Chapter One: Introduction

1.1 Background and Rationale

> Immigration seems to be making more headlines in recent years. As the world globalizes in terms of nations' economies, trade and investment, borders are opened up more easily for "freer" flow of goods and products. People are supposedly freer to move around the world, too (Shah, 2008, p. 1).

Migration is a global phenomenon, and while the number of people migrating from one country to another has been increasing world-wide, the rate at which it has been doing so is faster in some countries than others. Hong Kong is a 'city of migrants' and while it accepts migrants from other countries, for example the Philippines, Thailand and India, the majority of new residents come from Mainland China. Hong Kong has, in fact, been experiencing a particularly high influx of immigrants from Mainland China since 1995 when the 'One Way Permit' (OWP) migration scheme was introduced. Under this scheme, up to 150 immigrants per day are permitted to enter Hong Kong from Mainland China. Between 1983 and 2001 alone, a total of over 720, 000 new Chinese arrivals were admitted, the equivalent of almost 11% of the total population of Hong Kong (6.72 million) in 2001 (Hong Kong Special Administrative Region People's Republic of China, 2002). Among these immigrants from Mainland China, the proportion of females has increased significantly; while they already outnumbered male migrants in 1986 (59%), by 2003 woman accounted for three quarters of all migrants from the Mainland (see Table A.1.1 in Appendix A).

While migration is invariably pursued for its benefits, be they safety, employment, family reunion or long-term socio-economic improvement, it has been shown that

changing countries can have a negative impact on migrants' health. In fact, the process of migration and the health of individuals and communities are inextricably intertwined in complex ways. Since the health of individuals and communities may be influenced by migration, at the macro-level, migration may influence population health.

For migrants the world over factors that affect their health may include psychological stress, social degradation, racism, and loss of control (Sundquist et al., 2000). The stress of adaptation and acculturation, feelings of powerlessness, as well as changes in lifestyle are risk factors for migrants and their health (Hanna, 1998). At the individual level, the health of immigrants may begin to resemble the health and disease patterns of the host country, for instance, in taking up risky health behaviours such as smoking, alcohol use and poor diet (Ana et al., 2006).

Socioeconomic status is another factor affecting health. Many immigrants experience economic, social, and political inequalities, as well as the pressure of settling into new urbanized and highly technological environments. Poor living conditions, unemployment, changed roles within the family, and perceived unfriendly attitudes of the host country can lead to mental distress, physical disease and family conflicts (Samarasinghe & Arvidsson, 2002). In light of these new risks to their health, it is clearly of great significance that migrants are able to access and utilize appropriate health care services in their host country, and are made aware of the health promotive and disease preventative behaviours they might pursue to improve their health.

Although migrants from Mainland China come from a similar cultural background as their Hong Kong-born peers, the understanding of what constitutes 'health' and the actions they take to maintain their health would appear to be different. In Hong Kong,

people (especially young people) engage in health-related activities to maintain their fitness, whereas in Mainland China most people do not normally engage in regular health promotion and prevention practices (Jackson, et al, 2000). A national survey was done in China that indicated that most of the rural population paid for medical services on an out-of-pocket basis. In the rural areas, teachers, salaried health workers, and the public sector employees have health insurance. However, the majority of the rural population do not have insurance coverage and fail to seek medical care, even when advised to do so by a physician. In China, there are health prevention stations to provide public health services for the citizens. The major public health service is vaccination (Li, 1996; Health & Epidemic Prevention Station, 2010).

Health promotion is a mechanism to improve quality of life of the individual and, they are an important investment and an essential determinant for social and economic development for the community (Ell, 1998). In many developed countries, various attributes of primary care have been shown to exert a positive influence on health costs, appropriateness of care, and outcomes for most of the major health indicators (Starfield et al, 2005; Macinko et al, 2003). The concept of health promotion is discussed in detailed in the later chapters (chapter 3), it is important to define the term health promotion. O'Donnell (2009) defines health promotion as the science of changing people's lifestyle to move toward a state of optimal health, a balance of physical, emotional, social, spiritual, and intellectual health. Health promotion is to engage individuals in activities that alter their lifestyles, to maintain and enhance a state of well being.

The focus of the present health care system in Hong Kong remains directed towards coping with population aging and increasing/updating medical technology. However,

in separating hospital services from community services, health care planning in Hong Kong fails to take note of international trends and innovations which would suggest that it is the duty of public health organisations to advise and educate the community on appropriate and beneficial measures the individual might take. These impacts particularly affect on the Mainland Chinese population in Hong Kong among whom the concept of preventive health care has a low priority (Chan et al., 2007).

For most migrants, their knowledge of disease and expectations about what constitutes a healing relationship is culturally embedded. Thus, in the context of health care, an individual's cultural heritage provides the interpretive framework not only for beliefs about the cause and symptomlogy of illness, but also for the negotiation of treatment decisions. For this reason, Western-trained physicians practicing in multicultural societies are encouraged to be sensitive to the ethnic backgrounds of patients (Good, 1994).

For Chinese migrant women, the main health issue pre-migration is often the lack of access to health services. Thus, for instance, a survey by Zhang (1999) found that while nearly 80% of women hoped to have regular reproductive health checks, only 17.3 % did so; while another survey conducted between 1996 and 1998 in the Wuhan and Hubei provinces in China, reported that only 30.2% of children had been properly vaccinated as required by the government (Xiao, 1999). In both instances, the main reason services were not accessed was financial difficulty. Since most of the Chinese migrants to Hong Kong come from a similar background, they too are unlikely to be utilizing the health care services available in Hong Kong, and are consequently likely to be less engaged in health promotion activities.

However, to assess exactly what factors play a part in determining the health

promotion behaviours of Chinese migrant women in Hong Kong and how to address these issues, it is necessary to know more about these migrants' actual health status and to discover their perceptions towards and use of health promotion and prevention activities.

To date, there has been little published research on the experiences of Chinese women's migration and adaptation to living in Hong Kong. While it is the duty of the Hong Kong government to provide equitable, appropriate health services to all its residents, lacking detailed knowledge on this increasingly large proportion of its population presents a great challenge for decision-makers and service providers alike. In order to address migrants' immediate health problems, to plan and provide effective and responsive health services for the communities they live in, and to develop longer-term programmes for the promotion of their health, a clearer picture of their needs, of the services available and of those actually utilized is needed. This research is an attempt to fill this gap by investigating the situation of migrant women from Mainland China residing in Hong Kong in terms of their health status, their utilization of health services and their engagement in health promotion activities.

In the rest of the thesis, "Chinese migrant women" refers to migrant women from Mainland China residing in Hong Kong; "Mainland Chinese women" refers to women living in Mainland China as control group.

1.2 Aims and Objectives of Research:

Aims:

- To investigate the association between socioeconomic factors, time since migration and health status of Chinese migrant women;
- To examine utilization of health services and health promotion activities by these women since arriving in Hong Kong;
- To compare the health status of Chinese migrant women with Mainland Chinese women;
- To identify factors that influence Chinese migrant women's health promotion related behaviours and barriers that deter them from pursuing prevention and health promotion activities.

Objectives of the study:

The objectives of this study are to determine which social, economic, religious and/or cultural factors may be contributing directly to the health status of and utilization of health services by Chinese migrant women. Since some of these women come from remote areas or ethnic minorities in Mainland China the study will also seek to discover whether language barriers and literacy issues which, in addition to their lack of familiarity with formal health care systems and services, may be contributing to their apprehension about seeking health care.

1.3 Research questions

For the purposes of the study the following research questions will be addressed:

1. What is the health status of Chinese migrant women now residing in Hong Kong?
2. Do these Chinese migrant women utilize the health care services in Hong Kong and/or Mainland China?

3. What are the attitudes and perceptions of Chinese migrant women toward health promotion?
4. What are the health promotion behaviours of Chinese migrant women?
5. Is there any difference in the health status of Chinese migrant women compared with Mainland Chinese women?
6. What differences are there in the performance of health promotion and prevention activities among Chinese migrant women and Mainland Chinese women?

1.4 Dissertation themes

To understand the context of both the problem and the results, this thesis outlines the historical background of migration from China to Hong Kong before examining the health status and health promotion behaviours of Chinese migrant women and their patterns of utilization of health care services. The research further compares these results with the health status and health promotion behaviours' of Mainland Chinese women. The Knowledge, Attitude and Practice (KAP) conceptual framework will be used to analyse the health promoting behaviours of both groups of women.

1.5 Organisation

This thesis is organized into nine chapters. Chapter One has introduced the rationale behind conducting this research, its aims and objectives and the specific research questions. Chapter Two provides a historical perspective on immigration from Mainland China to Hong Kong, and discusses the general health status of Chinese migrant women.

Chapter Three reviews the existing literature on migrant women's health and health

promotion behaviours, and also introduces concepts concerning the settlement of Chinese migrant women.

Chapter Four outlines the methodology used to conduct this research. It explains the approach to selecting study samples and recruitment, to designing and administering the questionnaire, and introduces the data collection and analysis techniques that were used.

Chapters Five, Six, Seven and Eight present the findings of the study and the statistical analyses used to answer the research questions. Chapter Five gives a descriptive account of Chinese migrant women's health status, use of health care services, and health promotion behaviours based on the framework of settlement by Chinese migrant women set out in Chapter Three. Chapters Six and Seven present the results of one-way ANOVA and Tukey Tests used to describe the associations between socio-demographic variables and the health status, use of health care services, and health promotion behaviours of Chinese migrant women and Mainland Chinese women respectively. Chapter Eight presents a comparison of Mainland Chinese women and Chinese migrant women in Hong Kong.

Chapter Nine discusses the key findings of the research and their relevance in the context of existing theory and research; in drawing conclusions to the research it also recommends strategies by which the health of Chinese migrant women may be improved.

Chapter Two: Background

This chapter, which is divided into four sections, section one presents necessary background information to this study. Following background information applies to Mainland China, section two describes a brief introduction of the history of Hong Kong and Mainland Chinese migration to Hong Kong, section three discusses the socio-demographic background of Hong Kong residents, their health status and the health care system in Hong Kong. Finally, the fourth section discusses approaches to health promotion and prevention in Hong Kong.

2.1 Background to Mainland China

2.1.1 Population and Economic Growth, and Inequity

Mainland China is the world's third largest country by square mileage but has the largest total population in the world. In 2008, the population of China reached 1.3 billion people and with the world's current population at approximately 6.7 billion, this represents a full 20% of the world's total population. In other terms, one in every five people on the planet is a resident of Mainland China (China Internet Information Center, 2008). With 633.57 million women residents, China's female population too represents one-fifth of the entire female population of the world (United States Census Bureau, 2005).

Since 1978, Mainland China has been undergoing a period of fundamental economic restructuring. This has entailed a gradual transition from a planned economy to a socialist market economy, from rural collectivization to a system of household responsibility. With it has come the increased authority of local officials and industrial plant managers, and the emergence of a wide variety of small-scale

enterprises in services and light manufacturing (Lee, 1997; Liu, 1998).

These changes have also opened the economy to increased foreign trade and investment resulting in a surge in production. Agricultural output doubled in the 1980s while industry, especially in coastal areas near Hong Kong and opposite Taiwan, where foreign investment and modern production methods helped spur output of both domestic and export goods, also posted major growth. China's GDP has more than tripled since 1978 and the number of people living in absolute poverty has been reduced by 60% (Lee, 1997; Liu, 1998).

Unfortunately, not all people have experienced the same advances. 82 % of foreign investment is in the coastal provinces; Guangdong alone accounts for 33% of all foreign investment. In contrary, the eighteen inland provinces have received only one-tenth of all foreign investment. Dramatic wage differentials, growing unemployment, brutal management and the loss of social welfare and benefits have lead to apathy and negativity (Lee, 1997; Liu, 1998).

The undervaluation of Mainland Chinese women can be observed as being a cultural trait that has existed for thousands of years. Thus, while the socio-economic status of Mainland Chinese women has risen considerably since the 1950s, the process of female liberation in Mainland China remains far from complete. With gender inequality observable in many areas, differences in health care are not unexpected.

2.1.2 Migration within Mainland China

While numerous studies and reports suggest that Chinese migrants commonly aspire to self improvement, to broadening their horizons and, quite simply, to a more interesting life than the village can offer (Wan, 1995), migration within Mainland China is largely motivated by economic reasons. People in the remote, rural areas of inland China still rely almost exclusively on agriculture as a means of earning a living. However, following Mainland China's 1980 economic reforms by which rural households were given individual responsibility for agricultural production thus creating a vast surplus of rural labour (estimated at nearly 40% of the total rural labour force) (Woon, 1993), rural labour was diverted into industrial production. With the yields to be gained by the migration of a family member to work in industry being ten times more than those likely to be gained from a single person's hours in the fields, the incentive for people in the villages to migrate to the western/coastal provinces, where opportunities for employment of this kind are most likely to arise, is enormous (Li, 1993).

As a result, the number of internal migrants has grown rapidly putting pressure on urban areas. These rural migrants or 'peasant workers', widely put at between 80 and 100 million strong, are still referred to as a 'floating' population. Under the household registration system created during the Mao era, migrants are not permitted to live permanently in areas where they find work. The system was introduced as an instrument of social control which would rigidly maintain the rural-urban divide by limiting access to urban life with its higher wages and subsidized services (Li, 1993) .

As a rule, the system requires migrants to other provinces to supply family-planning, education and medical certificates, for which charge is levied, in order to obtain

employment registration cards from the labour bureau in their province of origin. This documentation should enable the destination province to issue work permits. While urban registration and rights of permanent residence can be bought, the cost effectively limits the number of 'self made' migrant entrepreneurs to the few that can afford to do. The going rate for the Pearl River Delta is US$ 36,000; Shanghai tops the list with a current rate of US$ 120,000 (Wu & Treiman, 2004 and Wong & Chiu, 1998).

Restrictions, bureaucracy and charges of this kind notwithstanding, Mainland China's peasants can now move relatively freely in search of work and remain from the villages where they are registered for long periods away. While the vast majority of migrants cannot afford to buy formal rights for urban residence, de facto migrant communities are becoming more established (Wu & Treiman, 2004 and Wong & Chiu, 1998). In Beijing and other cities migrants have been living in such communities for more than ten years and show little inclination to return their home villages.

2.1.3 Overseas Migration – Legal / Illegal

Along with the many Mainland Chinese wishing to migrate to urban centres, many others seek to migrate overseas in search better employment opportunities and a more promising future elsewhere. This migration trend has in itself become a form of business. Chinese migrant workers wanting to work overseas have to pay RMB 3,000 (US$ 360) to 60,000 (US$ 7,200) in administration charges and deposits. While labour service companies in Mainland China are legally allowed to charge up to 25% of a worker's monthly wages – half the sum to maintain welfare benefits for the workers while they are away from home and the rest to cover company expenses– the

system of exported labour is open to abuse by middlemen, who charge an additional, illegal service charge. Furthermore, since the current labour export system cannot legally accommodate all those wanting to work overseas, many Chinese see no alternative but to migrate illegally.

2.1.4 Health Status and Health Care

In the last three decades, Mainland China has made commendable advances towards improving the health status of its population. Between 1965 and 2000, its infant mortality rate declined from 90 to 17.2 per 1,000 live births. During the same period, life expectancy at birth rose from 55 to 71.4 years which is especially favourable when compared with similar Asian developing countries – India and Indonesia both at 61 years and the Philippines at 64 years (World Bank Data, 2008).

These impressive gains in health status have been direct products of the government's political resolve in the early 1970s to rapidly extend and broaden the coverage of publicly financed community and preventive health programs to greater sections of the population. Between 1950 and 1980 Mainland China managed to establish a health care system providing almost universal access to basic health services at an affordable price. In the urban areas, this was publicly funded and centrally managed through two major schemes, the Government Insurance Scheme (GIS) and the Labor Insurance Scheme (LIS) (Gao et al., 2001). In rural areas, there are very limited health care services provided. However, as part of the 1980's economic reform through which rural households were given individual responsibility for agricultural production, the Chinese government also revised its policies on public health care, a factor that has lead to increasing disparity in access to health care services and health status among the population.

Unequal Access and Disparities in Health Status

Significant changes were made to the existing government insurance scheme (GIS) and labour insurance scheme (LIS) both in terms of payment and as to who was covered by these schemes. With significant cuts to public funding of health care services, the individual contribution requirements have been steadily increasing. Although there was almost full coverage (do not require making a contribution) around 1980, the coverage of the two schemes had fallen to 52% in 1993 and 39% in 1998. By 1998, the urban population not covered by any insurance schemes was 44%, up from 28% in 1993. Along with increasing unemployment, lack of health insurance and the rapidly increasing costs of health services have had a profound impact on the service utilization by all population groups (Gao et al., 2001). It has also gradually led to increasingly unequal access to health services between the wealthy and poor and between the insured and uninsured, creating widening disparity in the health status of Chinese population.

Another significant change instituted in 1980 was the so-called 'One-child Policy'. Involuntary abortions and sterilization were widely applied. A study by (Doherty et al., 2001) analysing data from the China Health and Nutrition Surveys in 1991 and 1993 concluded that the economic and social costs of the one-child policy caused most women to forego seeking modern obstetric care services. Specifically, they found that the fines and the unapproved status of a pregnancy were strongly negatively associated with the use of obstetric care (Doherty et al., 2001).

In 1980, the average number of inpatient and outpatient visits was highest among the two poorest quintiles of Provinces in Mainland China (e.g. Anhui, Henan and Sichuwan provinces). However, as shown in Table 2.1, with the elimination of the

rural cooperative health scheme and the introduction of fees for access to health services, by 1993 usage of health services by the poorer sections of the population had decreased to half.

Table 2.1 Annual Average Numbers of Inpatient and Outpatient Visits by Quintiles per Capita Income

Quintiles of Per Capita Income	*1980*		*1993*	
	Inpatients	*Outpatients*	*Inpatients*	*Outpatients*
Poorest I	2.9	3.7	1.8	2.8
II	2.6	3.5	1.7	2.7
III	2.7	3.4	1.9	2.4
IV	2.2	2.8	2.1	2.5
Richest V	1.8	2.5	1.6	2.2

Source: The World Bank, 2008

Province-wide data indicate that this greater under-use of service in poorer provinces is primarily linked to economic reasons. In fact, according to the 1993 National Health Survey, 58.8 % of households in rural areas and 39.8 % in urban areas do not use public health facilities because they cannot afford the treatment (Gao et al., 2001).

However, with reduced public spending on public health since the mid-1980s, the quality of actual services provided has also deteriorated. In 11% of all urban households and 13% of those in rural areas, people did not consult a public health provider due to poor quality. About 7% of all households, mostly in big cities and

urban areas, used private health clinics, which would suggest that, particularly for the rich, a perhaps better quality private health care provider warranted the higher cost. This is partly substantiated by the 1993 National Health Survey (NHS) (Hu et al., 1999).

A further factor that might be attributing to the lower utilisation of public health facilities may be the declining age-specific morbidity rates. But, since age and gender-specific mortality and morbidity rates have merely shifted from infectious to more non-communicable diseases and injuries, rather than having declined dramatically in the incidence of illness itself, this seems unlikely. Regardless of the reason, it would appear that, given the overall decline in public inpatient and outpatient utilization of public health services in the poorer provinces, the redistributive impact expenditures is increasingly becoming less favorable (Gao et al., 2001).

The following section describes the background and health care system of Hong Kong.

2.2 Background to Hong Kong

2.2.1 Introduction

Hong Kong is located in eastern Asia. It lies on the southeast coast of Mainland China facing the South China Sea, at the mouth of the Pearl River Delta and opposite Macau. Between Hong Kong Island and Kowloon Peninsula is Victoria Harbour, one of the deepest maritime ports in the world (Law, 1965).

In its early days, Hong Kong's population of about 3,650 was scattered over 20 villages and hamlets. Its development into a commercial centre only began with British settlement of Hong Kong as a colony in 1841. After 150 years of being subject to the British government, Hong Kong became part of Mainland China in 1997. Despite essentially being one country, negotiations facilitating the changeover, and enshrined in the Sino-British Joint Declaration, have allowed for the people of Hong Kong to maintain their lifestyles, rights and freedoms for another 50 years. Hong Kong-Mainland relations have become markedly stronger since the handover and many Hong Kong citizens now work and live on the mainland. As a result of these closer relations, Hong Kong's economy is growing alongside impressive developments in Mainland China (Hong Kong Year Book, 2007).

Migration from China to Hong Kong

When the British took possession of Hong Kong in 1841, it was a sparsely populated island. However, as the importance of the colony increased and it became the main port and business centre of the region soon attracting migrants from all parts of Mainland China. The relative security of life in Hong Kong in contrast to civil-war-torn China only served to heighten its attraction to men and women, young

and old, rich and poor, skilled, semi-skilled and unskilled, businessmen and professionals alike.

Following World War II, Hong Kong experienced a surge of in-migration mostly from Mainland Chinese seeking refuge for a variety of personal and political reasons. While some of these migrants intended to join their relatives in Hong Kong for a limited period only, all the while retaining their roots in Mainland China, others took up permanent residence on the island. When in April 1950 both Mainland China and Hong Kong closed their borders, the population had already grown enormously and is reported to have reached around 2.2 million citizens in 1952 (Hambro, 1955).

In 1982, the OWP system was implemented which enabled residents of Mainland China to settle in Hong Kong. However, in order to minimize and regulate the massive inflow of Mainland Chinese to Hong Kong, the government imposed a quota limiting the number of actual immigrants entering Hong Kong per day. After an initial quota of 75, the daily admission of Mainland Chinese immigrants was increased to 105 immigrants in 1993, and again to 150 per day by 1995; this figure has remained unchanged since then (Census and Statistics Department, 2007).

With the introduction of the Basic Law of Hong Kong[1] in 1997, a policy change facilitating family reunion meant that spouses and children of Hong Kong citizens living in Mainland China were granted the right of residence in Hong Kong.

[1] The Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China (1991), or simply Hong Kong Basic Law, serves as the constitutional document of the Hong Kong Special Administrative Region (HKSAR) of the People's Republic of China (PRC). It was adopted on April 4, 1990 by the Seventh National People's Congress (NPC) of the People's Republic of China, and went into effect on July 1, 1997 replacing the Letters Patent and the Royal Instructions, when the former British colony was handed over to the PRC.

The sex distribution of new immigrants are from average 672 males per 1000 females in 1986 to average 283 males per 1000 females in 2004, and down to 283 males per 1000 females in 2004, and then rebounded to 579 males per 1000 females in 2006. The rebounded of male immigrant from Mainland China to Hong Kong may be because of there are a trend of Hong Kong women marry Mainland China men. Also there are more children apply to migrate to Hong Kong. Because of the one child policy, there are more boys than girls in Mainland China (Census and Statistics Department, 2007).

In 1982, the implementation of OWP system enabled Mainland China residents come to Hong Kong for settlement. This is in line with the Mainland China's policy for regulating population flow into Hong Kong as well as Hong Kong's policy of facilitating family reunion. Again, a quota was set to control the influx of new residents at 150 per day (Census and Statistics Department, 2007).

The more recent increase in male immigrants from Mainland China could be attributed to the current trend among Hong Kong women to marry men from Mainland China. However, under the family reunion policy granting children and spouses residency in Hong Kong, there has also been a distinct increase in the number of children migrating to Hong Kong. Given the increased ratio of boys to girls since the introduction of the one child policy in Mainland China, it is not surprising that more male children should be migrating to Hong Kong than females. According to the Home Affairs Department and Immigration Department of Hong Kong (2004) nearly 5.3 million Mainland Chinese migrate to Hong Kong so far.

2.2.2 Socio-demography of Hong Kong

Population

Hong Kong is one of the most densely populated places in the world with a population density of 6,410 persons per square kilometre as at mid-2007. Its population tripled in the period from 1950 to 2001, increasing from 2.2 million to 6.7 million (Census and Statistics Department, 2008).

As seen in Table 2.2, at mid-2008, provisional figures had the population of Hong Kong at 6.99 million with 6.77 million Usual Residents and 0.22 million Mobile Residents. Despite this increase in actual numbers, the rate of population growth has declined over the decades from an average annual growth of 5.3% in 1951 to 0.9% in 2001. During the period 2003-2008, the population grew at an average annual rate of 0.7 %* (see Table 2.2).

