

# **Thailand's Economic Crisis and Reproductive Health: A Case Study of Bangkok, Ang Tong and Sri Saket**

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# **Thailand's Economic Crisis and Reproductive Health: A Case Study of Bangkok, Ang Tong and Sri Saket**

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## **Preface**

This report represents the first publication of the project entitled "The Economic Crisis and Reproductive Health Care Provision and Use in Thailand". The project has been made possible with the financial support from USAID through the POLICY Project of the Futures Group International, Inc., the Research Triangle Institute and the Centre for Development and Population Activities. We are sincerely thankful for their assistance. We also would like to express our gratitude and thanks to the individual respondents from the qualitative and quantitative aspects of our study who gave us their valuable time and thoughts in answering our questionnaires. Special thanks are also extended to Associate Professor Malinee Wongsith, Ms Siriwan Siriboon, Ms Chanettee Milintangkul, Ms Busarin Bangkaew, Ms Tanaradee Khumya for their hard work and devotion in the data collection, data processing and cleaning. We would like to thank Elizabeth Schoenecker of USAID, and William Winfrey and Karen Hardee of the Futures Group for their comments on this report. The opinions expressed in this report are solely the responsibility of the authors.

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## Abstract

In this study we examine the impact of the economic crisis on the provision and use of reproductive health services in the low-income communities of three provinces of Thailand, namely Bangkok, Ang Tong and Sri Saket. We use both qualitative and quantitative data obtained from interviews of providers and users of reproductive health respectively. We conducted a total of 26 provider interviews and a total of 620 interviews with currently married women aged 15-39. The results of the provider interviews reveal that knowledge of reproductive health among providers and administrators is relatively low. They do not appear to fully understand the individual components of reproductive health set out by the Ministry of Public Health. Reproductive health services, however, have been provided as an integral part of maternal and child health in most health facilities for some time. Overall, it appears that the crisis has had some effect on the provision of reproductive health due to the shortage of medical and family planning supplies, the delay in the distribution of the budget and the reduction of training programs. The impact of the crisis on the reproductive health of the sampled women and their use of services appears to be minimal. Most women have relatively good access to health care services. Overall, the provincial women have been the least affected and Bangkok women the most in our sample. A vast majority of women, however, report that they have experienced increased hardship now more than three years ago, at least in terms of reduced income and an increase in household expenses. About 73 percent and 70 percent of Bangkok and rural women respectively report a decrease in their income level, and 75 percent and 83 percent state that the overall household expenses have increased. Their physical and mental health also appears to have worsened. To conclude, Bangkok residents have been more affected by the crisis than women in rural and provincial urban areas.

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## Chapter One: Introduction and Background

Economic instability is likely to remain a facet of today's world and thus it is important to understand the possible social effects of economic change. A significant and sudden economic downturn is likely to affect not only the ability of governments to provide social services to their citizens but also the ability of the citizens to access these services. In this report, we examine the possible effects of the recent economic downturn in Thailand with regard to reproductive health.

In the first chapter, we describe the problem, provide background information and explain our study design including a description of the limitations of the data that we use. In chapter two, we analyze our qualitative data and provide a summary of these findings and policy recommendations that resulted from the qualitative data. In chapter three, we provide a descriptive analysis of our quantitative data and provide a summary of these findings along with specific policy recommendations that relate to these findings. In chapter four, we conduct multivariate analyses to further test the relationship between the economic crisis and various aspects of reproductive health. We also provide a summary of this chapter and provide policy recommendations that derive from only these analyses.

### **The economic crisis**

Since July of 1997 when the Thai baht devalued considerably, the country has been experiencing an economic downturn, which has been termed an economic crisis. Although recent improvements in the economy have taken place, unemployment has still not greatly changed (Far Eastern Economic Review, 1999:3; Bunyamanee, 1999:3). A variety of factors contributed to the crisis including careless lending and borrowing, fixed exchange rates that created the perception of limited risk, and financial liberalization without corresponding regulatory control (see for example Lauridsen, 1998 and/or Wade, 1998 for further discussion). A crisis of this magnitude, by negatively affecting families' incomes, could affect demand for health services. Furthermore, the ability of Thailand's government to fund health services may have also been negatively affected by the crisis. Overall, an economic downturn can affect both the demand and supply side of health services. Individuals may have their purchasing power limited, and governments may be forced to cut social programs and lack funds to enact compensatory programs.

In terms of the effect on individuals in Thailand, the crisis has contributed to an increase in the number of poor by 22.3 percent or 1.5 million (Kakwani and Pothong, 1998). The overall standard of living of Thais defined as per capita real income has also declined, by 19.2 percent in the first quarter of 1998 and 24.8 percent in the third quarter (Kakwani and Pothong, 1998:3-4).

The deterioration of labor market conditions within the country has contributed to this decline in the per capita income. In February of 1998, a little more than 6 months after devaluation occurred, there were a total of 1.5 million unemployed or 4.6 percent of the 1998 labor force, nearly double that of the year before (National Statistics Office, 1998a). The difference between years, in fact, increases when comparing August unemployment levels of both years (National Statistics Office, 1997a; National Statistics Office, 1998b), which is typically a period of high employment due to the agricultural season. Focusing on unemployment alone, however, underestimates the effect of the crisis as a large contribution of the negative effects comes from underemployment<sup>1</sup>. For example, in municipal areas, in the beginning of the crisis, many

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<sup>1</sup>Underemployment is defined as shorter working hours and accompanying reduced wages.

industries reduced their employees' hours rather than lay them off in response to the crisis, and these effects were not limited to the municipal areas. Workers in villages and sanitary districts<sup>2</sup> also experienced reduced hourly earnings (Kakwani and Pothong, 1998:5).

Furthermore, considering unemployment rates alone does not fully reveal the effects on the standard of living because of the large number of self-employed that have lost income since the crisis but do not count themselves as underemployed or unemployed. Roughly 20 million people in Thailand are self-employed, either in their own businesses or within the agricultural sector (Kakwani and Pothong, 1998:6). Many of these self-employed individuals have experienced a loss in income but since they do not consider themselves unemployed, they are not included in the unemployment statistics<sup>3</sup> gathered by the government. To further complicate the situation, some who have lost their jobs or have experienced reduced hours may have entered the ranks of the self-employed to substitute or supplement their income (Chomthongdi, 1998). In fact self-employment is encouraged by the government as seen on TV commercials in Bangkok that show laid off construction workers finding satisfaction and presumably earning a living by selling noodles and other types of food in street stalls. A Bangkok Post news article hypothesized that there has been a sudden increase in noodle stands and that this increased competition was leading to decreased earnings for individual businesses (Ngarmkham and Chavanabenjawuth, 1999). This hypothesized increase in self-employed individuals may be explained by the fact that in Thailand there are limited unemployment benefits and other social safety nets.

### **Social services**

A loss of income for many individuals coupled with currency devaluation may have affected the ability of many Thais to pay for social services. Early in the crisis, government officials and academics (Boonyoen et al., 1998; Siamwalla and Sobchokchai, 1998), the international community (International Labour Organization, 1998:21; Juntopas, 1998; Robb, 1998; Atinc and Walton, 1998) and NGOs (Chaovilai, 1998; Chomthongdi, 1998) all stated that the crisis in Thailand was likely to affect or was already negatively affecting the general population and many highlighted the effects on the poor. While it is likely that individuals have been affected by the crisis, the extent, range and distribution of its effects are still largely undetermined.

Several of these studies examined changes in governmental budgetary allocations and concluded that as a consequence certain areas would subsequently be negatively affected. They did not, however, examine the actual individuals or areas in which the effect would take place (Boonyoen et al., 1998; Chomthongdi, 1998; Juntopas, 1998). Others examined the experiences of a few individuals, families, communities and organizations through in-depth interviews and/or focus groups (Robb, 1998, Chaovilai, 1998; Chomthongdi, 1998). These reports are largely based on perceived impact or on a very small sample size. This type of data is beneficial for generating hypotheses for possible effect but these hypotheses then need to be systematically examined to fully understand the possible relationships.

This study examines the crisis with different types of data to more fully understand the possible effects for all Thais. We use open-ended structured interviews with government officials to understand the supply of health services, and structured interviews with individual women regarding their own health and utilization of health services. The quantitative aspect of this study provides needed analyses of the effects of the crisis on the users of social services using representative survey data of targeted areas.

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<sup>2</sup> A sanitary district is a district with the population of at least 5,000 persons.

<sup>3</sup> Statistics are gathered by individual interviews.

In addition, very few studies have examined the impact of the crisis on reproductive health, or its service provision and use. Therefore this study provides needed research in this area.

### **Background reproductive health**

The concept of reproductive health arose partly in response to women's health advocates voicing their concerns about the implementation of aspects of primary health care (PHC), specifically family planning and maternal and child care. They argued that many programs were focused more on achieving targets rather than treating individuals. These criticisms, generally, coincided with observations that the distribution of contraceptives alone would not lead to further reductions in fertility and that there was a need for improvements in quality of care to ensure continued contraceptive use (Jain, 1992).

The term, reproductive health, took on greater meaning following the International Conference for Population and Development (ICPD) held in Cairo in 1994. After ICPD, the world agreed that reproductive health included the idea that people should be able to have a satisfying and safe sex life and that they should have the capability to reproduce and the freedom not to if they desired. As a consequence of this broad statement, reproductive health programs worldwide are now attempting to ensure that both men and women are informed and have access to safe, effective, affordable, and acceptable methods of family planning and other reproductive services of their choice (Alcala, 1994).

It is important to understand how the crisis is affecting Thailand's ability to integrate aspects of the International Conference on Population and Development's *Programme of Action*. Since the ICPD in 1994, Thailand has changed its population policy from an emphasis on achieving demographic targets for reduced population growth to a focus on improving the reproductive health of its citizens (Economic and Social Commission for Asia and the Pacific, 1998:4). It has adopted the *Programme of Action* and begun to integrate certain aspects of it in its Eighth National Economic and Social Development Plan (1997-2001). It uses the ICPD definition for reproductive health in its policy and programmatic formation. It emphasizes that all Thai people, both men and women of all ages, must have a healthy reproductive life and access to reproductive health services, both preventive and curative care.

In this study, we followed Thailand's Ministry of Public Health's definition of reproductive health. The Ministry states that reproductive health consists of ten components, some of which are provided by different departments within the Ministry of Health. These areas include 1) family planning provision, 2) maternal and child health care provision, 3) prevention and treatment of infertility, 4) prevention and treatment of abortion complications, 5) prevention and treatment of STDs 6) the prevention and treatment of HIV/AIDS, 7) promotion and provision of sex education, 8) prevention and treatment of reproductive tract malignancies, 9) information and services for adolescent reproductive health care<sup>4</sup> and 10) services for post-reproductive age health and old age populations. Consequently, we explore neither the effect of the crisis on reproductive rights nor issues related to domestic violence, which comprise additional aspects of the ICPD recommendations in the *Programme of Action*.

The actual implementation of reproductive health care can require considerable change in health care systems. The amount of change, though, varies depending on the current level of quality and coordination between health services. To facilitate the effective delivery of reproductive health

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<sup>4</sup> The government of Thailand defines adolescents as people from age 13 through 25 years of age.

services, health officials typically must strengthen coordination, whether through linkage or integration, and provide additional services, by adding new ones or diversifying existing ones (Tsui, Wasserheit and Haaga, 1997:147).

As a result of the time, money and skilled professionals needed for an effective reproductive health program, the current economic conditions may have affected the Thai government's ability to address the new challenges associated with implementing an effective reproductive health program. It is possible that services have been negatively affected or that the process of integration or linkage has been stalled.

### **Provision of reproductive health services**

#### Administrative structure of Thailand's public health system (see appendix A)

Thailand's reproductive health program is sponsored and financed by the central government through the Ministry of Public Health and implemented by the provincial and municipal offices. Appendix A depicts the administrative structure of the Ministry of Public Health. Policies and technical assistance for reproductive health programs in Thailand are addressed mainly through two departments, the Department of Health and the Department of Communicable Disease Control, within the Ministry of Public Health. The provincial health office supervises all health care services within the province, at the provincial and district hospitals, the district health office and the subdistrict health centers. Every province has a government provincial office of the Ministry of Public Health and a general hospital but not all districts have a community hospital. The district health officers supervise all of the health service centers within the district. Neither the provincial or district health offices actually provide services. The health centers in the provincial municipality are administered by the provincial municipalities rather than the provincial health office but they work closely with the Ministry of Public Health. They generally provide only counseling services, focusing on prevention.

Health Care Services in Bangkok are provided through the Bangkok Metropolitan Administration (BMA) hospitals and health service centers. The BMA has a separate administrative structure of health provision from the MOPH, similar to that of the provincial offices. Although the administration of the BMA is autonomous, it generally follows the health policies of the MOPH.

#### Provision of services

Since 1970, when Thailand officially adopted a population policy supporting family planning, family planning services improved significantly and the annual population growth rate decreased from over 3% to 1.2% (Ministry of Public Health, 1997a). The total fertility rate was estimated to be at 2.0 in 1997 (Chamrathirong et al., 1997). Fertility differentials, however, continue to exist between regions. The total fertility rate is below replacement in the northern (1.894) and central (1.664) regions excluding the Bangkok Metropolitan Area, which is 1.26. Higher fertility rates are present in the northeast (2.435) and the south (2.85) (National Statistics Office, 1997d).

The level of contraceptive use in Thailand has increased sharply over the past three decades from about 14% in the mid 1960s to approximately 72% in 1997 (Chamrathirong, 1997). This rapid increase in contraceptive use has played a major role in reducing the fertility level and population growth rate in Thailand.

The government has played a major role achieving a high contraceptive prevalence rate, subsidizing three fourths of family planning services. State supported programs have also aimed at narrowing income and economic status differentials in fertility and contraceptive use

(Economic and Social Commission for Asia and the Pacific, 1998b). Table 1 clarifies the role of government in the provision of contraceptives according to type of contraception. Both in 1987 and 1997, the public sector provided the majority of contraceptives. There is, however, a trend toward the private provision of certain contraceptives, particularly the pill and injection.

**Table 1:** Percentage of contraceptives provided by government and private sources by method for 1987 and 1997

Source		Pill	Condom	Injection	IUD	Female sterilization	Male sterilization	Total all methods
1987 DHS	Government	70.0	49.7	85.1	94.9	91.2	65.8	81.9
	Private	28.0	45.6	12.8	3.3	8.1	17.0	15.3
1997 CPS	Government	51.4	52.0	69.1	92.1	91.6	81.3	75.3
	Private	37.6	48.0	31.0	7.9	8.4	18.7	24.7

Source:<sup>5</sup> Chamratrithirong, Apichat, Pramote Prasartkul, Vorachai Tongthai, and Philip Guest. 1997. *National Contraceptive Prevalence Survey, 1996*. June, (in Thai), Nakhon Pathom: Institute for Population and Social Research, Mahidol University and Chayovan, Napaporn, John Knodel and Peerasit Kamnuansilpa. 1987. *Demographic and Health Survey*. Bangkok: Institute of Population Studies, Chulalongkorn University.

Since the government is still the primary supplier of almost all types of contraception, it is important to understand the potential effect of budget cuts on the public sector's provision of this aspect of reproductive health.

### **Governmental expenditures**

The Ministry of Public Health budget in 1998 was 7.5 percent of the total government budget. The Ministry of Public Health had been increasing its share of the government budget before the crisis. In 1992, the government allocated 5.36 percent of the budget to the Ministry of Public Health whereas in 1996 the Ministry received 6.7% of the total government's budget. In 1997, however the government allocated the Ministry of Public Health only 5.4 percent of the budget. The total government budget was reduced 12 percent from 1997 to 1998 presumably as a result of the economic crisis. The percent of the budget that the Ministry of Public Health received however was actually more than before at a little more than 7 percent in 1998 and 1999.

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<sup>5</sup> The percentages shown by method at the national level for the CPS study are derived from figures published in the report. The report provided percentages at the regional level not the national level.

**Table 2:** Ministry of Public Health budget by year in millions (baht) and Ministry of Public Health budget as a percent of the total governmental budget.

	1994	1995	1996	1997	1998	1999	2000
MOPH budget	39,318	45,102	56,236	66,544	62,625	57,141	58,426
Total government budget	625,000	715,000	843,200	944,000	830,000	825,000	860,000
Percent of total budget	6.3%	6.6%	6.7%	5.4%	7.5%	7.3%	6.8%

Source: Figures from the Ministry of Public Health annual calendar.

The percent change in the budget of the Ministry of Public Health shows that between 1997 and 1998 (when the crisis first began) the actual amount of money decreased 5.9%, not adjusting for inflation. The budget between 1998 and 1999 continued to decline by 8.7 percent.

**Table 3:** Percent change in Ministry of Public Health budget

	94-95	95-96	96-97	97-98	98-99	99-00
Percent change	+14.7%	+24.7%	+18.3%	-5.9%	-8.7%	+2.3%

Broad level financial changes have implications for the financing of specific programs. Early in the crisis, reports stated that as a result of the economic crisis a temporary decrease in revenues accessible to the government may lead to the elimination or suspension of a limited number of social programs (ILO, 1998; Boonyoen, 1998). We will examine if any changes have taken place through our interviews with providers and administrators. Thus far, information is scant regarding knowledge of the impact of budget cuts on reproductive health care services. It is important to understand the government's challenges and constraints to reproductive health services while attempting to maintain or improve its quality of care, particularly within an environment of limited budgets as a result of the economic crisis.

### Objectives of the study

This study aims to understand the effect of the economic crisis on reproductive health service provision and use. Specifically it attempts to answer the following questions:

1. Have there been any changes in the reproductive health policies and programs since the crisis?
2. Has the crisis affected providers' and administrators' perspectives regarding the feasibility of implementing the *Programme of Action*?
3. What is the current situation of reproductive health service provision?
4. Have the determinants of quality of care been affected by the crisis e.g. training, number of health personnel, and the availability of affordable medicines and contraceptives.
5. Has access to reproductive health services been affected?
6. What is the reproductive health situation of the women in general and what is the impact of the crisis?
7. To draw policy implications from this study.

The first five questions will be explored in the qualitative analysis of this study. The 5<sup>th</sup> and 6<sup>th</sup> objectives will be examined in the quantitative aspect of this study. We address the 7<sup>th</sup> objective with bullet points in the summaries of chapter two, three and four using the findings from both qualitative and quantitative data.

### Research methodology and sample

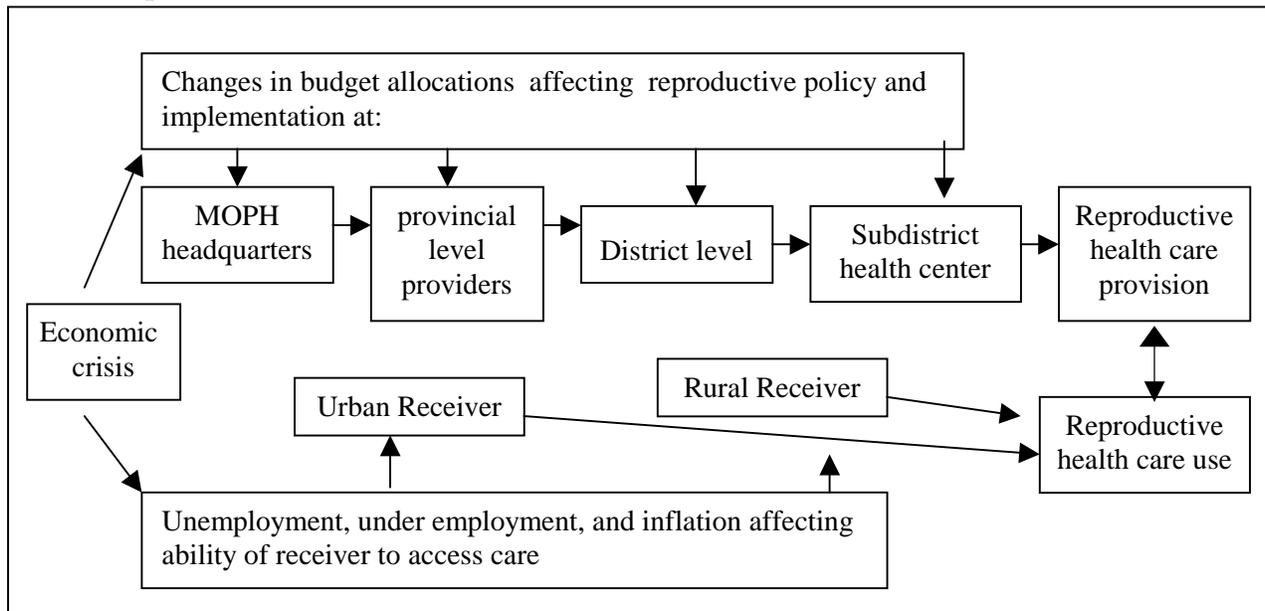
In this study, we conducted a two-stage data collection design. In the first stage, we collected information from providers and administrators in charge of reproductive health policy and programs. In the second stage, we interviewed currently married women aged 15-39 in the same selected areas using a structured questionnaire.

Sample provinces were purposively selected. We selected two provinces and Bangkok for the study: Sri Saket from the Northeast region and Ang Tong from the Central region. We included a sample province from the Northeast region due to its continued above average fertility levels relative to the national average, a sample province in the central region because of its below average fertility levels, and Bangkok due to its low fertility. We believed each area to be experiencing effects from the crisis. A comparison of reproductive health provision between these areas using the qualitative data will allow for analysis of any differences in the administration of health provision between the two provinces. Bangkok, which is in the central region, is included in the study as it is by far the largest city in Thailand and the most important economically. Public and private expenditures in the city have plausibly been greatly affected by the crisis.

Within each of the provinces, we collected information from both rural and urban areas from both providers and the users of reproductive health care. This research design allows for the examination of differential effects of the crisis on rural vs. urban areas. We conducted interviews within the primary municipal areas in the chosen provinces. To determine in which rural areas we would interview, we randomly selected two districts within each province and then two villages within each selected district. In the qualitative analysis, we note some differences by province. In the quantitative analysis, we focus on urban vs. rural differences.

We interviewed providers in the same areas where we interviewed the users of reproductive health care. The design of this study as shown in Figure 1 enabled us not only to determine provincial level implementation but also to determine the implementation at the local level (i.e. the sub-district health center).

**Figure 1:** Design of study on the effects of the economic crisis on reproductive health care service provision and use in Thailand



### **Qualitative data collection**

The data for this analysis are derived from open-ended structured interviews with providers and administrators of Thailand's reproductive health policy at the Ministry level, the provincial, district and sub-district level. We conducted the interviews based on a prepared guideline. These data allow for an understanding of both national level policies managed within different departments of the Ministry of Public Health (MOPH) and their implementation down to the smallest health center. With these interviews, we will examine where and to what extent the crisis is affecting reproductive health provision for all age groups and for both men and women in Thailand.

Researchers interviewed representatives of the two departments responsible for policies and technical assistance of reproductive health programs in Thailand, the Department of Health and the Department of Communicable Disease Control, within the Ministry of Public Health. At the provincial level, we interviewed the chief of the provincial health office, the director of the provincial hospital, the chiefs of each of the district health offices, the directors of each of the community hospitals, and the health workers at each of the four sub-district health centers of the study provinces.

We interviewed administrators at the Department of Medical Services and the Department of Health of the Bangkok Metropolitan Administration (BMA). We also interviewed the directors of the Community Health Service Centers of the selected communities in Bangkok in which we interviewed women in their reproductive ages.

We also gathered secondary data from the facilities providing services to examine the three year trends in utilization of the different services available at each facility.

### Guidelines

We developed the guidelines for the provider interviews with an aim to collect both factual and attitudinal information on reproductive health policies and programs and the possible impact of the economic crisis. The guidelines for the administrators and service providers revolved around issues pertaining to: 1) knowledge of reproductive health and policy 2) types of services offered and if there was any change from three years ago, 3) budgetary changes, 4) involvement in health insurance schemes, and 5) their views of any impact from the crisis on service provision.

### Fieldwork

Interviews of reproductive health service administrators and providers took place between November 1998 to May 1999. The list of the provider interviews is attached in Appendix B. The researchers conducted a total of 26 provider interviews, 6 in Bangkok, 10 in Ang Tong and 10 in Sri Saket.

