-scale commercial enterprises which demand large numbers of labourers at cheap rates (foreign workers are normally paid at half the rate for casual Thai labour).

Support for the elderly

The survey confirms the view of Knodel et al. (2000) that demographic trends pose little threat to

the *existing* elderly generation in terms of availability of support from co-resident or nearby adult children – a vital consideration a society with only rudimentary Social Security systems (Tangcharoensathien, 1999). Thus, of the 188 people aged over 60 in the survey households, 154 have a child living in the village, and an additional 15 have a child within 10 kms. Key contacts report that in nearly all cases of AIDS deaths there were surviving brothers or sisters locally to provide care for elderly parents.

It is very different for the next generation of elderly, because fertility decline, accentuated by out-migration, AIDS and motor-vehicle deaths, has eroded the number of children likely to be available to provide care. Thus, among the 310 respondents aged under 60, while 68% expected some financial support in due course from their grown-up children, the proportion expecting this to be their main financial support in old age was only 48% (compared with 30% citing their own savings, 4% pensions and 28% other sources).

Attitudes towards family size

With the sole exception of the Hmong village, there is widespread recognition and approval of the small-family norm that has been characteristic of Thailand in recent decades (Table 4), according with contemporary fertility rates and age structures. It raises again the question of the viability of such fertility levels in communities experiencing out-migration and AIDS and reliant on family rather than state support in old age. But there seems little or no recognition in the village populations of this looming problem. None of our key-contacts raised it in discussion, and when survey respondents were asked to state up to 3 major problems facing their household, and up to 3 problems facing the village, again there was no mention of anything demographic other than AIDS.

Conclusion

Two important issues, emerge from this study of a peripheral area of a less developed country undergoing rapid demographic change. One is the surge in the number and proportion of elderly people and how they can be adequately cared for in a dignified manner. The consensus view is that traditional family-based care systems can still cope adequately in the short term, but that in the longer term formal social protection schemes will be needed on a substantial scale to supplement and, in some cases, replace traditional family care (Phillips and Chen, 2002). In particular, policy must respond to the increased responsibilities of often economically active women in providing care for children, elderly spouses, and elderly parents and parents-in-law. The other issue is the potentially harmful impact on livelihood and community sustainability as out-migration, accompanied by age-specific mortality from AIDS and motor accidents, accentuates the reductions in the most economically active age groups caused by earlier, rapid fertility decline. There is need, therefore, to focus not simply on the humanitarian or welfare dimensions of an ageing population, but also on the wider and more fundamental developmental issues.

In so far as these issues are demographically based, one should at least consider *demographic-policy* responses. Clearly there is a robust attempt in many countries, certainly Thailand, to reduce HIV/AIDS levels. More controversial would be any policy to stimulate fertility levels, although low fertility is the fundamental demographic dimension underpinning rapidly ageing populations. This option should at least be seriously considered, along the lines of sharing the costs of childraising throughout wider society, but within a context of the absolute right of couples to choose their preferred family size. It might be argued that such indirect pro-natalist measures have had comparatively little impact on fertility rates in countries like Sweden, France and Singapore, but the crucial difference is that Thailand is still a largely rural, agrarian country

with memories of a very recent past of higher fertility.

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Table 1 Newly reported cases of AIDS (not cumulative) in Thailand, September 1984-February 2004, per 1000 of population in 2000 by region and selected provinces.

Bangkok	4.5
Rest of Central	3.9
East	5.4
West	4.8
North East	1.9
South	2.5
North	6.6
<i>Lower North</i>	2.6
<i>Upper North</i>	10.9
<i>(Chiang Mai)</i>	(10.1)

Source: Calculated from data provided by Thai Ministry of Public Health, Division of Epidemiology

Table 2 Selected demographic data for survey villages, Chiang Mai Province

Village	Population, 2001	Estimated Total Fertility Rate ¹		AIDS deaths ²	People living with HIV/AIDS ³
		1990-95	1995-2000		
A	768	1.27	0.99	11	5
B	696	1.42	0.74	12	7
C	706	1.79	1.00	6	0
D	459	1.09	0.95	10	2
E	704	1.55	0.64	22	5
F	998	1.64	1.57	20	3
G	1,012	5.77	2.76	0	0
H	406	6.20	2.53	0	0

¹Calculated from age-structure data provided by Department of Public Health, using Rele method

²Cumulative; estimated by headman, 2003 interviews

³Returns by headman to National Statistical Office, 1999

Table 3 Survey respondents' experience of AIDS

		Lowland Thai Villages (n = 302)	Hill-tribe Villages (n = 70)
Is AIDS a problem in village?	Big	76	3
	Medium	75	4
	Small/None	151	63
Anyone close to you has/had HIV/AIDS?	Yes	125	0
	No	177	70
Has AIDS directly affected your household?	Yes	41	1
	No	261	69

Table 4 Respondents' views on family size

		Lowland Thai Villages and Karen Village	Hmong Village
Two or less children	Good	266	22
	Too small	66	18
Ideal family size	Less than 2	7	--
	2 children	249	16
	more than 2	76	24
Your planned family size	Less than 2	52	3
	2 children	185	10
	more than 2	60	24
	not applicable	35	3