Table 2.2 Population in Hong Kong

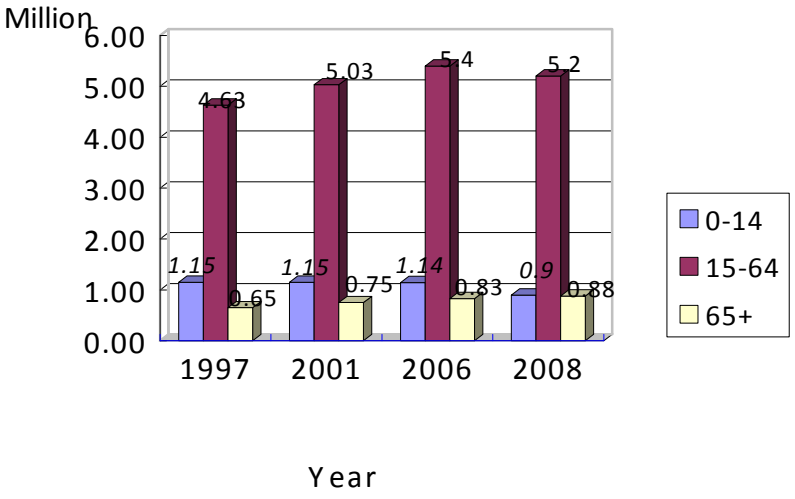
Year	Mid-Year Population	Annual rate of increase	Sex ratio (males per 1,000 females)
2003	6 730 800	- 0.2	939
2004	6 783 500	0.8	929
2005	6 813 200	0.4	920
2006	6 857 100	0.6	912
2007	6 925 900	1.0	904
2008*	6 985 200	0.9	895

* Provisional figures

Sources: Census and Statistics Department, 2008

While the total population grew by nearly 3% between 1981 and 2008, the population of those aged 65 years and over increased by 138%. However, the proportion of people aged under 15 decreased from 17.9 % in 1997 to 15.5 % in 2006 and only 12.9 % in 2008 (see Figure 2.1). While a similar decline appeared in the age group 15 – 29 years, the proportion of those aged 30 – 54 years showed a substantial increase from 31% in 1986 to 44% in 2004 (see Table B.2.1 in Appendix B).

Figure 2.1 Populations in Hong Kong by Age Group



Sources: Hospital Authority, Populations in Hong Kong (1997 - 2006)

The increase in the population group of 30 – 54 year-olds can be seen as a result both of the 1950-60s baby boom and the influx of young immigrants from Mainland China during the 1970s and 1980s (Census and Statistics Department, 2005).

The reduction in the younger population can be attributed to a sustained decline in fertility rates due to a combination of socio-economic phenomena. These include the higher educational ambitions and achievements of many women, late marriages, the higher proportion of persons choosing to remain single, and increasing female

participation in the labour force. Additionally, the modern urban life style, characterized by high work pressure and little time, tends to inhibit many people's interest in raising children. These factors have contributed towards a falling proportion of married women in the child-bearing age and declining fertility of married women (Census & Statistics Department, 2007). A further factor affecting these statistics is that, with improved social and economic links between the two places, many Hong Kong men choose to get married and have children on the Mainland.

The implementation of the OWP migration scheme in 1982 has been the single most important factor to shape Hong Kong's growth and demographic composition. From 1997 to 2001, new arrivals under this Scheme attributed to some 93% of the population growth in Hong Kong. As mentioned above, the OWP scheme was devised primarily to facilitate the reunion of immediate family members (spouses and children) residing in Mainland China with those in Hong Kong (Home Affairs Department and Immigration Department, Hong Kong Special Administrative Region People's Republic of China, 2004).

While many of the One-Way Permit holders were female, a large number of female domestic helpers were recruited and allowed entry from Mainland China too. These factors resulted in a decline in the ratio of males to females from 1.087 in 1981 to 0.929 in 2004 and a mere 0.895 in 2008 (Census and Statistics Department, 2008). This increased ratio of females has been particularly strong in the 20-39 age group since 1996 and in the 40-44 age group since 2000 (Hong Kong Year Book, 2005).

The age composition of the population is indicative of the dependency ratio, namely,

the ratio of people under the age of 15 and those aged 65 and above to the working-aged population (aged 15-64). The ratio of dependent residents dropped from 393:1 000 in 1999 to 370:1 000 in 2004, a fact that can clearly be attributed to the decline in the proportion of young persons aged under 15, which more than offset the increase in the proportion of persons aged 65 and over (Hong Kong Year Book, 2005).

Mainland Chinese Migrant Population

Mainland China is the major source of the Hong Kong's immigrant population. In 2006, a total of about 2,298,956 people (1,237,525 female and 1,061,431 male) living in Hong Kong had migrated from Mainland China. As shown in Table 2.3, most of them, 84.1% of all female immigrants and 92.0% of all male immigrant from Mainland China, had already been residing in Hong Kong for over seven years.

Table 2.3 Mainland Chinese Immigrants' Duration of Residence in HK (2006)

Mainland Chinese Migrants	Duration of Residence in Hong Kong					
	<1 year	1–3 years	3–5 years	5–7 years	≥7 years	Total
Number of Females	25 356 (2.0%)	43 080 (3.5%)	56 613 (4.6%)	71 122 (5.7%)	1 041 354 (84.1%)	1 237 525 (100%)
Number of Male	14 958 (1.4%)	17 455 (1.6%)	21 754 (2.0%)	30 384 (2.9%)	976 880 (92.0%)	1 061 431 (100%)

Source: Census and Statistics Department, 2007

Education

While in past Hong Kong women as a whole appeared to have lower levels of education than men, it would seem that the trend is changing along with an overall shift among the population towards higher education. For instance, as seen in Table B.2.2 in Appendix B, in 1986, a total of 430,900 females (21.4% of the total female population) reported having no schooling or only a kindergarten level educational background, while in 2008, a total of 254,500 females (only 7.9% of the total female population) reported the same lack of education. For male, only 2.6% of the total male population was reported as having no schooling or only a kindergarten- level education in 2008 (Census and Statistics Department, 2008). Although the percentages of women lacking even primary education seem very high, these figure included older-generation women who were rarely afforded an education when they were young. The results of the 2008 population census show that, despite this large proportion of virtually uneducated women, 73% of the female population aged 15 years and above had attended secondary school and above (see Table 2.5). In fact, the percentage of women with a secondary school or higher education level similar of the respective male population with only 80.0%. This is a marked improvement considering that the corresponding figures for 1986 had amounted to 50.0% of women and 61.0% of men (Census and Statistics Department, 2007). A comparative statistics of level of education between new arrivals and the whole population is presented in Table 2.4.

Table 2.4 New Arrivals and Whole Population aged 15 and over in Hong Kong by levels of education in 2007

	New arrivals aged 15 and over		**Whole population aged 15 and over**	
Education (highest level attended)	Number	%	Number	%
No schooling/Kindergarten	11 580	6.7	469 939	8.4
Primary	43 884	25.3	1 148 273	20.5
Lower secondary	66 431	38.4	1 060 489	18.9
Upper secondary/ Matriculation	41 438	23.9	2 001 771	35.8
Tertiary	9 879	5.7	918 500	16.4
Total	173 212	100.0	5 598 972	100.0

Source: Hong Kong 2007 Population Census, Census and Statistics Department [12]

Table 2.4 shows that those who are new arrivals in Hong Kong aged 15 years and over are more likely to have lower education (primary to low secondary education) compared to the local Hong Kong population.

While we can see the educational level of women in Hong Kong is increasing, a comparative figure for level of educational of Chinese migrant women is unavailable. However, it is important to find out the association between levels of education and their effect on Chinese migrant women's employment status, coping with stress and use of health promotion activities. These will be discussed in Chapters 6 and 7.

Table 2.5 Educational Attainment of Hong Kong Residents, 2008

In Thousands

Age group	Sex	Educational Attainment						
		No schooling/ Kindergarten	Primary	Lower secondary	Upper secondary/ Matriculation	Tertiary (non- degree)	Tertiary (degree)	Total
15-19	F	*	*	28.6	151.7	24.0	10.6	213.5
	M	*	*	38.0	154.4	23.7	10.9	227.4
20-29	F	0.5	16.5	48.5	218.8	77.7	178.0	539.9
	M	*	2.6	46.4	164.9	77.5	153.9	445.6
30-39	F	1.8	39.3	105.1	282.5	59.3	158.7	646.7
	M	*	11.2	85.2	183.5	49.2	139.4	468.9
40-49	F	9.8	113.0	132.8	300.5	52.0	83.1	691.3
	M	2.4	64.4	131.2	236.1	47.7	113.9	595.7
50-59	F	25.7	210.2	100.0	138.6	20.7	27.7	523.0
	M	9.1	155.1	120.7	152.3	26.4	53.3	516.9
60 and above	F	216.7	229.5	47.5	57.6	14.7	15.4	581.5
	M	60.8	250.5	80.9	97.2	17.0	35.4	541.7
Sub-total	F	254.5	608.9	462.6	1 149.7	248.4	473.5	3 197.7
	M	72.8	484.3	502.3	988.5	241.5	506.8	2 796.1
Total		327.3	1 093.1	964.9	2 138.3	489.9	980.3	5 993.9

* Statistics are not released due to large sampling error.

Notes: (1) Includes land-based non-institutional population aged 15 and over only.

(2) Persons with lower secondary educational attainment include persons with Secondary 1 to Secondary 3 educational attainment.

(3) Persons with upper secondary educational attainment include persons with Secondary 4 - 5 or equivalent educational attainment while persons with sixth form educational attainment include those with Secondary 6 - 7 or equivalent educational attainment.

Source: Census and Statistics Department, 2008

2.2.3 Health Status of Hong Kong Citizens

The health indices for Hong Kong's population are among the world's best (Department of Health, 2009a). The infant mortality rate, one of the most important indicators of health, has declined steadily over the past two decades reaching a low of

1.7 per 100 000 live births in 2007 (Department of Health, 2009b). Maternal mortality has remained low over the past two decades. In 2004, there were only three reports of maternal death down to only one and a maternal mortality ratio of 1.4 per 100 000 registered live births in 2007 (Department of Health, 2009b).

Longevity has also improved significantly for the people of Hong Kong over the years. In 2007, their life expectancy at birth was 79.27 years for males and 85.37 years for females. This is very high, especially when compared with the respective figures of 72.27 and 79.62 years for American Samoans, 78.7 and 83.5 years for Australians, 79.0, and 85.81years for Japanese, and 69.6, and female is 73.7 years for Mainland Chinese (World Health Organization, 2009).

Regarding illness and disease, the patterns prevalent among Hong Kong residents resemble those of developed countries. Communicable diseases have been effectively controlled. As elsewhere, most health problems are associated with lifestyle-related chronic degenerative diseases. Consequently cancer and heart disease have emerged as the leading causes of mortality and morbidity (Hospital Authority, 2009). In 2006, cancers accounted for 32.3% of all registered deaths. The top five forms of lethal cancer were lung cancer, colorectal cancer, liver cancer, stomach cancer and breast cancer (Department of Health, 2009b). As the second-most common cause of death, heart disease accounted for 13.5% of all registered deaths in 2006 (Department of Health, 2009b), while cerebrovascular disease caused 63.6 deaths per 100 000 standard population. As is apparent from Table 2.6, women had lower mortality rates than men for all major specific causes of death (World Health Organization, 2009).

Table 2.6 Cause-specific Mortality Rates in Hong Kong

Number of deaths per 100 000 standard population

Major Cause of Death	Sex	1996	1998	1999	2000	2001	2002	2003	2004	2005
Malignant neoplasms	F	98.3	98.3	97.3	95.3	92.2	91.9	85.9	87.8	88.3
	M	179.6	182.2	182.5	181.6	178.3	173.2	168.3	165.7	167.1
Heart diseases	F	50.8	50.5	51.6	51.9	40.9	41.8	42.4	44.4	43.4
	M	78.0	77.2	75.5	77.5	62.5	63.1	64.0	69.9	66.1
Cerebrovascular diseases	F	36.0	36.9	37.5	34.9	30.1	28.6	29.1	26.8	26.7
	M	46.2	45.6	46.6	47.3	38.3	38.3	39.8	39.9	36.9
Pneumonia, all forms	F	41.6	35.1	27.6	26.2	24.6	22.7	26.5	24.7	26.8
	M	66.6	60.7	47.2	45.5	40.4	43.3	50.4	44.9	51.4
Injury and poisoning	F	14.4	15.6	16.3	15.9	15.1	15.2	15.2	15.9	16.1
	M	32.8	37.3	38.6	34.3	32.7	37.0	35.6	38.6	35.5

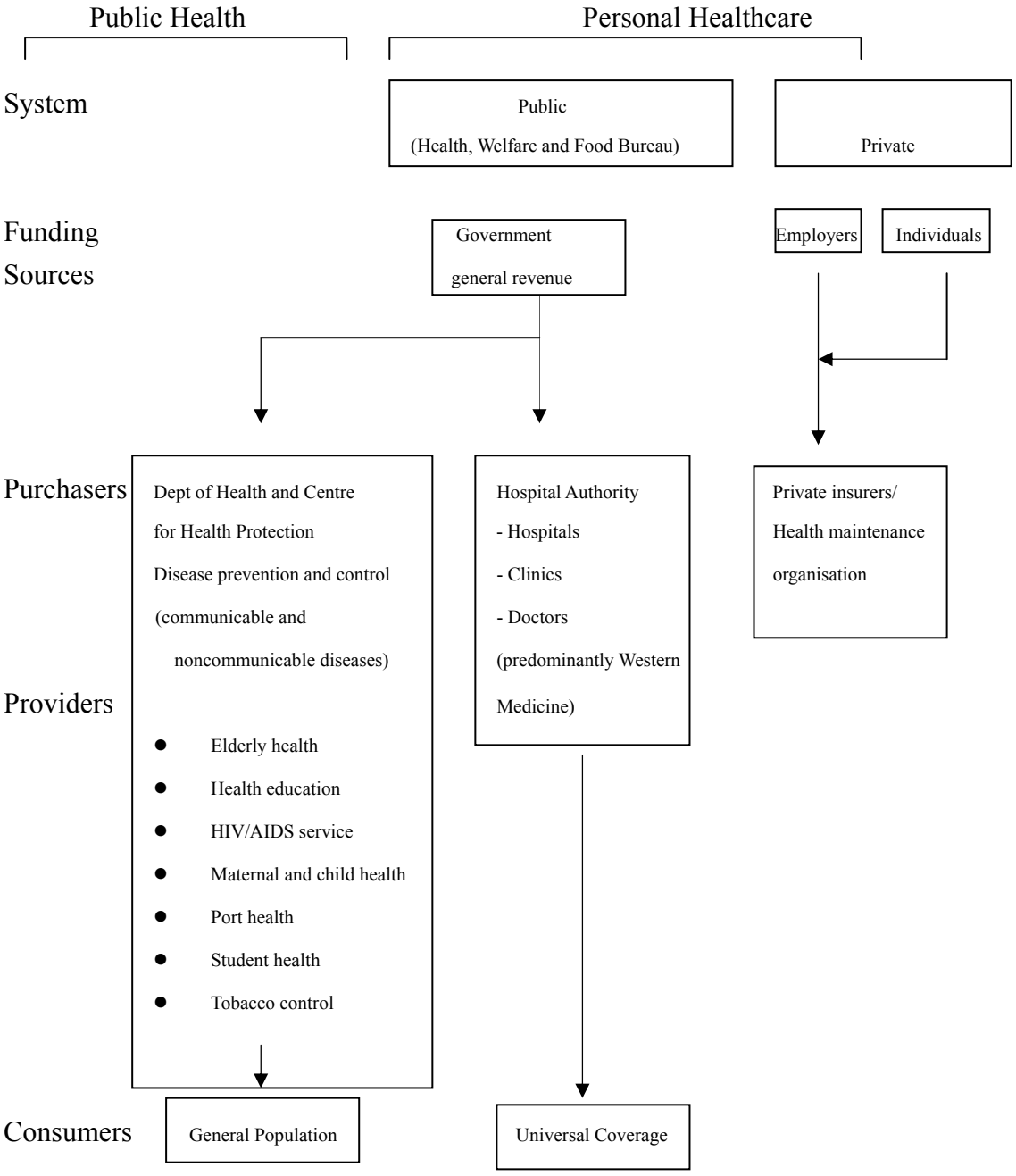
Source: Census and Statistics Department, 2007

2.2.4 The Health Care and Public Health in Hong Kong

Hong Kong has an attractive health care system, which provides accessible, equitable and affordable high-quality health care services. One of the foundations of the Hong Kong government's health care policies is that no one should be denied adequate medical treatment through lack of means. The public health care sector provides a range of services and facilities to meet the health care needs of the community. Private sector health services offer patients greater choice and convenience. The two sectors serve different but complementary roles, together providing comprehensive health care of a high standard to the Hong Kong community (Hong Kong Year Book, 2007).

Figure 2.2 on the following page gives an overview of the organizational structure of Hong Kong's health system including both public and private health care services. Some of the key departments responsible for health care provision and policy making are introduced thereafter.

Figure 2.2 Overview of Hong Kong's Health System



Source: Modified from Chan and Leung (2005, p. 205)

The Health, Welfare and Food Bureau

The Health, Welfare and Food Bureau is an organization responsible for setting policy and overseeing Hong Kong's systems of public health. This organization is responsible for food safety and environmental hygiene for the community, as well as for overseeing the implementation of policies to protect and promote public health. In 2001 as part of the Government's agenda to maximize health for the people of Hong Kong, a Research Office was established within the organisation to support and contribute to public health policies through relevant research (The Health, Welfare and Food Bureau, 2008).

The Hospital Authority

The Government's health care policy is to safeguard and promote the general public health of the community as a whole and to ensure the provision of medical and health services for the people of Hong Kong, particularly that large section of the community which relies on subsidized medical attention, so that no one should be prevented from obtaining adequate medical attention through lack of means (Hospital Authority, 2009).

Consequently, the Hospital Authority, a statutory body charged to manage all public hospitals in Hong Kong was established in December 1990. It provides medical treatment and rehabilitation services to patients through hospitals, specialist clinics and outreach services. While the Hospital Authority is an independent organization, it is accountable to the Government through the Secretary for Health and Welfare, who is responsible for the formulation of health policies and monitoring the performance of the Authority (Hospital Authority, 2009).

The Hospital Authority administers 41 public hospitals / institutions, 47 specialist outpatient clinics and 74 general outpatient clinics which include 59 General Outpatient Clinics transferred from Department of Health in 2003. As at 31 March 2005, the Authority managed a total of 27,742 hospital beds which represented around 3.8 public hospital beds per 1,000 residents (Hospital Authority, 2009). While the Authority is mainly responsible for delivering a comprehensive range of secondary and tertiary specialist care and medical rehabilitation through its network of health care facilities, it also provides primary medical services in 74 care clinics.

The Department of Health

The Department of Health is the Government's health adviser and agency to execute health care policies and statutory functions. It safeguards the community's health through a range of promotional, preventive, curative and rehabilitative services. It also works with the private sector and teaching institutions to protect public health (Department of Health, 2009c).

2.2.5 The Challenges of Health Care in the Future

With life expectancy for Hong Kong citizens anticipated to increase year by year – in fact, by the year 2031, it is projected that men will reach the age of 82 years while the women are likely to live to an average age of 88 (Department of Health, 2008) – the challenge facing the Hong Kong government lies in providing appropriate health care services for a steadily ageing population. With proper immunization programs and improvements to the general public health environment, Hong Kong has already experienced an epidemiological transition from communicable to chronic diseases (Hospital Authority, 2006a). However, the incidence of chronic illness and disability is likely to increase manifold in the future.

To promote health and minimize disability among older persons, very different preventive health programmes, medical interventions and rehabilitative services are required. Chronic illnesses and disabilities require long-term management, which is labour- and technology-intensive and generally very expensive.

In 2004, there were 969 000 women aged 50 years or older in Hong Kong. This figure is expected to rise to 1.2 million by the year 2009 (Hospital Authority, 2006b). Since it is known that 50% of post-menopausal women in Hong Kong are osteoporotic, the planning of health services for these women alone will be a major challenge (Ho et al, 1999).

However, apart from the issue of ageing, the large inflow of immigrants, especially of Chinese migrant women will create significant health management needs. The heath issues these women face may vary considerably according to the amount of time they have lived in Hong Kong. However, many of them have a background of poor prevention and health promotion practices stemming from a general lack of knowledge, family responsibilities, financial problems, and different cultural viewpoints etc. The particular health issues they face vary according to demographic differences such as financial status, age, education, urban or rural origin, and language barrier, etc. The Hong Kong Department of Health should set the high priority for ensuring the adequate health care and access to health services for the Chinese migrant women.

The following section examines the approach to public health taken in Hong Kong.

2.3 Health Promotion and Disease Prevention in Hong Kong

2.3.1. Introduction

The underlying concept for modern health promotion can be traced to the World Health Organisation's Alma Alta declaration in 1964, namely, that 'health is not merely the absence of disease but a state of complete physical, mental and social well being' (World Health Organisation, 1946). Since then, health promotion has gradually become accepted as a vital and integral part of public health, and is now universally perceived as referring to a holistic field of overlapping activity on primary, secondary and tertiary levels encompassing health education, lifestyle and preventative approaches.

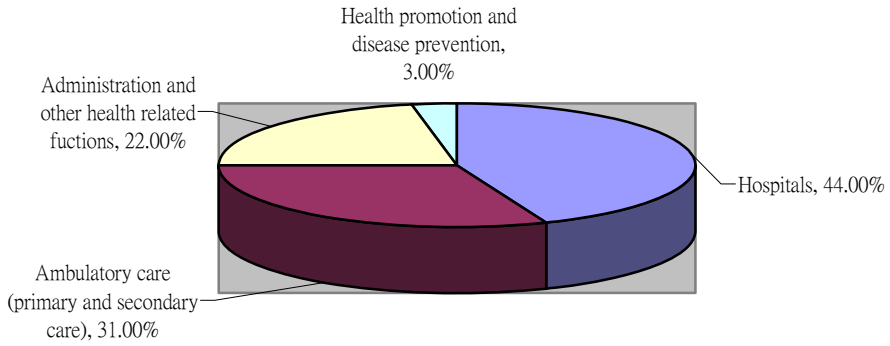
Research has shown that investment in public health is more efficient and effective than emphasis on curative and inpatient care: countries with weak primary care infrastructures have frequently reported higher costs along with poorer health outcomes (Starfield, 1994). Given the increasing incidence of chronic diseases, it also seems clear that curative inpatient care alone is inappropriate since it does nothing to focus on prevention and is not even the most appropriate setting for treating such diseases. Based on this recognition and in light of perpetually limited public resources, many advanced economies have engaged in a transition to shift public resources towards more cost-effective approaches in prevention, primary and outpatient care (Chan & Leung, 2005).

2.3.2. Public Health Approaches in Hong Kong

While the government of Hong Kong seems to have recognized the need for a more modern approach to health care, having a past health system oriented almost

exclusively towards curative services, its health promotion and prevention services remain weak. As shown in Figure 2.3 below, 39.1% of public health funding for 2002 went towards services providing acute inpatient treatment, as compared to a mere 2.3% allocated to health promotion and disease prevention (Government of Hong Kong, 2002). While similar imbalances in the funding of health promotion exist in most other countries, it is difficult to compare their data. Health promotion has become a focus of attention in high income countries but there is little data on the management of this vital area of public health in low and middle income countries (Scriven, 2005).

Figure 2.3 Total Health Expenditure of Hong Kong



Source: Food and Health Bureau, the Government of the Hong Kong, 2009.

The small amount spent on health promotion strategies in Hong Kong goes mostly towards health education, for which the Department of Health bears chief responsibility. The current emphasis of the Department is on communicable diseases, injury prevention, mental health, nutrition, physical activity, and tobacco control (Department of Health, 2006).

In November 1997, the Health and Welfare Bureau of the Government of the Hong Kong Special Administrative Region had commissioned a team of economists, physicians, epidemiologists, and public health specialists from Harvard University to conduct a study on Hong Kong health care system. This study included a comprehensive assessment of the current system and a proposal for alternative options to improve both financing and delivery of health care. The Harvard Team suggested a more cost-effectiveness health care system would need to examine the system's impact on health status improvement, lifestyle, diet, age structure, health knowledge, and care seeking patterns (Harvard Team, 1999).

The Harvard study was a major event initiated by the Department of Health in Hong Kong recently. The study aims to improve Hong Kong's Health Care System. The Department of Health and Hospital authority had followed the Harvard Team's recommendations to make changes for the health care of Hong Kong citizens.

Assessing the Health Status of Hong Kong Residents

The objectives of the Healthy Living Survey were to obtain baseline data on the knowledge, attitudes and practices among the local adult population in relation to health, to assess their perception of their own health status and that of the general population, and to get public opinion on priority areas for action to improve health. This household telephone survey was conducted on a random sample of the Chinese Cantonese-speaking adult population of Hong Kong, aged 18 to 64; over a period of six months 3,270 respondents were interviewed (Lam et al, 1999).