### Analysis

When analyzing the qualitative data, we looked for similarities, differences and gaps between policy and implementation. We examined the providers' perspectives of the policies and the actual implementation of these policies at all levels of administration. We compared the comments by the respondents at the policy level within the Ministry of Public Health to the perspectives of the providers at the provincial, district and sub-district level to determine where differences existed. Understanding the perspective of the providers and policy makers provides a useful framework from which to interpret the responses of receivers about the accessibility of health care provision and its quality of service.

We had each of the interviews transcribed to facilitate analysis of the qualitative data. We referred to our notes during the actual interviews and reread the transcripts to facilitate identifying common themes. We then constructed three grids, one for each province, with the themes on one axis and the individual respondents on the other. We inserted comments and page numbers within the cells to aid in the analysis and in identifying exemplary quotes.

When describing the findings, we have attempted to portray both the predominant opinions/experiences of an issue and the diversity of views expressed when consensus is lacking. We have not quantified the findings beyond characterizing how common a particular view is.

Quotations from the comments are included in the analysis to illustrate specific points. We have identified each quotation by the level of administrative structure and location from which it is drawn. Sometimes we have extracted excerpts from within a longer discussion, omitting the intervening sentences for the sake of brevity.

### Limitations

1. Although we included many factual questions, the responses that we received are by and large subjective. They are based on the views of the respondents. They thus may differ from statistical findings.
2. The problems that we encountered during the provider interviews have bearing on the reliability of the information obtained. We used the guidelines as a framework but in several cases we modified our questions according to the interest and the ability of the respondents to answer our questions. In some cases, we felt that the respondents were reluctant to provide direct and honest answers, in light of the questions raised during the period just preceding the interviews regarding the Ministry's purchasing of drugs. Respondents, particularly at the provincial level, were very careful in answering questions regarding their annual budget and available medical supplies.
3. The MOPH practice of transferring their personnel further created problems in obtaining reliable information. We attempted to interview providers and policy makers that had been at their present position for at least three years. There were a few respondents, however, who had been working in their present position for less than a year. Consequently, they could not provide retrospective information and were unable to compare the present situation with that of the situation three years ago. In these instances, we interviewed the provider with his/her subordinates, which included administrators, nurses and/or doctors, who had knowledge of the history of activities and budget allocations at that particular health facility.
4. Our analysis is also tempered by the fact that at all levels there is variation in implementing the reproductive health programs. Therefore it is difficult to compare between provinces regarding differences in reproductive health.
5. We discovered problems with the secondary data, regarding the number of clients that visited the various health facilities interviewed. We had hoped that an examination of this secondary source would allow for an understanding of whether the number of clients accessing various reproductive health services had declined from 1996 to 1998. Collection of these time series statistics, however, was almost impossible. Although respondents claimed to have a standard form for statistical reporting, we found that the type of

statistics presented in the annual report varied from year to year. Moreover, many of the facilities had a different way of reporting their statistics.

In addition to the above-mentioned problems, in most cases, the facilities reported only the numerators (for example, number of patients, pill users and health cards sold). They did not know the number of possible patients, pill users and eligible health card owners, the denominators. We found that the secondary data was not comparable across the different sites because the base populations were not known and the method of reporting statistics varied. Thus it is virtually impossible to detect changes in actual use from these statistics.

### Quantitative data collection

We originally planned on a sample size of 400 reproductive health users. To increase the confidence of the results, we later expanded the sample size to about 600 women. Of these 600 women, 300 come from rural areas of Ang Tong and Sri Saket (4 villages each) and 300 come from low income communities in the municipal areas of the selected provinces and Bangkok. Sample areas and the actual number of women interviewed are shown in Table 4.

**Table 4:** Sample areas of ECORH

Sample areas	Number of households visited	Number of households with eligible women	Number. of women interviewed
<b>Bangkok</b>			
Romklao community	144	97	78
Bang Kaen community	262	115	77
<b>Ang Tong</b>			
Municipal area	188	88	74
<b>Chaiyo district</b>			
Village no. 5, Chaiyaphom + no. 4 and 7	136	44	36
Village no. 6 Chaiyaphom + no. 2 and 8	138	53	37
<b>Photong district</b>			
Village no. 4 Bau-rae + no. 3	117	50	40
Village no. 2 Bau-rae + no. 1	86	45	39
<b>Sri Saket</b>			
Municipal area	174	82	74
<b>Noankoon district</b>			
Village no. 1, Laokuang	73	48	44
Village no.2, Laokuang + no. 8	62	41	39
<b>Yang- choom-noi district</b>			
Village no. 9, Koankaam + no. 3	72	55	42
Village no. 11, Koankaam	63	47	40
<b>Total</b>	<b>1515</b>	<b>765</b>	<b>620</b>

We expected to select about 40 eligible women for an interview from each selected site (village/community). It turned out, however, that there were not enough eligible women in each of the selected villages. Therefore, we had to expand the sample areas/ boundaries to include

nearby villages. Table 4 includes the additional extension villages, which are identified by their assigned number, with the originally selected villages.

### Questionnaire

The questionnaire was divided into four sections: A) background of the respondent and of her husband primarily focusing on their economic situation, B) maternal and child health with a focus on last birth and current pregnancy, C) reproductive health status and behavior, and D) knowledge, experience and attitudes of the economic crisis.

### Fieldwork

We conducted the field survey for the quantitative aspect of the study from April 20-May 10, 1999. Interviewers were undergraduate students from Chulalongkorn University. Out of 1,515 households visited, 765 households had at least one eligible woman, defined as currently married, and aged 15-39 years old. In households with more than one eligible woman, only one was selected for the interview using the random number table. A total of 625 currently married women were interviewed. Five women were older than 39 years of age and thus we subsequently excluded them from the study. The total response rate was 81.0 percent. Very few women actually refused an interview. More women did not participate in the study because they were not found at home during the times that we visited their homes. In addition to interviewing during the day, we interviewed women at night, on the weekends and on holidays in an attempt to interview women who worked. It is possible, however, that some of the women that we were not able to interview, were not available because they had high labor force participation.

Of these 620 women, 317 live in rural areas and have access to the sub-district health centers where we interviewed the providers. Between two and six villages per subdistrict health clinic were included in the sample, depending upon the availability of eligible women in the villages. The interviewers gathered data in a total of 16 villages, 10 in Ang Tong and 6 in Sri Saket.

The study also includes interviews with 303 women living in an urban environment. We interviewed seventy-four women from each of the municipal areas in the two provinces in the study and an additional 155 urban women living in Bangkok. Within these urban centers, the women interviewed were from low-income communities to best assess the impact of the crisis on the poor.

Household roster interviews took an average of four and a half minutes, whereas the individual interviews with each woman took an average of 53 minutes. The household roster interviews took the longest time in Sri Saket, slightly over 5 minutes, and the shortest time in Bangkok, slightly over 4 minutes. The individual interviews averaged the longest in Bangkok just over 60 minutes and the shortest in Ang Tong at 46 minutes.

### Focus on married women

Although it is important to understand the reproductive health needs and behavior of men in Thailand, due to our small sample size and several factors discussed below, the study on reproductive health concentrated on the reproductive health and service utilization of only women. First, most of the components of reproductive health refer largely to women. Therefore confining the sample to women enabled us to determine effects on most aspects of reproductive health. Secondly, Thai women appear to have poorer health than men do (Fuller et al, 1993: 259), and visit health centers with greater regularity. Therefore this study was more likely to find a greater number of women actually experiencing the various reproductive health situations in the questionnaire and visiting the health centers with greater regularity. In addition although

men are generally involved in decision-making regarding reproductive health decisions, a recent study found that women in Thailand appear to have significant control over their reproductive goals and their acquisition of reproductive health care (Chayovan, Wongsith and Ruffolo, 1995:75). Therefore, interviewing women alone about their goals and acquisition of reproductive health care promised to get valid findings. Lastly, although the current reproductive health policy espouses greater involvement of men in family planning and reproductive health, most programs remain largely female-focused.

The study included interviews with only married women in their reproductive ages because of the limited sample size. These women are more likely to be using contraception and visiting health centers for maternal and child health care needs. Therefore, the 620 cases of eligible women will provide a greater likelihood of achieving a large enough sample for analysis of selected reproductive health issues namely the first 2 components of the Ministry of Public Health's definition of reproductive health: 1) family planning provision, and 2) maternal and child health care provision. We explore the effects on other components of reproductive health in the qualitative interviews with providers and policy makers of reproductive health care.

#### Limitations of the quantitative study

1. With the sample limited to married women aged 15-39, we will not be able to examine the effects of the crisis on the health status and health behavior of unmarried women, young adolescents, the elderly, or men from their perspective. Our interviews with the providers and policymakers include questions referring to these groups.
2. In section C of the questionnaire a few questions refer to other components of the reproductive health policy than family planning and maternal and child health. These include infertility, abortion, STDs and HIV/AIDS, and reproductive tract malignancies. As these areas are not that common, the sample of receivers may not be large enough to include sufficient respondents that have experienced a need for these services. The sensitivity of these questions may also bias the results downward.
3. The sample in the urban centers includes individuals with varying levels of income ranging from 1,000 to 50,000+ baht/month. As we targeted low income communities, the sample of individuals who would be classified as middle class is small. Thus these data will likely miss effects based on class differences. They should also not be thought of as representative of the municipal areas but instead of the low-income areas within these municipal areas.
4. The questionnaire included many retrospective questions. Most of these questions were factual, revolving around understanding the respondents' economic situation within a one-year time frame compared to their situation three years ago. Retrospective questions were also asked regarding their use of reproductive health care services and the respondent's understanding of their physical and mental health status. Many of these questions are subject to recall bias, as the survey is not part of a panel study but of a one-time survey design. Even with the threat of recall bias, however, these data are useful as they provide an understanding of current perceptions of changing health care provision and use from the point of view of the receivers of health care.
5. Our ability to determine if the current economic downturn has had any effect on well-being is tempered by the fact that the downturn only recently took place in 1997. We

therefore can only examine short-term effects of the crisis on individual well-being and the services that they might access. We can not examine long-term effects as not enough time has passed. Moreover, changes we do find could be attributable to lagged effects from other events rather than due to immediate changes in the socio-political and economic environment.

## **Chapter Two: Interviews with Health Care Providers**

We have organized the analysis of the qualitative data into five general categories to best address the objectives of the study. The five general categories include: 1) knowledge of reproductive health and reproductive health policies; 2) provision of reproductive health services; 3) budgetary changes; 4) impact on the determinants of quality of care including medical supplies, training and medical staff, and; 5) access to services including an examination of Thailand's health care safety nets.

### **Knowledge of reproductive health and the reproductive health policy**

To assess the policy and reproductive health programs in Thailand, it is important to first understand the extent to which the meaning of reproductive health has been understood and internalized (Hardee et al., 1998). In the present study, interviews with policy-makers, program administrators and health care staff provide information regarding the extent to which providers and administrators within the Ministry of Public Health's infrastructure understand the term reproductive health and the Ministry's reproductive health policy.

We first asked respondents about their knowledge of the concept of reproductive health, in general, as it is a relatively new concept. To effectively implement the reproductive health policy, we presume that the different facets of the Ministry's administration must fully understand the concept of reproductive health.

Respondents varied in their knowledge of reproductive health. Those at the Ministry level had greater knowledge than respondents at the provincial level. Within the provincial level, those at the lower levels of service provision had less knowledge than those at the upper levels. As expected respondents at the Ministry of Public Health's headquarters had a thorough understanding of the concept of reproductive health as defined by the Ministry and how it was to be implemented.

Ministry of Public Health central office: "Reproductive health is not a separate service. It is integrated in several departments within the Ministry including: the Bureau of Health Promotion, the Communicable Disease Control Department and the AIDS Division."

A few respondents in the provincial areas had extensive knowledge of the term. Overall, however, providers and administrators generally stated that they had heard of the term but most did not know specifically what the term entailed.

Community hospital, Sri Saket

Moderator: "Have you ever heard of reproductive health?"

Respondent A: "Reproductive health refers to the reproductive period and health means health. Therefore reproductive health is the health of people in their reproductive ages, isn't it?"

Respondent B: "I've heard of reproductive health. It means to take care of yourself, your body."

The lowest levels of service provision were the least likely to know the term.

Health Center, Sri Saket

Moderator: "Have you ever heard of reproductive health?"

Respondent A: "Yes, but I don't quite understand it.

Respondent B: "I have never heard of it."

Municipal Health Center, Bangkok: "I think reproductive health covers the period before marriage. One should have knowledge about this before one gets married because one has to know how to take care of one's family and children."

When we probed those who said they knew about the term to ascertain more specifically what the respondents understood the term to mean, very few knew about the ten components of reproductive health. Overall they tended to mention family planning and maternal and child health care including antenatal care as components of reproductive health. A few also included the prevention and treatment of STDs and HIV/AIDS/AIDS as reproductive health components. Even fewer, however, mentioned the other areas of reproductive health which include: 1) prevention and treatment of infertility, 2) prevention and treatment of abortion complications, 3) promotion and provision of sex education, 4) prevention and treatment of reproductive tract malignancies 5) information and services for adolescent reproductive health care, and 6) services of post-reproductive health age and old age population.

In our sample, we interviewed one hospital where the providers and administrators had a thorough understanding of the concept of reproductive health. This hospital, however, we believe to be a special case because it is involved in a pilot project with the Ministry of Public Health and a nongovernmental organization. The hospital, which is located in Bangkok, serves as a model for the implementation of the reproductive health policy. The hospital was actively linking all reproductive health services, except the provision of sex education, to their present maternal and child health program. Sex education is largely the responsibility of the Ministry of Education.

Ministry of Public Health Central office: "We don't have a clear implementation guideline for sex education. The Ministry of Education has the responsibility of inserting what topics into which subject and when. We only provide them with information to support their activities.

#### The reproductive health policy and scope of work

We also found that many respondents were not familiar with the Ministry's reproductive health policy at various levels of health provision. The Thai policy states that "all Thai people, both men and women of all ages, must have a healthy reproductive life and access to reproductive health services, both preventive and curative care" (Ministry of Public Health, 1997:20). The Ministry of Public Health (MOPH) announced its reproductive health policy after receiving recommendations from the family health division and the support of the health promotion division in 1997.

District Hospital, Sri Saket

Moderator: "Has the hospital received any information regarding the Ministry of Public Health's reproductive health policy?"

Respondent: "I've never heard of it"

Health Center, Sri Saket

Moderator: "Have you ever heard of the Ministry of Public Health's reproductive health policy?"

Respondent A: No I've never heard of it.

Respondent B: I've read about reproductive health from a book, but I don't know about the policy."

We found that even at the central office, respondents felt that the scope of work to implement the policy was still not clearly understood or perhaps thought out. Thailand's provision of reproductive health is primarily integrated but the different departments in the policy arena that also provide technical assistance and supplies are not linked. Respondents stated that the division of work within the Ministry was an obstacle to fully coordinate efforts to implement the reproductive health policy. The implementation of reproductive health requires the coordination of many different divisions within the MOPH; respondents felt that it was unclear how the different departments would cooperate. For example, the technical assistance, policy development and provision of condoms for STDs and HIV/AIDS are the responsibility of the Department of Communicable Diseases. Policy development and technical assistance and supplies for family planning and MCH are under the department of Health Promotion and the provision of sex education is seen as the primary responsibility of the Ministry of Education.

Coordination can ensure that reproductive health programs whether integrated or linked are cost-effective and of good quality. For example where the provision of contraceptives is integrated with MCH facilities, providers may capitalize on service capacity by providing a client contraceptives and by treating that same client's reproductive tract infections. The changes in reproductive health services, typically needed in a country to improve overall reproductive health, require both resources and skilled management. In Thailand, in addition to having some coordination problems, some respondents, particularly within the provinces cited the lack of monetary resources as a deterrent to effectively carry out the reproductive health policy.

### **Provision of reproductive health services**

Although many respondents were not clear as to the meaning of reproductive health, many were providing reproductive health services. We asked specifically about the provision of each of the ten components of reproductive health to ascertain the extent of reproductive health provision and whether or not the provision of services had been affected by the crisis. All of the facilities stated that they were providing the same services as before the crisis.

#### Family planning

All of the facilities either provided access to family planning methods or referred individuals to facilities to receive their desired method. The hospitals were the most well-equipped to provide access to every family planning method, whether at the provincial or the community level. The most common methods of family planning provided were the pill and depo-provera. Different facilities encouraged the use of different methods, however.

Community hospital, Sri Saket: "We emphasize two methods --Norplant and IUD--because the supplies of these two methods are fully supported. We receive only 50 packs of pills per month."

The facilities stated that their contraceptive prevalence rate was as high as 87 percent and had remained at this level over the past three years. We further examine the availability of

contraceptive methods since the crisis in the section regarding the impact of the crisis on the determinants of quality of care.

#### Maternal and child health

Health facilities of all levels provide prenatal care and encourage breastfeeding. Most hospitals and health centers visited reported that they were involved in the mother and baby bond program, which specifically encouraged breastfeeding immediately after the baby is delivered. This participation had not changed with the occurrence of the crisis. In addition every hospital and health center that we interviewed provides home visits to provide follow-up care to new mothers.

#### Infertility and services of post-reproductive health age and old age population.

Some of the hospitals that we interviewed, particularly at the provincial level, provide consultation on infertility and menopausal problems. Other levels of service provision cannot provide these services and thus refer the women who come seeking such care to the appropriate hospitals. One hospital stated that they had reorganized their services and were now opening a menopausal clinic.

Community hospital, Sri Saket: “The hospital is starting a program on health for the working age group and it is also creating a menopausal clinic.

#### Sex education and information and services for adolescent reproductive health care

The promotion and provision of sex education was not readily available at any of the MOPH outlets in which we interviewed providers. They did, however, provide adolescents with contraception and counseling if the adolescent came to the health facility. Information and services for adolescents regarding reproductive health was not emphasized at any of the outlets in which we interviewed. Respondents stated that these two areas of reproductive health were generally carried out jointly with the Ministry of Education within the schools. It appears, therefore, that this area of reproductive health service provision is lacking at least at the government level.

#### STDs and HIV/AIDS

The policy states that hospitals and health centers are supposed to screen pregnant women for HIV/AIDS and to test for STDs. We found that some outlets screened pregnant women to determine if they had HIV/AIDS and they also tested for STDs. The local health centers, however, did not treat the STDs. These patients were referred to appropriate facilities. Outlets that did not have the capacity to screen, recommended that clients go to facilities that were able to provide screening. There were some hospitals in our sample that were not equipped to treat patients with STDs. In these cases, the patients were sent to hospitals that could provide the appropriate treatment. With all this referral, there are bound to be some individuals who are either not screened or do not receive appropriate treatment. Therefore, we recommend that the Ministry provide appropriate training for screening and STD treatment to the facilities that currently must refer their patients. There has been no change in these facilities, however, since the economic crisis began regarding the provision of screening for STDs and HIV/AIDS and the treatment of STDs.

### Reproductive tract malignancies

Most provincial and community hospitals in our study stated that they provided prevention and treatment for reproductive tract malignancies. The local health centers did not have the capacity to treat or prevent malignancies but they did conduct pap smears and sent the samples to a laboratory for results. Furthermore, if a patient complained of abnormal pain or discharge at the health center, the staff members referred the woman to a hospital to receive care. This system had not altered since the crisis.

### Treatment of abortion complications

Local health centers did not treat any clients with abortion complications and this had not changed over the last three years. They referred women to the appropriate hospitals for care. The providers stated that there were very few cases of this kind.

Overall, it appears that the crisis has had little to no effect on the type of services offered at the various facilities, regardless of province or level of service provision. Providers stated that there was no change in the programs that had been ongoing prior to the crisis. We, in fact, found that some facilities had even begun new programs since the crisis began. We also found that some facilities were not able to provide certain services, but this had been the case before the crisis.

### **Budgetary changes**

Most respondents reported that the budget of the present fiscal year (1999) for their office, by and large, remained the same as that of the 1998 fiscal year. The reported budget cut for the 1998 fiscal year in fact did not occur as the 20 percent cut was returned during the last two months of the fiscal year.

Community Hospital, Sri Saket: "It has often been said that the budget would be reduced, but it has never happened...."

For those who stated that the budget had in fact declined, they felt the decline would not affect services.

Ministry of Public Health central office: "The budget cuts will not pose a problem for service provision. In the past the Ministry has received more money than was needed. Therefore I see the budget cuts in a positive way. The Ministry will have to function more efficiently."

Some of the discrepancy amongst the respondents regarding whether or not the budget was cut can be explained by the fact that we interviewed providers and policy makers over an extended period of time. When we first interviewed providers, the budget for the Ministry of Public Health had been cut. When we interviewed individuals later during our fieldwork, the budget had largely been reinstated. When the Ministry initially cut the budget, respondents stated that the Ministry eliminated all allocations to infrastructure spending and training.

Municipal health centers receive their budget from the municipality rather than from the Ministry of Public Health directly. They receive supplies from the Ministry of Public Health. One respondent from a municipal center believed that although their budget in 1998 was not cut, they felt the municipality would reduce their budget in 1999.

Municipal health center, Sri Saket: “We set up the same budget as the previous year but expected that we would receive less than the 1998 fiscal year for every category. The budget for 1997 and 1998 was not much different but the budget for 1999 will definitely decline.”

Overall the budget was not cut but there was a delay in transferring the money to the lower levels. Some respondents stated that the delay in funds hindered their ability to provide services.

Community hospital, Sri Saket: “We have taken some austere measures. For example we used to give out 20-30 doses of medicine, now the number given out is less...”

Other facilities stated that the provision of services would not be affected because they had used their revolving funds to compensate for the fact that they had still not received their funds allocated to them by the Ministry of Public Health. The revolving funds ‘gong toon’ derive from fees for contraceptive supplies and other drugs as well as from donations. The top administrator at each facility oversees the management of these funds. The funds received from the Ministry of Public Health are targeted for specific uses whereas the revolving funds can be used in a variety of different ways.

District health center, Ang Tong: “...The quality of our service should remain the same because we can use our revolving funds if our budget is not adequate. Each health center has its own revolving fund. They are allowed to use the money to purchase medicines.”

Many respondents expressed their dismay at having to use the revolving funds to compensate for the lack of financial support from within the annual Ministry of Public Health budget. The revolving funds cannot be replenished from the annual budget. Without their revolving funds, the facilities lose some flexibility in their spending. Facilities can use the revolving funds to buy needed equipment or supplies that is not specified within the Ministry budget. Furthermore because when the Ministry funds did arrive they arrived late, the facilities had to spend their budgetary allocations from the Ministry of Public Health quickly and perhaps not in the most practical way for the facility.

Community hospital, Ang Tong:

Respondent A: “... Because the budget was late, we had to use money from elsewhere. For example in June, I had to spend money from the revolving fund, about 6-700,000 baht to repay the debt from previous medical purchases. In August, the money from the budget arrived but we had already paid our debt. ‘We cannot replenish the money from the budget into our revolving fund.’ This is the problem.”

Respondent B: “In my view, the return of money in the last two months before the budget year end should be kept/transferred to the next fiscal year when the expenses will be more systematic because it is not necessary to have the money and on the contrary it creates problems of spending the money.”

Two hospitals, one in each province, experienced an increase in outside donations to augment their revolving fund. This increase was largely due to the efforts of the individual administrators.

Provincial Hospital, Ang Tong:

Moderator: ...Have you experienced any shortage of supplies because of the budget crisis?”

Director: “No, we still have donation money?”

Moderator: Have you received more donation money than in the past?

Director: Yes, ...donation money is always increasing... We set the targets for donations at 80 million for the 1998 fiscal year. Half of the year has passed and we have already received more than last year's target of 72 million..."

Provincial hospital, Sri Saket: "Donation money increased slightly. I made a personal request from donors to buy medical equipment and supplies."

### **Impact on the determinants of the quality of health care service**

#### Shortage of family planning methods

Many respondents stated that they received medical supplies late in 1998 from the Ministry of Public Health, particularly the pill and depo-provera. One respondent stated that they had a shortage of Norplant, which was becoming a popular method.

Municipal health center, Sri Saket: "The impact was on the medical supplies. ... Hospitals began to restrict some medications because even some basic medicines are out of stock. We have a limited budget to buy medical supplies...."

Facilities encouraged clients to switch methods if the facility did not have the contraception that the client had previously been using. In cases where the clients did not wish to switch, they were told to go and buy contraceptives either at private health clinics or at pharmacies or to go to the hospital. In the case of depo-provera, if clients did buy their own at the pharmacy, they were instructed to return and the doctor would give them the injection.

District Health Office, Sri Saket: " Three years ago, the number of pill users was less. Now because of the shortage of supplies for depo-provera, more women are using the pill."

Health center, Sri Saket: " When we were out of the pill, injection or condom we told them (clients) to go to the hospital."

District hospital, Sri Saket: "The problem is that clients have to buy pills or depo-provera, which they used to receive for free. In fact, some clients have money to buy it, but when the price of pill increased, some would change from pill to depo-provera. This is because three packs of pill cost 60 baht while the injection for depo-provera cost only 10 baht (and it protects for 3 months). Sometimes they use Norplant because they pay 200 baht for 5 years of protection..... "

Some facilities used their revolving funds to ensure that they did not experience a stock outage.

District health office, Sri Saket: "... In terms of supply, last year, we had a shortage in depo-provera... We used our revolving fund to resolve the problem... The pill, in fact, never came at all in 1998... This year (1999) we are still short. ... The clients still use the pill, but they have to buy it from the drug store. ... We had the same problem with depo-provera. ...."

Municipal health center, Sri Saket: "For family planning we have the problem of supply, which we solved by using our own money (the municipal money).

### *Rationing medical supplies*

Instead of using their revolving fund, or the welfare budget some facilities rationed what they gave out. This method of rationing was used more readily for medicines rather than for contraceptives. For example, some facilities provided a shorter course of medicines. If the patients were still not cured they would return for treatment and receive another course. Some respondents felt that this method of rationing was probably reducing wastage. They felt that in the past some clients probably did not finish their course of medicine.

Health Center, Ang Tong: " We received a smaller budget. Before we used to give out 20 Tablets of paracetamol. Now we give only 10. Our patients complain that they get less."

One respondent felt that the limitation of supplies was a positive effect of the crisis. It would lead to a reduction in the overuse of services.

Ministry of Public Health central office: "Because supplies are less available or clients need to wait longer, the clients must adjust to these changes. They will no longer abuse the system. They will go less often.

Several respondents offered competing reasons for the shortage of medical supplies. One respondent stated that the shortage of pills was likely due to a change in the process of distributing medical supplies rather than budgetary constraints. Regarding the reduction of condoms available, a couple of respondents stated that the decrease in condoms was most likely due to a decrease in the demand for condoms rather than due to budgetary constraints. Within the AIDS budget, the budget for condoms was reduced by 5 percent in 1998. Pothisiri et al., 1998 stated that in 1995 and 1996, 60 million and 50.2 million condoms were distributed, whereas in 1997 and 1998, 11.2 and 10.1 million condoms were distributed (p.12). It is unclear where the information was derived for these figures but undoubtedly something else affected the fall other than just the budget reduction as they reported that the number fell almost 20 percent.

### *Increase cost of family planning methods*

Although since the crisis, the Ministry of Public Health instructed health facilities to charge for contraceptives, respondents felt that contraceptive prevalence was not affected. The charge for contraception varied depending on the type of contraception and the place of service. For example the pill ranged from 0-20 baht and depo-provera varied from 15-40 baht. Many contraceptive methods were still offered free of charge, especially condoms and the pill. Some hospitals even provided female sterilization and the IUD for free.

Provincial Health Office, Sri Saket: " In the past there was an official letter that instructed us not to charge (for contraceptive methods), every method was given out free of charge. But last year, there was a shortage of supplies in the middle of the year, then they told us to charge."

Municipal Health Center, Sri Saket: "...the hospital started to restrict some medicines and medical equipment. For example, we are short of some basic medicines and the budget to purchase these medicines is lacking or limited. Patients with health insurance or welfare used to be able to receive or be reimbursed for certain medicines. Now if the medicines are not on the Ministry of Public Health's list, the clients will have to pay. Even though they have the right, they will not get it freely."

District Hospital, Sri Saket:

Moderator: "Does the cost of the pill prevent them from using it?"

Respondent A: "If this (charge for family planning methods) continues it will be a problem. We told the women that if they don't have money they could consult us. If they really don't have the money we give them out for free."

### **Shortage of personnel or lack of training**

#### *Supply of health providers*

Overall, respondents stated that they experienced no change in the number of positions, but in some facilities there were shortages of staff due to hiring freezes. The government instituted a freeze on all hiring. Thus if there was a need for new employees there was no money to hire them. Furthermore, if facilities had vacant positions, they were not able to fill those positions until the following year.

Many places stated that they did not have enough providers but in some cases this may have happened even before the crisis.

District hospital, Sri Saket:

Moderator: "Are there any problems regarding the number of personnel? Is it sufficient?"

Respondent A: "No it is not sufficient. According to the manpower framework, there should be 44 nurses but we only have 24."

Respondent B: "The shortage of staff members makes it difficult for this office."

Municipal health center, Sri Saket:

Respondent A: "Well, we do not have enough people."

Respondent B: "According to the manpower framework, we are allotted 5 positions, but there are only 3 staff members here."

Respondent A: "...The problem we find is that we have too few workers. If there is a meeting or seminar in which staff will attend, we shall lack people to work and this will have an impact on the service in terms of health protection."

Several stated that if they needed new employees, they would not be able to hire any new staff because of the new hiring freeze.

Provincial hospital, Sri Saket: "... but the number of workers declined because if there is a vacancy, the position is withheld. This causes an insufficiency in manpower. There were three positions for nurses that have been eliminated. If personnel in other areas in this hospital resign or die the position will be scratched. This policy began in 1999."

#### *Shortage of staff with appropriate skills and its effect on quality*

Several stated that there was a shortage of gynecologists and obstetricians at some hospitals and a few mentioned there were no staff members to provide counseling. These shortages make it difficult to fully carry out a reproductive health program. It is possible, however, that these facilities did not have a sufficient number of providers before the crisis. Although the crisis may not have caused this situation, it likely is exacerbating it by eliminating the possibility of hiring new personnel, even at a part-time basis.

One respondent stated that the need for new staff members did not necessarily have to do with having too few staff members. Instead the problem is that staff members do not desire to work

undesirable shifts. They prefer to work more in other areas. Therefore the hospital lacks appropriate staff but they have a sufficient number of staff.

Regional Hospital, Bangkok: "There is not enough 'personnel' because nurses don't like to be on duty on the floor. They will change their job because they don't like to be on duty, especially at undesirable shifts. They want to work more in the academic area. But when the position is changed the same person is still there. It is just that the type of work that has to be done does not go with the position."

Most respondents stated that the quality of the service was the same because the same services were offered. Some respondents did, however, recognize that quality of services might be affected. These respondents mentioned that the inability to hire additional providers would affect quality.

Health Center, Bangkok:

Respondent A: "Sometimes providers work under stress when there are a lot of patients. If providers work a full team (8 people) then there is no problem. Sometimes, however, the different units at headquarters call for a meeting at the same time. They have ordered as many as 4 staff members to attend these meetings. We can't refuse. Those who are left behind have to work under stressful conditions."

Respondent B: "We have tried to maintain the quality of care, but we have to accept that the quality has declined because we have more clients while the number of providers remains the same. Some jobs have to be finished quickly."

Regional Hospital, Bangkok: "We frequently improve our service, but we are limited by the fact that we have too few personnel. Also the number of personnel is cut each year. For example, if someone retires the position will be cut."

As a result of a limited staff, many personnel worked overtime. Some facilities, however, did not have sufficient funds to pay their staff overtime. They had used their revolving funds for other needs such as supplies. To ensure that all patients received needed treatment, some staff volunteered their time. With overtime, providers may be overtired and desire to finish their work quickly. Consequently quality may decline. One respondent did not think that the crisis had any significant impact on the quality of service even though his staff had to work longer hours because he received fewer complaints from the patients.

Provincial hospital, Sri Saket: "The villagers still receive the same service. 'This year,' I receive less complaints in the suggestion box 'than in past years'."

Another effect of the crisis was that providers were less likely to have second jobs. Respondents stated that fewer providers had second jobs at private health clinics or hospitals. This might be perceived as a positive impact as these providers would be able to devote more time to their employment at the public facility.

#### Training and its effect on quality

Every respondent stated that the Ministry had cut out almost all forms of training staff members from the budget. Most respondents stated that the reduction did not affect the ability of providers to provide treatment. Respondents felt that as there had been many training sessions in the past, the providers were sufficiently trained to continue providing the same care.

Health center, Bangkok: " The reduction of training does not have any impact on service provision because it is always the same people who go for training. Our system does not facilitate the transfer of knowledge from the people who have been trained to the other staff members. Thus there is only one person who has gained knowledge. The reduction in the number of training sessions will require us to screen the staff members to decide who will receive the training. Now the decision of whether or not someone will go to the training will be very important, unlike it was before when the training was often repetitive..."

The Ministry did not offer any refresher courses but the suspension of training was believed to be only of a short duration. Some respondents stated that in the past there were too many workshops, seminars, and meetings. Without them, providers could concentrate on their work.

Community hospital, Ang Tong: "In the past we have had so many seminars that we didn't have time to work. In addition, the content of the seminar was not worth the money and travel time that we lost."

Regional hospital, Bangkok: " The number of training sessions has substantially declined. There were too many training sessions in the past and no time to do routine work."

A few respondents stated that there were negative aspects of eliminating the training programs. Without training seminars, some facilities lack appropriately trained staff. To compensate those that had been previously trained had to work overtime and clients were inconvenienced, as they had to return several times to the facility.

Municipal health center, Sri Saket: "There is some impact on medical supplies and other things that support our work such as the academic aspect. They used to organize technical meetings, but since the crisis the budget for these meetings has been cut. But we still want to improve our skills and gain more experience."

Community hospital, Sri Saket: "A problem of reproductive health service provision is that some staff members in the health promotion section have not been trained in IUD insertion. Sometimes the women have to come back many times in order to get the IUD inserted."

The elimination of training, in general, does not appear to have greatly affected services, because many of the providers that were previously trained continue to work. In the present system, however, with no mechanism to transfer knowledge from training seminars to other staff members, either providers must work overtime or clients must wait to see the appropriate individuals. Waiting times may have increased as a result of the crisis and for some providers their daily work hours must have increased to serve clients in a timely manner. Some clients experience difficulty seeing the appropriate provider.

The actual mechanism, which facilities used to decide who would receive training appears to have been flawed in the past. At some facilities, the same individuals went to the majority of the training sessions. To prevent this from taking place, there should be some type of guideline from the Ministry ensuring that different staff members receive training. This in fact may be a positive effect from the crisis. Directors will now examine more carefully who should go to receive training.

Most respondents felt that the lack of continued training hardly affected the quality of services.

Provincial health office, Ang Tong: “We have experienced little impact from the crisis in terms of training and in terms of increased knowledge and skill. In terms of services, if there has been any effect it probably is no more than one percent. ... Overall, I think we are still able to provide the same services with the same quality.”

Some even felt that the lack of training may be a positive impact. As stated earlier, some respondents stated that without training, providers could concentrate on providing services rather than attending seminars. They did not consider long wait times or the need to return to receive service as issues of quality of care. Without training, the facilities may rely on just a few providers for specific treatments and therefore clients may be inconvenienced and have to return many times or wait for a long time to receive care by the appropriate provider.

### **Accessibility**

In this section we examine change in access to health care facilities and its impact on the quality and the prevalence of health insurance.

#### Change in access to facilities and its effect on quality

Most respondents that we interviewed believed that the crisis had very little, if any, impact on the general population’s access to health care. There has not been a reduction in the number public facilities since the crisis. Most stated that all Thais readily had access to health care. Regarding proximity, respondents stated that there were many facilities to ensure that users had easy access to health care.

Municipal health center, Sri Saket: “People have good access. That is why I say that there should be no problem.”

Most recognized, however, that many individuals had less money now than they had had before the crisis and therefore have less money to spend on expenses such as health care.

Provincial health office, Sri Saket: “Many of those villagers who went off to Bangkok to work were laid off and returned home.”

The respondents did not truly know, however, if more people were not coming to receive health care because of a lack of money. A few hypothesized that this might be the case as there have always been individuals who did not access health care because they did not have money.

Health center, Bangkok:

Moderator: “Have you known of any patients who did not come for the service because they did not have money?”

Respondent: “There should be some because sometimes we have to drag them here. Most live in congested communities.”

Provincial hospital, Sri Saket:

Moderator: “Are there any villagers who are ill and do not come for the service because they do not have money?”

Respondent: “I think there are.”

Moderator: “Has this increased?”

Respondent: "It's probably about the same."

Some respondents stated that it was possible that some individuals may be less likely to access health care because facilities now had to charge clients for some medical supplies. In the past clients received all types of care for free.

District Health Office, Sri Saket: "Villagers complain as usual, but they understand the situation we are in. We explain to them that the government does not have much money. They have to help themselves first."

Respondents did not encounter many cases of individuals whose condition had worsened because they had not visited a health facility sooner due to financial constraints. Respondents explained that they believed that clients would borrow from relatives or friends for health care costs if they had to. Some respondents reported that services were even provided free of charge if the patients could prove that they did not have any money to pay.

Respondents also stated that any decrease in income would not affect access to health care because of the government's various health insurance programs. Specifically they cited the ability of Thais to use the voluntary health insurance card and the welfare health card (see next section).

Ministry of Public Health Central office: "The health of people should not be seriously affected because there are health programs that ensure that the all Thais receive the necessary health care. This includes the health welfare for the poor program and the voluntary health card insurance program."

The majority of respondents, in fact, felt that the number of clients in their facilities had increased. They felt that patients were changing their place of health care.

Provincial health office, Sri Saket: "...before when the economy was good, they used private services for their health care such as a doctor's clinic. They did not come to the government service. Since the economic situation has changed people do not have the same purchasing power. They have to turn to the government health care services."

The increase in the number of patients may also be linked to worsening health status. For example, some respondents stated that economic hardship has a psychological impact on villagers.

Provincial Health Office, Sri Saket: "There are more suicides in this province. For example take a district where people's main occupation is rice farming, and/or growing vegetables, such as onions and garlic. One can see that in a year that the price of crops is good, mental problem cases are low. But in the year that families can not sell their products, there are more cases of mental illness."

Respondents mentioned that the quality of service provision might be affected if facilities experienced an increase in the number of patients.

Provincial Health Office, Sri Saket: "More patients lead to poorer services because we have to compete with time. We have the same number of personnel to provide services but the

workload has increased. Personnel do not have time to improve their knowledge or skill through research.”

Most facilities reported an increase in the number of patients but lacked empirical evidence to support their claims (see limitations in qualitative study design section). We could not compare our figures from our quantitative survey with their figures because we collected data in the middle of the 1999 fiscal year. Statistics are normally reported by fiscal year.

#### Access to health insurance

In this section, we examine the extent to which health insurance schemes have been affected by the crisis. We focus on two different insurance schemes that are particularly targeted to the poorer communities. These include the health welfare card and the voluntary health insurance card. Most respondents reported that the majority (80-90%) of the population in their jurisdiction was covered by at least one form of health insurance, primarily the health welfare card or the voluntary health insurance card.

Health center, Ang Tong: “Almost every household, 90% or more, has at least one type of health card.”

Community hospital, Sri Saket: “Ninety percent ‘of our clients have a health card.’”

Regardless of which health insurance card individuals use, providers state that there is no difference between the benefits to the individual. In theory they should be the same, but we were told in one province that owners of the voluntary health insurance cards may bypass the lowest level of health provision. They may go to a different health service provider other than their primary provider whereas the owner of the welfare card must go through the referral system.

#### *Health Welfare Program*

The Ministry of Public Health implements the health welfare program, which provides medical care for the poor through the Free Medical Care Project, which is now called the Health Welfare Scheme for the Low Income Population. Individuals must get a low income card to access care through this program. The Ministry has distributed these cards since 1981. The cards were originally distributed to those with an income of 1,000 baht or less. The Ministry has since increased the amount to the current values of 2,800/2,000 baht/month for family/household and individuals, respectively. They also use the poverty line to determine eligibility. The government hospital directors or persons in charge of the health centers still have some leeway in terms of deciding who qualifies for free care (Supachutikul, 1996:18). The village welfare committee ‘khana gamagan songkraw rasadorn prajum mooban’ acts as a screen for the Ministry in terms of who should be involved in the program. The Ministry issues temporary (valid for one year) cards and permanent (valid for three years) cards. The eligibility for temporary and permanent cards depends on length of residency in one’s current abode. The individual once approved must go to the specified health center or hospital to receive their card and referral system.

Respondents stated that the welfare card ensures that a certain portion of their clients receive free care.

Community hospital, Ang Tong: “Most Thais have access ‘to health care’, except that they don’t come. Even if they don’t have any money or any card, we still don’t charge them. We send them to welfare and then the officer will give the person a card.”

Municipal health center, Bangkok: "Twenty out of eighty patients come with a welfare card or twenty-five percent."

Several respondents in Ang Tong stated that their facilities experienced an increase in clients receiving and using welfare cards.

District Health office, Ang Tong: "The number of welfare cards is likely to increase. There are many unemployed in this area. These people have to use welfare cards. Unemployed people had to submit evidence/documents at the job placement office at the provincial level. They will be issued a pink card. The department of labor will then send the cards to the usual residence of the unemployed persons. We then issue them a welfare card. The card is valid for one year."

The provincial hospital in Ang Tong reported that they had experienced no change in the budget for the welfare card but this did not mean that there was not an increase in the number of poor people.

Provincial Hospital, Ang Tong: "The health welfare budget remains the same as in the previous year... But even if we had an increase in the budget for the health welfare card, it does not necessary mean that there are more poor people in the area (province). It is just how the money is allocated..."

#### *Voluntary health insurance card*

The Ministry of Public Health launched the Community-based Health Card Project as part of the Maternal and Child Health Development Fund in 1983 and slowly expanded it to all the provinces. This pre-paid health insurance scheme was originally designed for the rural self-employed population to create community financing of healthcare with particular emphasis on maternal and child health services. It is now used throughout the country in municipal areas as well as rural. Ministry officials hoped that the use of this card would increase the use of sub-district health centers by requiring that all patients first go to the lowest level of health care provision. The Ministry enacted this requirement of obtaining a referral before visiting larger health facilities because rural families tended to by-pass health centers in favor of district community or provincial hospitals.

The scheme is now called the Health Insurance Card and it is entirely voluntary. With the purchase of one family card, which costs 500 baht, five family members are covered for one year from 30 days after the date of purchase. Each family member is identified and one card with all five names on it is given to the family. There is some variance in the program, however, which makes it difficult to compare across provinces. Within Bangkok and some other provinces, the card is purchased individually for 100 baht per person.

Free medical coverage originally had a ceiling of 2,000 baht per illness but continues to change and vary across the different provinces. This voluntary health card insurance scheme, although well dispersed throughout the country, only covers a small percentage of the population. The Agriculture and Cooperative Bank estimates coverage at approximately 3.3 percent in 1995; Supachutikul, 1996 believes this to be the most accurate figure (p. 33). Data from the Health and Welfare Survey, 1996, however, show 13 percent of the sample own a voluntary health insurance card.

The crisis may have led to fewer individuals being covered with a health insurance plan. Several respondents stated that they had sold fewer voluntary health insurance cards since the economic crisis.

Health center, Sri Saket: “There has been a decrease in the number of health cards sold....People complain about the health card because if you are two people you have to pay 500 baht but if you are only one person you still have to pay 500 baht.”

District hospital, Sri Saket “Ninety percent of individuals come to the hospital with some type of card but we have difficulty selling the voluntary cards. The number of health cards sold has declined because the welfare card is available.”

The provincial hospitals were reluctant to provide the voluntary health cards because they felt that they lost money when clients used the cards.

Provincial hospital, Sri Saket: “We sold 75% of our target last years. This year we sold even less. We did not actively promote the sale because we lose money with card usage.”

Provincial hospital, Ang Tong: “For the voluntary health insurance card in our area we want to sell the card but we have a problem regarding referrals. They are not effective because there are many that cross over the boundary. We only collect money based on who comes to us. ‘We must give money to other facilities’ ... We cannot collect money from other hospitals when individuals come to us instead of their primary hospital. We accept many patients from other areas such as Ayuthaya. ‘the problem is that’ the cards are sold in Ayuthaya but the Ang Tong hospital was identified as the receiving hospital. We are having difficulty actually being reimbursed from the issuing location in Ayuthaya.”

A few facilities sold more cards during the crisis period.

Municipal health center, Sri Saket: “We have sold more health cards this year.”

District health office, Sri Saket: “We increased the sale of health cards, so far for the 1999 fiscal year we have sold 60-70% of the target and the fiscal year is not yet over.”

Another respondent highlighted the fact that the government lost money with the voluntary card and therefore the government may not be able to maintain the program. It is not really an insurance plan because those who purchase the card are typically already sick or in need of some type of care.

Community Hospital, Angtong: “... In fact, the idea of the health card is very good but the ‘government’ operates it at a loss because most people who buy the card are sick. People who are healthy do not buy the card.”

It appears that access to health care has not been affected. For those that could not purchase a voluntary health insurance card, respondents stated that these individuals often were able to obtain a welfare card. Respondents generally cited an increase in the number of individuals with welfare cards. Whether this increase is a result of the decreased income of individuals or due to increased knowledge of the availability of the card we cannot be sure. We will examine this further in the quantitative section of this report. The voluntary cards seem to have decreased, largely due to a lack of promotion rather than an increased inability of individuals to purchase

them. Again though we cannot be sure which factor is driving a decrease in the purchase of voluntary cards. In fact some areas are seeing an increase in sales of voluntary health insurance cards. This increase could be due either to increased knowledge of its availability, individuals purchasing the card who did not feel the need to before the crisis, or an increase in the promotion of the availability of the card.

The variation across province and facilities in carrying out the insurance schemes makes it difficult to draw conclusive findings regarding the effect of the crisis on policy implementation. It appears that in general, the policy regarding the insurance scheme is being followed, though respondents mentioned their confusion in interpreting the policy changes regarding eligibility and benefits. Therefore regarding the policy, we recommend that the Ministry devise a new scheme to resolve problems relating to the loss of revenue to hospitals and inequalities regarding the size of families.

### **Summary and policy recommendations**

Results from the interviews with health care providers suggest that the reproductive health policies and programs have not changed greatly since the crisis.

It appears, however, that the crisis has had some effect on the provision of reproductive health care. There were increased challenges to providing reproductive health care due to staff shortages, stock outages, reduction of training and a delay in the distribution of the budget. Despite these challenges, however, providers felt that they were still able to provide the same services as before. Many took the perspective that it was an opportunity to increase efficiency.

Provincial hospital, Sri Saket: “I don’t know about the crisis impact at the national level, but the crisis is good for my hospital. It has made us more disciplined. We do not overspend. I created a slogan, which I gave to my staff: Be austere, patient and sacrifice.”

Community hospital, Sri Saket: “The crisis makes us more austere. We have to think twice before implementing a project.”

Ministry of Public Health central office: “...The crisis may have positive impacts. For example the system may be improved. That is why I say that the relationship between service provision and the crisis is not a linear one. I have seen many ‘research’ papers stating a linear relationship between the crisis and service provision, and they only focus on the budget.”

Although many respondents spoke of some positive effects of the crisis, most felt these were limited to the providers and that the crisis negatively affected the clients of reproductive health.

### *Reproductive health knowledge*

Although we are not able to draw conclusions regarding the impacts of the crisis on the implementation of reproductive health policy, there did not appear to be any changes in priorities for reproductive health in 1998 compared to before July of 1997.

Although we don’t know if there were any changes in reproductive health knowledge amongst the providers and administrators, we did discover that knowledge was low. Many did not know about the individual components of reproductive health or the particulars of the government’s reproductive health policy.