The results reported that 92% of the respondents had graded their health in the past three months as either very good or good. While about half (49%) the respondents

had felt tense or under great pressure in the past month, the greatest source of this pressure came from their job (39%) followed by financial issues (16%) (Lam et al, 1999).

According to the data reported by the Hong Kong Census and Statistics Department in 1999, about 67% of Hong Kong residents thought that their health condition was more or less the same as their peers. Results showed that a slightly larger proportion of females (10.3%) than males (7.6%) considered their health worse or far worse than others of the same age (Census and Statistics Department, 1999). A report done by the Harvard team in 1999, suggests that women in Hong Kong also assessed their health status as poorer than the men did (see Table B.2.3 in Appendix B).

Assessing Risk Behaviour

Since like many developed countries, the leading causes of mortality and morbidity in Hong Kong are malignant neoplasms and cardiovascular diseases, both clearly related to risky health behaviours such as smoking, unhealthy diet, lack of exercise and excessive alcohol consumption, this survey was set up by the Surveillance and Epidemiology Branch, Centre for Health Protection of the Department of Health in Hong Kong.

The aim of implementing the (BRFSS) was to collect information on health-related behaviours of the Hong Kong adult population through a series of periodically and systematically conducted telephone surveys. Such information would be useful for monitoring the trend of health-related behaviours central to identifying emerging health issues and vital for planning, supporting and evaluating health promotion and disease prevention programmes in Hong Kong.

The BRFSS was to be conducted once or twice per year beginning in October 2004. According to this surveillance system, at least 2 000 randomly selected land-based, non-institutionalized persons aged 18 to 64 years are sampled in each survey. Eligible respondents are telephone-interviewed for about 15 minutes following a core set of questions on their health-related lifestyle and behaviours after which a few further questions on their specific topics of interest are posed. During analysis, weighting is applied to age and gender in order to make the findings more representative of the general population.

The following are results and data from the BRFSS in year 2005.

1. Body Mass Index (BMI) distribution

The results showed that while a total 46% of males and 54.2% of females had standard BMI, 27.1% of males and 13.1% of females were obese (BMI > 25.0) (see Table 2.7). As a comparison, in 2004, 58.3% of males and 40.0% females aged 18-100 in Australia had a BMI indicating they were overweight (>25) with 17.8% of males and 15.1% of females obese (BMI=or>30); while in the USA, of those aged 20-100, 70.8% of males and 61.8% of females were overweight (BMI >25) with 31.1% of males and 33.2% of females considered obese (BMI= or > 30) (World Health Organization, 2007).

Table 2.7 Body Mass Index (BMI) Distribution in April 2005

Classification (BMI)	Male Number (%)	Female Number (%)	Overall Number (%)
Underweight (BMI < 18.5)	45 (4.5%)	147 (13.3%)	192 (9.1%)
Normal (BMI 18.5 - 23.0)	457 (46.0%)	601 (54.2%)	1 058 (50.3%)
Overweight (BMI 23.0 - 25.0)	187 (18.8%)	156 (14.0%)	342 (16.3%)
Obese (BMI =or>25.0)	269 (27.1%)	145 (13.1%)	414 (19.7%)
Unknown/Missing/	35 (3.5%)	60 (5.4%)	95 (4.5%)

Note: Add-ups may not be equal to total due to rounding.

Source: Centre of Health Protection (2006).

2. Physical Activity

The survey showed positive indications for the level of physical activity engaged in by the population of Hong Kong. While only 23.3% of the male and 17.7% of the female population of Hong Kong conducted high levels of physical activity, 53.9% of males and 56.0% of females performed a moderate level of physical activity (see Table B.2.4 in Appendix B). Vigorous physical activities were classified as any that makes you breathe much harder than normal, e.g. football, swimming, heavy physical work, aerobics, jogging, etc.) Whereas moderate physical activities are were seen as making you breathe somewhat harder than normal, e.g. fast walking, bicycling, car washing/waxing, cleaning windows, etc.) on the survey also measured on how many days peopled walked for at least 10 minutes at a time (See Table B.2.7 in Appendix B), for example, by walking to the office/school, in order to get from place to place and for leisure.

Overall, males were seen to be more active in vigorous exercise than females, with

17.1% and 10.4% respectively doing vigorous physical activities for three or more days a week (See Table B.2.5 in Appendix B). However, more females performed moderate physical activities than males with 25.6% and 22.1% respectively (See Table B.2.6 in Appendix B). As for mild physical activities such as walking, 7.8% of females and 7.2% of males conducted two days or less in a week. Nevertheless, there is 73.6% female and 76.3% male conducted walking exercise everyday (see Table B.2.7 in the Appendix B).

3. Diet

As some indicator of how healthy the populations' diet was, the BRFSS asked respondents about their consumption of fruit and vegetables. Following their answers to how frequently, what sort and what amount of fruit and vegetables were eaten, it appears hat Hong Kong men have a less healthy diet than women. However, women not only enjoyed a higher-fiber diet than men by eating more vegetables and fruit, they were also more likely choose healthier options of protein through milk or soybean curd and tended to remove the fat from the food when eating more than men did (see Table B.2.8 and B.2.9 in the Appendix B).

4. Alcohol Consumption

As a further indicator of health lifestyle, the population's alcohol consumption was measured; similarly though, men are more likely to drink excessively than women. Only 6% of men and a mere 1% of women were found to drink alcohol daily, while 3.5% of men and 2.1% of women consumed alcohol 4-6 days per week (see Table B.2.10 in the Appendix B). A 2001 WHO-sponsored survey of 24 992 subjects aged 15 years or older across five areas in China revealed that the average annual consumption per capita in pure alcohol among all respondents was 4.47 liters. Men

drank 13.4 times more than women (World Health Organization, 2004).

5. Cigarette Smoking

The final measure of how healthy a lifestyle the population of Hong Kong enjoyed in assessing cigarette smoking. In the results, there are 26.2% of men smoke daily and 6% of female smoke daily. Men were found to be nearly four times as likely to smoke as women, and to smoke more cigarettes on average than female smokers. Table B.2.11 in Appendix B shows the cigarettes smoking by gender, and the amount of cigarettes smoked per day.

Early Detection and Disease Prevention Measures

In Hong Kong, the improvement in the quality of health services delivered alongside the achievement and maintenance of better quality of life among the population has resulted in a remarkable reduction in the standardized mortality rates, and in most of the major specific cause of death. However, one of the remaining major causes of death in Hong Kong, and one likely to prevail, is cancer. With the number of deaths from cancer in 2004 at 11 791, with 7 183 and 4 608 for males and females respectively (Centre of Health Protection, 2006), prevention and control of this disease would seem one of the most important public health challenges.

Successful health promotion thus entails reducing the morbidity and mortality from cancer and improving the quality of life for cancer patients and their families. Any disease prevention involves identifying the determinants of morbidity and mortality and the effective means to reduce it. With current knowledge, it is possible to prevent at least one-third to two-thirds of the cancer cases by, for example, controlling tobacco and alcohol use, moderating diet, and promoting physical activity. Through

early detection and prompt treatment it is possible to prevent a further one-third of the deaths by cancer. Early detection comprises early diagnosis in symptomatic populations and screening in asymptomatic, but at risk populations (Chan and Leung, 2005).

Cervical Cancer

Although it is only the second-most common cancer in women, cervical cancer remains the main cause of female mortality and morbidity, both in Hong Kong and globally. In 2005, there were over 500 000 new cases of cervical cancer, of which over 90% were in developing countries; in the same year, almost 260 000 women died of this cancer (Cancer registry, 2005). In Hong Kong alone, 133 women died from cervical cancer, accounting for 2.8% of female cancer deaths (Department of Health, 2006). According to the Hong Kong Cancer Registry, there were 439 new cases of cervical cancer, accounting for 4.3% of all new cancer cases in females. The median age at diagnosis was 54 years old.

Realising the need for early detection, the Department of Health launched a Cervical Screening Programme (CSP) and between 8 March 2004 and 31 December 2006, over 250 000 women registered with CSP. 97.1 % of registrants were women aged 25-64 (Centre of Health Protection, 2006).

However, despite pap smears for cervical cancer being offered by the Maternal and Child Health Services, the Family Planning Association, and private practitioners in Hong Kong, a considerable proportion of the females appear reluctant to utilize this service. Data from 2006 of Centre of Health Protection, Department of Health in Hong Kong shows 35.5% of the female population had never done Pap smear, 36.5%

of women had had a pap smear done within the preceding year, while 14.1% of women had had one done within the previous two years (see Table 2.8).

Table 2.8 Survey Results of Cervical Screening for Hong Kong Women (April 2006)

Response	Number (%)
Never	391 (35.5)
Yes, within 1 - 12 months	401 (36.5)
Yes, within 13 - 24 months	155 (14.1)
Yes, within 25 - 36 months	57 (5.2)
Yes, within 37 - 48 months	22 (2.0)
Yes, within 49 - 60 months	12 (1.1)
Yes, more than 5 years	36 (3.3)
Yes, cannot remember when	15 (1.3)
Unknown/Missing/Outliers	12 (1.1)
Total	**1 101 (100.0)**

Note: Add-ups may not be equal to total due to rounding.

Female only

Source: Centre of Health Protection (2006).

Breast Cancer

In Hong Kong, only Pap smears for cervical cancer are offered by the Maternal and Child Health Services as a free of charge service. There is currently no population screening of breast cancer in Hong Kong (Lui et al., 2007). For mammograms, women need to pay out of their own pocket. It may be difficult for new immigrant women to do so as most of them have a very low family income. Studies in the USA indicate that underutilization of mammograms and Pap smear tests among Chinese

migrant women may due to their limited awareness of the importance of such tests, cultural beliefs, language barriers, and a range of other factors including cost, lack of health insurance, lack of transportation and child care difficulties (Lantz et al, 1994).

Summary of Section

This chapter offers the background information to the study; the first part provides the background information for Mainland China about their population, economic growth, health status of people as well as their health care system. Internal migration within Mainland China is also discussed in this chapter.

The second part of the chapter presents the information about Hong Kong; the history of migration from Mainland China, and the present immigration policy for Mainland immigrants. The chapter also provides the socio-demographic background, the general health status of Hong Kong people, and a description of the health care system in Hong Kong.

The major issues of migrant women after migration to Hong Kong include adaptation to the health care system in host country, health promotion and disease prevention. Some cancer diseases, such as breast and cervical cancer, can be prevented or controlled through routine screening. There are limited published studies about access to health care services, utilization of health care and use of preventive services for Chinese migrant women in Hong Kong. It is clear that public awareness concerning health promotion needs to be improved and that to achieve this health care funding must move beyond disease diagnosis and treatment to include health promotion and disease prevention. However, in order to be more effective in promoting preventive services to the disadvantaged group of new female migrants to Hong Kong, more

research is needed to identify exactly what are the present barriers preventing them from accessing services such as preventive screening. Only then can effective interventions be designed and implemented to overcome these barriers.

The researcher will explore the issues of Chinese migrant women accessing health care services and performing health promotion and prevention activities in chapter five to chapter eight of this thesis.

Chapter Three: Review of Literature

3.1 Introduction

Research has shown that migrants suffer from various health problems including psychological stress. However, the interaction between health and migration is a complex one influenced by socio-economic factors, cultural background, and migrants' history of health prior to migration, and the nature and quality of the health care available to them in their origin country. Their health may also be influenced by the circumstances surrounding their actual migration and the social and the health care services provided them on resettlement.

China has been and remains a major source of international migration. There are Chinese people living in virtually every country of the world today. Towards the end of the 20th century, it was estimated that some 33 million ethnic Chinese were living outside China (Skeldon, 2004). In the United States alone there are more than 2.7 million Chinese migrants (Barnes & Bennett, 2002) while in Canada, the more than a million Chinese immigrants accounted for 3.5 % of the Canadian population in 2001(Statistics Canada, 2003).

Migrants from Mainland China form the core of Hong Kong's immigrant population. In 2006, a total of at least 2 298 956 people (of which 1 237 525 were female and 1 061 431 male) had migrated from Mainland China to Hong Kong. With the total population of Hong Kong at 6.7 million in 2006, Chinese migrants accounted for nearly 30% of the population (Census and Statistics Department, 2008).

Like others, these migrants have faced a complex healthcare system in which the

modes of communication and the expectations of both clients and providers differ from those in their home countries. In addition to these difficulties, migrants may lose their former social support, experience a decrease in socioeconomic status, be exposed to disease risk factors not previously encountered through, for example, changes in diet, and generally experience an increase in overall stress-levels (Kagawa, 1997).

Evidence in the literature has shown disparities in health care for racial and ethnic minorities. These have been a major concern for immigrants in different countries. Racial and ethnic inequality in healthcare has been reported across a wide range of illnesses and healthcare services and is associated with worse health outcomes (Centers for Disease Control and Prevention [CDC], 2003; Smedley et al., 2002). Chinese ethnic minorities, especially those that do not speak English, are more likely to be underrepresented in clinical studies due to language barriers, economic disadvantage, educational disadvantage, mistrust of the medical system, cultural beliefs conflicting with the status quo, or transportation problems (Jang et al., 1998; Maxwell et al., 2005.)

There is limited published literature on Chinese migrants participating in health-related activities and public health prevention programs (Maxwell et al., 2005). Health-related research studies based on culturally sensitive issues for Chinese migrant women are needed and this will provide better understanding of the disparities in healthcare and offer guidance to public health prevention programs.

Migration of Chinese Women to Hong Kong

Following the introduction of the 1997 Basic Law of Hong Kong, which stipulates that spouses and children of Hong Kong citizens living in China have the right to

migrate to and live in Hong Kong (People's Republic of China 1991), many Hong Kong males from low income groups have chosen to marry Mainland Chinese women in the belief that they might be more 'affordable' than women from Hong Kong. However, despite this general legislation, other restrictions in Hong Kong's immigration policies mean that many of these Mainland wives and children have to wait for ten or more years before they in fact receive a one-way permit to migrate to Hong Kong. This living in limbo situation is clearly a very stressful state of existence which is likely to affect their health even before they arrive etc.

It is estimated that about 54,000 adults and children qualify for the right to come to Hong Kong annually. Data have shown that about 50% of the immigrants are adults, of which more than 80% are mothers in their thirties and forties with young school-aged children. Their husbands are usually Hong Kong citizens in their fifties, sixties or even seventies. These husbands normally hold low-paid, manual jobs (Wong, 1998).

Sad stories of families still separated by the border are common in Hong Kong. However, studies have shown that the 'lucky' mainly female adults who have managed to migrate are confronted with a variety of resettlement difficulties concerning employment, finances, and accommodation (Wu, 2004; Chow and Ho, 1996). The specific problems facing many of the female migrants include difficulty in obtaining childcare, conflict with their husbands and in-laws, and anxieties associated with having left some of their children in China (in some cases, only the mother or the child is granted a migration visa rather than the whole family at the same time) (Wong, 1998). There are increasing violent incidents in the community resulting from migrants' difficulties in adjusting to life in Hong Kong.

If we are to provide appropriate professional health care services for these immigrant clients, we need to consider their backgrounds, values, health-seeking behaviours, and coping strategies as they may strongly differ from our own. Certainly, we need to examine the situational and cultural contexts surrounding these migrant women, which directly influence their settlement in their host country and are likely, even if indirectly, to have bearing on their health needs.

3.2 Background of Chinese Migrant Women

3.2.1 Issues pertaining to women in general

The modern trend is for women to have multiple roles, many combining employment with their roles as wives and mothers. In addition to these roles and associated duties, many women look after their parents, their husband's parents, and maintain a network of friends. It is no surprise then that conflict can arise for those, particularly married and working women, trying to fulfill these multiple roles. According to Frone and colleagues (1992), these conflicts can be a source of stress that plays an important part in influencing psychological and physical outcomes.

Research has found that, being a parent, especially of a young child, appears to take a greater toll on women's well-being than on men's, and that it diminishes the otherwise positive effects of employment on women's mood (Le et al., 2003).

A further factor affecting women's health is the quality of their marital relationship (defined by Kinnunen & Rulkkinen, 2003) as satisfaction with the marital relationship. Marital quality, rather than marital status, seems to be most important for women's health and it appears that being married is not considered beneficial if the quality of the marriage is poor. Women appear more likely than men to be

diagnosed with depression in relation to poor marital quality (Duxbury et al., 1991, Brommelhoff et al., 2004). In contrast, high marital quality has been found to be associated with reports of general feelings of well-being such that women with high marital quality were found to report fewer depressive symptoms than women in a less satisfying marriage (Prigerson et al., 1999).

3.2.2 Issues pertaining women migrants, particularly Chinese migrant women

Social Isolation

Due to their poor educational background and their responsibilities as mothers, most married women in China remain at home while their spouses go to work. Having migrated to a new country and being separated from their next of kin in host country, theses same women may suffer from lack of social support. Research has indicated that all migrant mothers, regardless of origin, require a social support network to survive (Ward, 2004). Not only have they frequently lost the support of their family and friends, being unfamiliar with their neighbours and having no relatives or friends with whom to exchange information with and share their experiences with, they face major difficulties and changes alone. These difficulties include managing daily living, caring for their children, schooling, and accessing the health care system in the host country, etc. (Padilla and Villalobos, 2007; Gebre-Egzbiabher and Michael, 2004).

Traditionally, women use health care services more frequently than men. This is because, particularly during their childbearing years, women are usually the health caregivers. The burden of this role and its associated functions can, however, become a significant challenge for migrant women, many of whom face multiple barriers, including financial, legal, cultural, and even geographic difficulties, to obtaining health care.

Employment

The financial burden facing migrant families is frequently significant, many struggling on a very low income. While the family's financial need may require the women to seek work, their rural background and lack of professional or marketable skills can prove a considerable obstacle. For some language can be a barrier to obtaining work. Migrant women may also face discrimination not only in finding employment but also as regards their salary, welfare and promotion. Those who do find work are mostly only able to secure low-paying jobs which may not be able to survive in the high cost of urban living. Continued financial difficulties may cause poor health outcomes for migrant women (China: Congress Should End Migrant Discrimination, 2009).

Role Reversal

Interestingly, in 'old husband – young wife' migrant families roles are frequently reversed. The younger migrant women will likely get jobs more easily than their spouses. While this is a practical solution, disturbing the traditional patriarchal role by the husband not working can cause marital problems (The Hong Kong Council of Social Service, 2003).

Migrant Women and Health

The processes of migration and health are inextricably linked in complex ways. Migration may have significant effects on both the mental and physical health of those moving countries. Studies have shown that immigrants tend to be at higher risk for HIV and other sexually transmitted diseases (STDs) than people in more stable living arrangements. One reason for this situation is the lack of appropriate health education on those diseases as well as practice of health prevention activities (Legarde et al., 1996).

Internationally

Since the early 19th century, the United States has received wave after wave of immigrants for searching better employment and better living conditions. Many of these immigrants lack sought-after skills, thus their economic assimilation is slow. They have no health insurance to cover the costs of obtaining the health care they need; and with no regular source of primary health care, they utilize hospital emergency rooms and out-patient departments or clinics for both primary care and emergency care. Uninsured, low income patients receive fewer services and less specialty care so if they do need to be hospitalized, their treatment is not ideal (Bollini and Siem, 1995).

Evidence has shown that the longer Latino immigrants live in the United States, the worse their health status becomes (Bathum et al., 2007). Studies on Chinese migrants to the United States (Tsai and Salazar, 2007) indicate that the series of adjustments required cause psychosocial responses including frustration, embarrassment, nervousness, and feelings of social isolation during resettlement. These psychosocial responses can lead to serious mental health problems and/or emotional disorders.

According to the Canadian Task Force, Chinese migrant women may be at risk for mental illnesses due to a number of factors including failure to find suitable employment, poor English skills, separation from family and community, and negative public attitudes (Citizenship and Immigration Canada, 2002). Women may be in a more vulnerable position than men if they need to look after their home and children, a situation that provides less opportunity to seek employment and to integrate to the new environment (Taryn et al., 2007).

3.3.1 Issues pertaining to Chinese migrant women's health in Hong Kong

Despite Hong Kong being a part of Mainland China, there are significant differences in culture, values, the economy, and the health care system of the erstwhile British colony. While little research has been conducted into the specific health issues facing women migrants from Mainland China in Hong Kong, there appear to be certain social, economic, psychological, physical, and environmental risks factors that have been documented.

Surveys from non-Government organisations found that over 80 % of new immigrant interviewees felt discriminated against because of their new immigrant identity, behaviour, or appearance (Society for Community Organization, 2003). Nearly 60 % of them felt they received inferior services or treatment than locals when the service providers realized they were new immigrants, while a further 60 % of them had been frequently subjected to racial vilification in public. Most of them reported that they dared not reveal their immigrant identity in public or attempt to make friends with local residents. Over 90 % of them felt that Hong Kong citizens racially discriminated against them, while over 60 % of them encountered racial discrimination when they sought for help from a government department (Society for Community Organization, 2003). According to another survey done by Ling et al., (2004) among 89 interviewees, nearly 53% had frequently had their Identity cards checked by police in public.

While the above aspects of discrimination could arguably be construed as merely subjective interpretations, the statistics regarding employment attest, unarguably, to discrimination. More than half of new immigrants experienced difficulties in finding a job because of racial discrimination. For example, nearly 30 % of them were not

hired when the employer saw that their identity card did not show permanent status or because their dialect differed from local people's (Society for Community Organization, 2003). While only about 34 % of new immigrants are employed at all, for those who are, working conditions are clearly inferior to the average Hong Kong resident.

However, it is not only current discrimination which makes finding work a challenge for migrant women. Most of them left school at a young age and have no marketable skills. According to the Survey on the employment of Chinese migrant women, most of them work as cleaners, garbage collectors and restaurant workers, working an average 56 hours per week. Nearly half of them work seven days a week (Society for Community Organization, 2003).

The income of new immigrants is 40 % lower than that of local people (Hong Kong Census and Statistic Department, 2000). The figures for 2001 show that 52 % of migrant women earned a monthly income of less than HK$6000 in 2001 (equal to Australian dollars $1000) while the median monthly income for migrant women was only $5800 (see Table C.1 in Appendix C).

Violence against women is becoming an increasing problem in Hong Kong, particularly among new immigrants from the mainland (Bureau of Democracy, Human Rights and Labor, 2006). Between January and March 2006, there were 968 cases of domestic violence registered by the Social Welfare Department, which receives reports from the police, social workers, the health department, and volunteer organizations. According to the Social Welfare Department, an average of 10 cases of domestic violence are reported each day, but critics say this figure represents only 8

% of the number of actual incidents as suggested by a recent study conducted by Hong Kong University (Bureau of Democracy, Human Rights and Labor, 2006)

Among the cases of domestic violence reported to the police during the first half of 2006, there were 38 cases of rape (Wu and Treiman, 2004). In the first eight months of the same year, a total of 656 indecent assault cases were reported to the police (Bureau of Democracy, Human Rights and Labor, 2006). Many of the victims were from new immigrant families. In one of the most brutal cases of domestic violence in Hong Kong, an unemployed man hacked his Chinese migrant wife and twin daughters to death before committing suicide. The wife had reportedly suffered years of psychological and sexual abuse and had made several unsuccessful requests for refuge at a social welfare centre; her case had been dismissed by officials as merely a 'family dispute' (Kim, 2006).

A possible explanation for these high levels of domestic violence involving Chinese migrant women may lie in the frequently significant age differences between them and their Hong Kong-born/resident husbands. Not only is it common for the wives to be in their thirties and forties, sometimes even in their twenties, while their husbands are in their fifties, sixties or even seventies, according to a survey by the Christian Family Service Centre and Baptist University Social Work Department interviewing more than 360 single men aged over 60, several stated they needed a partner to satisfy their physical needs and nearly 40 % said they would like to have a wife at least 20 years younger than them (Chung, 2007).

Whatever the cause of the high levels of domestic violence involving female immigrants from Mainland China, the emotional stress many of them are subject to is

likely to affect their health. According to Ganong (1996), stressful events are similar to traumatic physical events and thus occasion similar adaptive responses: The neuro-endocrine system is activated to release the hormones helpful to meeting any immediate adaptive demands. This results in increased blood pressure, elevated blood sugar levels in preparation to 'fight' and increased cardiac strain (Ganong, 1996). If the perceived stress continues for an extended period of time, elevated hormone levels may lead to a reduction of adaptive capacity and ultimately to adverse changes in health (Ganong, 1996).

While there are no statistics available on suicides among Chinese migrant women in Hong Kong, the suicide rates reported for the United Kingdom (Charlton, 1995), the United States (Singh et al., 2004), and Australia (Morrell, 1999) have been shown to be higher among migrant populations than native-born residents.