Regarding the reproductive health policy, and the Ministry's definition of reproductive health, it is unclear if the crisis has had any effect on the Ministry's efforts to educate providers and administrators. Since the Ministry has had limited monetary resources allocated to training, it is possible that the crisis has slowed down the process of informing the provinces of the Ministry's new reproductive health policy.

- Based on our findings, we recommend that the Ministry provide training to providers and administrators, particularly at the provincial level, regarding the meaning of reproductive health, and the Ministry's reproductive health policy.

We found that within the Ministry increasing knowledge regarding the scope of work for the different departments would facilitate increased coordination and improved implementation of the reproductive health policy.

- The Ministry officials should clearly set out the scope of work for the policy not only at the provincial level but also within the Ministry to aid coordination within the Ministry, which is an important facet of reproductive health policy and implementation.

Overall the crisis did not lead to this lack of knowledge but the crisis may be slowing the process of increasing awareness of the term and the policy.

#### *Budget*

Although the Ministry of Public Health budget was initially cut, it was returned before the end of the fiscal year. To compensate for a loss of budgetary allocations for half of the year, many facilities were able to use their revolving fund to ensure service provision was not affected. When the Ministry's budgetary allocations arrived at the facilities, however, the facilities were not allowed to replenish their revolving fund. The budget had to be spent on targeted items. This process resulted in some difficulties and perhaps some wastage of funds.

- We recommend that if this delay occurs again, facilities should be allowed to replenish their revolving funds with funds from the budget. The use of the revolving fund should be considered as a short-term interest-free loan to the government from the facility.

#### *Impact on the determinants of quality of health care*

In general, respondents stated that the crisis did not have any impact on the quality of health services. Most respondents stated that there was very little to no impact on service provision regardless of whether the budget was cut or delayed or that the delivery of supplies was delayed. They stated that they were still providing services throughout the crisis period.

The provision of services in terms of what is actually offered has not been affected by the crisis. The same services are offered and even some new services have been introduced at selected facilities. We did find, however, that some facilities were not able to provide certain services, but this had been the case before the crisis.

- Additional training is still needed to provide needed services to clients.

We found, overall, that the crisis affected facilities through a shortage of medical supplies and/or personnel and the short-term elimination of training programs.

Although competing explanations for why the Ministry did not distribute enough medical supplies exist, there was an actual shortage of supplies. The Ministry instructed the provincial and local levels to either use their revolving funds to buy their own supplies, or use supplies previously stock piled until the Ministry of Public Health could provide new supplies. They also instructed the facilities to begin charging for specific types of medicine and contraceptives. To compensate for the lack of needed contraceptives, providers either encouraged clients to switch contraception or to go elsewhere. Some providers rationed the amount of medicine prescribed for treatment causing some clients to complain about the restricted amounts provided. Some providers stated that although some clients may lose some choice of contraception, on a positive note, the shortage may lead to a reduction in the abuse of the system, and less wastage of medicine.

The Ministry of Public Health instituted a freeze on hiring new staff members, whether for new positions or to replace recent vacancies, which affected the clients more than the providers. No staff members were fired as a result of the crisis. The providers, however, felt overworked, without commensurate pay increases.

- A policy should be established whereby providers are compensated for the additional time they work. The government should either allow those individuals to take the same amount of time as vacation or agree to pay for overtime either out of the revolving funds or the Ministry budget.

In terms of shortage of staff, it appears that many facilities were short staffed prior to the crisis. In particular, many facilities did not have specialists for various reproductive health needs and did not have funds allocated for such a need. The crisis likely exacerbated this problem by not allowing facilities to hire new staff members, even to fill vacant positions.

- The Ministry should determine why this shortage has been taking place and take measures to remedy it, perhaps by hiring specialists to be shared by different facilities.

Related to having a shortage of staff, respondents stated that without additional training some facilities might lack a sufficient number of appropriately trained staff. Without appropriately trained staff, patients may have had to face longer waiting times, had less time with providers and sometimes had to return to the facilities to receive the specific type of care needed. Some providers took the optimistic perspective that providers would increase efficiency if the facilities were short staffed and that with the elimination of the training seminars providers would concentrate on their work and consequently improve quality.

- Training should not be unilaterally cut but should be targeted to address the specific needs of each facility.
- Different staff members should participate in different training seminars to ensure that skills are disbursed amongst the staff at facilities.
- Training seminars should provide practical knowledge for immediate use in the facilities.

In terms of access to health care, respondents recognized that some clients probably had less money than before the crisis. Providers, however, still felt that clients would come to receive health care services because many clients had some form of health insurance, so that health care

services were free or of minimal cost. Many respondents in fact felt that the number of clients had increased since the crisis. They reasoned that more individuals were leaving private facilities and coming to government run facilities.

- The Ministry should ensure that health insurance programs are maintained.

## Chapter Three: Survey of Women

This chapter begins with a description of the characteristics of the sampled women, followed by a discussion of their families' current economic situation. This information is provided to help identify our sample. We then explore their perceptions of the changes that have taken place regarding their economic status during the past three years, their reproductive health status and behavior, and their health care utilization, including switching from private to government services.

### **General characteristics of the study population (Table 5)**

The background characteristics of the women in the sample are factors that may affect the women's health behavior and health status. In this study, we collected information on a variety of background characteristics including area of residence, age, educational level, occupation, ethnicity, number of household members, age of husband, number of times married, duration of marriage and duration of stay in community. The sample is evenly split between urban residents, which includes Bangkok, and rural residents. We also describe the background characteristics by province. Those living in Bangkok comprise 25 percent of the sample, 36.5 percent live in Ang Tong and 38.5 percent are from Sri Saket. The table exploring the characteristics by province is in Appendix C. Table 5 classifies the background characteristics by area of residence: Bangkok, provincial urban or rural. In the following discussion we describe our findings for the background characteristics.

#### *Age*

Overall, 30 percent of our sample is within the age group 30-34. The mean age for our sample is 29.7 (Table 5). Fifty percent of the sample is fairly evenly split between the age groups 25-29 and 35-39. There are only a few young people in the study, about 4.4 percent in the age group 15-19, and about 16.6 percent within the age group 20-24. Compared with the provinces or rural, urban, our purposive sample of Bangkok's poor has the highest proportion of young married women aged 15-19.

#### *Education*

Respondents were asked about the highest level of education that they have completed. Overall 36.9 percent have completed primary and 19.2 percent have completed high school or higher. Education in Thailand varies by area of residence as seen in Table 5. In general, those living in Bangkok or the provincial urban areas have obtained a higher education level than those in rural areas. Table 5 shows that the provincial urban areas have the highest percentage of educated women with 38.5 percent with a high school or higher degree, followed by Bangkok (17.4%) and rural areas (11.0%). Many of the rural women have only completed primary (46.4%).

In this study, we combine the education of the wife and husband to create the variable, couple's education, defined as the highest education received by either. In our sample, approximately 32 percent of couples have completed high school or higher, while 20 percent have completed secondary school, the equivalent of 9 years of schooling. Only 16.8 percent have received minimal education, finishing less than primary school.

The pattern of education by type of residence is similar for couples as it is for women alone. The percent finishing high school or higher is higher for couples in the provincial urban areas (50.7%) than in Bangkok (35.5%). A certain proportion of the population in our sample of

Bangkok poor consist of in-migrants who moved to Bangkok often after finishing primary school, from either provincial urban or rural areas.

#### *Ethnicity*

The majority of the sample of women are ethnic Thai (92.4%). A larger percentage of the other two ethnicities examined, Thai/Chinese and Thai/Khmere/Sui, are living in Bangkok rather than the two provinces. Sri Saket has the smallest percentage of either ethnicity. As seen in Table 5, the rural areas also have a low percentage of either ethnicity. In particular, our sample shows that Thai/Chinese tend to live in urban areas (provincial urban areas, 10.1% and Bangkok, 9.7%) rather than rural areas (2.5%).

#### *Household size*

Our sample has a mean of 4.9 persons per household. Overall Bangkok women have the smallest households with 15.5 percent having only 2 members per household. Sri Saket women have slightly more household members of 5 or more than women in Ang Tong (56.9% vs.50.9% see Table C1 in Appendix C). The percent with 6 or more household members, however, is slightly larger in Ang Tong than in Sri Saket (34.1% vs. 31.4%). This difference may be due to the fact that household members migrate out of Sri Saket to find employment, while in Ang Tong family members commute to jobs in several locales and therefore do not need to move out. Rural households in our sample have more household members than the urban areas.

#### *Husband's age*

The majority of husband's are within the age group 30-39 with the mean age of 33 years. The husband's average age does not vary much by area of residence and there is very little difference by province. Sri Saket husbands are younger than in the other areas sampled. Sri Saket women also have the smallest percentage of husband's aged 40 and over (12.1%). Ang Tong (22.6%) and Bangkok (18.7%) have similar percentages of husband's aged 40 and over (see Table C1 in Appendix C).

#### *Number of times married*

Overall, 11.8 percent of women in our sample have married more than once. Sri Saket has the smallest percentage of women who have married more than once (8.4%). In Ang Tong approximately 12 percent have been married more than once and in Bangkok approximately 16 percent have been married more than once. In terms of rural urban differences, women in rural areas (7.6%) are less likely to marry more than once than those living in provincial urban (16.2%) or Bangkok (16.1%).

#### *Duration of marriage*

Many women have not been married very long. Nearly one-third of the couples have been married between 0-4 years (29.9%) and another one-third have been married 5-9 years (28.6%) regardless of area of residence or province (Table 5). A higher percentage of women living in Bangkok than in either of the other areas sampled are married over 15 years.

#### *Duration of residence*

This study asks several questions to allow for a detailed analysis of migration to understand the level of movement in our sample. To cover this issue in detail, however, is beyond the scope of this report. We discuss only duration of residence in the community as an indicator of lifetime migration, to reflect the migration history of the women in our sample. The proportion of women who have been living in their community since birth is about 38 percent overall. Regarding differences by province, women living in Sri Saket (52.7%), more than Ang Tong (40.4%) or

Bangkok (11.0%), have stayed in their community since birth. In Sri Saket (28.5%) respondents are less likely than respondents in Bangkok (69.6%) or Ang Tong (44.0%) to have been recent migrants, living in their community for less than 10 years (see Table C1).

Women currently living in rural areas are more likely to have stayed in their community since birth. Only about 23.1 percent of those living in rural areas were living there less than 5 years. There is no clear pattern in the provincial urban areas with approximately 33 percent having lived there since birth and 37.8 percent having lived there less than 5 years. In the case of Bangkok, there are many in-migrants, with only 11 percent of those currently living in Bangkok having lived there since birth and about 34.8 percent having lived in Bangkok less than 5 years.

**Table 5:** Selected demographic and social characteristics of the sample women by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Woman's age</b>				
15 – 19	6.5	3.4	3.8	4.4
20 – 24	15.5	15.5	17.7	16.6
25 – 29	20.6	23.6	29.3	25.8
30 – 34	31.0	31.8	26.8	29.0
35 – 39	26.5	25.7	22.4	24.2
Total	100	100	100	100
Mean	30.0	30.2	29.4	29.7
<b>Women's education</b>				
Less than primary	27.7	23.0	26.8	26.1
Completed primary (6 years)	32.3	21.6	46.4	36.9
Completed secondary (9 years)	22.6	16.9	15.8	17.7
High school or higher (12+ years)	17.4	38.5	11.0	19.2
Total	100	100	100	100
<b>Husband and wife's education</b>				
Lower than primary	15.5	14.9	18.3	16.8
Completed primary	25.8	16.9	41.0	31.5
Completed secondary	23.2	17.6	19.6	20.0
High school or higher	35.5	50.7	21.1	31.8
Total	100	100	100	100
<b>Ethnicity of respondent</b>				
Thai	87.1	88.5	96.8	92.4
Thai and Chinese	9.7	10.1	2.5	6.1
Thai and Khmere/Sui	3.2	16.4	0.6	1.5
Total	100	100	100	100
<b>Number of household members</b>				
2	15.5	4.7	3.5	6.8
3	20.6	16.2	11.0	14.7
4	21.3	27.7	30.3	27.4
5	16.8	19.6	22.1	20.2
6+	25.8	31.8	33.1	31.0
Total	100	100	100	100
Mean	4.5	4.9	5.0	4.9

	Bangkok	Provincial urban	Rural	Total
<b>Husband's age</b>				
< 25	12.9	14.2	12.9	13.2
25 – 29	16.8	19.6	20.8	19.5
30 – 34	26.5	21.6	29.0	26.6
35 – 39	25.2	23.0	22.1	23.1
40+	18.7	21.6	15.1	17.6
Total	100	100	100	100
Mean	33.1	33.6	32.7	33.0
<b>% Married more than once</b>	16.1	16.2	7.6	11.8
<b>Duration of present marriage (years)</b>				
0 – 4	31.0	30.6	29.1	29.9
5 – 9	27.1	28.6	29.4	28.6
10 – 14	20.0	25.9	25.0	23.9
15 – 25	21.9	15.0	16.5	17.5
Total	100	100	100	100
<b>Duration of residence (years)</b>				
Less than 5	34.8	37.2	23.1	29.4
5 – 9	34.8	8.8	8.2	15.0
10 – 14	11.6	11.5	7.3	9.4
15 – 35	7.7	9.5	8.2	8.4
Since birth	11.0	33.1	53.2	37.8
Total	100	100	100	100
<b>Sample size (N)</b>	<b>155</b>	<b>148</b>	<b>317</b>	<b>620</b>

### Current economic and financial situation

We measured the present economic and financial situation of the women and their families with a variety of indicators to denote the current level of economic activity and ownership of assets, possessions and debts. To understand their current economic activity, we include questions regarding employment status, occupation, work status, and whether or not the women or her husband has a second job. For these indicators, we collected information regarding both the woman's economic situation and that of her husband's. In some situations, we combine their experiences to understand the family's economic situation.

#### Level of economic activity (Table 6, 7, 8)

Respondents were asked if they worked to support themselves and their family. They were asked whether or not they were presently working and/or worked last year, whether or not their husband was presently working or worked last year, their occupation, for whom they worked, and whether or not they and/or their husband had a second job. The statistics for these questions are by area of residence in Table 6.

#### *Employment status*

As expected, in all three areas, Bangkok, provincial urban and rural areas, men have a higher percentage working both last week and last year than women do. More women and men in the provincial urban areas (68.9% for women and 87.8% for men) worked last week than in the rural areas (59.3% for men and 81.3% for men) or Bangkok (53.5% for women and 75.7% for men) (Table 6). This rural-urban difference may be due to the different seasonal requirements of

specific crops grown. It is, therefore, important to examine the percentage of women and men over the last year to account for seasonal variation.

**Table 6:** Various measures of employment status by area of residence

		<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Women</b>	<b>% working last week</b>	53.6	68.9	59.3	60.2
	<b>% working last year</b>	70.3	89.2	89.6	84.7
<b>Husband</b>	<b>% working last week</b>	81.3	87.8	75.7	80.0
	<b>% working last year</b>	93.6	93.9	96.5	95.2
<b>Couple</b>	<b>Employment last week</b>				
	Both worked	41.9	60.1	53.0	51.9
	Only husband worked	39.4	27.7	22.7	28.1
	Only wife worked	11.6	8.8	6.3	8.2
	Both did not work	7.1	3.4	18.0	11.8
	Total	100	100	100	100
	<b>Employment last year</b>				
	Both worked	66.5	83.1	87.1	81.0
	Only husband worked	27.1	10.8	9.5	14.2
	Only wife worked	3.9	6.1	2.5	3.7
	Both did not work	2.6	-	0.9	1.1
	Total	100	100	100	100

There are differences by type of residence for both men and women. The percentage of women working last year in the provincial urban (89.2%) and rural areas (89.6%) is nearly equal, with a smaller proportion of women from Bangkok working last year (70.3%). It is possible that Bangkok women worked less last year than other provinces due to loss of jobs and an inability to find work. We will examine unemployment status in the next section. The proportion of men working last year is very high with a slightly higher proportion of rural men working.

We combined the employment status of the husband and wife in Table 6 to best understand the family's economic situation. We then compared employment within the past week and the past year to clarify the impact of seasonal work. We defined employment last year to include anyone having worked regularly in the last year and those who worked to take care of their family in the last week. The results show a difference in employment status of couples within this time frame. The proportion of Bangkok couples both working in the past week and the past year is low at 41.9 percent and 66.5 percent, respectively. Among provincial urban couples, two thirds of both wife and husband were working last week and 83.1 percent were both working last year. The proportion of rural couples working is similarly high with 51.9 percent both working last week and 81.0 percent both working last year. Those living in Bangkok have a high proportion of having either only the husband (39.2%) or only the wife (11.6%) participating in the labor force during the past week. Bangkok residents also have a high percentage of only husbands working last year (27.1%). It appears that either Bangkok couples have not been able to find jobs or that they prefer to have only one member working. Whether or not this is due to the economic crisis, we cannot be sure. Therefore we examine change in unemployment status over a three-year period to better assess this relationship in the next section.

### *Occupation*

Among the women who worked in our sample, the results in Table 7 show that their last occupations are different by type of residence. Women in Bangkok and the provincial urban areas tend to work as commerce/sales workers, whereas women in rural areas overwhelmingly are involved in agriculture/animal husbandry/fishery as expected. Women in our Bangkok (23.5%) and rural (20.5%) sample are more likely to work in crafts/production than the provincial urban areas (11.7%). Women in the provincial urban areas (24.1%) are more likely to be professional /technical/ administrative workers than those living in Bangkok (18.8%) or the rural areas (3.3%) sampled.

The work status of our studied sample varies by area of residence. Table 8 shows that a larger proportion of couples are self-employed in rural areas, than couples in Bangkok or the provincial urban areas. In Bangkok (44.5%) and the provincial urban areas (38.5%) more couples work as private employees than in rural areas (25.6%). The couples in Bangkok who mainly work in the private sector may have been impacted by the economic crisis more than couples in other areas (Tambunlertchai, 1998:123). The provincial areas have more individuals working for some type of government office than the other areas.

Information on whether the woman and her husband have a second job provides insight into the couple's economic situation. The percentage without a second job is 74.2 for Bangkok, 63.7 percent for rural areas and 57.5 for the provincial urban areas (Table 8). Couple's living in the provincial urban areas have a higher percentage of having only one member with a second job, either the wife or the husband, whereas if both husband and wife have a second job, they are more likely living in the rural areas.

**Table 7:** Percentage of women in different occupations by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Respondent's most recent occupation</b>				
Professional/technical/administration	18.8	24.1	3.3	12.1
Commerce/sale workers	32.9	34.5	14.0	23.6
Agricultural/animal husbandry/fishery	1.3	2.1	52.4	27.6
Transport/equipment operators/related workers	2.0	1.4	-	0.8
Crafts/production workers	23.5	11.7	20.5	19.1
Service workers	13.4	15.9	2.3	8.3
General laborer	8.1	10.3	7.5	8.3
Total	100	100	100	100
Sample size (N)	149	145	307	601

**Table 8:** Work status and whether or not couples have a second job by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>Couple's work status</b>				
Self employed	34.8	28.4	47.3	39.7
Family business	1.9	2.7	20.8	11.8
Private business	44.5	38.5	25.6	33.4
State or national government office	18.7	30.4	6.3	15.2
Total	100	100	100	100
<b>Couples with second jobs</b>				
Neither have a second job	74.2	57.5	63.7	64.8
Only husband	15.5	22.3	14.5	16.6
Only respondent	7.7	10.1	5.7	7.3
Both have a second job	2.6	10.1	16.1	11.3
Total	100	100	100	100

*Financial situation**Assets and possessions (Table 9)*

To more fully understand our respondent's economic situation, we asked the women about their assets and possessions including if they owned the house and land on which they currently lived.

Many couples, 58.9 percent own neither their house nor the land on which they live (Table 9). A higher percentage of couples living in Bangkok own neither than couples in the other areas sampled. Within the rural areas, nearly a quarter of the couples own their house only (22.1%), and nearly another quarter own both their house and the land (23.7%). The proportion of couples owning either their house or both their house and the land is smaller in the urban areas than in the rural areas. A larger percentage of provincial urban (28.4%) residents, however, have very good, strong houses than in the rural areas (18.9%) or in Bangkok (14.2%). Provincial urban residents also have a slightly larger percentage of bad, old homes (6.1%) compared to Bangkok (5.2%) and the rural areas (4.7%).

We also consider the current economic status of the women interviewed by assessing the type and quantity of assets and household possessions they each had. Roughly fifty percent of couple's do not own a house. This does not differ by type of residence. Half of the Bangkok residents own some piece of land (50.3%), whereas 43.2 percent of couples in the provincial urban areas own land and only 35.3 percent of rural residents own land. Although rural residents may own the land they live on, overall the proportion that own land is less than urban residents.

If we examine the total number of assets owned by the couples in our study, we find further differences by type of residence. The largest percentage of rural residents own 3 assets (28.4%), whereas the largest percentage of provincial urban couples own 2 assets (25.0%) as do Bangkok residents (21.3%). In Bangkok, however, the percent distribution of couples owning either 1, 2, 3, or 4 assets is nearly the same, at 20 percent. The percentage of provincial urban residents with 6 or more assets is much higher than the percentage of Bangkok or rural couples owning 6 or more.

The majority of respondents have both a television and a refrigerator regardless of place of residence. Very few, however, have an air conditioner. The percentage of couples in the provincial urban areas having an air conditioner is higher (12.8%) than the percentage in Bangkok (6.5%) or the rural areas (1.9%). The proportion having at least 3 household items is higher in the urban areas while the proportion having 2 household items is highest in the rural areas.

We combined assets and household possessions to derive the index of economic status in Table 9. More rural (44.2%) couple's have 3-5 items, whereas more provincial urban (45.9%) and Bangkok (43.9%) couple's have 6-11 items. We conclude that the women in the urban areas in our sample were financially better off than the women in the rural areas.

**Table 9:** Percent distribution of couple's assets and household possessions by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>Ownership of house and land by the couple</b>				
Neither	67.1	61.5	53.6	58.9
Own only the house	14.2	20.3	22.1	19.7
Own only the land	0.6	2.0	0.6	1.0
Own both the house and land	18.1	16.2	23.7	20.5
Total	100	100	100	100
<b>General condition of the house</b>				
Bad, old	5.2	6.1	4.7	5.2
Moderate almost bad	37.4	24.3	20.2	25.5
Moderate almost good	43.2	39.2	53.0	47.3
Very good, strong	14.2	28.4	18.9	20.0
Not see the house	-	2.0	3.2	2.1
Total	100	100	100	100
<b>% of couples owning different assets</b>				
House	51.0	48.7	50.2	50.0
Land	50.3	43.2	35.3	41.0
Savings	26.5	27.0	24.3	25.5
Car / pick up	17.4	29.7	19.9	21.6
Motorcycle	52.9	68.9	65.0	62.9
Other valuables, gold, jewelry, amulet	45.8	52.0	40.1	44.3
<b>Number of assets</b>				
0	11.6	9.5	10.7	10.6
1	20.0	14.9	20.8	19.2
2	21.3	25.0	19.2	21.1
3	18.1	22.3	28.4	24.4
4	19.4	11.5	15.1	15.3
5	8.4	9.5	4.4	6.6
6+	1.3	7.4	1.3	2.7
Total	100	100	100	100

**Table 9:** Con't

	Bangkok	Provincial urban	Rural	Total
<b>% of couple's having different household possessions in the household</b>				
T.V.	89.7	88.5	72.6	80.7
Video	48.4	52.7	24.3	37.1
Refrigerator	72.9	77.7	57.1	66.0
Air-conditioner	6.5	12.8	1.9	5.7
Telephone	43.2	37.2	12.3	26.0
<b>Number of household possessions</b>				
0	7.7	9.5	24.0	16.5
1	16.8	12.2	19.9	17.3
2	32.3	28.4	34.4	32.4
3+	43.2	50.0	21.8	33.9
Total	100	100	100	100
<b>Index of economic status</b>				
0	2.6	2.7	5.0	3.9
1 - 2 item	12.9	12.8	23.0	18.1
3 - 5 item	40.6	38.5	44.2	41.9
6 - 11 item	43.9	45.9	27.8	36.1
Total	100	100	100	100

### *Debt*

Table 10 shows that a large percentage of our sample is in debt regardless of type of residence. The provincial urban areas have the largest percentage of couples in debt (74.3%), compared to couples in Bangkok (60.0%) or the rural areas sampled (57.8%). Among those who have debt, a significant proportion of couples are in debt for over 50,000 baht. Slightly more of those in debt for over 50,000 baht are from the provincial urban areas (31.8%) than the rural areas (19.0%) or Bangkok (14.2%).