3.3.2 Use of Health Care Services by Migrant Women

Factors influencing health service utilization by immigrants include financial resources, health insurance, access to medical care, knowledge about the availability of care, and supportive personal and community resources. However, cultural differences regarding the presentation of symptoms and other health-related beliefs also determine the utilization of health care. Consequently, migrant families frequently undergo a gradual process of adjusting to the host country and health care system before they make full use of the available services. Leduc and Proulx (2004), has found that the more educated families and those from urban settings are more likely to understand how the health care system in their host country operates and to choose to utilise the services that suit them best.

Chinese Migrant women are used to a health care system that is geared mainly toward treatment and curative services, the orientation and education of most of the doctors and health workers being toward medical-biological approaches to illness. There is no widespread approach to health promotion and maintenance through public health programs of primary prevention in Mainland China until the recent release of two government-sponsored health promotion documents. These two documents are: The Chinese Development Programme for Nursing Business – 2005–2010 and A Schemed Nationwide Work Plan for Health Education and Health Promotion – 2005–2010, were released in 2005 by The Ministry of Health of China (National Development and Reform Commission). Both support claims for a national health promotion strategy based on social and community health development, and are intended to promote and initiate an effective national public health strategy (Whitehead, et al., 2008).

Subsidized Health Care in Hong Kong

In Hong Kong, all eligible residents are qualified to use public health care services on a fee-for-service basis. Permanent and other non-permanent residents, who are holders of Hong Kong Identity Card, are considered eligible persons and qualify for subsidized rates. For residents taking of Comprehensive Social Security Assistance (CSSA), payment of their public health care expenses is waived. OWP holders can apply for CSSA one year after migrating to Hong Kong provided their family income is below a certain level. Non-CSSA recipients, who cannot afford medical fees, can apply for fee waiver at public hospitals and clinics (Hong Kong government, 2009).

Cultural Orientation to Health Care Services - Western or Chinese

Most Chinese migrant women adhere to established customs and traditions regarding

health care and medical practices, which include the use of acupuncture, herbs, massage (*tuina*), therapeutic exercise (*qigong*), diet, and other forms of healing. As an integral part of Chinese culture for thousands of years, Traditional Chinese Medicine (TCM) has coexisted with Western medicine in China for more than a century (Unschuld, 1985).

Literature has shown that most Chinese migrants use both Western and Chinese medicine. Their illness management process is based on a healing system rooted in their culture of origin. Chinese migrants believe that Western medicine is able to take out the 'stem' or symptoms but not the 'roots' or cause. As such, Western medicine is believed to be effective in acute situation, such as surgery, but not as effective in the management of chronic diseases (Yang et al., 1991). Chinese medicine is usually used to treat conditions with prolonged symptoms, which are considered a digging up of the roots (Elfert et al., 1991).

Chinese migrants believe that Chinese medicine is more effective than Western medicine because its holistic approach enhances the function of the immune system and restores the energy imbalance that causes the disease. They also fear that the side-effects of Western medicine might hurt their internal organs, making their condition worse. Anderson, (1991) shows that, many immigrants with diabetes depend on Western medicine and use Chinese medicine as a supplementary treatment, Chinese migrants suffering from rheumatologic diseases (such as rheumatoid arthritis), respiratory problems (such as asthma), digestive problems, fatigue and stress were more likely to depend on Chinese medicine (Wong and Chiu, 1998).

Recently, there has been growing interest in complementary and alternative medicine (CAM). A study by Ahn and colleagues (2006) found that in a sample of 3,258

Chinese and Vietnamese Americans with limited English proficiency, approximately 60% reported that they had used TCM-related CAM therapies.

In Zhang et al's study, self-medication with herbal preparations accounted for most of this TCM use (2002). Herbal remedies were used for musculoskeletal pain, abdominal pain, general malaise, however, the use of herbs as a health-promoting tonic was also common, in keeping with the cultural belief that TCM promotes balance and supports the body's intrinsic healing capacity (Ahn et al., 2006). Zhang and colleagues (2002) confirm that in acute situations such as for surgery and treatment of infectious diseases, most Chinese people think that Western Medicine is more effective.

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While there is little data concerning Chinese migrant women or even local women's use of TCM or CAM therapies in Hong Kong, the Chinese migrant women indicated that where 'self-care remedies' were not effective, or the condition became worse, they would generally consult a Western doctor. Thus they confirmed that their initial approach would be to treat illness with traditional methods.

The use of TCM by the Chinese immigrant women may simply indicate their belief in the traditional medicine, or they may experience barriers to the use of health care services in Hong Kong. The researcher did not explore the extent to which they used Chinese medicine in the questionnaires. This is one of the limitations in the study.

Under-utilization of Health Care Services by Migrant Women

There are a number of studies documenting the under-utilization and delayed utilization of formal health care and mental health services among immigrants (Balcazar et al., 1993; Cornelius, 1993). Delay occurs not only in obtaining treatment for serious illnesses and early diagnosis and treatment for cancer-related symptoms, it even extends to migrants not seeking prompt emergency care for potentially life-threatening symptoms (Hopkins et al., 1993; Rask et al., 1994). Under-utilization occurs particularly in the use of preventive services including prenatal care, immunization, and screening for cancers (Balcazar et al., 1993).

As discussed earlier, there are a number of barriers to migrant women's utilization of health care services. The behaviour of health providers and the organizational structure of the health care delivery systems are significant factors affecting health service use, as are migrant women's predominantly rural background, their lack of literacy skills and sometimes even a language barrier, all of which can lead to their knowledge about the availability of care normally being very poor. However, the single most relevant factor is probably financial. Most migrant families' income is very low and for migrants in Hong Kong, public health care services are charged according to their immigration and residence statuses rather than their financial means alone. This means that for many migrants any non-emergency health care is frequently seen as unaffordable. It has been shown that people with lower access to care or no regular provider are less likely to receive all types of health services but particularly preventive services (Lambrew et al., 1996).

However, even in Western countries where health prevention programmes are available at no cost, Chinese women are consistently reported to have lower

participation rates in, for example mammography screenings, than their native-born peers. This may be related to cultural beliefs regarding cancer. Study done in the United States indicates that culturally influenced beliefs about cancer are a key barrier to the use of screening services (Salazar, 1996). Research indicates that it is common for women from certain cultures to attribute cancer to God's will. Of the 50 South Asian women living in Western Canada interviewed in Johnson et al.'s study, several believed that cancer, including breast cancer, could be prevented by 'proper' behaviour, such as being good, caring for others, and by trusting God (Johnson et al., 1999). It is possible that more scientific forms of prevention and early intervention, such as cancer screening, may simply not be relevant to women who hold these fatalistic beliefs.

3.4 Public Health Planning and Policy Change

Throughout the world, people's quality of life has improved significantly as a result of public health interventions such as the control of communicable diseases, maternal and child health services, and the prevention of acute and chronic disease.

While health professionals are committed to using their knowledge and expertise to deal effectively with existing and emerging health problems, the most central decisions regarding public health and health promotion are made by governments and their respective policies. Consequently, international, national and local policy decisions provide the framework for health promotion actions and have a profound impact upon health. Public policy can also influence the funding and organizational structure of specialist health promotion services. As Jones suggests, health promoters in all sectors, be it at national or local level, can and should work together to influence public policy and secure beneficial change (Jones, 1997).

Health Policy in Hong Kong

Despite the considerable demographic and economic changes in Hong Kong, there has been little change in the financing of health care over the past decades. Grant et al., (1998) argue that the current health care problems are a direct result of the lack of any substantive health policy towards the development of a modern health care system.

The focus of the present system remains on coping with population aging, increasing medical technology. In separating hospital services from community services, health care planning in Hong Kong fails to take note of international trends and innovations which would suggest that it is the duty of public health organisations to advise and educate the community. Certainly the Chinese migrant women are a group in particular need of such advice and health care education. Migration from the mainland represents nearly 93% of Hong Kong's population growth from 1997 to 2001 (Hong Kong Special Administrative Region, 2005), and with 1.75 children per new migrant women born in Hong Kong, clearly a focus on providing maternity and family health services would be desirable (The Family Planning Association of Hong Kong, 2005).

It would seem that the health care system in Hong Kong is based on a top-down approach that focuses on the individual's responsibility for their own health rather than commitment from the health authorities. Consequently, power groups such as the medical practitioners and the government determine service delivery and resource allocation in a way that does not respond to community needs.

Dilemmas in Health Promotion

Clearly then, health promotion is a political issue concerned with funding, outcomes, priorities and effectiveness. As the key players local health authorities are expected to take the lead on local action to promote health. However, in terms of health promotion, the major difficulty lies in where to target the limited resources in Hong Kong, services provided by public sectors for health promotion and disease prevention are only afforded 4.2% of the overall health budget (Health and Welfare Bureau, 2001).

The Future

In light of changing environmental health issues and the emergence of new communicable diseases, health promotion remains of vital importance throughout the world. In Hong Kong, successful health promotion will depend on the increasingly important responsibility of health authorities to commission and develop primary health care, and on the collaboration of local authorities, voluntary and commercial sectors. It is hoped that increased action towards health promotion on a policy level will create a climate of change and new responsibilities, which will enhance local involvement of a number of different agencies and individuals in providing the appropriate services (Chan and Leung, 2005).

3.5 Conceptual Frameworks

Migration from Mainland China represented nearly 93% of Hong Kong's population growth from 1997 to 2001 (Home Affairs Department and Immigration Department, 2004) and is likely to continue to be the main source of population growth in the foreseeable future. The health condition of these migrants from Mainland China to Hong Kong may differ significantly to that of other migrants elsewhere. Not only are

the migration policies of other countries usually geared towards those from a higher socio-economic group, the compulsory health check-ups required of prospective migrants ensures that a certain level of health is guaranteed. Hong Kong's migration policy requires no such physical check-ups before migrants are granted a visa, thus these new residents may not only be less healthy than locals, and they may have significant health issues (Home Affairs Department and Immigration Department, 2004).

As discussed earlier, a significant proportion of Hong Kong's migrants are women, and research into other migrant communities has shown that migrant women's health issues are highly complex. Their health appears to vary considerably and be influenced by a number of factors: the amount of time they have lived in their host country; social conditions at the time they arrived; demographic differences such as age, level of education, urban or rural origin; cultural differences between their country of origin and the host country; and, significantly, their personal resources. Further issues affecting their health relate to their health prior to migration, the social environments they settle into in the host country including job opportunities, access to health and welfare services in their living areas, and cultural harmony (Wong, 1998).

As individuals live longer, health promotion activities are becoming increasingly more important (Bloom 2001, & Dwyer 2001). Consequently world health leaders have encouraged engaging in healthy behaviours. Common health promotion activities include adherence to healthy behaviours such as consumption of low-fat and low-cholesterol diets, regular exercise, not smoking and moderate consumption of alcohol (Lam et al, 1999).

Many Chinese migrant women do not have time to engage in health promotion activities. Their failure to do so may stem from a lack of knowledge of the importance of health promotion towards disease prevention, or from the fact that work and family responsibilities allow no time for self-enhancing activities. Chinese migrant women have also been found to engage less in cancer screening than non-immigrant women. According to the American Cancer Society, Asians in the United States have the lowest rates of screening for breast, cervical, prostate, and colorectal cancer when compared with other races/ethnicities (Liang, et al., 2009); rates for recent Chinese immigrants are the lowest (Swan, et al., 2003).

In China, nationwide programs for cervical cancer screening are not well established. Most of the women have never been screened, particularly women in rural areas with poor access to health resources. Currently, government is attempting to focus on secondary prevention of cervical cancer. Nevertheless, it is only available for women aged 30–59 years in some areas of China (Shi, et al., 2008).

Studies in North America found that Chinese women living in North America have higher incidence rates of cervical cancer than their general population (Archibald, et al., 1993), and that this higher incidence is due to inadequate cervical screening (Taylor, et al., 2002). Other International studies also found that socio-demographic factors such as marital status, being born in Mainland China, lower education, lower household income, and less acculturation to host country were associated with women having fewer Pap smear tests. Factors associated with the uptake of Pap smear tests were the belief among women that cervical cancer screening prevents cancer, general knowledge about the Pap smear test, worry about discomfort with the test, availability of time, culturally sensitive health care services, and having

previously obtained family planning and obstetric services (Hislop, et al., 2003, Do, et al., 2001).

Sanchez et al., (1997) also found that in Spain differences in cultural background, language and the transition from a rural to an urban area accounted for migrants' participation in cervical cancer screening being lower than that of locally born women.

A study of the awareness of BSE and factors predicting the practice of BSE among Chinese immigrant women living in San Francisco found that although familiarity with BSE was high among this group of Chinese immigrant women, self-reported actual practice was far from optimal (Wong and Wang, 2006).

A comparative study of the health promotion behaviours of Korean urban residents according to education levels indicated that the more educated groups showed practiced greater levels of health promotion behaviours, such as exercise, weight management, etc., than those less educated (Jo et al., 2003). The following table (Table 3.1) shows that a great majority of the recent arrivals to Hong Kong are adults with a relatively low education. For instance, according to the statistics for 2001, 70.4% of new arrivals aged 15 and over only had a lower-secondary or lesser level of education (38.4 % had attended lower secondary school; 25.3% had exited the formal education system after primary school) than the local Hong Kong population where only 47.8% of those aged 15 and over had the equivalent low education (18.9 % reaching lower secondary and 20.5% having only a primary level of education) (Census and Statistics Department, 2007).

Table 3.1 Comparative Level of Education (highest level of schooling attended) of New Arrivals and Whole Population aged 15 and over in Hong Kong in 2001

	New arrivals aged 15 and over		Whole population aged 15 and over	
Education (highest level attended)	Number	%	Number	%
No schooling/Kindergarten	11 580	6.7	469 939	8.4
Primary	43 884	25.3	1 148 273	20.5
Lower secondary	66 431	38.4	1 060 489	18.9
Upper secondary/ Matriculation	41 438	23.9	2 001 771	35.8
Tertiary	9 879	5.7	918 500	16.4
Total	173 212	100.0	5 598 972	100.0

Source: Hong Kong 2001 Population Census, Census and Statistics Department

Applying knowledge, attitudes, and practices (KAP) on health promotion behaviours

The health of individuals and populations is determined and influenced through the complex relationships between many factors. Migration can play an important role in health outcomes, for both individuals and the community at large. Before migration, Chinese women live in their countries of origin with the health and health-risk profiles of their countries of origin. After migration, the general health status of the

migrant women will vary associated with the new country (Gushulak and MacPherson, 2004).

It is difficult to find a single comprehensive theoretical framework to explain the relationship between migration and health. The complexity of their relationship requires a multi-factorial model. Many models for health promotion behaviour stress the importance of perceptions, attitudes, beliefs, and outcome expectations of individuals as a crucial means of both understanding behaviour and guiding behavioural change. Previous studies have shown that knowledge, attitudes, belief, cultural views, socioeconomic status and healthcare access are associated with variations in cancer screening rates for immigrants (Russell et al., 2006, Smith et al., 2001). A proper assessment and understanding of KAP factors is particularly helpful in the areas of chronic health conditions and disease prevention, which necessitate a life-long adoption of a healthy lifestyle (Chua et al., 2005). Research questions will be asked in this study related to the attitudes and perceptions of migrant women toward health promotion and what health promotion behaviours they have done before, as well as the uptake of cervical screening (Pap smear) and breast self examination (BSE), in order to investigate their knowledge, attitude, and practices on health promotion and disease prevention. These could be used to develop intervention strategies for Chinese migrant women.

On a macro level, disease diagnosis and treatment need to be supplemented by health promotion and disease prevention initiatives across the health care sector. To achieve better health for more people, either a fairer and more adequate remuneration system or fairer subsidization of services is required to provide health education advice and disease prevention counseling, e.g. to cover interventions aimed at stopping smoking,

diabetic education, and cervical cancer etc (Chan and Wong, 2005).

In Hong Kong, there are no centrally organized health promotion programmes but about two thirds of all Pap smears in Hong Kong are carried out by the Family Planning Association and the Department of Health. Evidence suggests that women's knowledge about and attitudes towards cervical cancer and preventive strategies are significant to their screening practice. While there is no data about the knowledge and attitudes of general health promotion behaviours for Hong Kong women, the little information available about cervical screening and breast self examination would indicate that attendance for screening remains low, with only 59% of Hong Kong women having had a Pap smear test done (Twinn et al., 2002). They were also more likely to depend on medical advice to motivate any preventive behaviour (Twinn et al., 2002). According to a survey done by Chan et al. (2007) on breast self examination (BSE) to screen for breast cancer, results showed that only about half of the women from the total 777 of the study population were aware of BSE as screening practice. However, in this survey, only 45% had actually practiced BSE and a mere 12% had undergone a mammogram in the previous two years. These results would suggest that women's level of knowledge and awareness of preventive health care are low in Hong Kong. As a review of women's knowledge of, attitudes towards, and behavior patterns in regard to screening for cervical cancer demonstrated, a significant reason for women failing to attend for cervical cancer screening is their lack of knowledge concerning the risk factors (Twinn et al., 2002).

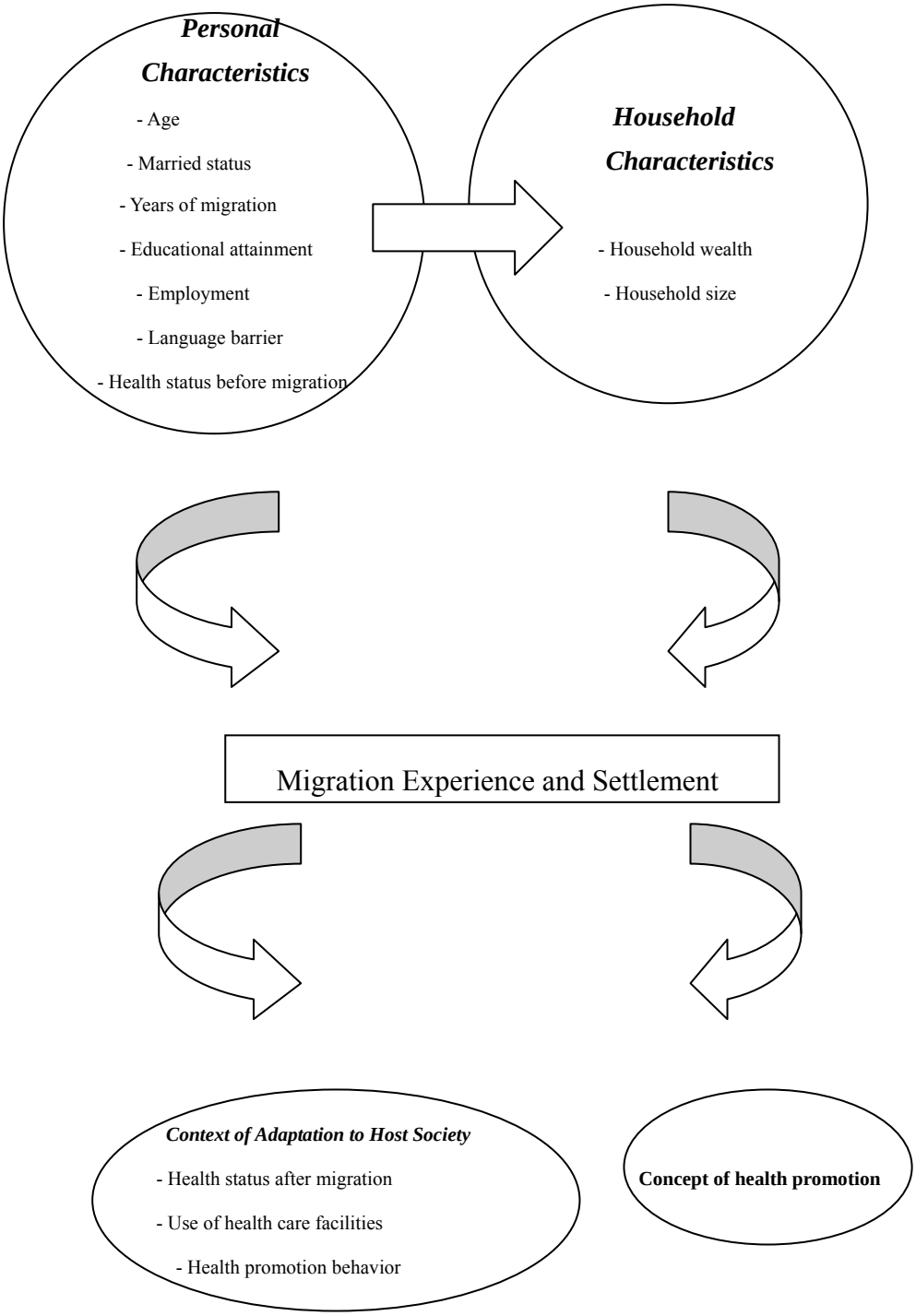
Actually, migration itself can have both positive and negative implications for health. On the positive side, Chinese migrant women to Hong Kong may not only find better access to health care services there than in their home country, they may also benefit from better diets and/or a cleaner environment. However, the negative implications of

increased anxiety due to migration, unfamiliarity with the health care system and fear to seek much-need health care, etc. cannot be discounted.

Conceptual Framework of Health Promotion for Chinese migrant women

Figure 3.1 is the conceptual framework of Chinese migrant women's socio-demographic characteristics affects their settlement, health status after migration, use of health care services, barrier of use health care services, and health promotion behaviours in the host country. The framework is providing the theoretical basis of the relationship between the independent and the dependent variables and the direction of their relationships. The details will be discussed in chapter 5.

Figure 3.1: Framework of Settlement by Chinese Migrant Women



Summary of Section

The review of the literature has shown that there are numerous factors that influence migrants' health, specifically that of female migrants. Not only do some of these factors put them at greater health risk than the native populations of their host country, it seems that their access to and utilisation of public health care services is limited and certainly not on par with native residents'. The review has shown that under-utilisation of health care services, especially any form of preventative or health promotion programmes, is common among migrants the world over but that there are a significant number of different reasons for this underutilization. The most obvious barrier, particularly for Chinese migrant women, is financial; however, frequently there are also education, language and culture barriers to overcome. In regard to health promotion behaviours a further significant factor is unawareness of the benefits of such practices along with beliefs and misconceptions as to their efficacy that discourage women migrants from seeking appropriate interventions and pursuing better health for themselves.

While there is no data to be found in Hong Kong which might account for the awareness and attitudes of Chinese migrant women regarding health promotion behaviours, statistics on the health status of people from Mainland China indicate that their practice of health promotion and disease prevention is low. The statistics, for example, of smoking alone are significant indicators: more than 300 million men and 20 million women in China smoke, and it is estimated that about two million tobaccos-related deaths will occur in Mainland China in 2025 (Hu et al., 2001).

For many migrant from Mainland China their limited proficiency in Cantonese, the

language spoken in Hong Kong, along with generally lower levels of education are likely to act as barriers to receiving health promotion messages and raising their awareness.

Health policies are needed to facilitate the development and implementation of appropriate prevention and health promotion programmes that can overcome these barriers and encourage migrant women to participate. Measures such as the Hong Kong Department of Health's territory-wide cervical cancer screening programme launched in early 2004 to improve the overall health status of the women in Hong Kong can only be successful if it is also utilized by the migrant population. To ensure that, it is essential to have a better understanding of the health status of the new migrant women, and to understand their cultural prerequisites to accepting health promotion programmes (Sadler et al., 2001). Without understanding specifically what barriers prevent migrant women from attending health promotion activities, their level of risk perception, their knowledge and attitudes about health promotion, very little can be done to make health policies more effective.

The next chapter has discussed the methodological approach to conducting the study.

Chapter Four: Methodology

This chapter introduces the methodological approach to the study. It includes an explanation of the study design, sampling strategies, measurement instruments, and data analysis. This chapter also outlines the conceptual framework of health promotion for Chinese migrant women.

4.1. Introduction

In aiming to investigate the health status of Chinese migrant women to Hong Kong, including their utilization of health care services, it was deemed essential to examine the concepts and behaviours associated with health promotion and prevention. To ensure that the data obtained was representative, it was decided to compare the results from 200 migrant women in Hong Kong to the respective data obtained from women within the same age group (20-50 years old) living in Mainland China. Comparisons would focus on physical and mental health status; use of health care services; barriers to use of health services; health promotion and health prevention activities; and identification of obstacles to performing such health promotion and prevention activities.

4.2. Study Design

Survey instrument and pilot testing

A cross-sectional survey design was utilized and to obtain relevant data, the researcher designed a questionnaire with input from her thesis supervisor; she also consulted with professors and visiting guest professors at the Department of Nursing Studies, The University of Hong Kong for comments. A pilot study was carried out on ten Chinese migrant women who had migrated to Hong Kong to assess the questionnaire for validity and to identify possible difficulties or misunderstandings

that might occur when filling it out. The socio-demographic backgrounds of the participants of the pilot study were same as with the participants of the main study.