Many women in the low-income communities in Bangkok have taken out a loan to pay for previous debts (35.5%) or both the cost of living and previous debts (20.6%). In the provincial areas, a higher percentage of couples took out a loan to pay for both the cost of living and previous debts (27.7%) than to pay back previous debts alone (18.2%). Within the rural areas, those who took out a loan paid off a previous debt (17.7%) rather than to pay for their cost of living alone (0.6%) or both the cost of living and debts (8.5%).

We asked the respondents whom they could turn to in case of financial need. The individual that the respondents cited as a source of help differs by type of area. Provincial urban and Bangkok women are more likely to have no source than rural women. The high proportion of women in the urban samples having no source for financial help may be due to a weaker kin network of immigrants into urban areas. In Bangkok, nearly the same proportion either had no source (23.2%) or went to their sibling (25.8%). Women in the provincial areas either had no source (23.0%) or went to their parent's (20.3%) or sibling (18.9%). In the rural areas, a higher proportion went to their sibling (35.3%), or their own parent (21.1%).

**Table 10:** Amount of debt, expenditures of the respondent's loan (debts) and sources to help with financial difficulties by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>% In debt</b>	60.0	74.3	58.0	62.4
<b>Amount of debt</b>				
No debt	40.0	25.7	42.2	37.7
Less than 5,000	11.0	14.9	1.9	7.3
5,000 - 9,999	6.5	5.4	3.8	4.9
10,000-19,999	11.6	8.1	6.7	8.3
20,000-29,999	9.7	6.8	13.7	11.0
30,000-39,999	3.9	7.4	7.3	6.5
40,000-49,999	3.2	-	5.4	3.6
50,000+	14.2	31.8	19.0	20.9
Total	100	100	100	100
Sample size (N)	155	148	315	618
<b>Expenditures of loan</b>				
None (debt)	43.9	50.0	73.2	60.3
Pay for current costs of living	-	4.1	0.6	1.3
Pay off previous debt	35.5	18.2	17.7	22.3
Pay for both	20.6	27.7	8.5	16.1
Total	100	100	100	100
<b>Source of help when faced with financial problem</b>				
No source	23.2	23.0	18.3	20.6
Own parent	14.8	20.3	21.1	19.4
Husband's parent	10.3	8.1	10.1	9.7
Sibling	25.8	18.9	35.3	29.0
Friend	13.5	14.9	4.7	9.4
Other	12.3	14.9	10.4	11.9
Total	100	100	100	100

### **Current economic situation and recent changes**

The following section examines economic indicators both at the present situation and retrospectively to determine the extent to which change in these economic indicators took place since the economic crisis began. We included questions to ascertain both factual changes and changes in the respondent's perception of their financial situation. The topics covered include unemployment status, income, savings, and expenses.

#### Unemployment (Table 11)

We use unemployment as an indicator of economic well-being. We asked two questions if the individual had ever been unemployed continuously for three months last year, and/or three years ago (during 1996). We included the retrospective question to examine the extent to which unemployment status has changed since July 1997, when the economic crisis began. We examine women and men separately and then combined.

Contrary to our expectation, among this purposive total sample, many of the women have never experienced unemployment (Table 11). In Bangkok, although the largest percent of women have

never experienced unemployment (38.9%), there are over a quarter who experienced unemployment this past year only and another quarter who have experienced unemployment both last year and three years ago. Therefore current unemployment levels for women in our sample in Bangkok are over 53.0 percent. The percent currently unemployed in the provincial urban areas is 33.2 and in the rural areas 55 percent are currently unemployed. Although the percentage currently unemployed is higher in rural areas than Bangkok, there are more women in Bangkok who have been recently unemployed, implying that the crisis has had more of an effect on Bangkok women's employment levels.

To further ascertain if there has been any effect on unemployment status due to the crisis, we examine the percent unemployed three years ago only and last year only. For each type of residence the percent unemployed last year increased compared to three years ago for women. Therefore the unemployment situation has gotten worse for Bangkok, provincial urban and rural areas. More women became unemployed in the last year than became employed. The percent difference between the women unemployed three years ago only and unemployed last year only reveals in which areas of residence women have been most affected by increasing unemployment levels. Bangkok women experienced the greatest change, followed by the rural areas and the provincial urban areas.

Comparing the unemployment experience of the husbands to that of the women's, we find that fewer men than women have ever been unemployed. Overall fewer men than women are also currently unemployed especially amongst Bangkok residents. Men in our sample appear to be better off than women in the sample. Rural men are more likely to be unemployed than the other areas. Unlike the women in our sample, the men from the rural areas are also more likely to be recently unemployed than the other areas sampled. The percent unemployed now versus three years ago has increased for the men in the rural areas the most followed by men in Bangkok. There has not been any change in unemployment levels for the men in the provincial urban areas, implying that the crisis has had no effect on their unemployment levels. The proportion of men that are now employed but were unemployed three years ago is higher than the proportion of women unemployed only three years ago. This is the case more in the provincial areas than in Bangkok. Men seem to be getting out of unemployment in our sample more readily than women. The women in our sample are more likely to have become unemployed than the men. Overall though 57.7 percent of both husbands and wives are currently unemployed in our sample.

When examining the couple's unemployment status, we find a similar pattern to the women's employment experience. For each type of residence, the percent unemployed last year compared to three years ago has increased. Bangkok poor experienced the greatest change from 7.2 percent to 30.1 percent, followed by rural areas (7.0% to 22.3%) and provincial urban areas (10.2% to 21.8%).

**Table 11:** Unemployment status of women, husbands and couples by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>Change of women's unemployment</b>				
Yes, both last year & 3 yrs ago	25.5	16.6	35.8	28.6
Last year only	27.5	16.6	19.2	20.6
Three years ago only	8.1	7.6	4.6	6.2
Never unemployed in last 3 yrs	38.9	59.3	40.4	44.6
Total	100	100	100	100
Sample size (N)	149	145	307	601
<b>Change of husband's unemployment</b>				
Yes, both last year & 3 yrs ago	9.8	9.5	27.7	18.9
Last year only	12.4	12.9	16.2	14.5
Three years ago only	9.8	12.9	9.6	10.4
Never unemployed in last 3 yrs	68.0	64.6	46.5	56.2
Total	100	100	100	100
Sample size (N)	153	147	314	614
<b>Change of couple's unemployment</b>				
Yes, both last year & 3 yrs ago	29.4	24.5	39.8	33.6
Last year only	30.1	21.8	22.3	24.1
Three years ago only	7.2	10.2	7.0	7.8
Never unemployed in last 3 yrs	33.3	43.5	30.9	34.5
Total	100	100	100	100
Sample size (N)	153	147	314	614

We examine the unemployment situation for other household members in Table 12. Our Bangkok sample has a higher proportion of household members unemployed (9.0%) compared to provincial urban women (6.8%) and rural women (3.8%). To assess if this relationship has changed since the crisis, we compare the situation of household members unemployed in the past year with that of three years ago. Roughly ten percent of women in our Bangkok sample reported an increase in the number of household members unemployed. Rural areas have experienced an increase of only about 2.8 percent and provincial urban areas 4.7 percent. Overall, however, the majority of women state that there has been no change in the number of household members unemployed regardless of type of residence.

The percent distribution of women with unemployed close relatives follows the same pattern as for household members; Bangkok women have the highest percentage of unemployed close relatives (19.4%) followed by rural areas (17.7%) and the provincial urban areas (16.2%). Roughly three-quarters of the women report that the same numbers of close relatives are unemployed in the past year as in 3 years ago regardless of type of residence. Slightly more women living in Bangkok report having the number of close relatives unemployed increase this past year compared to three years ago (20.0%), compared to those living in rural (18.3%) or provincial urban areas (16.2%).

More respondents state that they have a close friend unemployed than having a close relative or household member unemployed. Roughly 38 percent of Bangkok women stated that they had a

close friend unemployed compared to 27 percent of respondents in provincial urban areas and 23 percent in the rural areas.

Overall the women in our Bangkok sample appear to be affected the most in terms of an increase in unemployment, whether examining the woman's employment status, her husband's, household members', close relatives', or close friends'.

**Table 12:** Unemployment status of household members, close relatives and friends by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>% with unemployed household member</b>	9.0	6.8	3.8	5.8
<b>Compare no. of hh members unemployed in past year with 3 years ago</b>				
Increased	10.3	4.7	2.8	5.2
Stayed the same	84.5	93.9	95.3	92.3
Decreased	5.2	1.4	0.9	2.1
Don't know	-	-	0.9	0.5
Total	100	100	100	100
<b>% with close relatives unemployed</b>	19.4	16.2	17.7	17.7
<b>Compare no. of close relatives unemployed in past year with 3 years ago</b>				
Increased	20.0	16.2	18.3	18.2
Stayed the same	74.8	80.4	77.6	77.6
Decreased	4.5	2.7	4.1	3.9
Don't know	0.6	0.7	-	0.3
Total	100	100	100	100
<b>% with close friends unemployed</b>	38.1	27.0	23.0	27.7

#### Income (Table 13)

The couples' income in our purposive sample varies by type of residence as shown in Table 13. Couples in provincial urban areas have the highest median monthly income (about 12,331 baht), followed by those in Bangkok (12,080 baht), and the rural sample (8,088 baht). The median income may reflect the nature of the type of occupation. Those who work in agriculture typically have a lower income than those in other occupations in Thailand.

To determine if the crisis has affected income levels, we examine the change in income from 3 years ago to last year. The majority of women, regardless of type of residence, report that their income (couple's income) has decreased. Some, especially those living in provincial urban areas (25.7%), state that their family income has increased during this time frame.

For those who stated that their income declined, we asked them why this might have occurred. The three primary reasons given were business is not good, changed jobs or didn't have work, and their salary or work time was reduced. A larger percentage of the Bangkok sample (26.4%) than the provincial urban areas (22.4%) or the rural areas (19.9%) state that their salary or working time was reduced. More women in the rural areas (46.2%) than in urban areas (35.0%)

state that their income has declined because business is not good. The women in our rural areas are more likely to be self-employed.

Table 13 shows that regardless of type of residence, very few women had any savings only last year. A larger percentage of couples saved only in the past, Bangkok (54.2%), provincial urban (41.2%) and rural (41.6%), rather than only last year, never or in the past as well as now. This difference shows that during the last year many individuals were not able to save any money. It is likely that the crisis caused couples to spend all of their earnings to continue living as they had in the past. Thus they were unable to save. A small proportion of couples have always had savings.

**Table 13:** Indicators of income, change in income, and savings by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>Couple's income /month</b>				
< 2,500	1.3	2.7	21.9	12.2
2,500 - 4,999	7.8	19.6	23.5	18.6
5,000 - 9,999	38.3	29.7	28.9	31.4
10,000 - 19,999	42.2	29.1	17.5	26.4
20,000+	10.4	18.9	8.3	11.3
Total	100	100	100	100
Median	12,080	12,331	8,088	10,099
Sample size (N)	154	148	315	617
<b>Change of income level in the last 3 years</b>				
Increased	15.5	25.7	18.3	19.4
Stayed the same	11.0	10.1	10.7	10.6
Decreased	72.9	63.5	70.0	69.2
Just married, don't know	0.6	0.7	0.9	0.8
Total	100	100	100	100
<b>Reason income decreased</b>				
Salary/working time reduced	26.4	22.4	19.9	22.1
Business is not good	34.5	35.5	46.2	41.0
No job/changed jobs	33.3	39.5	30.6	33.2
Expenses increased	5.7	2.6	3.2	3.7
Total	100	100	100	100
Sample size (N)	87	76	186	349
<b>Savings</b>				
Always have savings	14.2	17.6	15.1	15.5
Saved only last year	8.4	6.8	5.7	6.6
Saved only in the past	54.2	41.2	41.6	44.7
Never had any savings	23.2	34.5	37.5	33.2
Total	100	100	100	100

### Expenses (Table 14)

Most of the women in our sample state that their household expenses in the past year have increased from three years ago. Surprisingly this is more so in rural areas than in Bangkok. The largest proportion of women state that the high cost of food and other commodities is the reason for this increase. There is also a noted change in spending patterns between 1998 and three years ago. In this study, we asked the question whether there was an increase, decrease or no change in the women's household pattern of spending this year in comparison with three years ago. This question was asked for a variety of items including: cost of daily food, eating out, clothing, entertainment, traveling/vacation, health care, children's toys or candies, children's education, purchasing household goods, and investments.

Most of the women report that the cost of daily food has been increasing. The proportion of women stating that they increased spending on the above-mentioned items other than food varies by type of residence. Bangkok women state that second to the cost of daily food they increased spending on household goods, children's education, children's toys and health care, in that order. Provincial urban women state that following the cost of daily food, they spent more money on children's toys, education, household goods and health care now compared to three years ago. Women in the rural areas increased spending on children's toys, followed by household goods, children's education, and health care. Overall although a larger percentage of women state that other expenses rather than health care has increased, over a third of the women from each type of residence state that they have increased spending on health care: Bangkok 38.1, provincial urban 39.2, rural 46.1.

We also asked if women decreased their spending for these same items. Overall the largest proportion of women sampled state that they have reduced their spending on clothing followed by traveling. It seems that the economic crisis has led couples to decrease spending on things not necessarily needed. Some of the households also reduced their spending on health care, which might be due to either overuse in the past or the inability to afford it.

**Table 14:** Measures of crisis impacts on the couple's expenditures by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Compare overall household expenses in past year with 3 years ago</b>				
Increased	74.8	83.1	83.3	81.1
Same	6.5	5.4	5.0	5.5
Decreased	18.7	11.5	11.7	13.4
Total	100	100	100	100
<b>Reason for the increase of household expenses</b>				
More household member	13.5	17.6	14.2	14.8
Food is expensive	47.1	51.4	53.6	51.5
Increased expenditure	12.3	12.2	12.9	12.6
Other	1.9	2.0	2.5	2.3
Same or decrease	25.2	16.9	16.7	18.9
Total	100	100	100	100

**Table 14:** Con't

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>% Increased spending on each item</b>				
a. Cost of daily food	68.4	75.7	78.9	75.5
b. Eating out	12.9	17.6	6.9	11.0
c. Clothing	16.8	19.6	36.6	27.6
d. Entertainment	-	0.7	3.2	1.8
e. Travel / vacation	8.4	8.8	6.6	7.6
f. Health care	38.1	39.2	46.1	42.4
g. Children / young household member's toys or candies	40.0	60.8	65.3	57.9
h. Children / young household member's education	42.6	58.8	58.0	54.4
i. Household goods	49.0	58.1	62.5	58.1
j. Investment / expansion of business	18.7	27.0	42.3	32.7
<b>% Decreased spending on each item</b>				
a. Cost of daily food	20.0	16.9	11.4	14.8
b. Eating out	31.6	23.6	14.2	20.8
c. Clothing	49.0	48.6	39.4	44.0
d. Entertainment	19.4	23.0	12.6	16.8
e. Travel / holiday trip	36.1	33.8	26.5	30.6
f. Health care	27.1	17.6	22.4	22.4
g. Children's toys or candies	17.4	10.8	9.8	11.9
h. Children's education	8.4	3.4	2.2	4.0
i. Household goods	25.2	17.6	16.4	18.9
j. Investment / expansion of business	8.4	6.8	8.8	8.2
<b>% Postponed buying big item last year</b>				
	63.2	62.8	66.6	64.8

Many respondents have postponed buying an expensive item this past year. A higher proportion of women living in rural areas than in the urban areas postponed such a purchase.

#### Children's schooling (Table 15)

If monetary resources are scarce, parents may restrict spending on their children's education. Children may either drop out or be transferred either as a result of parent's decreasing income or because the entire family had to move. The results in Table 15 show that only a small proportion of women report that their children had to transfer or drop out of school. The women in Bangkok have the highest proportion of children who had to transfer from one school to another. The small proportion of women who had to have their child transferred or drop out of school (4.9 percent) may be due to the fact that the women in this sample are relatively young. Their children may still be in elementary where the cost of attending school is much lower than secondary school. In addition, roughly a third of the women had either no children, or no children of school age.

**Table 15:** Percent of women who had a child transfer or drop out of school by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Children transferred or dropped out of school</b>				
No	55.5	58.1	59.9	58.4
Child transferred only	6.5	3.4	1.3	3.1
Child dropped out only	1.3	2.0	1.9	1.8
No child in school (ages)	36.8	36.5	36.9	36.8
Total	100	100	100	100

**Perceptions of impact of the economic crisis**

We first asked questions regarding the respondent's knowledge of the crisis and their perceptions regarding its impact on the country as a whole. We then asked more personal questions asking about the impact on their families and community members.

Knowledge of the economic crisis (Table 16)

A series of questions were asked to measure the knowledge of the women in our sample regarding the economic crisis. Almost all of the women have heard of the economic crisis that Thailand is facing. Provincial urban areas have the smallest proportion of women with knowledge of the crisis but this number is still very large (93.9%). The majority has also heard about the International Monetary Fund (IMF) loan. A higher percentage of women from the urban areas (Bangkok and other provincial urban areas) than women in rural areas have heard about the loan.

The majority of women state that the country's economic situation at present is worse than three years ago. Slightly more women living in Bangkok (90.6%) state that the situation has gotten worse compared to women in the rural areas (89.7%) or the provincial urban areas (85.6%). A higher proportion of women in the provincial urban areas felt the economic situation of the country has actually improved (10.1%) than in the rural areas (5.0%) or Bangkok (4.7%).

**Table 16:** Knowledge of crisis by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>% Heard of economic crisis that</b>				
<b>Thailand is facing</b>	96.1	93.9	95.3	95.2
<b>% Heard of IMF loan</b>	90.3	90.5	86.1	88.2
<b>Compare the country's economic situation at present with 3 years ago</b>				
Worse	90.6	85.6	89.7	89.0
Same worse	3.4	3.6	5.0	4.2
Better	4.7	10.1	5.0	6.1
Don't know	1.3	0.7	0.3	0.7
Total	100	100	100	100
Sample size (N)	149	139	302	590

Perception of financial situation and level of impact of the crisis (Table 17)

We asked individuals to rate their present financial situation on a scale of 0-10, with 0 signifying the worst and 10 the best. Overall the majority of respondents feel that their individual financial situation is moderate. A larger percentage of rural women than women in the urban areas state that their financial situation is poor.

Although overall women state that their economic situation has worsened, nearly half of the sample is satisfied with their present financial situation and half is dissatisfied regardless of place of residence. Only about 2.9 percent of the women in the sample say that they are very satisfied, however, whereas approximately 9.7 percent of the women are very dissatisfied. A higher proportion of women from Bangkok (12.9%) or the provincial urban areas (10.8%) than in the rural areas (7.6%) state that they are very dissatisfied with their financial situation. This difference may be explained by the fact that a higher proportion of those living in Bangkok (74.8%) felt that their situation had worsened, compared to women in the provincial urban (64.9%) or rural areas (63.4%).

**Table 17:** Measures of perception and satisfaction of financial situation by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Assessment of financial situation</b>				
<b>at present</b>				
Poor, 0-3	19.4	23.0	27.1	24.2
Moderate, 4-7	74.2	70.9	67.2	69.8
Good, 8-10	6.5	6.1	5.7	6.0
Total	100	100	100	100
<b>Compare present financial situation</b>				
<b>with that of 3 years ago</b>				
Worse	74.8	64.9	63.4	66.6
Same	12.9	18.9	22.1	19.0
Better	12.3	16.2	14.5	14.4
Total	100	100	100	100
<b>Satisfaction with present financial situation</b>				
Very satisfied	3.9	3.4	2.2	2.9
Satisfied	47.1	50.7	48.6	48.7
Dissatisfied	36.1	35.1	40.7	38.2
Very dissatisfied	12.9	10.8	7.6	9.7
Don't know	-	-	0.9	0.5
Total	100	100	100	100

*Perception of level of impact of the crisis (Table 18)*

When asking women to evaluate how much the economic crisis has impacted their family, the results show that approximately 60.6 percent of the total sample feels that their families have experienced some impact (Table 18). Roughly 29.2 percent feel that their family has been significantly affected by the economic crisis, especially among those in urban areas (30.3% for Bangkok, 31.8% for provincial urban and 27.6% in rural areas). When asked to elaborate what type of impact their families experienced, a higher proportion of women, especially those in Bangkok, highlight the increased cost of living. When comparing across residential areas, the results show that women in Bangkok feel that second to the increased cost of living, their families have been impacted by a reduction in income, the absence of work and business

problems. In the provincial areas, both urban and rural, the second and third highest proportion of women cite business problems and having no job as impacts from the crisis affecting their family.

**Table 18:** Women’s perception of level to which crisis impact family, community and different age groups by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>Level of crisis impact on individual’s family</b>				
Not at all	9.0	11.5	10.1	10.2
Some	60.6	56.8	62.5	60.6
A lot	30.3	31.8	27.4	29.2
Total	100	100	100	100
<b>Type of impact</b>				
Increased cost of living	44.7	42.0	41.2	42.3
No job / unemployed	16.4	17.6	20.8	18.9
Business not good	15.6	22.9	27.5	23.4
Income reduced	18.4	16.0	7.1	12.1
Hardship, other	4.9	1.6	3.6	3.5
Total	100	100	100	100
Sample size (N)	141	131	284	556
<b>Level of crisis impact people in their community</b>				
Not at all	1.3	3.4	5.4	3.9
Some	43.9	50.0	55.8	51.5
A lot	41.3	39.9	34.4	37.4
Don’t know	13.5	6.8	4.4	7.3
Total	100	100	100	100
<b>Age group affected most by the crisis</b>				
No impact	11.0	8.1	7.9	8.7
Infant & children	10.3	10.1	12.3	11.3
Working ages	53.5	54.1	49.2	51.5
Elderly	0.6	-	1.6	1.0
All ages	23.9	27.7	28.7	27.3
Don’t know	0.6	-	0.3	0.3
Total	100	100	100	100

Slightly more than half of the women in our sample feel that the crisis has impacted their community in some way. More, however, regardless of type of residence, feel that there is some impact rather than a lot of impact. The percentage that states the impact is a lot is higher in the urban areas including Bangkok than in the rural areas.

A question was asked to ascertain the women’s opinion as to which age group has been impacted the most by the crisis: children, the working age group, or the elderly. The results indicate that the women in our sample feel that the working age group is experiencing the greatest impact

from the crisis. The second highest proportion of women, regardless of type of residence, believes that every age group is being affected by the crisis.

### Other changes in the household or community

#### Migration (Table 19)

One impact often cited by individuals examining the effect of the crisis in Thailand is that many individuals who lost their jobs have returned home. A reverse migration stream may develop when the place of destination cannot provide the income or does not have the demand for jobs that it used to. Therefore, when there has been an economic crisis, those who lose their jobs may return to their hometown or place of origin. The measure that we use, however, is not a measure of how many individuals actually moved into the areas in which we interviewed the women. The question asks the women in their opinion has the number of recent migrants increased, decreased or stayed the same. Therefore this question is subjective measuring the impressions of the women rather than the actual situation of recent migration in the areas examined. The impressions of these women may have been formed by the media rather than by their observations in the community. We also believe that urban residents are less likely to know whether there have been recent migrants or not in their community.

**Table 19:** Impressions of recent migration pattern and reasons by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Compare returned migrants in past year with 3 years ago</b>				
No move	8.4	22.3	17.0	16.1
Declined	12.3	6.8	3.2	6.3
Same	26.5	24.3	24.6	25.0
Increased	27.7	32.4	48.3	39.4
Don't know	25.2	14.2	6.9	13.2
Total	100	100	100	100
<b>Reason for returning home</b>				
No work	4.7	14.6	27.5	20.9
Laid off	74.4	70.8	58.8	63.9
Other	14.0	10.4	12.4	12.3
Don't know	7.0	4.2	1.3	2.9
Total	100	100	100	100
Sample size (N)	43	48	153	244

The results in Table 19 show that in the rural areas and in the provincial areas, a higher proportion of women state that the percent of return migrants has increased. In Bangkok nearly a quarter of respondents state that they either do not know, the number has increased or it is the same. In Bangkok, there is no clear pattern but in the rural areas, the difference between those stating that the number of return migrants has increased (48.3%) compared with the second highest proportion of women stating that there is no change (24.6%) is quite large. The women in the sample state that the main reason people are returning home is because the individuals are being laid off. In the rural areas, many women also state that migrants return home because there is no work.

### Mental health and stress levels (Table 20)

It is believed that stress levels have increased among the Thai populace since the economic crisis (Sussangkarn, Flatters and Kittiprapas, 1999: 7), though few studies have actually examined stress levels. A study conducted by the Political and Economic Risk Consultancy (PERC), based in Hong Kong found that overall Asians found life more stressful in 1997 than in 1996 (Thai Development Newsletter, 1997:75); this stress was associated with increasing economic difficulties. To determine the extent to which our sample of women was experiencing stress, we included several questions to ascertain present and past stress levels. Women in Thailand as a result of the economic crisis and their traditional role of financial arbiter for the family may be experiencing an increased burden in this new circumstance and consequently may be feeling more stressed.

The questions regarding stress levels and mental health are subjective but they do provide us with some idea of what women in our sample perceive their mental health and stress levels to be. Our measures are very broad and may have been interpreted by the women in various ways. We cannot know what meanings the women in our sample ascribed to these terms, stress and mental health. We, however, believe that the question regarding mental health will provide an overall picture of the woman's mental health, whereas stress is viewed more as a component of one's overall mental health. We asked the respondent about her stress level and mental health now and three years ago. Although we report our findings from these retrospective questions, we realize they may be biased as it is difficult for individuals to recall past emotional levels.

#### *Stress levels*

Roughly 46 percent of the women in our sample feel that they are currently moderately stressed regardless of place of residence. Women in our provincial urban sample are the least stressed and women in Bangkok are the most stressed. Over a third of women in the provincial urban areas (38.5%) are not stressed at all compared to 36.6 percent in the rural areas and 31.0 percent in Bangkok. A greater proportion of women from Bangkok (23.2%) feel that they are very stressed whereas only 16.2 percent and 17.0 percent of those in the provincial urban and rural areas respectively feel that they are very stressed.

When asked to compare their stress levels now with three years ago, a higher proportion state that their stress has increased or worsened. A higher proportion of women in Bangkok state that they feel their stress levels have become worse since three years ago (51.6%) compared to women in the rural (45.4%) and provincial areas (43.9%) in our sample. A higher proportion of women from the rural areas feel that their stress level is the same, whereas a higher proportion of women in the provincial urban areas feel that their stress level is better now than three years ago.

#### *Mental health*

Most women in our sample stated that they presently have moderate to good mental health. Women living in Bangkok and the rural areas are slightly more likely to state that they have moderate rather than good mental health than women in the provincial urban areas.

When compared with 3 years ago, nearly half of our sample feels that their mental health has worsened. A higher proportion of women in Bangkok feel that their mental health has worsened (50.3%), compared to women in the provincial urban (41.9%) or rural areas (38.8%) in our sample.

### Spousal conflict

We included a question regarding conflict with spouse (husband) because we believe it may partly reflect the tension in the family as a result of the economic crisis. Results in Table 20 show that slightly more than one-fourth of the women have never fought with their husband. The proportion of couples never fighting is highest in the rural areas and lowest in Bangkok. Although overall couples in Bangkok may be fighting more, a higher percentage feel that they are fighting less now (24.5%) than fighting more (19.4%) compared to three years ago. The same pattern can be seen in the provincial areas, suggesting that the crisis may bring families closer together.

**Table 20:** Indicators of mental health situations by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Level of stress at present</b>				
No-little stress	31.0	38.5	36.6	35.6
Moderate	45.8	45.3	46.4	46.0
Very stress	23.2	16.2	17.0	18.4
Total	100	100	100	100
<b>Compare stress now with 3 years ago</b>				
Worse	51.6	43.9	45.4	46.6
Same	29.0	33.8	39.7	35.6
Better	19.4	22.3	14.8	17.7
Total	100	100	100	100
<b>Present mental health status</b>				
Poor	8.4	9.5	9.5	9.2
Moderate	48.4	43.9	48.6	47.4
Good	43.2	46.6	42.0	43.4
Total	100	100	100	100
<b>Compare mental health now with 3 years ago</b>				
Worse	50.3	41.9	38.8	42.4
Same	34.2	39.9	43.2	40.2
Better	15.5	18.2	18.0	17.4
Total	100	100	100	100
<b>Conflict with husband now vs. 3 years ago</b>				
Never fight	22.6	27.0	31.9	28.4
Fight less now	24.5	23.6	22.4	23.2
Same	29.0	23.6	27.8	27.1
Fight more now	19.4	22.3	15.8	18.2
Just married	4.5	2.0	1.9	2.6
DK	-	1.4	0.3	0.5
Total	100	100	100	100

## **Reproductive Health**

### Women's general health status (Table 21)

According to the results in Table 21, most women report that they have moderate to good physical health. Very few women report that they have poor health. Presently more women living in Bangkok feel that they have poor health (5.8%) than in the rural areas (4.1%) or in the provincial urban areas (3.4%).

This study also asked women to compare their current health status with their health status 3 years ago. More feel that their health has become worse than better. In Bangkok, about 10 percentage points more feel that their health has become worse (47.4%) than stayed the same (37.4%). In the provincial urban and rural areas, the differences in the percentage who think their health is the same or worse is very small. Analyzing perceptions of health status, which tend to reveal accurate assessments of one's health, indicates that women's health status has declined since the crisis began. We recognize that one's health may deteriorate due to the passing of time. Since over 40 percent, however, state that their health has worsened, and only three years has passed, we believe there is another factor affecting health, namely the crisis. There is very little variation by area of residence when examining either present health status or that of three years ago.

**Table 21:** Percent distribution of general health indicators by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Present health status</b>				
Poor	5.8	3.4	4.1	4.4
Moderate	54.2	54.7	56.5	55.5
Good	40.0	41.9	39.4	40.2
Total	100	100	100	100
<b>Compare health status now with 3 years ago</b>				
Worse	47.7	43.9	42.3	44.0
Same	37.4	41.9	41.0	40.3
Better	14.8	14.2	16.7	15.6
Total	100	100	100	100

In the following section, we analyze responses to questions regarding reproductive health as defined by the Ministry of Public Health. Since the data in this study concentrated only on married women aged 15-39, we consider 7 aspects of reproductive health: family planning, maternal and child health, abortion, infertility, STDs, HIV/AIDS, and reproductive tract malignancies. We will not be able to examine the provision of sex education, information and services for adolescent reproductive health care and services for post-reproductive age health and old age populations from the perspective of the user of these services.

#### Family planning (Table 22)

To understand aspects of family planning, we included questions in our survey regarding preferences for the number of children desired, contraceptive use, access to family planning and the different costs associated with family planning. Some of this information is shown Tables C2 and C3 in Appendix C.

In Table 22, the percentage of currently married women in our sample who have ever used any contraceptive method is high regardless of place of residence. The proportion of rural women ever using contraception is slightly higher (95.0%) than the proportion in urban areas, (provincial (93.9%), and Bangkok (92.3%)). The percentage of those currently using contraception is also quite high, again with more rural women (82.3%) using contraception.

The birth control pill is the most popular method, followed by female sterilization and depo-provera. These results confirm past research findings that female-controlled methods contribute greatly to the success of the family planning program in Thailand. Of the three most commonly used family planning methods, the preferred type of method differs by place of residence. The pill is popular in Bangkok (41.0%), whereas depo-provera is more popular than other methods amongst rural women (36.0%). The pill (37.7%) and female sterilization (36.0%) are the most popular methods in the provincial urban areas.

The high level of contraceptive prevalence may be explained by the low level of family size desired. The women in our sample desire 2 children on average, regardless of place of residence and about a third want an additional child. (see Table C2). Access to family planning and the economic crisis do not appear to be major reasons for not using a contraceptive method. Over half of the non-using women either want a child or are presently pregnant (see Table C3).

**Table 22:** Percentage of ever use and of current use, and percent distribution of methods used by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>Contraceptive Use</b>				
% Ever use	92.3	93.9	95.0	94.0
% Current Use	78.7	77.0	82.3	80.2
<b>Method currently using</b>				
Pill	41.0	37.7	31.8	35.4
IUD	4.9	0.9	0.8	1.8
Depo-provera	13.1	14.9	36.0	25.6
Norplant	0.0	0.9	2.7	1.6
Female sterilization	30.3	36.0	26.1	29.4
Vasectomy	1.6	0.0	1.1	1.0
Condom	6.6	3.5	1.5	3.2
Safe period & withdrawal	2.5	6.1	0	2.0
Total	100	100	100	100
Sample size (N)	122	114	261	497

*Access to health care and family planning (Table 23)*

To ascertain if access to health care and family planning is affected due to proximity, we included a question regarding travel time to the nearest health center. Unfortunately we only asked the women who were not using contraception how far they had to travel to get contraception. In addition, about 10 percent of the non-users did not report the travel time; these individuals were primarily in the rural areas and Bangkok. The results, therefore, cannot be considered representative of the entire sample. Table 23 shows that in general most of the non-users live less than 15 minutes traveling time from their nearest health center. The women from the provincial urban areas are the closest to their place of health care, with the highest proportion living less than 10 minutes.

Table 23 also shows that the largest proportion of women receive their family planning method from a government health facility regardless of place of residence. For rural women, government facilities are by far the most popular place to receive a family planning method (82.7%). A

larger proportion of women from Bangkok use drug stores than women in the provinces, urban and rural, perhaps because they are more likely to lack a welfare card (see Table 34). The wealthier position of women in the provincial urban areas may be the reason that a high percentage of women in these areas are accessing private health facilities.

**Table 23:** Percent distribution of women stating travel times and source of family planning by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>Time travel to nearest health center among women not currently using contraceptives</b>				
Lt 10 minutes	39.4	50.0	33.9	39.8
10-14	24.2	38.2	23.2	27.6
15-29	12.1	11.8	26.8	18.7
30+	15.2	-	16.1	11.4
Don't know	9.3	-	16.1	11.4
Total	100	100	100	100
Sample size (N)	33	34	56	123
<b>Source of family planning method</b>				
Government health center/ hospital	50.3	56.1	82.7	68.4
Private clinic/hospital	10.5	15.8	9.7	11.3
Drug store	37.8	23.7	7.7	18.9
Media (information for natural contraception)	1.4	4.3	-	1.4
Total	100	100	100	100
Sample size (N)	143	139	300	582

*Cost of family planning (Table 24)*

We included three questions to examine the costs associated with family planning for the women in our sample. Overall, both the cost of travel to receive family planning services and the cost of receiving contraceptive methods are quite low according to our sample. The results in Table 26 show that more than half of the women from the provincial urban and rural areas spend from 2-20 baht for traveling costs to receive family planning. The proportion spending 50 baht for travel costs is highest in rural areas (16.9) followed closely by Bangkok (15.7). Over 50 percent of women in Bangkok, however, state that they experience no cost as they primarily walk.

The cost of contraceptives also does not appear to affect access to family planning. Many women do not have to pay for contraceptive services because either there is no cost or they are reimbursed by some insurance plan (Table 24). The proportion who have to pay for family planning services is the same for Bangkok and rural respondents (about 66 percent each) and higher than provincial urban women. The highest proportion of women who pay 100 baht or more are from the provincial urban areas followed closely by women in Bangkok. When asked whether they feel that the cost of family planning is a burden, the majority regardless of place of residence state that it is not a burden. The rural areas have the highest proportion saying that the cost of family planning is somewhat of a burden or quite a burden. Women in the provincial urban areas are the least likely to state that the cost is a burden.

**Table 24:** Percent distribution of women assessing cost of family planning by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>Travel costs to receive family planning</b>				
No cost, walk	50.7	12.1	17.3	24.3
2-10 baht	20.0	34.8	34.6	31.1
11-20 baht	7.9	23.5	18.6	17.1
21-50 baht	3.6	8.3	8.6	7.3
50 baht	15.7	7.6	16.9	14.5
own car	2.1	13.6	4.0	5.8
Total	100	100	100	100
Sample size (N)	140	132	301	573
<b>Cost of family planning service</b>				
No cost- reimbursed, free, welfare	33.8	40.6	34.0	35.5
2-14 baht	4.3	5.5	11.1	8.2
15-29 baht	23.0	12.5	11.8	14.7
30-49 baht	11.5	7.8	19.2	14.7
50-99 baht	12.2	16.4	17.5	16.0
100 baht+	15.1	17.2	6.4	11.0
Total	100	100	100	100
Sample size (N)	139	128	297	564
<b>Burden of family planning costs</b>				
No	85.1	91.0	74.9	81.2
Some	10.6	5.3	17.4	12.9
Much burden	4.3	3.8	7.7	5.9
Total	100	100	100	100
Sample size (N)	141	133	299	573

#### Maternal and Child Health (Table 25)

We include the following aspects of maternal and child health in our report: pregnancy, miscarriage and birth. Within these categories, we also examine prevalence of stillbirth, number of children born, place of prenatal care, delivery of the last live birth, birth weight of last live birth, and the duration of breastfeeding.

#### *Pregnancy (Table 25)*

A small percentage of the women are currently pregnant. The Bangkok sample has the highest percentage of women currently pregnant. A small percentage of the women have also never been pregnant. The urban areas have a higher percentage of women never pregnant than in the rural areas. Bangkok women have the highest percentage never pregnant at 12.3 percent.

#### *Miscarriage, still birth (Table 25)*

Few in our sample have ever had a miscarriage. The women in the provincial urban areas have the highest prevalence (about 16.2%), followed by those in Bangkok (15.5%), and those in rural areas (7.5%). Very few have had a miscarriage in the last three years. A greater percentage of women living in the urban areas than in rural areas have had a miscarriage in the last three years. Among women who have ever been pregnant, very few have ever had a stillbirth.

**Table 25:** Indicators of maternal and child health pertaining to pregnancy, miscarriage and birth by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>% currently pregnant</b>	7.1	6.1	5.0	5.8
<b>% Never pregnant</b>	12.3	9.5	6.0	8.4
<b>% Ever had a miscarriage</b>	15.5	16.2	7.5	11.6
<b>% Had a miscarriage in last 3 years</b>	5.2	3.4	2.5	3.4
<b>% ever had a stillbirth among ever pregnant women</b>	1.5	2.2	1.7	1.8
Sample size (N)	136	134	298	568
<b>Number of children ever born</b>				
0	17.4	12.2	7.9	11.3
1	34.2	33.1	32.2	32.9
2	30.3	32.4	47.6	39.7
3+	18.1	22.3	12.3	16.1
Total	100	100	100	100
Mean	1.6	1.8	1.7	1.7
<b>Number of living children</b>				
0	18.1	12.2	8.2	11.6
1	34.2	33.1	32.5	33.1
2	31.6	33.1	47.6	40.2
3+	16.1	21.6	11.7	15.2
Total	100	100	100	100
Mean	1.5	1.8	1.6	1.6
<b>Year last live birth was born</b>				
Last 3 yrs	40.6	36.9	38.0	38.4
More than 3 yrs ago	59.4	63.1	62.0	61.6
Total	100	100	100	100
Sample size (N)	128	130	292	550
<b>Place of delivery of last live birth</b>				
Home	3.1	3.1	9.2	6.4
Government health center/hospital	94.5	93.8	88.7	91.3
Private clinic/hospital	2.3	3.1	2.1	2.4
Total	100	100	100	100
<b>% Had prenatal care among women with a live birth</b>	95.3	86.9	94.2	92.7
<b>% Did not plan to have last birth among women with a live birth</b>	40.6	26.9	20.5	26.7
Sample size (N)	128	130	292	550

*Lifetime fertility (Table 25)*

The number of children ever born is a measure of lifetime fertility. It reflects the accumulation of births over a women's lifetime. The women in our sample are still in their reproductive ages, however, so we cannot be sure that the number of children ever born is the actual lifetime fertility. As seen in Table 25, nearly a third of our sample desired an additional child; this desire can be used as a factor determining current fertility.

The percentage distribution of the number of children ever born to all currently married women in the sample shows a similar trend to the rest of the country. Table 25 shows that most women have one or two children. The mean number of children ever born is about 1.7. It does not differ

greatly by type of residence. There is a small percentage of women who still have more than 2 children. More of these women in our sample live in the provincial urban areas (21.6%) than in Bangkok (16.1%) or the rural areas (11.7%). The women who do not have any children make up the highest proportion in Bangkok (17.4%) and the lowest in rural areas (7.9%).

*Infant and Child Mortality (Table 25)*

The mean number of living children for the overall sample of women is about 1.6, which is almost the same as the mean number of children ever born. The difference between the number of living children and the number of children ever born reflects the low infant and child mortality rate for the mothers in the sample and in Thailand overall.

*Last birth (Table 25)*

The largest proportion of women in our sample had their last birth over 3 years ago as shown in Table 25. This proportion does not differ greatly by type of residence. A higher proportion amongst those in Bangkok (40.6%) had their last birth within the last three years, than amongst those in provincial urban areas (36.9%) or in the rural areas sampled (38.0%).

Most of the women delivered their last child in a government hospital. The proportion delivering their last child in a government facility is highest among women in Bangkok (94.5%), followed by those in provincial urban (93.8%) and rural areas (88.7%). A small proportion of women delivered their last birth at home, most of whom live in rural areas (9.2%).

*Prenatal care (Table 25)*

About 92.7 percent of ever-pregnant women in our sample have sought prenatal care while they were pregnant with their last birth. There is very little difference between Bangkok (95.3%) and the rural areas (94.2%). The provincial urban areas have the lowest proportion of women who had prenatal care while they were pregnant with their last child (86.9%). A considerable proportion of women did not plan their last birth in Bangkok (40.6%), compared to women in the provincial urban areas (26.9%) or in the rural areas (20.5%).

*Birth weight (Table 26)*

Children's birth weight is another factor that reflects the reproductive health care behavior of mothers. The mean birth weight of the last live birth for the total sample is about 3,031 grams. Very few in our sample have mean children's birth weight less than 2,500 grams. Provincial urban areas have slightly more underweight babies (13.8%) than among Bangkok (10.2%) or rural women (7.9%). Women in Bangkok have the highest proportion of last births weighing 3,500 grams or more, followed by the rural women and the provincial urban women (20.5% and 19.9% respectively). Low birth weight or undernourishment does not appear to be a serious problem in Thailand.

*Breastfeeding (Table 26)*

The process of industrialization and modernization is expected to have an impact on child rearing behavior, especially in terms of breastfeeding. The more women are exposed to modernization, the shorter the breastfeeding period is. The women in the rural areas have the highest rates of breastfeeding and the longest duration of breastfeeding as shown in Table 26. This may be due to less role conflict between child rearing and agricultural work.

**Table 26:** Percent distribution of women with child of specified birth weight and duration of breastfeeding by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Birth weight of last live birth</b>				
< 2,500	10.2	13.8	7.9	9.8
2,500-2,999	24.2	24.6	36.3	30.7
3,000-3,499	37.5	44.6	33.9	37.3
3,500-	26.6	16.9	20.5	21.1
Don't know	1.6	-	1.4	1.1
Total	100	100	100	100
Sample size (N)	128	130	292	550
Mean	3,082	2,989	3,028	3,031
Sample size (N)	126	130	288	544
<b>Duration (in month) of breastfeeding last birth</b>				
Did not breastfeed	13.3	8.5	7.2	8.9
≤ 1	11.7	13.8	6.2	9.3
2-3	21.1	24.6	14.4	18.4
4-11	15.6	14.6	9.6	12.2
12-23	16.4	17.7	32.5	25.3
24+	9.4	8.5	12.3	10.7
Still breastfeeding	12.5	12.3	17.8	15.3
Total	100	100	100	100
Sample size (N)	128	130	292	550

Abortion (Table 27)

Assessing the prevalence of abortion in Table 27 reveals that very few in our sample have ever had an abortion. The highest prevalence level of abortion is in Bangkok (roughly 10%), followed by the provincial urban areas (5.4%), and the rural areas (3.5%). We find the same pattern by type of residence for the prevalence of abortion in the last three years.

We also asked a question to determine the intent of women to abort at this time. We believed that women in Thailand might not want to have their next child if they were suffering from the financial crisis. We asked currently pregnant women if they could choose or start over again if they would postpone or abort their current pregnancy. We then asked all other women a hypothetical question regarding the possibility of getting an abortion if she was currently pregnant. We combined the results to ascertain current intentions to abort a child. Roughly 11 percent of women in our sample state that they would get an abortion. The percent is slightly higher amongst those living in urban areas, particularly Bangkok, than women living in the rural areas. The percentage intending to have an abortion is much higher than the experience of actually having an abortion.

**Table 27:** Experience and intentions regarding abortion by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>% Ever had an abortion</b>	10.3	5.4	3.5	5.6
<b>% Had an abortion in last 3 years</b>	1.9	0.7	0.3	0.8
<b>% Will abort if pregnant</b>	12.9	11.5	9.5	10.8

Infertility (Table 28)

Respondents were asked if they thought they had difficulty conceiving or any infertility problems. Table 28 shows that roughly 22 percent of our sample believe that they have infertility problems. This belief does not differ by type of residence. We then measured actual infertility by examining women who have been married at least 3 years, have never been pregnant, are not using any contraception, and desire to have a child. The percent with actual infertility problems is rather small, roughly 1 percent.

Of those women who believe that they have infertility problems, we asked if they knew where to go to receive treatment, and if they do have they gone. As a total of 151 women say that they have infertility problems, the following results are based on a small sample size of 151. Among women in Bangkok, a large proportion of them (50.0%) do not know where to receive treatment. There is a smaller proportion of women in the provinces, urban and rural, who do not know where to go, 29.9 percent in the rural areas and 19.4 percent in provincial urban areas. A greater percentage of women in the provinces, urban and rural combined, rather than those living in Bangkok know where to go but do not go to receive treatment. Amongst women in the provincial urban areas, however, a large proportion do receive treatment for infertility (38.9%), whereas a little less than a quarter of women from both the rural areas and Bangkok seek treatment for infertility. Such results reflect that even though Bangkok may have better health care services than the other regions, the dissemination of health care information may not be reaching the entire population, especially among the urban poor and new in-migrants.

Menstruation (Table 28)

We examined menstruation as it is an important measure of women's reproductive health and all the women in our sample aside from those who are presently pregnant or sterilized would be at risk of menstruating. An abnormal menstrual cycle may lead to infertility and other gynecological problems. Very few studies exist that examine the menstrual problems of Thai women. Therefore, in this study, an attempt has been made to collect data on this matter by using a series of questions to elucidate what problems exist in Thailand.

There are some women in our sample who suffer from menstrual problems. Table 28 shows that some women have experienced heavy bleeding and pain with menstruation. A higher percentage of women living in Bangkok have experienced pain and heavy bleeding last year (19.4%) than those living in the provincial urban areas (14.2%) or rural areas (6.9%).

We then constructed a variable to reflect the prevalence of abnormal menses. Women who last year had menses less than 3 days or more than 7 days, or heavy bleeding, or a menstrual cycle less than 24 days or more than 36 days, or had serious menstrual pain were combined into a category of having abnormal menses. Those who live in urban areas, particularly in Bangkok, also have the highest proportion with abnormal menses. These menstrual problems may come

from stress related to the economic crisis, which may in turn lead to the problems of infertility. Table 20 shows the results from examining the stress levels of women in our sample.