The interviews for the pilot study were done by the researcher and after analysing participants' results and comments, the questionnaire was modified to facilitate better reading and understanding of the questions. The researcher was fluent in Cantonese and Mandarin. Both the questionnaires for Chinese migrant women in Hong Kong and Mainland Chinese women were translated into Chinese version. After the questionnaires were done by the participants, the information was translated back to English for data entry purposes.

Subjects

For the study itself, two groups of women were recruited to participate:

1) 200 women who had migrated from Mainland China to Hong Kong;
2) 200 women from the provinces of Guangzhou, Guangdong, Shanghai and Xiamen in Mainland China.

An identical sample size of Mainland Chinese women was recruited in order to form a control group. They were recruited specifically from Guangzhou, Guangdong, Shanghai, and Xiamen, since these are the most common places of origin for Chinese migrants to Hong Kong. The participants of both groups were aged between 20 and 50 years. Again, the rationale for specifying this age group was that the majority of migrant women entering Hong Kong from Mainland China do so within this age range (see Table A.1 in Appendix A).

Sample size

A power analysis using Cohen's formula (1988) indicated that a sample size of 200 would give an 80% chance of detecting correlations of + 0.223 at a .001 level. Thus

limiting the two study populations to 200 participants each was deemed appropriate.

Ethical issues

Upon assuring the ethics committee that participants' information would be dealt with confidentially; that the answers to the survey questionnaire would be kept by the researcher in area in a secure place; that no reference would be made to participants' names or identity; and that participants would be informed that their participation was purely voluntary and they were free to withdraw from the research at any time without prejudice, approval for carrying out the study was given by the Institutional Review Board of the University of Hong Kong/Hospital Authority Hong Kong West Cluster (HKU/HA HKW IRB) (see Attachment in Appendix D)

Recruiting participants

The recruitment of all respondents, including those involved in the pilot study, occurred on the basis of convenience sampling. A significant reason for using this approach to sampling is that the target population is not easily approached – any public call for participation by Chinese migrant women could potentially result in complaints of discrimination (because the women were being identified as migrants). The ten participants who volunteered to complete the pilot study were Chinese migrant women from the Shek Kip Mei Immigrant Centre in Hong Kong. They simply happened to come to the centre on the day the researcher was doing recruitment and volunteered to join in.

The 200 Chinese migrant women participants for the main study were recruited through the three new immigrant centres Kwun Tong, Shek Kip Mei, and Nam Cheong in Hong Kong. The researcher runs regular seminars on women and

children's health at these centres and took the opportunity to invite Chinese migrant women there to participate in the research. The questionnaires were completed during an interview with the researcher.

In order to recruit and administer the questionnaires to the participants in Mainland China (control group), a different approach was taken. The researcher contacted friends in the Guangzhou and Guangdong areas who would be able to recruit participants through their work places. The researcher's friends gave the questionnaires to colleagues who volunteered to participate in the research. The participants completed the questionnaires on their own and returned them in person to the researcher's friends or posted back to the researcher.

4.3 Study Areas

The two cross-sectional surveys dealt mainly with aspects of health status, utilization of health care services, concepts of health promotion and prevention measures, and health promotion behaviour.

The questionnaires consisted of the following sections:

- Demographic characteristics- including, age, education, marital status, number of children, employment status, family income, language spoken, type of housing, year of migration, family household (divided into nuclear family, and extended family)
- General health status before and after migration, physical health, and mental health
- Use of health facilities in Hong Kong and Mainland China, and barriers to use of health facilities in Hong Kong

- Assessing health promotion and health prevention behaviours according to the following four areas:
  - Performing health promotion and health prevention behaviours in previous year
  - Perceived importance of health promotion activities for their health
  - Obstacles inhibiting health promotion activities
  - Intention to perform health promotion and prevention activities in the coming year

Research questionnaires

The design of questionnaires was mainly based on the following research questions:

1 What is the health status of migrant women in Hong Kong?

2 How often do the migrant women utilize health care services in Hong Kong and China?

3 What are the attitudes and perceptions of migrant women toward health promotion?

4 What are the health promotion behaviours of migrant women?

5 Is there any difference in the health status of Chinese migrant women as compared to Mainland Chinese women?

Questionnaires

A questionnaire using 85 items was designed to yield answers to the above mentioned research questions and areas of interest. A review of the literature helped to identify the key variables that would be needed to be assessed through the questionnaires and assisted in formulating the questions appropriately for this study. A copy of the questionnaires is provided in Appendix D.

4.4. Data Collection and Analysis

4.4.1 Collection

This study used a quantitative approach. Two different techniques were used to collect the data; the researcher conducted face-to face interviews based on the questionnaire to obtain data from the Chinese migrant women in Hong Kong, whereas a self-administrated questionnaire was used by the women in Mainland China. Face-to-face interviewing is the most widely used method for researching any topic since direct meeting between the researcher and interviewee not only allows much more information to be obtained, it encourages participants to respond to all questions and can help to ensure that the data obtained is accurate (Neuman, 2007).

For face-to face interviews, consent form was signed by the participants of the study. An information sheet was attached on the front page for both questionnaires for the Chinese migrant women and women in Mainland China stating the detail for the aim of the study, the participation were voluntary and the information would be kept confidential.

Variables and Measurements

The questionnaire sought to obtain both independent variables such as socio-demographic data, and dependent variables, such as health status.

Independent Variables

Data on the following independent variables - the socio-demographic characteristics of the sample were sought:

1. Characteristics defining participants' by

- Age within the ranges of 20-30, 31-40, and 41-50,
- Marital status (singled, married, other)
- Language/s spoken (English, Cantonese, Mandarin, other)
- Year of migration within a short range of up to 5 years, or longer –range 6 years or more,

2. Exploring participants' family conditions by

- Total family income in ranges of HK dollars (< 10.999k, 11k-14.999k, >15k)
- Number of children (No children, 1 child, 2 or more children)
- Family household (Nuclear family, extended family)
- Type of housing (renting public flat, renting private room or flat, owning flat, other)

3. Participants' education and employment status by

- Educational attainment (Primary or below, secondary, University)
- Employment status: (employed, unemployed)

Dependent Variables

The questionnaire also yielded data on the following dependent variables.

1. General health status:

- Self-perceived general health (very good, good, fair)
- Physical health : (Hypertension , Diabetes , Heart disease, and others)
- The physical health scale of Chinese migrant women (add up all physical health as a physical health scale – from score 0-3)
- Chinese migrant women's health status: before and after migration: (Same as before, worse than before)

- Mental Health of Chinese migrant women according to a stress scale (from 0-28) measuring whether participants:
- Were stressed most of the time (Not stressed, A bit stressed, Quite a bit stressed, Extremely stressed)
- Lost much sleep over worry (Not at all, No more than usual, Rather more than usual, Much more than usual)
- Felt constantly under strain (Not at all, No more than usual, Rather more than usual, Much more than usual)
- Had been getting edgy and bad-tempered (Not at all, No more than usual, Rather more than usual, Much more than usual)
- Felt too nervous (Not at all, No more than usual, Rather more than usual, Much more than usual)
- Were doing things well on the whole (Better than before, About the same, Less well than before, Much less well)
- Were able to enjoy daily life (More so than before, Same as before, Less so than before, Much less than before)

2. Utilization of health care facilities

- Use of health care facilities scored individually and as a total score according to a 5-point scale of whether participants used:

  - Hospital emergency room,
  - Hospital outpatient clinic,
  - Community health clinic,
  - Private general practitioner,
  - Over the counter medication,
  - Health facilities in China,

- Others

- Barriers to use of health care facilities scored individually and according to an 8-point scale of how many aspects participants were deterred by:
  - No such health facilities,
  - Waiting too long,
  - Too expensive,
  - Too busy,
  - No plan to seek the facilities,
  - Not knowing where to find the facilities,
  - Language barrier,
  - Personal or family duty,
  - Others

3. Health promotion and prevention behaviours

- Health promotion and prevention activities done in the previous year scored individually and according to an 11-point scale relating to the number of strategies performed from the following:
  - Increased exercise, sports or physical activity;
  - Had regular checkups;
  - Lost weight;
  - Changed diet or eating habits;
  - Quit smoking or reduced amount smoked;
  - Drink less alcohol;
  - Took vitamins;
  - Had a Pap smear done;

- Performed breast self-examination regularly;
- Had mammogram test within last 2 years.

- Perceived importance of health promotion and health prevention activities (Increase exercise, sports or physical activity; Regular check ups; Lose weight; Change diet or eating habits; Quit smoking or reduce amount smoked; Drink less alcohol; Take vitamins)
- Number of health promotion activities perceived as important (From 0-8 strategies)
- Obstacles to performing health promotion activities (lack of will-power/self-discipline, lack of time, too tired, too difficult, too costly, too stressed, due to health problems)
- Number of obstacles to improving health status (From 0-8 obstacles)
- Health promotion activities aspired to in the coming year (lncrease exercise, sports or physical activity; regular checkups; lose weight; change diet or eating habits; quit smoking or reduce amount smoked; drink less alcohol; take vitamins)
- Number of health promotion activities aspired to in the next year (From 0-9 activities)

4.4.2 Data Analysis

Data analysis was done using the statistical software package SPSS 16.0.

Univariate, bivariate and multivariate analyses were performed and T-tests and one-way ANOVAs were used to identify significant variables.

1. Univariate analysis

   The frequency distribution and univariate analyses of socio-demographic variables were computed and are presented in Chapter 5. Association between variables was carried out using cross-tabulation and correlation analysis with independent and all

dependent variables.

2. Bivariate analysis

   Bivariate analysis was used to examine associations between independent variables (socio-demographic characteristics) and all dependent variables. Correlations, one-way ANOVAs, T test, and chi-square tests were used where applicable.

   One-way ANOVAs were used to compare socio-demographic variables against all dependent variables, T-tests were used for paired comparison of the socio-demographic variables and all dependent variables. These tests were used to determine which groups were significantly different from each other.

   Follow-up one-way ANOVA analysis was performed to determine in which categories had significant differences between groups (for instant age, educational attainment, marital status, number of children, family income, and type of housing).

3. Regression Analysis

   In order to identify the predictors of health status, health service utilization, barriers to utilization of health care services, and performance of health promotion and preventative activities, etc., regression analyses were performed on the independent variables found to be significant.

4.5 Validity and Reliability

Both validity and reliability of the questionnaire items are very important for research. While the questionnaire was developed after reviewing the relevant literature, in order to assess the readability of the questions and determine the appropriateness of the answers, a pilot study of ten Chinese migrant women who had migrated to Hong Kong was carried out. Following this pilot study, certain questions were modified. In

carrying out face-to-face interviews to obtain the data for the Chinese migrant women in Hong Kong, the researcher was able to ensure that participants experienced no difficulties in answering the questionnaire as a result of poor literacy and that their responses were accurate reflections of what they thought.

Cronbach's coefficient and inter-item correlation were computed with all the subscales used in the analysis. As Cronbach (1990) himself suggests, the ideal Cronbach alpha level for basic social and psychological studies is a minimum value of 0.6. The present study's scale reliability values (Cronbach's alpha) were between 0.559 and 0.703. So they are reliable.

As the researcher conducted the interview for the Chinese migrant women participants in Hong Kong, it helps to clarify the confusion or lack of information to answer the items in the instrument. This provided an opportunity to check the validity and reliability of the data.

4.6 Limitation of study

Although women in Mainland China were selected (as control group) from the same provinces where the Chinese migrant women in Honk Kong came from, and they also were in the same age groups, their health status may not be the same as migrant women's health prior to migration. In other words, the results of the health status of women from Mainland China actually may not represent the health status of the Chinese migrant women before migration. Further, present research is also limited because it has not explored the use of TCM by the study population to a great extent.

This chapter has outlined the methodological approach to conducting the study. The following chapter is presenting the descriptive results of the research.

Chapter Five: Descriptive Analysis - Migration Resettlement and Health

This chapter presents the descriptive results of the survey conducted in new immigrant centers on 200 Chinese migrant women. The results are based on the conceptual framework described in chapter 3.

5.1 Factors contributing to migrant women's health

Personal Characteristics

Age

Of the two hundred Chinese migrant women surveyed, a great majority (42.5%) were in the age group 31-40 years, while less than a third (28%) were in age group 20-30. A similar percentage (29%) was in the older ages such as 41-50 years (see Table 5.1).

Table 5.1 Socio-demographic Characteristics of Chinese migrant women (n=200)

Socio-demographic Variables	**Chinese migrant women**	
Age	Number of Women	%
20-30	56	28.0
31-40	85	42.5
41-50	59	29.5
Marital Status		
Single	12	6.0
Married	181	90.5
Divorced	2	1
Widowed	5	2.5
Migration Status		
Short time since migration (5 years or less)	99	49.5
Longer time since migration (6 years or more)	101	50.5
Languages Spoken		
Cantonese	126	63
Mandarin	101	50.5
Other province languages	59	29.5

Marital status

As can be seen in Table 5.1 above, among the 200 Chinese migrant women, the majority 90.5% (n = 181) were married; only a small proportion (6%) were single followed by even smaller numbers of widowed and divorced. When age and marital status were examined the results show that only two women aged between 41-50 years old, were divorced. The 12 participants who were single were all aged 20-30 (see Table E.5.1 in Appendix E); these young women were eligible for migration to Hong Kong because their fathers were from Hong Kong. Almost all 99.5% the participants had come to Hong Kong to be reunited with family.

Period since migration

Regarding the length of time they had been resident in Hong Kong since migration, participants' responses indicated that they were almost equally divided between women who had migrated to Hong Kong five or less years ago 49.5%, and women who had migrated to Hong Kong six or more years ago (50.5%). Nearly two thirds of them had migrated to Hong Kong before they were forty (see Table 5.2).

Table 5.2 Time since Migration to Hong Kong of Chinese migrant women from Mainland China according to Age (n=200)

	Short time since migration (5 years or less)		Long time since migration (6 years or more)	
Age	No.	%	No.	%
20-30	41	20.5	15	7.5
31-40	52	26.0	33	16.5
41-50	6	3.0	53	26.5
Total	99	49.5	101	50.5

Educational Attainment

All women migrants surveyed in this study had received a primary school education at the least. While more than half 56% of the Chinese migrant women had only gone to primary school, almost a third 34.5% had attended secondary school; only 19 of the women (9.5%) had gone to university or received tertiary education. Those with either secondary or tertiary education were mostly aged between 20 and 30 years old (see Table E.5.1 in Appendix E).

Employment

According to the survey data, 84% of the Chinese migrant women were unemployed (see Table E.5.1 in Appendix E). Since the rate of unemployment among the female population in Hong Kong was 48.4% in 2001, and 47.6% in 2006 (The Government of the Hong Kong Special Administrative Region, 2007), the unemployment rate of Chinese migrant women is clearly much higher than that of the native female residents.

Number of children

As seen in Table 5.3 below, only a small proportion (7%) of the participants had no children. Half of the women had two children, about a third (30.5%) had only one child, and 19% had three or more children. The fact that so many of these migrant women are mothers might explain the high level of unemployment among them. Those Chinese migrant women with children are less likely to get support from their family and friends to assist with looking after the children, making it difficult for them to enter into workforce.

Table 5.3 Number of Children of Chinese migrant women (n=200)

Number of children	Chinese migrant women	
	Number of Women	%
No child	14	7
One child	61	30.5
Two children	101	50.5
3 and above children	38	19.0

Language background

People from Guangdong province in Mainland China speak Cantonese (the language also spoken in Hong Kong) whereas in most other provinces in Mainland China, they speak Mandarin or other languages. Among the 200 Chinese migrant women, 63% came from Guangdong and were thus Cantonese native-speakers. As shown in Table 5.1, only 37% of participants were not able to speak Cantonese. Although relatively more new arrivals have tended to migrate from provinces other than Guangdong recently, the fact that 63% of them were able to speak Cantonese means at least some of them must have learned to speak Cantonese before migrating to Hong Kong.

Household Characteristics

Total family income

Socio-economic status was measured by monthly family household income. According to the survey data, most of the new immigrant families belonged to the low income groups. Nearly half (49%) of the women had a total family income below 15,000 Hong Kong dollars [~2,500 Australian dollars per month] (see Table 5.4) while 38.5% of them had two or more children to support on

this same low income (see Table E.5.2 in Appendix E). A large proportion of these families in fact relied on the government's Comprehensive Social Security Allowance (CSSA) for the unemployed as their main source of family income. Despite family incomes being very low, the data on household income recorded in this survey is already higher than the mean monthly income of $10,500 Hong Kong dollars reported for general population of Hong Kong in 2008 (Hong Kong Year Book, 2008*).*

Table 5.4 Total Family Income of Chinese migrant women in Thousands of HK Dollars (n=200)

Total family income in thousands	**Chinese migrant women**	
	Number of Women	%
7 – 10.999 HK $	27	13.5
11 –14.999 HK $	71	35.5
>15 HK $	102	51.0

Household size

Data from the present research shows that 33% of the participants lived with their extended family, such as their husband's parents and siblings, etc.

5.2 Descriptive Analysis - Health Status of Chinese Migrant Women

According to the results of the survey, some of Chinese migrant women are still using the health facilities in their home country – Mainland China. They may not bother to seek health because of not familiar with the Hong Kong health care system. More detail will discuss in session 5.3.2.

5.2.1. Health Status before and after Migration

According to the results, more than half the Chinese migrant women rated themselves as very healthy before migration. The results on participants' age and health status before migration show that, irrespective of their age, most of them stated they had enjoyed "good health status" before migration (See Table 5.5).

Table 5.5 Health Status by Age of Chinese migrant women before Migration (n=200)

	Chinese migrant women' health status before migration					
Age	**Very good**		**Good**		**Fair**	
	No.	%	No.	%	No.	%
20-30	4	2.0	19	9.5	6	3
31-40	4	2.0	55	27.5	53	26.5
41-50	0	0	21	10.5	38	19.0
Total	8	4.0	95	47.5	97	48.5

Table 5.6 Compared Health Status of Chinese migrant women before and after Migration (n=200)

	Compare health status before and after immigration			
Age	**Same as before**		**worse than before**	
	No.	%	No.	%
20-30	45	22.5	11	5.5
31-40	50	25.0	35	17.5
41-50	29	14.5	30	15.0
Total	124	62.0	76	38

As was to be expected, younger migrants were found to be generally healthier. Regarding their perceived health since migration, only 5.5% of younger women, aged 20-30 years, reported their health as being worse than before. Among the older women 17.5% of participants aged age 31-40 and 15% of those aged 41-50 years reported their health as having deteriorated since migration (see Table 5.6).

5.2.2. Physical Health of Chinese migrant women

Among the 200 participants, the great majority (78.5%) of the Chinese migrant women appeared not having any health problems; 18.5% suffered from one disease, while 3% suffered from two diseases (see Table 5.7). In all, only 9% of participants suffered from hypertension, 1% had diabetes, and 14.5% had others diseases such as heart problems at the time of survey.

Table 5.7 The Physical Health Scale of Chinese migrant women (n=200)

Physical Health Scale	Number of women	%
No disease	157	78.5
Suffering one disease	37	18.5
Suffering two diseases	6	3.0

5.2.3. Mental Health of Chinese migrant women

In the questionnaire, a total of seven items were included to assess mental health status of Chinese migrant women. Participants' response to each of these questions was rated according to a four-point scale. All these seven items were added up to a stress score; the higher the rating of stress score, the more stress the respondent could be considered to be suffering from. Thus the potential total stress score was 28,

whereby a “0” score indicated no stress at all and “28” indicated maximum stress.

As shown in Table 5.8 below, 83% of migrant women rated themselves as “a bit stressed” most of the time, although 70.5% reported that they lost no more sleep than usual over worry; 75% felt constantly under strain “no more than usual”; and 78.5% did not get any more edgy and bad-tempered than usual (see Table 5.8). While the highest stress score (19) was recorded for 1.0% of the Chinese migrant women and the mean stress score was 10.9, most of the women (86.0%) had stress scores of between 12 and 17 (see Table E.5.3 in Appendix E). For the seven questions related to stress scores, only answer to ‘C” (3 marks of stress scores) and “D” (4 marks of stress scores) of each question indicated the stress scores of Chinese migrant women are above usual. For the total seven questions, the stress score from 15 and above indicated the Chinese migrant women are facing difficulties in adjusting to life in Hong Kong.

Table 5.8 Self-rated Mental Health of Chinese migrant women since Migration from Mainland China (n=200)

Psychological Health Variables	Number of women	%
Most of the time stressed		
Not stressed	20	10.0
A bit stressed	166	83.0
Quite A bit stressed	14	7.0
Lost much sleep over worry		
Not at all	27	13.5
No more than usual	141	70.5
Rather more than usual	32	16.0
Felt constantly under strain		
No more than usual	156	78.0
Rather more than usual	44	22.0
Been getting edgy and bad-tempered		
No more than usual	161	80.5
Rather more than usual	43	21.5
Too nervous		
No more than usual	125	62.5
Rather more than usual	75	37.5
On the whole doing things well		
Better than before	8	4.0
About the same	28	14.0
Less well than before	164	82
Able to enjoy daily life		
More so than before	24	12.0
Same as before	41	20.5
Less so than before	126	63.0
Much less than before	9	4.5

5.3 Chinese Migrant Women's Use of Health Care Services in Hong Kong

5.3.1 Use of Health Care Services in Hong Kong

The health services measure used was a six-item questionnaire aiming to assess which different types of health services were used by the Chinese migrant women since their migration. It is important to note here that with Hong Kong being close to China, some Chinese migrant women, especially those from Shenzhen and GuangZhou, prefer to use the health services in China. Thus participants were also asked whether they accessed health services in China.

The scale used to measure health services utilization in Hong Kong ranged from 0-6 with higher scales indicating high use of services. None of the participants scored "0" by which they would have been considered not to have used the health services in Hong Kong since migration (see Table E.5.4 in Appendix E). More than half of the Chinese migrant women (59.5%) utilised two types of health service in Hong Kong, while a further 23.5% visited or consulted three types of health service.

The descriptive results of the study show that 89% of the Chinese migrant women visited community health clinics, and 81% purchased over the counter medication. Although 60% of the Chinese migrant women showed that they availed themselves of two types of health services in Hong Kong, from the results of 81% of Chinese migrant women purchased over the counter medication, it seems that they chose not or were unable to seek proper medical advice because over the counter medication has no proper doctor's prescription. Furthermore, 20.5% of Chinese migrant women used health facilities in Mainland China, mostly in Shenzhen and GuangZhou (just across the broader) (see Table 5.9). This indicates the Chinese migrant women are using their old practice (It is common for Chinese people to self-medicate for minor

symptoms), and are not willing to seek professional medical advice in Hong Kong.

Table 5.9 Health Services Utilization by Chinese Migrant Women (n=200)

Health Services Utilization	Number of women	%
Hospital emergency room	36	18
Hospital outpatient clinic	72	36
Community health clinic	178	89
Private general practitioner	16	8.0
Over the counter medication	162	81
Others	9	4.5
Use of China health facilities	41	20.5

5.3.2. Barriers to Health Service Utilization by Chinese Migrant Women

A total of nine questions were devoted to assessing barriers preventing or discouraging migrant women from using health services. Each question only had a "yes" or "no" answer, the nine questions together making up a total barrier score whereby the score indicated the number of barriers perceived to accessing health services.

The questions included whether their preferred health facilities were available in their suburbs or not; whether waiting times were considered too long, the treatment too expensive, the facility too busy; whether they experienced language difficulties; whether they had no intention of seeking health facilities, did not know where to find appropriate health facilities, whether they were simply too busy with personal or family duties to attend health facilities, or whether they experienced other barriers (see Table 5.10).

Among the 200 Chinese migrant women, 99.0% experienced some barrier to using health services in Hong Kong and were therefore less likely to attempt to utilize them. 92% of participants encountered between two and five barriers (see Table E.5.5 in Appendix E).

The most commonly perceived barrier to using health services was due to waiting times with 82% of Chinese migrant women not using the health services in Hong Kong because they had to wait "too long". Considering these numbers, it is not surprising that 44% of participants felt "too busy" to use the health services.

A significant 60% indicated that there were "no such health facilities" in the nearby area; while 46.5% did not use the health services available because they found them "too expensive" (see Table 5.10**)**.