**Table 28:** Indicators of infertility and menstruation disturbances by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>% of women believing themselves to have infertility problems</b>	22.9	21.5	22.2	22.2
Sample size (N)	153	144	311	608
<b>% of women actually infertile</b>	1.3	0.7	1.3	1.1
<b>Knowledge and accessing treatment for infertility</b>				
Do not know source for treatment	50.0	19.4	29.9	32.5
Know of place but did not go	26.3	41.7	45.5	39.7
Went to receive treatment	23.7	38.9	23.4	27.2
Don't know	-	-	1.3	0.7
Total	100	100	100	100
Sample size (N)	38	36	77	151
<b>% Experience heavy bleeding and pain with menstruation</b>	19.4	14.2	6.9	1.8
<b>% Abnormal menses last year</b>	25.8	21.6	12.6	18.1

STDs and HIV/AIDS (Table 29)

The incidence of new cases of STDs has been declining in Thailand, partially due to the success of the government's health prevention programs such as the 100-percent condom use campaign (Rojanapithayakorn and Hanenberg, 1996). Very few couples in our sample have ever had an STD. Couples in Bangkok have the highest prevalence (6.6%), followed by provincial urban areas (3.4%) and the rural areas (1.3%). The low level of STD may be in part due to under-reporting.

**Table 29:** Indicators of STDs and HIV/AIDS by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>% of Couple ever had an STD</b>	6.5	3.4	1.3	3.1
<b>HIV/AIDS test</b>				
Husband only	3.2	4.1	4.4	4.0
Self only	19.4	21.6	18.6	19.5
Both	20.6	31.1	17.0	21.3
Never	56.8	42.6	59.9	55.0
Don't know	-	0.7	-	0.2
Total	100	100	100	100

Nearly half of the women in our sample have received an HIV test. Most of these women receive a test when they go in for their prenatal visit. Only a quarter of their husbands, however, have ever had an HIV test. There was a difference by area of residence. More women in the provincial urban areas, however, have had an HIV/AIDS test than women in Bangkok or the rural areas.

### Reproductive tract malignancies (Table 30)

We collected information about whether the respondents have had an annual health checkup and if they have ever had a Pap smear test. We also asked the number of years since their last pap smear. These questions provide information to determine the extent to which women are preventing the incidence of reproductive tract malignancies. Less than half have ever had an annual checkup regardless of place of residence. About a third of the women living in Bangkok have ever had an annual checkup (32.9%), compared to 39.1 percent of women in rural areas and 45.3 percent in provincial urban areas.

**Table 30:** Percent distribution of women receiving preventative care for reproductive tract malignancies by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>% ever had an annual health checkup</b>	32.9	45.3	39.1	39.0
<b>No. of years since having the last pap smear test</b>				
Less than one year	31.0	25.7	21.8	25.0
1	14.2	13.5	15.5	14.7
2-4	17.4	18.2	30.3	24.2
5+	17.4	16.9	14.2	15.6
Never checked	20.0	25.7	18.3	20.5
Total	100	100	100	100

About one fifth of women in our sample never have had a pap smear test. More women in Bangkok have had a pap smear test within the last year compared with women in the provincial urban and rural areas. The highest proportion of those living in the rural areas, received a pap smear 2-4 years ago (30.3%).

### Health care utilization (Table 31)

The economic crisis may decrease a woman's ability to access health services for her or her family by negatively impacting her access to income and time (Buchman, 1994:11). If the costs associated with accessing reproductive health services remain unchanged, the crisis may negatively affect women's health and access to health. Women and men may not be able to afford to pay for either direct or indirect costs of reproductive health services.

Many providers in the qualitative aspect of this study state that they believe more individuals are using public health centers. They surmise that many who previously used private services are turning increasingly to the public sector for care because they can no longer afford private care. A few respondents of the qualitative aspect of this study state that there might be some women who are not able to access any type of reproductive health care. We, therefore, include questions to ascertain the extent to which women in our sample are able to access reproductive health care services.

The users were asked where and from whom they received services, which level i.e. health center, clinic or hospital and whether it was a private or public institution. They were asked if they had changed their place of health care from 3 years ago, the reason for changing, the reason for not seeking care even if they or a family member was sick and the number of health insurance

sources they had. This aspect of the study allows for a greater understanding of the respondent's pattern of health care utilization.

#### *Source of health care*

The results in Table 31 show that the main sources of health care for women are government facilities, followed by private facilities, and drug stores. Women in rural areas are more likely to use a government facility than women in the urban areas and Bangkok, while the opposite is found for the use of private facilities.

#### *Change of health care facility*

The next section of Table 31 shows that our hypotheses that a shift from using private health care services to public health care did not take place in our sample. To best determine if individuals were going to government facilities more than before the crisis, we combined all places of service provision other than government. Therefore in Table 31 private includes all types of service other than government such as buying drugs at a pharmacy, taking care of oneself or visiting a private doctor or health clinic.

The majority of women have not changed their place of health care this year from where they visited three years ago. Respondents from Bangkok and the rural areas state that their families changed their place of service more than those living in the provincial urban areas sampled. Only 8.4 percent of our sampled women report changing from a private to a government facility. Bangkok respondents display the highest proportion of changing from private to government services and provincial urban respondents the lowest.

#### *Reason for changing health care facility*

When we examine the reasons that the women gave for why they or their family members changed their place of health care service, we find in Table 31 that the women varied by type of residence. Rural respondents cite that they changed their place of service because the new facility was close by or more convenient more often than urban respondents. A higher proportion of women in Bangkok than in rural or provincial urban areas state that they changed facilities because of the cost of service. Proximity, however, is also an important reason for Bangkok residents to change their place of service. More provincial respondents (37.5%) than Bangkok (24.5%) or rural (20.0%) respondents gave other reasons for changing their place of service including that their symptoms were not serious or that they moved. Women in the provinces, rural and urban areas were also more likely to state that they changed because they felt the quality of the doctors and/or equipment was better at their new place of service. Consequently, these findings lead us to conclude that the cost of services is much more of a factor for women and their families in Bangkok than for women in the provincial areas of our sample.

**Table 31:** Indicators of access to health care including source, change and reason for change by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>Source of health care last year</b>				
Self treatment/pharmacy	12.9	6.1	2.8	6.1
Government facility	51.0	62.2	79.5	68.2
Private facility	36.1	31.8	17.7	25.6
Total	100	100	100	100
<b>Change of place of health care source from 3 years ago</b>				
No change	67.7	77.0	72.2	72.3
Changed from private to govt	9.7	6.1	8.8	8.4
Changed from private to private	1.9	2.0	1.6	1.8
Changed from govt to private	14.2	5.4	5.4	7.6
Changed from govt to govt	6.5	9.5	12.0	10.0
Total	100	100	100	100
<b>Reason for changing place of health care</b>				
Close by, convenient	30.6	18.8	45.9	36.1
Cheaper / free of charge	30.6	18.8	10.6	18.1
Good service / doctor or equipment	14.3	25.0	23.5	21.1
Other (symptom not serious /resident moved)	24.5	37.5	20.0	24.7
Total	100	100	100	100
Sample Size	49	32	85	166

*Resources to access health care (Table 32)*

To ascertain if there had been any change in the women’s health-seeking behavior due to financial duress, we asked, “During the past year were there any household members that got sick but did not seek health care due to financial problems?” The results in Table 32 show that the majority of household members who got sick still sought health care services. Only roughly 11 percent did not seek health care due to financial problems. This does not differ greatly by type of residence. In sum the crisis has had little if any association with a change of health care source. Almost 20 percent of Bangkok residents who got sick did not go but this was not due to financial reasons. Very few among the provincial urban (7.4%) or rural areas (9.8%) did not go to health services if they were sick. In chapter 4 where we examine impacts of the crisis, we will explore the relationship between the crisis and the 11 percent who did not access health care due to financial problems.

*Health Insurance (Table 32)*

The information regarding the extent to which individuals have health insurance in Thailand provides an understanding of one of the safety nets that Thai citizens have. These governmental sponsored schemes differ in terms of the target population and the scope of medical benefits covered. Four general topic areas include: 1) Health benefits for government employees, 2) Compulsory health insurance for formal sector employees, 3) Voluntary health insurance, and 4) Health assistance to the poor and the destitute. Several studies have estimated the percent of the

population covered by at least one of the government's insurance schemes. Estimates range from 39 percent of the total population or 21 million individuals in 1990 (Ron, Abel-Smith and Tamburi, 1990:190), 32 percent in 1991 (NSO, 1991) and 44.4% in 1992 (Viroj and Supachutikul, 1993). More recently, according to the respondents questioned for the National Statistics Office's Health and Welfare Survey, 1996, 45.8 percent of individuals have some form of health insurance.

Sixty percent of the currently married women in our sample have at least one form of health care insurance. Our sample was purposive to capture effects on the poor. Therefore it appears that many of the poor at least in our study are more likely to have some type of health insurance than the general Thai population. More than half of women in Bangkok (57.4%) reported that their household did not have any source of health insurance. Those in provincial urban and rural areas seemed to be better off in terms of having at least one source of health insurance. As more provincial urban and rural residents accessed health care when they were sick, the involvement in at least one health insurance scheme may lead to more usage of health services.

**Table 32:** Indicators of having resources to access health care including not seeking health care because of financial problems and ownership of health insurance by area of residence

	Bangkok	Provincial urban	Rural	Total
<b>Did not seek health care because of financial problems</b>				
No	69.7	81.8	79.2	77.4
Yes, but not financial reason	18.7	7.4	9.8	11.5
Yes	11.6	10.8	11.0	11.1
Total	100	100	100	100
<b>No. of health insurance sources</b>				
0	57.4	36.5	34.1	40.5
1	28.4	52.0	52.1	46.1
2+	14.2	11.5	13.9	13.4
Total	100	100	100	100

#### Quality of care (Table 33)

To determine the present status of quality of care, we asked several questions to determine the quality of interactions between provider and client. We included questions regarding waiting time, respect for privacy, adequacy of information given, whether the provider's listened attentively to the client's problems and an overall assessment of service provision.

A third of the women from the urban areas stated that they had to wait a long time before receiving service. In the rural areas, 24.6 percent of the women stated that they had to wait long. A higher proportion of women from the urban areas also felt that the providers did not respect their privacy and did not listen attentively. More women from the urban areas than from the rural areas also felt that they were not given information that they understood about their illness. Overall based on these measurements, the quality of care is better in the rural areas than the urban areas based on the perspective of the women interviewed in our sample. When analyzing the overall picture, however, we get a different picture.

In Table 33, the majority of respondents rate the overall service as moderate to very good. About 5 percent give a poor rating in their assessment of overall service. There is only a little variation by area of residence. The rural women are less likely than the urban women to state that service is very good. Therefore although rural women are less critical of the specific aspects of the service, from analysis of their overall assessment of service, it is apparent that they are not completely satisfied with the quality of service provision.

**Table 33:** Quality of health care indicators by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>% Having to wait long for treatment</b>	31.0	29.1	24.6	27.3
<b>% Not receive treatment privately</b>	27.7	25.0	18.0	12.1
<b>% Not told about type of illness</b>	14.2	14.9	12.9	13.7
<b>% Health provider did not listen attentively to the health problems</b>	9.7	6.1	4.8	6.3
<b>Assessment of the overall service</b>				
Very good	23.2	24.3	19.9	21.8
Good	45.8	45.9	51.4	48.7
Moderate	25.8	25.0	24.0	24.7
Poor	5.2	4.7	4.7	4.8
Total	100	100	100	100
Sample size (N)	155	226	239	620

### **Summary and recommendations**

Our descriptive analyses show us that although the impact is minimal some changes in financial well-being and reproductive health behavior have taken place since the crisis began in July 1997. We purposively sampled low-income neighborhoods to assess the impact on the poor. Overall the provincial urban women have been the least affected and Bangkok the most. This finding is likely due to the fact that our sample of provincial urban women are wealthier than the rest of the sample. They have higher incomes, more assets, better quality houses and more luxury items. They are also more educated and more likely to work for government rather than being self-employed as in the rural areas or work for private enterprises as in Bangkok. Bangkok women are likely more affected than rural women because they are more likely to be employed by the private sector and thus were more susceptible to the economic crash that largely affected businesses in Bangkok. Another reason that Bangkok urban women may be more affected by the crisis is that urban women are less likely than rural women to have someone to turn to in need of financial help. The social network in the rural areas appears to be stronger and thus it may have buttressed individuals experiencing financial duress.

### Economic effects

Most of the women state that they have experienced increased hardship now more than three years ago, at least in terms of reduced income and an increase in household expenses. The largest proportion of women state that the high cost of food and other commodities has led to an increase in household expenses. Likely as a result of decreasing incomes and the increased cost of living, fewer couples have been able to save now than they had in the past.

Bangkok residents have been more affected by the crisis than other women in our sample in terms of unemployment levels. Although each area has experienced increasing levels of unemployment, Bangkok women are more likely to be recently unemployed. They also have a higher proportion of household members, close relatives and close friends currently unemployed and are more likely to state that there has been an increase in household members and close relatives who are recently unemployed. Women in Bangkok have also suffered more from underemployment and reduced salaries according to their reasons for having lower incomes now than three years ago.

Bangkok women are also more likely to state that their financial situation is worse now than it was three years ago. This perhaps explains why Bangkok women are more likely to be very dissatisfied with their present financial situation than women in the other areas.

#### *Perception of crisis*

A vast majority of the respondents feel that their family has experienced some level of impact from the crisis; almost a third of the sample feels that their family has been significantly affected. Many feel that the impact on the community, however, has not been great. If they do state that the community has been greatly impacted, respondents are more likely to live in the urban areas than the rural areas. The women in the rural areas are more likely to state that the in-migration stream has increased in their community now compared to three years ago. Many women feel that the people are returning home primarily because the individuals are being laid off from work.

A higher proportion of women, overall, but especially those in Bangkok, highlighted the increased cost of living as the type of impact their families experienced. In addition respondents cite the absence of jobs and a higher percentage of women in Bangkok cite reduction in income whereas in the provincial areas, both urban and rural, women state that their businesses are not going well.

Perhaps because the financial situation for Bangkok women appears to have changed the most and for women in the provincial urban sample the least, Bangkok women feel that they are the most stressed and provincial urban women feel that they are the least stressed. A higher proportion of women in Bangkok also state that they feel their stress levels have become worse and that their mental health has worsened since three years ago compared to women in the rural and provincial areas in our sample.

- Special programs might be established to address increasing stress levels, particularly in Bangkok.

Although overall couples in Bangkok may be fighting with each other more than couples in the other areas sampled, a higher percentage feel that they are fighting less now than fighting more compared to three years ago. The same pattern can be seen in the provincial areas, suggesting that the crisis may bring families closer together.

#### Reproductive health

We examine various reproductive health indicators to understand the present status and if there has been any change over the last three years. More Bangkok women than other women in the sample feel that they have poor health and that their health has become worse. Bangkok

women's health status therefore may be related to their economic status, which has also declined in the last three years.

*Family size desires, contraceptive use and intention of aborting*

The women in the provincial urban areas have a high percentage desiring more than two children, compared to women in Bangkok or the rural areas. Although few women desire no children, a larger proportion of Bangkok women desire to be childless than the women living in the other areas sampled. With economic security, provincial urban women may desire more children but with economic insecurity in Bangkok, the women may be more likely to desire no children. The women who do not have any children currently comprise the highest proportion in Bangkok and the lowest in rural areas.

Although our entire sample reveals a high contraceptive prevalence rate, there are less women in Bangkok using contraception than in the other areas sampled. These women are largely presently pregnant. Bangkok has the highest percentage of women currently pregnant. It is possible that women in Bangkok have become pregnant because they now have time to have the child that they had delayed while they were working. A larger percentage of women in Bangkok than in other areas are recently unemployed.

The lower contraceptive usage in Bangkok is likely not due to proximity as the majority of women who do not use contraception in our sample live within 15 minutes of a health facility. In addition, the cost of traveling to receive family planning services and the cost of contraceptives are relatively low. Consequently it is also unlikely that these factors affect contraceptive use.

The proportion who have to pay for family planning services is the same for Bangkok and rural respondents and higher for provincial urban women. This is likely due to the fact that provincial urban women tend to go to private health facilities for family planning. Rural women primarily visit government facilities and a larger proportion of women from Bangkok use drug stores than women in the provinces perhaps because Bangkok women are less likely to own a welfare card. Most of the women sampled, however, regardless of place of residence, state that the cost of family planning is not a burden. The rural areas have the highest proportion saying that the cost of family planning is somewhat of a burden or quite a burden. Women in the provincial urban areas are the least likely to state that the cost is a burden.

If women are not having the children that they previously delayed because they suffer from the financial crisis, we hypothesize that they may be further delaying having another child. We examine this hypothesis by not only looking at contraceptive use but also by examining the intent to abort. The percentage intending to have an abortion is much higher than the experience of actually having an abortion. The percent of women intending to get an abortion is slightly higher amongst those living in urban areas, particularly Bangkok, than women living in the rural areas.

- To avoid the incidence of illegal and likely unsafe abortion, contraception should be readily available. The Ministry should make a concerted effort to avoid shortage of contraceptive supplies.

There are some women in our sample who suffer from menstrual problems. A higher percentage of women living in Bangkok have experienced pain and heavy bleeding last year than those living in the provincial urban areas or rural areas. Those who live in urban areas, particularly in

Bangkok, also have the highest proportion with abnormal menses. These menstrual problems, which may in turn lead to the problems of infertility may derive from stress related to the economic crisis.

#### *Access to health care*

Over a third of the women from each type of residence state that they have increased spending on health care, although a larger percentage of women state that other expenses rather than health care have increased. We therefore asked if they or another household member did not go to seek health care services if they got sick to determine the burden of health care costs. The majority still went. Only roughly 11 percent did not seek health care due to financial problems. Bangkok residents, however, were more likely than the other areas not to go when they were sick but this was not due to financial reasons. Most among the provincial urban or rural areas went to health services if they were sick.

Although, the majority of women have not changed their place of health care this year from where they visited three years ago, respondents in Bangkok and the rural areas are more likely to have changed than those living in the provincial urban areas sampled. Rural respondents, however, are more likely to have changed due to convenience whereas Bangkok residents are more likely to have changed due to the cost of service. More provincial urban respondents than Bangkok or rural respondents gave other reasons for changing their place of service including that their symptoms were not serious or that they moved. Consequently, these findings lead us to conclude that the cost of health care services is much more of a factor for women and their families in Bangkok than for women in the provincial areas of our sample.

Although the overall percentage of women in the sample changing from private to government is small, Bangkok respondents display the highest proportion of changing from private to government services and provincial urban respondents the lowest.

Sixty percent of the currently married women in our sample have at least one form of health insurance. Therefore many of the poor at least in our study are more likely to have some type of health insurance than the general Thai population. Bangkok women, however, are the least likely to have any source of health insurance; less than half have one. Women in the provincial urban and rural areas tend to have at least one source of health insurance. As more provincial urban and rural residents accessed health care when they were sick, the involvement in at least one health insurance scheme may lead to more usage of health services.

- The government should make a concerted effort to identify women eligible for government health insurance, especially in Bangkok, to ensure poor women have access to health care.

Although based on our measurements of quality of care and the perspectives of the women in our sample, quality of care appears to be better in the rural areas than in the urban areas. Overall, however, women in the rural areas are less likely than the urban women to state that service is very good. Therefore although rural women are less critical of the specific aspects of the service, from analysis of their overall assessment of service, it is apparent that they are not completely satisfied with the quality of service provision.

## Chapter Four: Impact of the Crisis on Reproductive Health

In this section we examine the impacts of the economic crisis on reproductive health. We examine the relationship between the economic crisis and general health status, family planning behaviors, the use of reproductive health services, and mental health. Our analysis of the descriptive data in the previous section shows that, to some extent, the crisis appears to have impacted the lives of many women. We would like to examine this relationship further in the following section.

To determine if there is any association between the economic crisis and specific reproductive health indicators, we selected specific crisis indicators. The majority of these indicators show that the respondents have recently undergone some change in their economic or financial situation. We chose two indicators that are based on factual information and three indicators that are based on their impressions. The objective indicators included are experience of the couple's unemployment last year compared with three years ago, and the change of the couple's income level in the last three years. The subjective indicators are change of financial situation in the last three years, satisfaction with family's financial situation, and level of impact the crisis has had on their family. We also examined the effect of spousal conflict on our reproductive health indicators. This indicator is change of conflict with husband in the last three year.

We chose nine health-related variables to examine the effects of the above mentioned impact indicators on health and reproductive health. The health and reproductive health indicators include 1) having current good health, 2) reporting worse health in the last three years, 3) current contraceptive use, 4) would abort if currently pregnant, 5) having an annual health check up, 6) not seeking health care due to financial problems, 7) changing from a private to a government facility, 8) reporting poor current mental health, and 9) current high stress level. Many of these dependent variables are also the views or impressions of the respondents.

We use logistic regression to estimate the effects of the crisis indicators on women's reproductive health behavior. We are using logistic regression because our dependent variables are dichotomous. For each dependent variable except contraceptive use, we controlled for age, area of residence, and number of health welfare cards. For contraceptive use we did not control for number of health welfare cards because there was no variation in use. For both contraceptive use and abort if pregnant, we added a control for whether the respondent wanted more children. Our independent variables are categorical. The first category of each variable is the reference group. We report the results as odds ratios and report the significance of the whole variable. We examined the results both adjusted with our control variables and unadjusted. There is very little difference between the results. We thus discuss only the adjusted results.

### *Physical health status (Table 34, 35)*

Respondents were asked to rate from a scale of 0 to 10 their present physical health condition. We classify those reporting the scores of 8 to 10 as having good health. Approximately 40 percent of women report having good health. We examine the relationship between those reporting good health and our crisis indicators in Table 34. In examining change of financial situation although not significant we find a clear pattern. The better they feel their financial situation is the less likely they are to report having good health. This may be because those who feel better about their financial situation are likely working. Women who are presently working or have always worked may not have good health because their working conditions may be stressful or dangerous putting them at greater risk of having ill health than those not working.

Conversely, the odds ratio for the satisfaction with financial situation variable shows an expected relationship that women who are satisfied with their financial situation are more likely to have good health than women who are dissatisfied with their financial situation. The variable defining a change in conflict with their husband shows a significant relationship. Women who fight more with their husbands have a higher probability of not having good health while those who never fight or fight less are more likely to have good health.

Table 35 shows a more expected pattern between having worse health now than three years ago and our impact indicators. Those who feel that their financial situation has worsened are significantly more likely to have worse health than women who feel their financial situation has improved. The more subjective indicator of satisfaction with one's financial situation also follows this pattern. Those who are dissatisfied with their financial situation are significantly more likely to have worse health than those who are satisfied with their financial situation. Similarly those who fight more with their husbands are significantly more likely to have worse health than those who never fight.

#### *Fertility effects*

We examine the possible effects of the crisis on fertility as we feel that women who have been laid off as a result of the crisis, may now be having the children that they had previously delayed. They now do not have to delay having a child because they can now provide maternal childcare. In a separate study of Bangkok women, women's work status and type of employment was found to strongly affect the likelihood of having a second birth (Richter et al., 1994). Women in this study considered their ability to provide childcare when determining whether or not to have another child (Richter, et al. 1994), as they recognized that childcare interferes with their productivity. Rural Thais in the north and central region also hold this belief, stating that mothers who are still breastfeeding can not do wage work (Podhisita et al., 1990). If the mother is already unemployed or not needed to help in the rural environment because of excess available labor, then it is an opportune time to have a child. Admittedly, the relationship between reproduction and women's labor force participation is complex and this possible influence is one among many. The risk of pregnancy may also be increased due to the influence of the crisis on urban to rural migration – with men returning to the rural areas and to their families, separation abstinence is likely reduced.

We also provide the alternative hypothesis that because women have less money at their disposal if they have been negatively affected by the crisis, they will not desire any additional children, at least not at this moment.

To determine if there are any effects on fertility, we examine contraceptive use because the crisis only recently took place. Contraceptive use is an important determinant to fertility behavior. As abortion is a form of contraception but after one has conceived, we also include a question about whether the woman would abort or not if she were hypothetically pregnant at the moment.

#### *Family planning (Table 36, 37)*

As discussed in the previous section, contraceptive prevalence and accessibility to family planning among Thai women is relatively high. Despite initial worries that the economic crisis would reduce contraceptive prevalence, it is heartening that the economic crisis has had little or no impact on the use of family planning. In general the results in Table 36 suggest that women who are more affected by the crisis are more likely to use family planning than those who are less affected by the crisis. None of our impact variables, however, are statistically significant.