Table 5.10 Barriers Preventing Chinese Migrant Women from Using Hong Kong Health Services (n=200)

Barrier to Use of Health Services	Number of women	%
No such health facilities	120	60
Waiting too long	164	82
Too expensive	93	46.5
Too busy	88	44.0
No plan to seek facilities	64	32.0
Do not know where to access facilities	64	32.0
Language barrier	43	21.5
Personal or family duty	28	14.0
Others	0	0

5.3.3 Use of Health Facilities in Mainland China

While most of the participants in this study (74%) migrated to Hong Kong between three and ten years ago, 20.5% of the women were found to still be using the health facilities in China. Of these 20.5 %, most were aged 31and above and, interestingly, while 8.5 % had migrated within 5 years before, a larger percentage had already been living in Hong Kong for 6 years or more (see Table 5.11).

Table 5.11 Chinese Migrant Women's Use of Health Facilities in China by Period since Migration to Hong Kong (n=200)

Period since Migration to HK	**Use of health facilities in China**			
	No	%	Yes	%
Short time since migration (5 years or less)	82	41	17	8.5
Long time since migration (6 years or more)	77	38.5	24	12

5.4 Health Promotion Behaviours of Chinese Migrant Women

5.4.1 Performance of Health Promotion and Preventative Measures by Chinese Migrant Women

Participants were asked, “Have you performed any strategy to improve your health in the previous year?” The results show that among the 200 Chinese migrant women in the survey more than three quarters, 78% did not perform any strategies to improve their health status. Of the 22% of participants who had been taking pro-active steps towards improving their health, the majority were aged between 31 and 40 (see Table 5.12). Interestingly, 10% of these women reported that their health was worse than before migration despite their efforts (see Table 5.13).

Table 5.12 Performing Strategies to Improve Own Health since Migration (n=200)

	Performing Strategies to Improve Own Health after Migration			
Age	**No**	**%**	**Yes**	**%**
20-30	48	24	8	4
31-40	70	35	15	7.5
41-50	37	18.5	21	10.5

Table 5.13 Comparative Health Status for Chinese Migrant Women before and after Migration and whether Strategies to Improve Health were Performed (n=200)

	Performing Strategies to Improve Own Health after Migration		
Comparative health status before and after immigration	No	Yes	Total
Same	100	24	124
Worse than before	56	20	76
Total	156	44	200

In order to assess their conceptualization of health promotion and preventative measures, participants were asked what strategies they used to improve their health. Eleven health promotion and health prevention strategies were listed altogether. The preventative strategies included having regular Pap smear check-ups, performing regular breast self-examination, and having a mammogram test within the last two years. The strategies used for health promotion activities included exercising, going for regular check-ups, losing weight, changing diet or eating habits, quitting smoking or reducing the number of cigarettes smoked, drinking less alcohol, and taking vitamins, among others (see Table 5.14).

The results show that over half of the Chinese migrant women (57%) performed one strategy to improve their health status; 21.5% performed two to five strategies to improve their health status; and one Chinese migrant woman performed seven strategies to do so (see Table E.5.6 in Appendix E). In contrast, nearly three quarters of participants, 75.5% had taken preventative steps by having a Pap smear done. It is

important to note here that, in Hong Kong, it is compulsory to have a Pap smear done before or after giving birth, and that most of the Chinese migrant women had given birth at least once since migrating to Hong Kong. None of the women had performed regular breast self-examination for the prevention of breast cancer (see Table 5.14).

Table 5.14 Health Promotion and Prevention Activities Performed by Chinese Migrant Women (n=200)

Health promotion and prevention activities	Number of women	%
Increase exercise, sports or physical activity	31	15.5
Get regular check ups	7	3.5
Lose weight	18	9.0
Change diet or eating habits	31	15.5
Quit smoking / reduce amount smoked	0	0.0
Drink less alcohol	0	0.0
Take vitamins	4	2.0
Pap smear	151	75.5
Perform breast self-examination regularly	0	0.0
Mammogram within last 2 years	8	4.0

5.4.2. Perceived Importance of Health Promotion Activities

Among the 200 Chinese migrant women, 95% expressed that they could do more to improve their health. Further questions such as "What kinds of health promotions and prevention activities do you plan to do?" were asked. The results in Table 5.15 show that health promotion and prevention activities were considered to be important. 79.5% of Chinese migrant women felt that increasing their physical activity was important; an almost identical percentage, 78% felt it would be beneficial to change diet or eating habits; and 61% felt they ought to have regular checkups. A total of 89% of the Chinese migrant women considered doing two to four health promotion and prevention activities whereas only 5% of them saw doing health promotion and prevention activities as not important (see Table E.5.7 in Appendix E).

Table 5.15 Perceived Importance of Health Promotion and Health Prevention Activities by Chinese Migrant Women (n=200)

Health promotion and prevention activities	Number of women	%
Increase exercise, sports or physical activity	159	79.5
Regular check ups	122	61.0
Change diet or eating habits	156	78.0
Quit smoking or reduce amount smoked	1	0.5
Learn to manage stress	54	27.0
Take vitamins	46	23.0
Others	8	4.0

5.4.3. Obstacles Inhibiting Chinese Migrant Women from Performing Health Promotion Activities

Among the participants, 99.5% expressed that they encountered obstacles to performing health promotion and health prevention activities. The eight potential obstacles that might inhibit the participants from performing health promotion and prevention activities included lack of will power, self-discipline, lack of time, being too tired, it being too difficult or too costly, their being too stressed, and health problems. The results show that most of the Chinese migrant women, 88% could not perform such activities due to lack of time; 60% felt it was too costly, and 42% lacked the will power or self-discipline to do so (see Table 5.16).

Among the 200 Chinese migrant women, 56% indicated the presence of two obstacles to improving their health status; 24% indicated three obstacles; and 18% indicated one obstacle (see Table E.5.8 in Appendix E).

Table 5.16 Obstacles Inhibiting Chinese Migrant Women from Performing Health Promotion Activities (n=200)

Obstacles	Number of women	%
Lack of will power/self-discipline	84	42.0
Lack of time	176	88.0
Too tired	27	13.5
Too difficult	2	1.0
Too costly	120	60.0
Too stressed	5	2.5
Due to health problem	1	.5
Others	1	.5

5.4.4 Chinese Migrant Women's Intentions to Perform Health Promotion and Prevention Activities in the Coming Year

As seen in Table 5.14, only 22% of the Chinese migrant women performed health promotion and health prevention activities, however, almost twice as many (84%) indicated that they planned to perform such activities in the coming year. This suggests that their understanding and appreciation of the importance of health promotion and prevention may have changed since they migrated to Hong Kong.

Regarding the health promotion and health prevention activities they intended to pursue, 71% of the Chinese migrant women stated that they would like to start/increase exercise; 71.5% wanted to improve their eating habits; and 46.5 % wanted to lose weight (see Table 5.17).

Table 5.17 Health Promotion Activities Chinese Migrant Women Would Like to Perform in the Coming Year (n=200)

Health promotion activities	Number of women	%
Start/ increase exercise	142	71.0
Lose weight	93	46.5
Improve eating habits	143	71.5
Quit smoking	0	0.0
Reduce amount smoked	1	.5
Learn to manage stress	25	12.5
Reduce stress	1	0.5
Take vitamins	29	14.5
Others	4	2.0

According to the survey results, only 22% of participants exhibited behaviours to improve their health since their migration. Compared to the local Hong Kong women, (as mention in section 2.5), where 21.2% of women perform “low physical activity”, 56% perform “moderate physical activity”, and 17.7% perform “high physical activity” regularly, it seems such practices are a bit low among Chinese migrant women. Nevertheless, Chinese migrant women’s knowledge of and attitudes towards health promotion and the concept of prevention are clearly well developed with 95% of participants rating promotion and prevention behaviours as important for their health. However, it seems that for most, personal and family commitments and / or other difficulties presently prevent them from undertaking more pro-active steps regarding their health. Despite this, 84% of Chinese migrant women revealed that they intended to perform some health promotion and prevention activities in the coming year (see Table E.5.9 in Appendix E).

Summary of Section

This chapter has presented descriptive analyses of the data as per the conceptual framework developed in Chapter 3 and has used a mainly descriptive approach to describe some of the associations between the independent and the dependent variables such as the health status of Chinese migrant women, their use of health facilities, and health promotion and prevention behaviours for Chinese migrant women. The following chapter will discuss these associations using analysis of variance.

Chapter Six: The Health of Chinese Migrant Women in Hong Kong

This chapter presents the results of the study on Chinese migrant women in Hong Kong. A total of 200 questionnaires were received from Chinese migrant women. Section one describes the physical health of the Chinese migrant women; section two describes their mental health; section three describes their utilization of health services; and section four describes their knowledge of and attitude in health promotion and health prevention, and their health promotion and prevention behaviors.

6.1 Background Profile of the Chinese Migrant Women Participants in Hong Kong

This section describes the characteristics of the Chinese migrant women in Hong Kong. It consists of three parts: socio-demographic characteristics define the participants' age group, marital status, years of migration to Hong Kong, and language spoken; family condition explores the participants' family financial income, number of children, family household, and living conditions; and the educational and occupational situation investigates the participants' educational attainment and employment status.

Descriptive Analysis

A. Socio-demographic Characteristics

For the purpose of analysis, age was classified into the following three categories: 20 to 30 years old, 31 to 40 years old, and 41 to 50 years old. Regarding their age distribution, the largest group of participants for Chinese migrant women was within the age range of "31 to 40" (42.5%). Nearly half of the rest of the participants were distributed to the "20 to 30" and "41 to 50" groups (see Table 6.1).

In terms of the marital status of the Chinese migrant women, 90.5% of them were

married; 6% were single; and the remaining was categorized as others: 1% divorced, and 2.5 % widowed.

All the single Chinese migrant women were in the age group of "20 to 30." Nearly half of the married Chinese migrant women (40.5 %) were in the age group of "31 to 40" (see Table F.6.1 in appendix F). 49.5% of the participants migrated to Hong Kong recently, only five years or below, for example. Among them, 20.5% were in the age of 20 to 30. This shows that they generally migrated to Hong Kong at the age of 18 to 25. 50.5 % migrated to Hong Kong a long time ago (more than six years). Most of them were 41 to 50 years old (26.5%) (see Table F.6.1 in Appendix F).

For language spoken, 63% could speak Cantonese, only one Chinese migrant woman could speak English, and the rest could nearly speak Putonghua; and 29% could speak other dialects (see Table 6.1). Nevertheless, younger Chinese migrant women could speak Cantonese. For example, 22.5% of Chinese migrant women aged "20 to 30" could speak Cantonese, and 26.0% of Chinese migrant women aged "31 to 40" could speak Cantonese. However, only 14.5% of Chinese migrant women aged "41 to 50" could speak Cantonese (see Table F.6.1 in Appendix F). Although 63% of the Chinese migrant women responded that they could speak Cantonese, most of them were not fluent. The language used by the Chinese migrant women is Putonghua. However, Putonghua is not an official language for most health settings in Hong Kong. For example, we do not provide Putonghua antenatal seminars and health education seminars to community clients.

B. Family Condition

In terms of total family income, nearly half of the Chinese migrant women's families had an income of below HK$15,000 (49%). Among them, 70% had two or more children (see Table 6.2). As convenience sampling was used for this study, the results of the total family income for Chinese migrant women were relatively higher than the real situation of immigrant families in Hong Kong.

For those with a total family income >HK$15,000, 36% lived with their children (nuclear family), while 15% lived with their other relatives (extended family) (see Table F.6.3 in Appendix F).

In terms of living conditions, most of the Chinese migrant women (67.5%) rented public flats, while only 10.5% owned private flats. 7% rented one private room (see Table 6.2). Therefore, their living conditions were very crowded.

C. Education and Employment Situation

With regard to the Chinese migrant women's educational level, more than half (56%) reached only primary or below educational level. They were mostly aged 31 or above. The younger Chinese migrant women generally had a higher educational level. For example, a total of 9.5% reached university level, and among them, 6% were aged 20 to 30 (see Table F.6.1 in Appendix F).

With regard to their employment, only 16% were employed, and they were not differently distributed to the age and education categories (see Table F.6.1 and F.6.2 in Appendix F). It seems that employment status is not related to their age and their educational attainment obtained from China.

Chinese migrant women are more likely to experience more career barriers than Hong Kong local working-class women. They may suffer from a marginalization in working status such as facing pressure due to the non-recognition of their educational attainment, their non-acceptance due to their different Cantonese accents, and the stigmatization effects on their Mainland China-borne identity. Furthermore, as many Chinese migrant women have children, they also need to have a balance between their job demands and their family needs.

Table 6.1 Socio-demographic Characteristics for Chinese Migrant Women (n=200)

Socio-demographic Variables	**Chinese migrant women**	
Age	Number of women	%
20-30	56	28.0
31-40	85	42.5
41-50	59	29.5
Marital Status		
Single	12	6.0
Married	181	90.5
Others	7	3.5
Migration Status		
Short time migration (5 years or less)	99	49.5
Long time migration (6 years or more)	101	50.5
Language Speaking		
Cantonese	126	63
Mandarin	101	50.5
Others	59	29.5

Table 6.2 Family Condition for Chinese Migrant Women (n=200)

Family Condition Variables	Chinese Migrant Women	
Total family income (HK dollars)	Frequency	%
< 10.999k	27	13.5
11k-14.999k	71	35.5
>15k	102	51.0
Number of children		
No children	12	6.0
1 child	48	24.0
2 children	103	51.5
3 and above children	37	18.5
Family Household		
Nuclear family*	147	73.5
Extended family*	53	26.5
Type of Housing		
renting public flat	135	67.5
Renting private room or flat	22	11.0
owning flat	29	14.5
others	14	7.0

*****Nuclear family means a family group consisting of: a father and mother and their children.

*Extended family is comprised of immediate family members living together with extra-nuclear family members such as grandparents, aunts and uncles, cousins, and nieces and nephews.

Table 6.3 Educational and Employment Situation for Chinese Migrant Women (n=200)

Educational and Employment Variables	Chinese Migrant Women	
Education attainment	Number	%
Primary or below	112	56
Secondary	69	34.5
University	19	9.5
Employment status		
No	168	84.0
Yes	32	16.0

6.2 Associations between the Socio-demographic Components and Chinese Migrant Women's Physical Health

A one-way ANOVA test was performed to determine if there were significant associations between the socio-demographic variables (independent variables) and physical health (dependent variables). The results showed that Chinese migrant women's physical health had a significant relationship ($p < 0.01$) with their age ($F = 14.858$, $P = .000$), education attainment ($F = 7.023$, $P = .001$), number of children ($F = 10.580$, $P = .000$), years of migration to Hong Kong ($F = 17.911$, $P = .000$), type of housing ($F = 5.363$, $P = .001$), and family household ($F = 6.843$, $P = .010$). However, Chinese migrant women's physical health had no significant association with their marital status and family income ($p > 0.01$) (see Table F.6.4 in Appendix F for full details).

Table 6.4 ANOVA for Comparing Socio-demographic Variables with Physical Health of Chinese Migrant Women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	14.858	.000*
20-30	56	.0536	.22721	-.0073	.1144			
31-40	85	.1882	.42241	.0971	.2793			
41-50	59	.5085	.65319	.3383	.6787			
Education						2	7.023	.001*
primary or below	112	.3571	.58290	.2480	.4663			
secondary	69	.1159	.32250	.0385	.1934			
University	19	.0526	.22942	-.0579	.1632			
No. of Children						3	10.580	.000*
No children	12	.0000	.00000	.0000	.0000			
1 child	48	.0417	.20194	-.0170	.1003			
2 children	104	.2500	.47766	.1571	.3429			
3 and above children	36	.5833	.69179	.3493	.8174			
Cantonese speaking						1	27.541	.000*
Yes	126	.1667	.41473					
No	74	.3784	.58993					
Years of Migration						1	17.911	.000*
short time migration	99	.1010	.30288	.0406	.1614			
long time migration	101	.3861	.59950	.2678	.5045			
Type of housing						3	5.363	.001*
renting public flat	135	.2593	.47258	.1788	.3397			
renting private room or flat	22	.0000	.00000	.0000	.0000			
owning flat	29	.1724	.38443	.0262	.3186			
others	14	.6429	.92878	.1066	1.1791			
Family Household						1	6.843	.010*
nuclear family	147	.2993	.54162	.2110	.3876			
extend family	53	.0943	.29510	.0130	.1757			

* The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

Multiple Comparisons Analysis of Chinese Migrant Women's Physical Health with Socio-demographic Variables using Tukey Tests

In Table 6.5, a multiple comparisons analysis of Chinese migrant women's physical health using Tukey tests demonstrated that the means were significantly different between the socio-demographic variables such as age, number of children, and type of housing. Chinese migrant women aged "20 to 30" showed better physical health than those aged "41 to 50" (mean difference = .45490, P<.001); those aged "31 to 40" also showed better physical health than those aged "41 to 50," but the mean difference was .32024 (P<.001). Nevertheless, those aged "20 to 30" did not show better physical health than those aged "31 to 40."

In the number of children, the multiple comparisons analysis showed that Chinese migrant women with three or more children showed the worst physical health. For example, Chinese migrant women with "no children" showed better physical health than those with "three and above children" (mean difference = .58333, P=.001); Chinese migrant women with "one child" showed better physical health than those with "three and above children" (mean difference = .54167, P<.001); and Chinese migrant women with "two children" also showed better physical health than those with "three and above children" (mean difference = .33333, P=.001). However, Chinese migrant women with "no child" did not show a significant difference in physical health with those with "one child" or "two children".

In the type of housing, Chinese migrant women who "owned a flat" showed better physical health than those with an "others" type of housing (mean difference = .64286, P=.001). The "others" type of housing includes the temporary houses provided before being eligible to apply for a government house, interim houses,

living in squatters' area, and others.

No significant difference was found in the Chinese migrant women's physical health among the socio-demographic variables such as education, marital status, and family income.

Table 6.5 Multiple Comparisons of Socio-demographic Variables and Physical Health of Chinese Migrant Women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
					Lower Bound	*Upper Bound*
(I)	*(J)*	*(I-J)*				
Age						
20-30	41-50	-.45490*	.08673	.000*	-.6597	-.2501
31-40	41-50	-.32024*	.07877	.000*	-.5063	-.1342
No. of Children						
No child	3 and above children	-.58333	.15461	.001*	-.9840	-.1827
1 child	3 and above children	-.54167*	.10226	.000*	-.8067	-.2767
2 children	3 and above children	-.33333*	.08969	.001*	-.5657	-.1009
Family Income						
11k - 14.999k	>15k	-.30099*	.11068	.019	-.5624	-.0396
Type of housing						
Renting public flat	Others	-.38360*	.13495	.025	-.7333	-.0339
Renting private room or flat	Others	-.47044*	.15642	.016	-.8758	-.0651
Owning flat	Others	-.64286*	.16432	.001	-1.0686	-.2171

*The mean difference is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix F

T-tests Used for Paired Comparisons between the Socio-demographic Variables and Physical Health of Chinese Migrant Women

Table 6.6 shows that all socio-demographic variables have a significant relationship with physical health. The Levene's test for the Cantonese speaking variance had a probability of less than .05. We assumed that the population variances were not equal. Furthermore, the two-tail significance of Cantonese speaking of "equal variances not assumed" was < .05; thus, it was significant. It therefore concluded that Cantonese speaking Chinese migrant women had better physical health.

Same as above, the Levene's test was carried out for physical health, years of migration, family household, and occupation after migration. The probability was less than .05. We assumed that the population variances were not equal. Furthermore, the two-tail significance of "years of migration," "family household," and "occupation after migration" of "equal variances not assumed" was < .05; thus, all were significant. It therefore concluded that there was significant difference in physical health of Chinese migrant women between recent migration and long term migration; nuclear family and extend family; and with occupation and with no occupation after migration.

Table 6.6 Independent Samples Test for Socio-demographic Variables and Physical Health of Chinese Migrant Women (n=200)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference Lower	Upper
Cantonese Speaking						
Equal variances assumed	2.970	198	.003	.21171	.07114	.35229
Equal variances not assumed	2.718	115.829	.008	.21171	.05742	.36600
			(F=27.541, P=.000*)			
Years of Migration						
Equal variances assumed	-3.552	198	.000	-.33922	-.52757	-.15086
Equal variances not assumed	-2.632	33.376	.013	-.33922	-.60134	-.07709
			(F=23.095, P=.000*)			
Family Household						
Equal variances assumed	2.616	198	.010	.20498	.05046	.35950
Equal variances not assumed	3.398	167.184	.001	.20498	.08589	.32407
			(F=34.126, P=.000*)			
Occupation after migration						
Equal variances assumed	1.894	198	.060	.18006	.00746	.36758
Equal variances not assumed	2.727	73.653	.008	.18006	.04850	.31162
			(F=18.132, P=.000*)			

*The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

Comparison of Chinese Migrant Women's Health before and after Migration

The association between Chinese migrant women and their health is illustrated by their physician's visit before and after migration and also by their self-comment on their health condition before and after migration.

The association between Chinese migrant women and their physician's visit showed that most of the Chinese migrant women visited a physician more before migration, especially the older women (age 31 and above group). The Pearson Chi-square result

(χ^2= 11.005, df=4, p=<.05) showed that Chinese migrant women's physician's visit before and after was significantly related to their age (see Table 6.7)

Table 6.7 Chinese Migrant Women's Physician Visit: Before and After Migration (n=200)

Age	***Compare physician visit before and after migration***			
	physician visit more than before N (%)	**physician visit same as before N (%)**	**physician visit less than before N (%)**	**Total N (%)**
20-30	24 (12.0)	29 (14.5)	3(1.5)	56 (28.0)
31-40	54 (27.0)	25 (12.5)	6(3.0)	85 (42.5)
41-50	41 (20.5)	15 (7.5)	3(1.5)	59 (29.5)
Total	119 (59.5)	69 (34.5)	12(6.0)	200 (100)
χ^2= 11.005 df=4 P= .027				

The association between Chinese migrant women and their health status showed that younger migrants were generally healthier. However, 32.5% of the migrant women aged between 31 and 50 years old reported that their health was "much worse than before migration." The Pearson Chi-square result (χ^2= 16.742, df=4, p=<.05) showed that Chinese migrant women's health before and after was not independent of each other. Thus, they were significantly related to their age (see Table 6.8).

Table 6.8 Chinese Migrant Women's Health Status: Before and After Migration (n=200)

Age	*Compare health status before and after immigration*		
	Same as before ***N (%)***	***Worse than before*** ***N (%)***	***Total*** ***N (%)***
20-30	45 (22.5)	11 (5.5)	56 (28.0)
31-40	50 (25.0)	35 (17.5)	85 (42.5)
41-50	29 (14.5)	30 (15.0)	59 (29.5)
Total	124 (62.0)	76 (38.0)	200 (100)
χ^2= 16.742 df=4 P= .002			

In the association of Chinese migrant women's health status with their education level, the Pearson Chi-square result (χ^2 = 19.290, df = 4, p = <.05) showed that the Chinese migrant women's health before and after was also significantly related to their education level (see Table 6.9).

Table 6.9 Chinese Migrant Women's Health Status by their Education Attainment: Before and After Immigration (n=200)

Educational Attainment	**Compare Health Status Before and After Immigration**		
	Same as before ***N (%)***	***Worse than before*** ***N (%)***	***Total*** ***N (%)***
Primary or below	55(27.5)	57 (28.5)	112 (56.0)
Secondary	52 (26.0)	17 (8.5)	69 (34.5)
University or above	17 (8.5)	2 (1.0)	19 (9.5)
Total	124 (62.0)	76 (38.0)	200 (100)
χ^2= 19.290 df=4 P= .001			

6.3 Associations between the Socio-demographic Components and Chinese Migrant Women's Stress Scales

A one-way ANOVA test was performed to determine if there were significant associations between the socio-demographic variables (independent variables) and the stress scale (dependent variables). The results showed that Chinese migrant women's stress scale had a significant relationship ($p < 0.01$) with their age ($F = 9.483$, $P = .000$), education attainment ($F = 9.359$, $P = .000$), marital status ($F = 24.070$, $P = .000$), number of children ($F = 18.423$, $P = .000$), family income ($F = 4.983$, $P = .008$), and employment status (($F = 8.327$, $P = .004$). However, there were no significant associations between Chinese migrant women's years of migration, living environment, and family household with their stress scale ($p > 0.01$) (see Table 6.10).