We find a similar pattern, when we examine the effects of all of the impact indicators on the variable would abort if currently pregnant. Approximately 10 percent of the entire sample of women state that they would abort if pregnant. The results in Table 37 show that although none of the economic impact indicators are significant, women who are more affected by the crisis are more likely to abort if pregnant. There is a statistically significant relationship between fighting with your spouse and aborting if pregnant. Women who are fighting more tend to say that they would abort if currently pregnant.

#### *Health Care Utilization (Table 38, 39, 40)*

Thirty-nine percent of our sample state that they have had an annual health check up. The likelihood of having an annual health checkup is not associated with any of our impact indicators as seen in Table 38. We do, however, find the expected pattern for two of our indicators. Those that are dissatisfied with their financial situation are less likely to have had an annual exam than those satisfied. We find a significant pattern for those who fight with their husband's and having an annual check up. The less one fights the more likely one is to have an annual exam.

We find the expected pattern in Table 39 for each of the crisis indicators when we examine the relationship to not seeking health care due to financial problems. Eleven percent of our sample states that they would not go to receive health care because of financial problems. The individuals who feel that they experienced negative economic consequences from the crisis, except for those recently unemployed, are the most likely not to go seek health care because of a financial problem. We do find that women who are unemployed are significantly more likely not to seek health care due to a financial problem than those who are currently employed. Those who are satisfied with their financial situation are significantly less likely to not seek health care due to financial problems. Those that experience a lot of impact of the crisis on their family are significantly more likely not to seek health care due to financial problems. Lastly, there is a significant relationship showing the more one fights the more likely one is not to seek health care due to financial problems.

The providers and administrators in our qualitative interviews suggested that clients are changing their place of health care as a consequence of the economic crisis. Our survey results show that the majority of women in our sample did not change their place of health care and only 8 percent changed from private to government facilities.

Results in Table 40 show the proportion who changed from private to government services is higher among women who have been negatively affected by the crisis according to our impact indicators. In particular, those who felt that their financial situation had improved are significantly less likely to change from a private to government facility. We also find that increased conflict with husbands is significantly associated with changing place of health care from private to government facilities.

#### *Mental Health (Table 41, 42)*

The survey asked women to rate their mental health status and level of stress at the time of the survey. Although these questions are subjective, they provide useful information regarding the respondents current perception of their mental health and stress levels. For our analysis, we classify women who scored 0 to 3 as having poor mental health and those who gave the scores of 8 to 10 as having very good mental health. We also use this scale to determine the extent to which a woman is stressed, where 0 denoted that she is not stressed at all and 10 denotes that she is very stressed.

Overall, only 9 percent of the women have poor mental health. When we examine the relationship between women who have poor mental health at present and the economic indicators, we find few significant relationships. We did, however, find a consistent pattern as shown in Table 41.

Those who are affected negatively by the crisis tend to have poorer mental health. Those satisfied with their financial situation are significantly less likely to have poor mental health than those dissatisfied with their financial situation. The variable examining the level of spousal conflict is also significantly associated with having poor mental health. The more a woman fights with her spouse the more likely she is to have poor mental health.

Approximately 19 percent of the overall sample is very stressed. When examining the relationship between individuals who are very stressed and the impact indicators in Table 42, we generally find the same pattern as we find for women who have poor mental health. One additional difference between the variables poor mental health and very stressed is that women who feel that their families have experienced a lot of impact from the crisis are significantly more likely to report that they are very stressed.

Increased conflict with husbands appears to be an important factor for women's level of stress. The relationship between fighting with your husband and being very stressed is significant. The more a woman fights with her husband, the more likely she is to be very stressed. The impact of the crisis may work through conflict with husbands in affecting women's mental health and level of stress.

#### *Summary and policy recommendations*

Overall we found some significant relationships between the independent variables and each dependent variable. The small sample sizes may have affected the lack of greater significance in these relationships. In many, however, we found the expected pattern. The crisis indicators are associated with poor physical and mental health and high stress levels. In addition, the crisis seems to lead women to delay childbearing desires. Those affected by the crisis are more likely to use family planning or to abort if pregnant than those not affected by the crisis. Lastly those affected by the crisis are more likely to change their place of health care from a private facility to a government facility. We found one of the most important variables to explain the consequences of the impact of the crisis on our reproductive health variables was the variable assessing the woman's conflict with her spouse. This variable may be an important mediating factor between the economic effects of the crisis and reproductive health behavior.

- To address the apparent link between the economic crisis and poor physical and mental health and high stress levels, the Ministry of Public Health should ensure that the poor have access to health care that not only addresses individuals physical health but their mental health as well. Special programs may also include initiatives to reduce spousal conflict.
- As more women may desire to delay childbearing, access to family planning should be assured.
- Since government facilities are likely experiencing an increase in patient load, the Ministry of Public Health should provide additional funds to ensure that facilities are adequately staffed and that medicines are available.

**Table 34:** Logistic regression: probability of having good health at present as a function of each crisis indicator (controlling for age, area of residence, and number of health welfare sources)

Crisis indicators	Odd Ratio
<b>Experience of unemployment</b>	
Yes, both last year & 3 yrs. ago	1.00
Last year only	1.72
Three years ago only	1.38
Never unemployed in last 3 yrs	1.18
<b>Change of income level in the last 3 years</b>	
Increased	1.00
Same + just married, DK	1.57
Decreased	1.19
<b>Change of financial situation</b>	
Worse	1.00
Same	.95
Better	.86
<b>Satisfaction with financial situation</b>	
Dissatisfied	1.00
Satisfy	1.15
<b>Level of crisis impact on own family</b>	
Not at all	1.00
Some	1.05
A lot	.97
<b>Conflict with husband</b>	
	***
Never fight	1.00
Fight less now	.75
Same + just married	.49
Fight more now	.35

\* p<.05; \*\* p<.01; and \*\*\* p<.001

**Table 35:** Logistic regression: probability of having worse health in last three years as a function of each crisis indicator (controlling for age, area of residence, and number of health welfare sources)

Crisis indicators	Odd Ratio
<b>Experience of unemployment</b>	
Yes, both last year & 3 yrs. ago	1.00
Last year only	.80
Three years ago only	.84
Never unemployed in last 3 yrs	.84
<b>Change of income level in the last 3 years</b>	
Increased	1.00
Same + just married, DK	1.20
Decreased	.90
<b>Change of financial situation</b>	
	***
Worse	1.00
Same	.46
Better	.54
<b>Satisfaction with financial situation</b>	
	*
Dissatisfied	1.00
Satisfied	.70
<b>Level of crisis impact on own family</b>	
Not at all	1.00
Some	1.59
A lot	1.44
<b>Conflict with husband</b>	
	**
Never fight	1.00
Fight less now	.93
Same + just married	.92
Fight more now	2.11

\* p<.05; \*\* p<.01; and \*\*\* p<.001

**Table 36:** Logistic regression: probability of currently using contraception as a function of each crisis indicator (controlling for age, area of residence and wanting more children)

Crisis indicators	Odd Ratio
<b>Experience of unemployment</b>	
Yes, both last year & 3 yrs. ago	1.00
Last year only	1.18
Three years ago only	.51
Never unemployed	1.01
<b>Change of income level in the last 3 years</b>	
Increased	1.00
Same + just married, DK	1.33
Decreased	1.40
<b>Change of financial situation</b>	
Worse	1.00
Same	.85
Better	.86
<b>Satisfaction with financial situation</b>	
Dissatisfied	1.00
Satisfied	.76
<b>Level of crisis impact on own family</b>	
Not at all	1.00
Some	.61
A lot	.62
<b>Conflict with husband</b>	
Never fight	1.00
Fight less now	1.23
Same + just married	1.09
Fight more now	2.20

**Table 37:** Logistic regression: probability of aborting if pregnant as a function of each crisis indicator (controlling for age, area of residence, wanting more children, and number of health welfare sources)

Crisis indicators	Odd Ratio
<b>Experience of unemployment</b>	
Yes, both last year & 3 yrs. ago	1.00
Last year only	1.50
Three years ago only	.86
Never unemployed in last 3 yrs	.79
<b>Change of income level in the last 3 years</b>	
Increased	1.00
Same + just married, DK	.74
Decreased	1.02
<b>Change of financial situation</b>	
Worse	1.00
Same	1.21
Better	.81
<b>Satisfaction with financial situation</b>	
Dissatisfied	1.00
Satisfied	.72
<b>Level of crisis impact on own family</b>	
Not at all	1.00
Some	.75
A lot	1.52
<b>Conflict with husband</b>	
	**
Never fight	1.00
Fight less now	.63
Same + just married	1.71
Fight more now	2.00

\* p<.05; \*\* p<.01; and \*\*\* p<.001

**Table 38:** Logistic regression: probability of having annual health check as a function of each crisis indicator (controlling for age, area of residence, and number of health welfare sources)

Crisis indicators	Odd Ratio
<b>Experience of unemployment</b>	
Yes, both last year & 3 yrs. ago	1.00
Last year only	1.56
Three years ago only	1.00
Never unemployed in last 3 yrs	1.44
<b>Change of income level in the last 3 years</b>	
Increased	1.00
Same + just married, DK	.94
Decreased	.72
<b>Change of financial situation</b>	
Worse	1.00
Same	.61
Better	.89
<b>Satisfaction with financial situation</b>	
Dissatisfied	1.00
Satisfied	1.27
<b>Level of crisis impact on own family</b>	
Not at all	1.00
Some	.84
A lot	1.04
<b>Conflict with husband</b>	
	*
Never fight	1.00
Fight less now	.65
Same + just married	.67
Fight more now	.73

\* p<.05; \*\* p<.01; and \*\*\* p<.001

**Table 39:** Logistic regression: probability of not seeking health care due to financial problem as a function of each crisis indicator (controlling for age, area of residence, and number of health welfare sources)

Crisis indicators	Odd Ratio
<b>Experience of unemployment</b>	<b>***</b>
Yes, both last year & 3 yrs. ago	1.00
Last year only	.28
Three years ago only	.39
Never unemployed in last 3 yrs	.23
<b>Change of income level in the last 3 years</b>	
Increased	1.00
Same + just married, DK	1.51
Decreased	1.22
<b>Change of financial situation</b>	
Worse	1.00
Same	.82
Better	.77
<b>Satisfaction with financial situation</b>	<b>***</b>
Dissatisfied	1.00
Satisfied	.36
<b>Level of crisis impact on own family</b>	<b>*</b>
Not at all	1.00
Some	.70
A lot	1.50
<b>Conflict with husband</b>	<b>**</b>
Never fight	1.00
Fight less now	2.01
Same + just married	2.19
Fight more now	2.53

\* p<.05; \*\* p<.01; and \*\*\* p<.001

**Table 40:** Logistic regression: probability of changing from private to government facility as a function of each crisis indicator (controlling for age, area of residence, and number of health welfare sources)

Crisis indicators	Odd Ratio
<b>Experience of unemployment</b>	
Yes, both last year & 3 yrs. ago	1.00
Last year only	1.16
Three years ago only	.00
Never unemployed in last 3 yrs	1.17
<b>Change of income level in the last 3 years</b>	
Increased	1.00
Same + just married, DK	1.19
Decreased	1.72
<b>Change of financial situation</b>	
	**
Worse	1.00
Same	.30
Better	.10
<b>Satisfaction with financial situation</b>	
Dissatisfied	1.00
Satisfied	.76
<b>Level of crisis impact on own family</b>	
Not at all	1.00
Some	2.97
A lot	3.87
<b>Conflict with husband</b>	
	*
Never fight	1.00
Fight less now	.85
Same + just married	1.06
Fight more now	2.50

\* p<.05; \*\* p<.01; and \*\*\* p<.001

**Table 41:** Logistic regression: probability of having poor mental health at present as a function of each crisis indicator (controlling for age, area of residence, and number of health welfare sources)

Crisis indicators	Odd Ratio
<b>Experience of unemployment</b>	
Yes, both last year & 3 yrs. ago	1.00
Last year only	.82
Three years ago only	.30
Never unemployed in last 3 yrs	.48
<b>Change of income level in the last 3 years</b>	
Increased	1.00
Same + just married, DK	.88
Decreased	1.90
<b>Change of financial situation</b>	
Worse	1.00
Same	.20
Better	.35
<b>Satisfaction with financial situation</b>	
	**
Dissatisfied	1.00
Satisfied	.44
<b>Level of crisis impact on own family</b>	
Not at all	1.00
Some	1.22
A lot	1.90
<b>Conflict with husband</b>	
	***
Never fight	1.00
Fight less now	1.62
Same + just married	2.56
Fight more now	5.84

\* p<.05; \*\* p<.01; and \*\*\* p<.001

**Table 42:** Logistic regression: probability of reporting very stressed at present as a function of each crisis indicator (controlling for age, area of residence, and number of health welfare sources)

Crisis indicators	Odd Ratio
<b>Experience of unemployment</b>	
Yes, both last year & 3 yrs. ago	1.00
Last year only	.56
Three years ago only	.40
Never unemployed in last 3 yrs	.61
<b>Change of income level in the last 3 years</b>	
Increased	1.00
Same + just married, DK	.82
Decreased	1.02
<b>Change of financial situation</b>	
	*
Worse	1.00
Same	.57
Better	.44
<b>Satisfaction with financial situation</b>	
	***
Dissatisfied	1.00
Satisfied	.46
<b>Level of crisis impact on own family</b>	
	*
Not at all	1.00
Some	.75
A lot	1.39
<b>Conflict with husband</b>	
	***
Never fight	1.00
Fight less now	2.21
Same + just married	2.05
Fight more now	4.81

\* p<.05; \*\* p<.01; and \*\*\* p<.001

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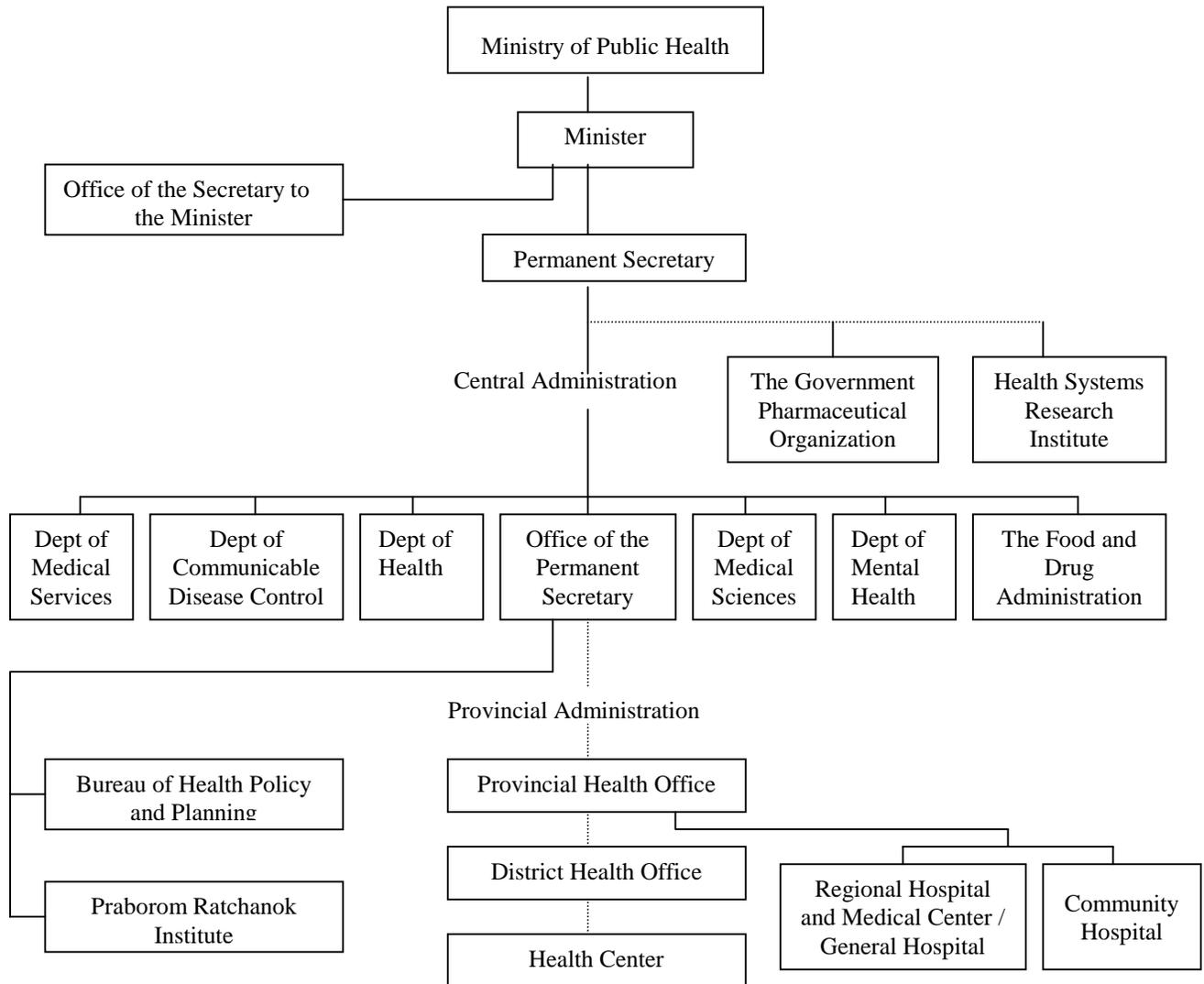
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## Appendix A: Ministry of Public Health Organization Structure



Source: The 1999 Ministry of Public Health Calendar (in Thai)

**Appendix B: Interviews with Providers and Policy makers organized by date of interview**

<b>Date</b>	<b>Position</b>	<b>Office</b>
11/27/98	Administrator	AIDS Division, Dept of Communicable Disease, MOPH
12/8/98	Administrator	Health Promotion Division, Dept. of Health, MOPH
12/16/98	Administrator	Provincial Health Office, Ang Tong Province
	Administrator	District Health Office, Chaiyo District, Ang Tong
12/16/98	2 Administrators	Community Hospital and Health Promotion Division of the Community Hospital Chaiyo district, Ang Tong
12/16/98	Administrator/providers	Health Center of subdistrict Tevarat, Ang Tong
01/8/99	4 Administrators	AIDS Division, Disease Control Division, and Health Promotion Division, Dept. of Health, Bangkok Metropolitan Administration (BMA)
4/28/99	Administrator and provider	Provincial Hospital, Sri Saket Province
4/28/99	Provider	Health Center of Municipal area, Sri Saket district, Srisaket Province
4/28/99	Administrator, and 2 providers	District Hospital, Nonkoon district, Sri Saket Province
4/29/99	Administrator	Provincial Health office, Sri Saket Province
4/29/99	Administrator	District Health Office, Nonkoon district, Sri Saket Province
4/29/99	Administrator and 2 providers	Health Center of subdistrict Barnyoad, Nonkoon district, Sri Saket Province
4/30/99	2 Administrators	District Health Office, Yangchumnoi district, Sri Saket Province
4/30/99	Administrator and provider	Yangchumnoi District Hospital, Sri Saket Province
4/30/99	Administrator and 2 providers	Health Center of subdistrict Korngarm, Yangchumnoi district, Sri Saket Province
4/30/99	Administrator and 2 providers	Health Center of subdistrict Koodmuangham, Nonkoon district, Sri Saket Province
5/4/99	Provider	Health Center of subdistrict Borae, Pothong district, Ang Tong Province
5/4/99	2 providers	Health Center of Municipal area, Ang Tong district, Ang Tong Province
5/4/99	Doctor and nurse	District Hospital, Pothong district, Ang Tong Province
5/4/99	Administrator	District Health Office, Pothong district, Ang Tong Province
5/7/99	Administrator	Provincial Hospital, Ang Tong Province
5/7/99	Administrator and 2 providers	Health Center of subdistrict Chaiyapoom, Pothong District, Ang Tong Province
5/18/99	Administrator and 2 providers	Public Health Service Center, Bangkhen, Bangkok
5/18/99	Provider	Public Health Service Center, Bangkhen, Romklaw Bangkok
5/28/99	Administrator	Maternal and Child Health Hospital, Bangkhen, Bangkok

**Appendix C**

## Supplemental tables

**Table C1:** Characteristics of the sample women by province

	Bangkok	Ang Tong	Sri Saket	Total
<b>Woman's age</b>				
15 – 19	6.5	3.5	3.8	4.4
20 – 24	15.5	15.0	18.8	16.6
25 – 29	20.6	24.8	30.1	25.8
30 – 34	31.0	27.4	29.3	29.0
35 – 39	26.5	29.2	18.0	24.2
Total	100	100	100	100
Mean	30.0	30.4	29.9	29.7
<b>Woman's education</b>				
Lower than primary	27.7	24.3	26.8	26.1
Completed primary (6 years)	32.3	26.5	49.8	36.9
Completed secondary (9 years)	22.6	20.4	12.1	17.7
High school or higher (12 years +)	17.4	28.8	11.3	19.2
Total	100	100	100	100
<b>Husband and wife's education</b>				
Lower than primary	15.5	15.9	18.4	16.8
Completed primary	25.8	16.4	49.4	31.5
Completed secondary	23.2	23.9	14.2	20.0
High school or higher	35.5	43.8	18.0	31.8
Total	100	100	100	100
<b>Woman's ethnicity</b>				
Thai	87.1	91.2	97.1	92.4
Thai and Chinese	9.7	8.0	2.1	6.1
Thai and Khmère/Sui	3.2	0.9	0.8	1.5
Total	100	100	100	100
<b>Number of household members</b>				
2	15.5	5.3	2.5	6.8
3	20.6	14.6	10.9	14.7
4	21.3	29.2	29.7	27.4
5	16.8	16.8	25.5	20.2
6+	25.8	34.1	31.4	31.0
Total	100	100	100	100
Mean	4.5	4.9	5.0	4.9

**Table C1: Con't**

	<b>Bangkok</b>	<b>Ang Tong</b>	<b>Sri Saket</b>	<b>Total</b>
<b>Husband's age</b>				
< 25	12.9	13.3	13.4	13.2
25 – 29	16.8	19	21.8	19.5
30 – 34	26.5	22.1	31	26.6
35 – 39	25.2	23	21.8	23.1
40+	18.7	22.6	12.1	17.6
Total	100	100	100	100
Mean	33.1	34.0	32.1	33.0
<b>% Married more than once</b>	16.1	12.4	8.4	11.8
<b>Duration of present marriage (years)</b>				
0 – 4	31.0	29.3	29.8	29.9
5 – 9	27.1	31.1	27.3	28.6
10 – 14	20.0	24.0	26.5	23.9
15 – 25	21.9	15.6	16.4	17.5
Total	100	100	100	100
<b>Duration of residence (years)</b>				
Less than 5	34.8	33.3	22.2	29.4
5 – 9	34.8	10.7	6.3	15.0
10 – 14	11.6	7.1	10.0	9.4
15 – 35	7.7	8.4	8.8	8.4
Since birth	11.0	40.4	52.7	37.8
Total	100	100	100	100
<b>Sample size (N)</b>	<b>155</b>	<b>226</b>	<b>239</b>	<b>620</b>

**Table C2: Percent distribution of women desiring different family sizes by area of residence**

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Number of children wanted</b>				
0	5.8	2.0	2.2	3.1
1	21.3	20.9	12.9	16.9
2	51.0	44.6	62.1	55.2
3+	21.9	32.4	22.7	24.8
Total	100	100	100	100
Mean	2.0	2.2	2.1	2.1
<b>Number of ideal family size</b>				
0	7.7	5.4	4.8	4.8
1	13.5	14.9	10.8	10.8
2	50.3	43.9	50.8	50.8
3+	28.4	35.8	33.5	33.5
Total	100	100	100	100
Mean	2.1	2.2	2.2	2.2
<b>% wanting an additional child</b>	32.9	32.5	32.5	32.6

**Table C3:** Percent distribution of reasons for not using contraceptives by area of residence

	<b>Bangkok</b>	<b>Provincial urban</b>	<b>Rural</b>	<b>Total</b>
<b>Reason for not using contraception</b>				
Pregnant	33.3	26.5	28.6	29.3
Want Child	27.3	23.5	37.5	30.9
Side effect/health problem	21.2	26.5	8.9	17.1
Not at risk	12.1	20.6	19.6	17.9
other	6.1	2.9	5.4	4.9
Total	100	100	100	100
Sample size (N)	33	34	56	123