Table 6.10 ANOVA for Comparing Socio-demographic Variables with Stress Scale of Chinese Migrant Women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age								
20-30	56	13.12	2.081	12.57	13.68	2	9.483	.000*
31-40	85	14.52	1.887	14.11	14.92			
41-50	59	14.58	2.291	13.98	15.17			
Education								
primary or below	112	14.42	2.146	14.02	14.82	2	9.359	.000*
secondary	69	14.23	1.880	13.78	14.68			
University	19	12.21	2.250	11.13	13.30			
Marital Status								
single	12	10.67	1.231	9.88	11.45	2	24.070	.000*
married	181	14.29	1.822	14.03	14.56			
others	7	16.29	4.608	12.02	20.55			
No. of Children								
No children	12	10.67	1.231	9.88	11.45	3	18.423	.000*
1 child	48	13.69	2.165	13.06	14.32			
2 children	104	14.38	1.927	14.01	14.76			
3 and above children	36	15.22	1.692	14.65	15.79			
Family Income								
less than 10.999k	27	15.33	2.418	14.38	16.29	2	4.983	.008*
11k - 14.999k	71	14.01	1.975	13.55	14.48			
>15k	102	13.92	2.119	13.51	14.34			
Occupation after migration								
No	168	14.33	2.049	14.02	14.65	1	8.327	.004*
Yes	32	13.16	2.438	12.28	14.04			

* The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

Multiple Comparisons Analysis of Chinese Migrant Women's Stress Scale with the Socio-demographic Variables Using Tukey Tests

In Table 6.11, a multiple comparisons analysis of Chinese migrant women's stress scale using Tukey tests demonstrated that the means were significantly different between the socio-demographic variables such as age, education status, marital status, number of children, and family income. Chinese migrant women aged "20 to 30" showed less stress than those aged "31 to 40" (mean difference = 1.39265, P=.000) and "41 to 50" (mean difference = 1.45127, P=.001). The results indicated that the older the age, the more stress (the mean difference is larger) they experience. However, those aged "31 to 40" did not show a significantly different stress level from those aged "41 to 50."

With regard to educational status, Chinese migrant women with a higher educational level showed less stress. Chinese migrant women with a university level showed significantly less stress compared with those with a primary or below level (mean difference = 2.20912, P=.000) and secondary level (mean difference = 2.02136, P=.001). Nevertheless, Chinese migrant women with a primary or below level did not have a significant difference with those with a secondary level (see Table 6.11).

With regard to marital status, married women showed significantly higher stress than the single women (mean difference = 3.626, P=.000); the "others" group (divorced or widowed) also showed significantly higher stress than the single (mean difference = 5.619, P=.000) and married women (mean difference = 1.993, P=.023) (see Table F.6.11 in Appendix F for full details).

In the number of children, the multiple comparisons analysis showed that the more children Chinese migrant women had, the more they significantly had more stress. For example, Chinese migrant women with “three and above children” showed more stress than those with “no children” (mean difference =4 .556, P=.000); those with “two children” showed more stress than those with “no children” (mean difference =3.718, P=.000); and those with “one child” also showed more stress than those with “no children” (mean difference =3.021, P=.000). Nevertheless, Chinese migrant women with one child or two children, or two children and three children did not show a significantly different stress level (see Table F.6.11 in Appendix F for full details).

In the family income, Chinese migrant women with higher income showed less stress. For example, Chinese migrant women with an income of “HK$11,000 to HK$14,999” showed less stress than those with an income of “<HK$10,999” (mean difference =1.319, P=.017); and those with an income of “>HK$15,000” showed less stress than those with an income of “<HK$10,999” (mean difference =1.412, P=.006). However, Chinese migrant women with an income of “HK$11,000 to HK$14,999” did not show a significantly different stress level from those with an income of “>HK$15,000” (see Table 6.11).

There was no significant relationship between Chinese migrant women’s stress level and type of housing they live in.

Table 6.11 Multiple Comparisons of Socio-demographic Variables and Stress Scale of Chinese Migrant Women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(II)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
	Age					
20-30	**31-40**	-1.39265*	.35577	.000*	-2.2328	-.5525
	41-50	-1.45127*	.38565	.001*	-2.3620	-.5405
	Education					
primary or below	**University**	2.20912*	.51317	.000*	.9972	3.4210
secondary	**University**	2.02136*	.53586	.001*	.7559	3.2868
	Marital Status					
Single	**Married**	-3.626*	.578	.000*	-4.99	-2.26
	Others	-5.619*	.923	.000*	-7.80	-3.44
Married	**Others**	-1.993*	.747	.023	-3.76	-.23
	No. of Children					
No child	**1 child**	-3.021*	.619	.000*	-4.62	-1.42
	2 children	-3.718*	.584	.000*	-5.23	-2.20
	3 and above children	-4.556*	.639	.000*	-6.21	-2.90
1 child	**3 and above children**	-1.535*	.423	.002*	-2.63	-.44
	Family Income					
< 10.999k	**11k - 14.999k**	1.319*	.477	.017	.19	2.45
	>15k	1.412*	.457	.006	.33	2.49

*The mean difference is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix F

T-tests Used for Paired Comparisons between the Socio-demographic Variables and Stress Scale of Chinese Migrant Women

Table 6.12 shows that Chinese migrant women who speak Cantonese and if they were employed after migration had a significant relationship with the stress scale. The Levene's test had a probability of less than .05. We assumed that the population variances were not equal. Furthermore, the two-tail significance of these two socio-demographic variables was < .05; thus, it was significant. It therefore concluded that there was a significant relationship between the stress scale and Chinese migrant women who speak Cantonese and if they were employed after migration. Chinese migrant women who speak Cantonese and who were employed after migration had less stress.

Chinese migrant women's family household and their year of migration had no significant relationship with stress level.

Table 6.12 Independent Samples Test for Socio-demographic Variables and Physical Health of Chinese Migrant Women (n=200)

	T-test for Equality of Means					
	t	**df**	**Sig.(2tailed)**	**Mean Difference**	**95% CI of the Difference**	
					Lower	**Upper**
Cantonese Speaking						
Equal variances assumed	2.570	198	.001*	. .799	.186	1.413
Equal variances not assumed	2.730	181.185	0.7	.799	.222	1.377
				(F=2.007, P=.158)		
Occupation after migration						
Equal variances assumed	2.886	198	.004*.	1.17708	.37269	1.98148
Equal variances not assumed	2.564	39.774	.014	1.17708	.24920	2.10497
				(F=18.132, P=.000*)		

*The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

6.4 Associations between the Socio-demographic Components and Chinese Migrant Women's Utilization of Health Services

A one-way ANOVA test was performed to determine if there were significant associations between the socio-demographic variables (independent variables) and utilization of health services (dependent variables). The results showed that Chinese migrant women's utilization of health services only had a significant relationship ($p < 0.01$) with their type of housing ($F = 10.955$, $P = .000$). The rest of the socio-demographic variables did not show significant associations in the one-way ANOVA test ($p > 0.01$) (see Table F.6.13 in Appendix F for full details).

Table 6.13 ANOVA for comparing Socio-demographic variables with Health Services Utilization Scale for Chinese Migrant women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Type of housing								
renting public flat	135	2.27	.717	2.15	2.40	3	10.955	.000*
renting private room or flat	22	2.36	.581	2.11	2.62			
owning flat	29	2.31	.712	2.04	2.58			
others	14	3.43	.938	2.89	3.97			

* The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

Multiple Comparisons Analysis of Chinese Migrant Women's Utilization of Health Services with the Socio-demographic Variables using Tukey Tests

In Table 6.14, a multiple comparisons analysis of Chinese migrant women's utilization of health services using Tukey tests demonstrated that only the means of their type of housing were significantly different. From the results, Chinese migrant women who rented public flats, rented private rooms, and owned flats all showed more utilization of health services than those who lived in "other" types of housing. Renting public flats had a (mean difference = 1.154, P=.000); renting private rooms had a (mean difference = 1.065, P=.000); and owning flats had a (mean difference = 1.118, P=.000). The "other" types of housing pertained to all temporary houses or shelters.

There was no significant relationship between Chinese migrant women's utilization of health services and the other socio-demographic variables.

Table 6.14 Multiple Comparisons of Socio-demographic Variables and Health Services Utilization Scale for Chinese Migrant Women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(III)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Type of housing						
Renting public flat	**Others**	-1.154*	.202	.000*	-1.68	-.63
Renting private room or flat	**Others**	-1.065*	.246	.000*	-1.70	-.43
Owning flat	**Others**	-1.118*	.234	.000*	-1.73	-.51

*The mean difference is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix F

T-tests Used for Paired Comparisons of Socio-demographic Variables and Utilization of Health Services of Chinese Migrant Women

The results shows that Chinese migrant women who speak Cantonese, their year of migration, their family household, and if they were employed after migration did not have a significant relationship with their utilization of health services**.** The Levene's test had a probability of more than .05. It concluded that there was no significant relationship between utilization of health services and Chinese migrant women who speak Cantonese, their year of migration, their family household, and if they were employed after migration.

6.5 Associations between the Socio-demographic Components and Chinese Migrant Women's Barrier Scale of Using Hong Kong Health Services

A one-way ANOVA test was performed to determine if there were significant associations between the socio-demographic variables (independent variables) and barrier scale of using Hong Kong health services (dependent variables). The results illustrated that the Chinese migrant women's barrier scale of using Hong Kong health services had a significant relationship ($p < 0.01$) with their education attainment ($F = 6.859$, $P = .001$), marital status ($F = 7.387$, $P = .001$), number of children ($F = 5.315$, $P = .002$), Cantonese speaking ($F = 16.046$, $P = .000$), family household ($F = 5.978$, $P = .01$), and employment status ($F = 3.538$, $P = .000$). The significant level of type of housing ($F = 2.478$, $P = .063$) was borderline; this will be further discussed in a later section.

The one-way ANOVA test revealed that the barrier scale of using Hong Kong health services had no significant associations with Chinese migrant women's age and family income (p >0.01) (see Table F.6.15 in Appendix F for full details).

Table 6.15 ANOVA for Comparing Socio-demographic Variables with Barriers to Health Services of Chinese Migrant Women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Education						2	6.859	.001*
primary or below	112	3.5625	1.27894	3.3230	3.8020			
secondary	69	3.1449	1.21601	2.8528	3.4370			
University	19	2.5263	.90483	2.0902	2.9624			
Marital Status						2	7.387	.001*
single	12	2.0833	.90034	1.5113	2.6554			
married	181	3.3757	1.23480	3.1946	3.5568			
others	7	4.0000	1.41421	2.6921	5.3079			
No. of Children						3	5.315	.002*
No children	12	2.0833	.90034	1.5113	2.6554			
1 child	48	3.1458	.94508	2.8714	3.4203			
2 children	104	3.4615	1.37892	3.1934	3.7297			
3 and above children	36	3.5556	1.15745	3.1639	3.9472			
Cantonese speaking						1	16.046	.000*
No	74	3.8243	1.45582	.45240	1.14863			
Yes	126	3.0238	1.03123	.41914	1.18189			
Years of Migration						1	3.057	.082
short time migration	99	3.4646	1.35008	3.1954	3.7339			
long time migration	101	3.1782	1.16100	2.9490	3.4074			
Type of housing								
renting public flat	135	3.3111	1.35198	3.0810	3.5413	3	2.478	.063
renting private room or flat	22	3.3636	1.25529	2.8071	3.9202			
owning flat	29	2.9655	.86531	2.6364	3.2947			
others	14	4.0714	.73005	3.6499	4.4929			

Family Household						1	5.978	.01*
nuclear family	147	3.1905	1.24049	2.9883	3.3927			
extend family	53	3.6792	1.26755	3.3299	4.0286			
Occupation after migration						1	3.538	.061
No	168	3.3929	1.32247	3.1914	3.5943			
Yes	32	2.9375	.80071	2.6488	3.2262			

* The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

Multiple Comparisons Analysis of Chinese Migrant Women's Barrier Scale of Using Hong Kong Health Services with Socio-demographic Variables Using Tukey Tests

In Table 6.16, a multiple comparisons analysis of Chinese migrant women's barrier scale of using Hong Kong health services by Tukey tests illustrated that the means were significantly different between the socio-demographic variables such as education status, marital status, number of children, and type of housing.

Chinese migrant women with a higher educational level demonstrated less barrier scale of using health services. Those with a university level displayed a significantly lesser barrier scale of using health services compared than those with a primary or below level (Mean difference = 1.03618, P=.002). Nevertheless, Chinese migrant women with primary or below education level were not significantly different from those with a secondary level (see full details of Table F.6.16 in Appendix F).

With regard to marital status, married women showed a significantly higher barrier scale of using health services than single women (mean difference = 1.29236, P=.001), and the "others" group (divorced or widowed women) also showed a significantly higher barrier scale of using health services than single women (mean difference = 1.91667, P=.003) (see Table 6.16). However, married women were not significantly different from the "others" group (divorced or widowed women).

In the number of children, the Tukey tests showed that Chinese migrant women with no children or fewer children had a significantly less barrier scale of using health services. For example, Chinese migrant women with "three and above children"

showed a higher barrier scale of using health services than those with “no child” (mean difference =1.47222, P=.002); those with “two children” showed a higher barrier scale of using health services than those with “no children” (mean difference =1.37821, P=.002); and those with “one child” also showed a higher barrier scale of using health services than those with “no children” (mean difference =1.06250, P=.039). Nevertheless, Chinese migrant women with one child or two children, or two children and three children did not show a significant relationship with the barrier scale of using health services (see Table 6.16).

In the type of housing, only Chinese migrant women living in the “others” type of housing (temporary housing) showed a significantly higher barrier scale of using health services than those who owned flats. Those who lived in other types of housing did not show a significant relationship with the barrier scale of using health services.

There was no significant relationship between Chinese migrant women’s barrier scale of using health services and age and family income.

Table 6.16 Multiple Comparisons of Socio-demographic Variables with Barriers to Health Services of Chinese Migrant Women (n=200)

Socio-demographic variables (IV)	(J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Education						
primary or below	**University**	1.03618*	.30457	.002	.3169	1.7554
Marital Status						
Single	**Married**	-1.29236*	.36500	.001	-2.1543	-.4304
	Others	-1.91667*	.58235	.003	-3.2919	-.5414
No. of Children						
No child	**1 child**	-1.06250*	.39504	.039	-2.0861	-.0389
	2 children	-1.37821*	.37316	.002	-2.3451	-.4113
	3 and above children	-1.47222*	.40799	.002	-2.5294	-.4150
Type of housing						
Owning flat	**Others**	-1.10591*	.40658	.036	-2.1594	-.0524

* The mean difference is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix F

T-tests Used for Paired Comparisons of Socio-demographic Variables and Chinese Migrant Women's Barrier Scale of Using Hong Kong Health Services

Table 6.17 shows that Chinese migrant women who could speak Cantonese and if they were employed after migration had a significant relationship with the barrier scale of using Hong Kong health services. The Levene's test had a probability of less than .05.

We assumed that the population variances were not equal. Furthermore, the two-tail significance of these three socio-demographic variables was < .05; thus, it was significant. It is therefore concluded that there was a significant relationship between

the barrier scale of using Hong Kong health services and Chinese migrant women who could speak Cantonese and if they were employed after migration. Chinese migrant women who could speak Cantonese and who were employed after migration had fewer barriers.

There was no significant relationship between Chinese migrant women's barrier scale of using Hong Kong health services with their year of migration and family household.

Table 6.17 Independent Samples Test for Socio-demographic Variables and Chinese Migrant Women's Barrier Scale of Using Hong Kong Health Services (n=200)

	T-test for Equality of Means					
	t	**df**	**Sig.(2tailed)**	**Mean Difference**	**95% CI of the Difference Lower**	**Upper**
Cantonese Speaking						
Equal variances assumed	4.535	198	.000	.80051	.45240	1.14863
Equal variances not assumed	4.157	116.457	.000	.80051	.41914	1.18189
			(F=.16.046, P=.000)			
Occupation after migration						
Equal variances assumed	1.881	198	.061	.45536	-.02207	.93278
Equal variances not assumed	2.610	68.168	.011	.45536	.10719	.80352
			(F=18.382, P=.000)			

*The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

6.6 Associations between the Socio-demographic Components and Performing Strategies to Improve Health Status of Chinese Migrant Women

A one-way ANOVA test was performed to determine if there were significant associations between the socio-demographic variables (independent variables) and Chinese migrant women performing strategies to improve their health status (dependent variables). The results illustrated that Chinese migrant women performing strategies to improve their health status had a significant relationship ($p < 0.01$) with their age ($F = 9.427$, $P = .000$), education attainment ($F = 4.974$, $P = .008$), marital status ($F = 3.301$, $P = .039$), number of children ($F = 2.997$, $P = .032$), family income ($F = 8.691$, $P = .000$), years of migration ($F = 6.437$, $P = .012$), and type of housing ($F = 6.318$, $P = .000$) (see Table 6.18).

However, the one-way ANOVA test revealed that there was no significant relationship between Chinese migrant women who could speak Cantonese, their family household, and if they were employed after migration ($p > 0.01$) (see Table 6.18).

Table 6.18 ANOVA for Comparing Socio-demographic Variables and Perform Strategies to Improve Health Status by Chinese Migrant Women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	9.427	.000*
20-30	56	.89	.888	.66	1.13			
31-40	85	1.13	.897	.94	1.32			
41-50	59	1.76	1.546	1.36	2.17			
Education						2	4.974	.008*
primary or below	112	1.28	1.109	1.07	1.48			
secondary	69	1.01	1.007	.77	1.26			
University	19	1.95	1.747	1.11	2.79			
Marital Status						2	3.301	.039*
single	12	.42	.996	-.22	1.05			
married	181	1.30	1.179	1.13	1.48			
others	7	1.29	.756	.59	1.98			
No. of Children						3	2.997	.032*
No children	12	.42	.996	-.22	1.05			
1 child	48	1.08	.710	.88	1.29			
2 children	104	1.38	1.225	1.15	1.62			
3 and above children	36	1.36	1.437	.87	1.85			
Family Income						2	8.691	.000*
less than 10.999k	27	.63	.565	.41	.85			
11k - 14.999k	71	1.06	1.120	.79	1.32			
>15k	102	1.55	1.240	1.31	1.79			
Years of Migration						1	6.437	.012*
short time migration	99	1.04	.880	.86	1.22			
long time migration	101	1.46	1.375	1.18	1.73			
Type of housing						3	6.318	.000*
renting public flat	135	1.07	1.108	.88	1.26			
renting private room or flat	22	1.64	1.002	1.19	2.08			
owning flat	29	1.97	1.426	1.42	2.51			

others	14	.93	.730	.51	1.35

* The P-value is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix F

Multiple Comparisons Analysis of Chinese Migrant Women's Socio-demographic Components and Performing Strategies to Improve Their Health Status

In Table 6.19, a multiple comparisons analysis of Chinese migrant women's performing strategies to improve their health status by Tukey tests illustrated that the means had a significant difference between the socio-demographic variables such as age, education attainment, marital status, number of children, family income, years of migration, and type of housing.

According to the results, older Chinese migrant women performed more strategies to improve their health status than the younger ones. For example, Chinese migrant women aged "41 to 50" performed more strategies to improve their health status than those aged "20 to 30" (mean difference =.870, P=.000). Those aged "41 to 50" also performed more strategies to improve their health status than those aged "31 to 40" (mean difference =.633, P=.003).

With regard to educational attainment, Chinese migrant women with a higher educational level (university level) (mean difference = .671, P=.051) performed more strategies to improve their health status than those with a lower educational level (primary or below, or secondary) (mean difference = .933, P=.006) (see Table 6.19).

With regard to marital status, married Chinese migrant women significantly performed more strategies to improve their health status than the single women

(mean difference = .887, P=.029). However, both the married and single women did not have a significant difference with the "others" group (divorced or widowed women).

In the number of children, the Tukey tests showed that Chinese migrant women with two children performed more strategies to improve their health status than those with no children (mean difference =.968, P=.033). The others did not have a significant relationship.

In the family income, Chinese migrant women with a family income of >HK$15,000 performed more strategies to improve their health status than those with a family income of < HK$10,999 (mean difference =.919, P=.001). Chinese migrant women with a family income of > HK$15,000 also performed more strategies to improve their health status than those with a family income of HK$11,000 to HK$14,999 (mean difference =.493, P=.014). The others did not show a significant difference.

In the type of housing, Chinese migrant women who "owned flats" significantly performed more strategies to improve their health status than those who rented public flats (mean difference =.899, P=.001). Chinese migrant women who "owned flats" also significantly performed more strategies to improve their health status than those who lived in "other" housing (temporary housing or shelters) (mean difference =1.037, P=.027). The others did not show a significant difference.

Table 6.19 Multiple Comparisons of Socio-demographic Variables and Perform Strategies to Improve Health Status by Chinese Migrant Women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(V)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Age						
20-30	41-50	-.870*	.210	.000	-1.37	-.37
31-40	41-50	-.633*	.191	.003	-1.08	-.18
Education						
primary or below	University	-.671	.285	.051	-1.34	.00
secondary	University	-.933*	.298	.006	-1.64	-.23
Marital Status						
Single	Married	-.887*	.345	.029	-1.70	-.07
No. of Children						
No child	2 children	-.968*	.352	.033	-1.88	-.06
Family Income						
< 10.999k	>15k	-.919*	.244	.001	-1.50	-.34
11k - 14.999k	>15k	-.493*	.175	.014	-.90	-.08
Type of housing						
Renting public flat	Owning flat	-.899*	.231	.001	-1.50	-.30
Owning flat	Others	1.037*	.367	.027	.09	1.99

*The mean difference is significant at the 0.05 level.

Only significant results were shown here, full table available in Appendix F

T-tests Used for Paired Comparisons of the Socio-demographic Variables and Performing Strategies to Improve the Health Status of Chinese Migrant Women

Table 6.20 shows that the Chinese migrant women's years of migration and if they were employed after migration had a significant relationship with performing strategies to improve their health status. The Levene's test had a probability of less than .05. We assumed that the population variances were not equal. Furthermore, the

two-tail significance of these two socio-demographic variables was < .05; thus it was significant. It therefore concluded that Chinese migrant women performing strategies to improve their health status had a significant relationship with their years of migration (F=24.455, P=.000) and if they were employed after migration (F=11.947, P=.001). Chinese migrant women who had migrated for a long time and who were employed after migration performed more strategies to improve their health status.

Chinese migrant women's performing strategies to improve their health status had no significant relationship with their family household and if they could speak Cantonese.

Table 6.20 Independent Samples Test for Socio-demographic Variables and Perform Strategies to Improve Health Status by Chinese Migrant Women (n=200)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference	
					Lower	Upper
Years of Migration						
Equal variances assumed	-2.537	198	.012*	-.415	-.738	-.092
Equal variances not assumed	-2.548	170.602	.012*	-.415	-.737	-.093
				(F=24.455, P=.000)		
Occupation after migration						
Equal variances assumed	-.448	198	.654	-.109	-.586	.369
Equal variances not assumed	-.450	43.788	.655	-.109	-.595	.378
				(F=11.947, P=.001)		

*The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

6.7 Associations between the Socio-demographic Components and Chinese Migrant Women's Perceived Important Health Promotion Activities for Their Health

A one-way ANOVA test was performed to determine if there were significant associations between the socio-demographic variables (independent variables) and Chinese migrant women's perceived important health promotion activities for their health (dependent variables). The results showed that Chinese migrant women's perceived important health promotion activities for their health had a significant relationship ($p < 0.01$) with their family income ($F = 17.616$, $P = .000$) and years of migration ($F = 6.437$, $P = .012$). However, educational attainment ($F = 2.996$, $P = .052$) was borderline (this will be further discussed in the next part) (see Table 6.21).

However, the one-way ANOVA test revealed that there was no significant relationship between their age, marital status, number of children, if they speak could Cantonese, their type of housing, family household, and if they were employed after migration ($p > 0.01$) (see Table 6.21).

Table 6.21ANOVA for comparing Socio-demographic variables and Perceived Important Health Promotion Activities by Chinese Migrant Women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Education						2	2.996	.052
primary or below	112	2.0893	1.24881	1.8555	2.3231			
secondary	69	2.1739	1.21215	1.8827	2.4651			
University	19	2.8421	1.30227	2.2144	3.4698			
Family Income						2	17.616	.000*
less than 10.999k	27	1.6296	1.04323	1.2169	2.0423			
11k - 14.999k	71	1.7183	1.22104	1.4293	2.0073			
>15k	102	2.6667	1.14609	2.4416	2.8918			
Years of Migration						1	6.437	.012*
short time migration	99	1.04	.880	.86	1.22			
long time migration	101	1.46	1.375	1.18	1.73			

* The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

Multiple Comparisons Analysis of Chinese Migrant Women's Socio-demographic Components and Perceived Important Health Promotion Activities for Their Health

In Table 6.22, a multiple comparisons analysis of Chinese migrant women's perceived important health promotion activities for their health by Tukey tests illustrated that the means were significantly different between the socio-demographic variables such as educational attainment and family income.

The results showed that Chinese migrant women with a higher educational attainment (university level) perceived health promotion and health prevention activities to be

more important than those with a lower educational attainment (primary or below) (mean difference = .75282, P=.041). The others did not show a significant difference (see Table 6.22).

With regard to family income, Chinese migrant women with a family income of >HK$15,000 perceived health promotion and health prevention activities to be more important than those with a family income of < HK$10,999 (mean difference =1.03704, P=.000) and HK$11,000 - HK$14,999 (mean difference =.94836, P=.000). The others did not show a significant difference (see Table 6.22).

Table 6.22 Multiple Comparisons of Socio-demographic Variables and Perceived Important Health Promotion Activities by Chinese Migrant Women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(VI)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Education						
primary or below	**University**	-.75282*	.30798	.041	-1.4801	-.0255
Family Income						
< 10.999k	**>15k**	-1.03704*	.25117	.000	-1.6302	-.4439
11k - 14.999k	**>15k**	-.94836*	.17937	.000	-1.3720	-.5248

* The mean difference is significant at the 0.05 level.

Only significant results were shown here, full table available in Appendix F

T-tests Used for Paired Comparisons of the Socio-demographic Variables and Perceived Important Health Promotion Activities for the Health of Chinese Migrant Women

T-tests for paired comparisons of the socio-demographic variables and perceived important health promotion activities for the Chinese migrant women's health were conducted. However, Chinese migrant women's perceived important health promotion activities for their health had no significant relationship with their family household, if they could speak Cantonese, years of migration, and if they were employed after migration or not (see Table F.6.5 in Appendix F).

6.8 Associations between the Socio-demographic Components and Obstacles to Improving the Health Status of Chinese Migrant Women

A one-way ANOVA test was performed to determine if there were significant associations between the socio-demographic variables (independent variables) and obstacles to improving the health status of Chinese migrant women (dependent variables). The results illustrated that the obstacles to improving the health status of Chinese migrant women had a significant relationship ($p < 0.01$) with their marital status ($F = 4.830$, $P = .009$), if they could speak Cantonese ($F = 3.158$, $P = .077$), and if they were employed after migration ($F = 3.958$, $P = .048$). The last two independent variables were borderline significant.

However, the one-way ANOVA test revealed that there was no significant relationship between the Chinese migrant women' age, educational attainment, number of children, family income, type of housing they live in, and their family household ($p > 0.01$) (see Table 6.23).

Table 6.23 ANOVA for Comparing Socio-demographic Variables and Obstacles of Inhabit Health Promotion Activities by Chinese Migrant Women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Marital Status						2	4.830	.009
single	12	1.9167	.66856	1.4919	2.3414			
married	181	2.0608	.67631	1.9616	2.1600			
others	7	2.8571	1.06904	1.8684	3.8458			
Cantonese speaking						1	3.158	.077
No	74	2.16	.759	-.07270	.33353			
Yes	126	2.03	.669	-.08008	.34091			
Occupation after migration						1	3.958	.048
No	168	2.07	.688	-.32204	.21490			
Yes	32	2.12	.793	-.35650	.24935			

* The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

Multiple Comparisons Analysis of Chinese Migrant Women's Socio-demographic Components and Obstacles to Improving Health Status

In Table 6.24, a multiple comparisons analysis of Chinese migrant women's obstacles to improving their health status by Tukey tests showed that only the mean of the socio-demographic variables such as marital status was significantly different.

The results showed that Chinese migrant women who had a marital status of "others" (divorced or widowed) had more obstacles to improving their health status than the married (mean difference = .94048, P=.013) and single women (mean difference

= .79637, P=.009). The others did not show a significant difference (see Table 6.24).

Table 6.24 Multiple Comparisons of Socio-demographic Variables and Obstacles of Inhabit Health Promotion Activities by Chinese Migrant Women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(VII)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
	Marital Status					
Single	**Others**	-.94048*	.32871	.013	-1.7167	-.1642
Married	**Others**	-.79637*	.26623	.009	-1.4251	-.1676

* The mean difference is significant at the 0.05 level.

Only significant results were shown here, full table available in Appendix F

T-tests Used for Paired Comparisons of Socio-demographic Variables and Obstacles to Improving the Health Status of Chinese Migrant Women

T-tests for the paired comparisons of the socio-demographic variables and obstacles to improving health status were conducted. Table 6.25 showed that if Chinese migrant women were employed after migration had a significant relationship with encountering obstacles to improving their health status. The Levene's test had a probability of less than .05. The Chinese migrant women being employed after migration had significantly less obstacles to improving their health status (F=3.958, P=.048) (see Table 6.25).

However, Chinese migrant women's obstacles to improving their health status had no significant relationship with their family household, if they could speak Cantonese, and years of migration. The Levene's test had a probability of more than .05 (see Table 6.25).

Table 6.25 Independent Samples Test for Socio-demographic Variables and Obstacles of Inhabit Health Promotion Activities by Chinese Migrant Women (n=200)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference	
					Lower	Upper
Occupation after migration						
Equal variances assumed	-.394	198	.694	-.054	-.322	.215
Equal variances not assumed	-.357	40.381	.723	-.054	-.356	.249
			(F=3.958, P=.048)			

*The P-value is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix F

6.9 Associations between the Socio-demographic Components and Chinese Migrant Women's Plan to Perform Health Promotion and Health Prevention Activities in the Coming Year

A one-way ANOVA test was performed to determine if there were significant associations between the socio-demographic variables (independent variables) and Chinese migrant women's plan to perform health promotion and health prevention activities in the coming year (dependent variables).

The results showed that the Chinese migrant women's plan to perform health promotion and health prevention activities in the coming year had a significant relationship ($p < 0.01$) with their age ($F = 4.062$, $P = .019$), family income ($F = 5.195$, $P = .006$), and type of housing ($F = 3.976$, $P = .009$) (see Table 6.26).

However, the one-way ANOVA test revealed that the Chinese migrant women's plan to perform health promotion and health prevention activities in the coming year had

no significant relationship with their educational attainment, marital status, number of children, if they could speak Cantonese, their family household, their years of migration, and if they were employed after migration (p >0.01) (see Table 6.26 in Appendix F for full details).

Table 6.26 ANOVA for Comparing Socio-demographic Variables and Chinese Migrant Women Pending to Perform Health Promotion and Health Prevention Activities in the Coming Year (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	4.062	.019*
20-30	56	2.6607	1.01403	2.3892	2.9323			
31-40	85	2.5529	1.10740	2.3141	2.7918			
41-50	59	3.0508	1.00728	2.7883	3.3133			
Family Income						2	5.195	.006*
less than 10.999k	27	2.9259	1.23805	2.4362	3.4157			
11k - 14.999k	71	2.4085	1.16591	2.1325	2.6844			
>15k	102	2.9020	.89564	2.7260	3.0779			
Type of housing						3	3.976	.009*
renting public flat	135	2.5778	1.06130	2.3971	2.7584			
renting private room or flat	22	3.2727	.82703	2.9060	3.6394			
owning flat	29	3.0690	1.06674	2.6632	3.4747			
others	14	2.6429	1.15073	1.9784	3.3073			

* The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix F

Multiple Comparisons Analysis of Chinese Migrant Women's Socio-demographic Components and Plan to Perform Health Promotion and Health Prevention Activities in the Coming Year

In Table 6.27, a multiple comparisons analysis of Chinese migrant women's plan to perform health promotion and health prevention activities in the coming year by Tukey tests illustrated that the means were significantly different between their socio-demographic variables such as age, family income, and type of housing.

The results showed that the older Chinese migrant women significantly planned more to perform health promotion and health prevention activities in the coming year than the younger women. For example, more Chinese migrant women aged "41 to 50" planned to perform health promotion and health prevention activities in the coming year than those aged "20 to 30" (mean difference = -.49791, P=.016).

With regard to family income, Chinese migrant women with a family income of >HK$15,000 significantly planned more to perform health promotion and health prevention activities in the coming year than those with a family income of HK$11,000 to HK$14,999 (mean difference =.49351, P=.007).

In the type of housing, Chinese migrant women who "rented private rooms or flats" significantly planned more to perform health promotion and health prevention activities in the coming year than those who rented public flats (mean difference = -.69495, P=.022). The others did not show a significant difference (see Table F.6.27 in Appendix F for full details).

Table 6.27 Multiple Comparisons of Socio-demographic variables and Plan to Perform Health Promotion and Health Prevention Activities in the coming year by Chinese Migrant Women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(VIII)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Age						
31-40	**41-50**	-.49791*	.17842	.016	-.9193	-.0765
Family Income						
11k - 14.999k	**>15k**	-.49351*	.16185	.007	-.8757	-.1113
Type of housing						
Renting public flat	**Renting private room or flat**	-.69495*	.24045	.022	-1.3180	-.0719

* The mean difference is significant at the 0.05 level.

Only significant results were shown here, full table available in Appendix F

T-tests Used for Paired Comparisons of Socio-demographic Variables and Chinese Migrant Women's Plan to Perform Health Promotion and Health Prevention Activities in the Coming Year

T-tests for paired comparisons of socio-demographic variables and Chinese migrant women's plan to perform health promotion and health prevention activities in the coming year were conducted. However, Chinese migrant women's plan to perform health promotion and health prevention activities in the coming year had no significant relationship with their family household, if they could speak Cantonese, their years of migration, and if they were employed after migration. The Levene's test had a probability of more than .05 (see Table F.6.28 in Appendix F).

Chapter Seven: The Health of Mainland Chinese Women

This chapter presents the data from the 200 questionnaires completed by Mainland Chinese women. The results are presented in four sections addressing their background profile, their physical and mental health, their utilization of health services, and their understanding of and attitude towards health promotion and health prevention as well as their health promotion and prevention behaviours.

7.1 Background of Participants in Mainland China

This section describes the general characteristics of the Mainland Chinese women who participated in this study. Divided into three parts, it examines their socio-demographic characteristics in terms of participants' age and marital status, their social status in terms of participants' family income, number of children, type of accommodation and type of family household; and, finally, their educational background and employment status.

7.1.1 Socio-demographic Characteristics

Participants were asked to classify their age according to one of the following three categories: 20 to 30 years old, 31 to 40 years old, or 41 to 50 years old. Results indicated that the majority of participants belonged within the mid range of 31 to 40 years of age (n = 112, 56.0%). Over a quarter of the women were aged between 41 and 50 years old, while 14.5% of the participants were aged between 20 and 30 (see Table 7.1).

Table 7.1 Age and Marital Status of Mainland Chinese women (n=200)

	Mainland Chinese women	
Age	Number of women	Percentage
20-30	29	14.5
31-40	112	56.0
41-50	59	29.5
Marital Status		
Single	96	48.0
Married	98	49.0
Other	6	3.0

In terms of the marital status, an almost equal number of participants were married as were single (49% and 48% respectively), only a small 3.0% being either divorced or widowed (see Table 7.1).

Surprisingly, among the 96 single Mainland Chinese women, the majority (26.5% of all participants) was aged 31 to 40; a far smaller number (14.5%) were aged 20 to 30, and only 7% belonged in the age group of 41 to 50 years. While 104 married participants (27% of total participants) were aged 31 to 40 and a similarly large number were aged 41 to 50, none of the married participants belonged in the 20 to 30 age group (see Table G.7.1 in Appendix G). This suggests that the Mainland Chinese women tend to get married at an older age.

7.1.2 Social Status

According to participants' responses, the total family income for 60% of Mainland Chinese women was below RMB 1,500 Yuan, of which the annual income for 37.5%

was between RMB 1,001 to 1,500 Yuan and 23% had an income of between RMB 500 and 1,000 Yuan (see Table 7.2).

Among the 200 Mainland Chinese women, the majority (55%) had no children at all, 44.5% had one child, and only one woman had two children. As seen in Table 7.2, a slightly larger proportion of participants lived with their extended family rather than within a nuclear family household.

In terms of accommodation, most of the Mainland Chinese women (66.5%) live in accommodation provided by employers. While a further 37% live in 'other' types of housing, probably rental properties or public housing, only 15.0% live in their own privately owned flat.

Table 7.2 Income, Family Status and Accommodation of Mainland Chinese Women (n=200)

	Mainland Chinese Women	
Total family income p.a. in Yuan	Number of women	Percentage
RMB 500- 1,000Yuan	46	23.0
RMB 1,001- 1,500 Yuan	75	37.5
>RMB 1,500 Yuan	79	39.5
Number of children		
no child	110	55.0
1 child	89	44.5
2 children and above	1	0.5
Family Household		
Nuclear family*	91	45.5
Extended family*	109	54.5
Type of Housing		
Owning private flat	30	15.0
Accommodation provided by employer	133	66.5
Other	37	18.5

*Nuclear families consist of a father, mother and their children

*Extended family includes family members such as grandparents, aunts and uncles, cousins, etc.

7.1.3 Education and Employment Status

With regard to the China women's educational background, a large proportion (35.5%) had only received education at a primary or lower level (see Table 7.3 below). However, it must be said that only women above the age of 31 belonged to this category; all of the women under the age of 31 had attended secondary school at least while one had studied at university. Clearly, education is on the increase and young women in Mainland China now generally enjoy a higher education (see G.7.1 in Appendix G).

At the time of survey 93.5% of participants were employed. Among the 6.5% of unemployed Mainland Chinese women, 5.5% had a primary or lower level of education (see Table G.7.2 in Appendix G).

Table 7.3 Education and Employment Status of Mainland Chinese Women (n=200)

	Mainland Chinese Women	
	Number of	Percentage
Education	women	
Primary or below	71	35.5
Secondary	128	64.0
University	1	.5
Employment status		
No	13	6.5
Yes	187	93.5

7.2 Physical and Mental Health of Mainland Chinese Women

7.2.1 Physical Health

With regard to the health status of Mainland Chinese women, half of them (51.5%) rated their health as 'good', nearly half of them (48.0%) rated their health as 'fair', and only one participant rated her health as 'poor' (see Table 7.4). Despite these positive ratings, 18% suffered from hypertension, 2% had diabetes, 9.5% were aware of having heart disease, and 20.5% had some 'other' unspecified disease or illness at the time of survey. Among the 200 participants, 15% suffered from one disease, 10% suffered from two diseases, while 5% suffered from three diseases (see Table G.7.5 in Appendix G).

Table 7.4 General Health Status of Mainland Chinese Women (n=200)

	Mainland Chinese Women	
	Number of women	%
Self perceived general health		
Good	103	51.5
Fair	96	48.0
Poor	1	0.5
Physical health		
Hypertension	36	18.0
Diabetes	4	2.0
Heart disease	19	9.5
Other	41	20.5

Socio-demographics Indicators of Physical Health

A one-way ANOVA test was performed to determine any associations between participants' socio-demographic variables (independent variables) and their physical health (dependent variables). As shown in Table 7.5 below, the results indicate a significant association ($p < 0.01$) between the physical health of Mainland Chinese women and their age ($F = 7.392$, $P = .001$), their education ($F = 6.151$, $P = .003$), the

number of children they have (F = 9.494, P = .002), their marital status (F = 9.357, P = .000), and the number of people living in the family household (F = 5.331, P = .006).

However, there seems to be no significant association between the physical health of Mainland Chinese women and their family income or the type of housing they live in (p >0.01).

Table 7.5 ANOVA for Association of Socio-demographic Variables with Physical Health of Mainland Chinese women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	7.392	.001*
20-30	29	3.2759	.59140	3.0509	3.5008			
31-40	112	3.4732	.73472	3.3356	3.6108			
41-50	59	3.8475	.80545	3.6376	4.0574			
Education						2	6.151	.003*
Primary or below	71	3.8028	.78594	3.6168	3.9888			
Secondary	126	3.4206	.71948	3.2938	3.5475			
University	3	3.3333	.57735	1.8991	4.7676			
Marital Status						2	9.357	.000*
Single	96	3.3229	.58929	3.2035	3.4423			
Married	98	3.7755	.84378	3.6063	3.9447			
Others	6	3.6667	.81650	2.8098	4.5235			
No of Children						1	9.494	.002*
None	110	3.3636	.60164	110	3.3636			
One child or more	90	3.7889	.86757	90	3.7889			
Family Household						2	5.331	.006*
Nuclear family	91	1.58	1.096	1.35	1.81			
Extended family	25	1.12	1.236	.61	1.63			
Other	84	1.14	1.043	.92	1.37			

* The P-value is significant at the 0 .01 level.

In Table G.7.4 multiple comparison analysis of the physical health of Mainland Chinese women using Tukey tests demonstrated significant mean differences among the socio-demographic variables such as age, education, and marital status.

Age and Physical Health

Younger Mainland Chinese women showed better physical health than their older counterparts. For instance, participants aged 20 to 30 showed better physical health than those aged 41 to 50 (mean difference = .57160*, P=.002) while those aged 31 to 40 showed better physical health than those aged 41 to 50 (mean difference = .37424, P=.005). Nevertheless, women in the 20 to 30 age group did not show better physical health than those in the age group immediately above them, i.e. those aged 31 to 40.

Education and Physical Health

With regard to associations between education and health, Mainland Chinese women with a higher educational level showed better physical health. Those who had attended secondary school showed significantly better physical health compared with those with only a primary or lower level of education (mean difference = .38218, P=.002) (see Table 7.6).

Marital Status and Physical Health

Surprisingly, the results in regard to marital status indicate that single Mainland Chinese women enjoy better physical health than their married peers (mean difference = .45259, P=.000) (see Table 7.6).

Table 7.6 Comparison of Socio-demographic Variables and Physical Health of Mainland Chinese women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
					Lower	*Upper*
(I)	*(J)*	*(I-J)*			*Bound*	*Bound*
Age						
20-30	41-50	-.57160*	.16740	.002	-.9669	-.1763
31-40	41-50	-.37424*	.11874	.005	-.6547	-.0938
Education						
Primary or below	Secondary	.38218*	.11019	.002	.1220	.6424
Marital Status						
Single	Married	-.45259*	.10503	.000	-.7006	-.2046
Family Household						
Nuclear family	other	.36722*	.11279	.004	.1009	.6336

I = the reference category; J = comparative category

*The mean difference is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix G

Living Conditions and Income and Physical Health

Mainland Chinese women living in an other-than-nuclear family household, mostly where accommodation was provided by the employer, showed better physical health than those in nuclear family living arrangements (mean difference = .36722, P=.004) (see Table G.7.6 in Appendix G).

Again, as with the ANOVA test, no significant differences were found in participant's physical health in relation to socio-demographic variables such as family income, and type of housing (see Table G.7.6 in Appendix G).

Children and Physical Health

Table 7.7 shows that for Mainland Chinese women having had children was a significant indicator of poorer physical health. Since the Levene's test had a

probability of less than .05, the population variances were assumed not to be equal Furthermore, the two-tail significance of these two socio-demographic variables was < .05; thus, it was significant. It can therefore be concluded that for Mainland Chinese women there is a significant relationship between physical health and having children. Participants who had children were in poorer physical health compared to their peers without children.

Education and Physical Health

There appeared to be no significant relationship between their physical health and being employed.

Table 7.7 Independent Sample Test for Number of Children and Physical Health of Mainland Chinese women (n=200)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference Lower	Upper
No of Children						
Equal variances assumed	-4.081	198	.000	-.42525	-.63076	-.21974
Equal variances not assumed	-3.939	153.422	.000	-.42525	-.63852	-.21199
			(F=9.494, P=.002*)			

*The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix G

7.2.2 Mental Health

In the questionnaire, a total of seven questions were included to assess the mental health status of Mainland Chinese women. The results showed that the overwhelming majority of women (78%) felt a 'bit stressed', a large percentage (39%) felt 'constantly under strain', 20.5% 'lost sleep over worry' and 7.5 % 'got edgy and bad-tempered'. A large proportion of respondents (72%) felt they were

'doing things less well than before' (see Table G.7.7.A in the Appendix G).

For the purpose of the analysis, responses to seven questions were added to yield a stress scale. With seven mental health questions, each having four possible responses, a maximum stress score of 28 could be achieved while the minimum score for no stress at all would be 0. According to this scheme, most of the women (90.5%) had a stress score between 8 and 15, the mean score being 10 (19.5%). The highest stress rating recorded for participants in this study was 19, scored by only one of the women (0.5%) (see Table G.7.7.B in the Appendix G).

Socio-demographic Indicators of Stress

A one-way ANOVA test was performed to determine whether there were significant associations between the socio-demographic variables (independent variables) and stress measurements (dependent variables). The results shown in Table 7.8 below and full table G.7.8 in Appendix G, indicate that there was a significant relationship ($p < 0.01$) between participants' self-rated stress levels and their age ($F = 13.066$, $P = .000$), their education ($F = 44.536$, $P = .000$), their marital status ($F = 31.871$, $P = .001$), having children ($F = 18.055$, $P = .000$), the type of housing they lived in ($F = 7.356$, $P = .000$), and with what type of household they lived in ($F = 43.705$, $P = .000$).

Interestingly, there were no significant associations between Mainland Chinese women's family income or being employed and stress ($p > 0.01$).

Table 7.8 ANOVA of Socio-demographic Variables indicative for Stress among Mainland Chinese women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age								
20-30	29	9.24	1.994	8.48	10.00	2	13.066	.000*
31-40	112	11.12	2.393	10.67	11.56			
41-50	59	12.08	2.750	11.37	12.80			
Education								
Primary or below	71	12.99	2.381	12.42	13.55	2	44.536	.000*
Secondary	126	10.02	2.018	9.67	10.38			
University	3	13.67	3.055	6.08	21.26			
Marital Status								
Single	96	9.83	1.721	9.48	10.18	2	31.871	.000*
Married	98	12.22	2.715	11.68	12.77			
Other	6	14.00	1.897	12.01	15.99			
No of Children						1	18.055	.000*
None	110	9.78	1.656	9.47	10.09			
One child or more	90	12.78	2.595	12.23	13.32			
Type of Housing								
Private estate	34	12.24	2.641	11.31	13.16	2	7.356	.001*
Employer-provided accommodation	133	11.16	2.461	10.74	11.58			
Other	33	9.88	2.619	8.95	10.81			
Family Household								
Nuclear family	91	12.66	2.405	12.16	13.16	2	43.715	.000*
Extended family	25	10.68	2.854	9.50	11.86			
Other	84	9.61	1.606	9.26	9.96			

The P-value is significant at the 0 .01 level.
Only significant results were shown here, full table available in Appendix G

As shown in Table 7.9, multiple comparison analysis of the stress scores of Mainland Chinese women using Tukey tests demonstrated significant variation between the socio-demographic variables such as age, education attainment, marital status, type of housing, and family household.

Age and Stress

Mainland Chinese women aged 20 to 30 showed less stress than those aged 31 to 40 (mean difference = 1.875, P=.001) and those aged 41 to 50 (mean difference = 2.843, P=.000); participants aged 31 to 40 also exhibited less stress than those aged 41 to 50 (mean difference = .969, P=.040). The results indicate that the older the person, the more stress they experience (see Table 7.9).

Education and Stress

With regard to education, women with a higher level of education appeared less stress. Mainland Chinese women who had gone to university showed significantly less stress compared to those with only a secondary school education (mean difference = 3.643, P=.012); similarly the latter scored significantly lower on the stress measurement than those with only a primary or lower level of education (mean difference = 2.962, P=.000). The results indicated that the lower their educational background, the more stress they experience (see Table 7.9).

Marital Status and Stress

Both married women and divorced or widowed participants showed significantly higher stress levels than those who had remained single (with mean differences of 2.391, P =.000 and 4.167, P =.000 respectively) (see Table 7.9).

Living Conditions and Income and Stress

As far as type of housing is concerned, analysis suggests that Mainland Chinese women who live in privately owned accommodation or accommodation provided by their employer suffer less stress than those who live in 'other' types of housing such as temporary houses or shelters (mean differences = 2.357, P=.001 and 1.279, P=.026,

respectively). There was no significant relationship between stress and living on a private estate or in accommodation provided by an employer.

Multiple comparison analysis showed that Mainland Chinese women living with their extend families experienced higher levels of stress than those living in a nuclear family (mean difference = 1.979, P=.000) and those in 'other' types of family household (mean difference = 3.052, P=.000) (see Table 7.9).

There was no significant relationship between Mainland Chinese women's stress levels and their family income.

Table 7.9 Comparison of Socio-demographic Variables and Stress for Mainland Chinese women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
					Lower Bound	*Upper Bound*
(I)	*(J)*	*(I-J)*				
Age						
20-30	**31-40**	-1.875*	.511	.001	-3.08	-.67
20-30	**41-50**	-2.843*	.556	.000	-4.16	-1.53
31-40	**41-50**	-.969*	.395	.040	-1.90	-.04
Education						
Primary or below	**Secondary**	2.962*	.321	.000	2.20	3.72
Secondary	**University**	-3.643*	1.266	.012	-6.63	-.65
Marital Status						
Single	**Married**	-2.391*	.326	.000	-3.16	-1.62
Single	**Other**	-4.167*	.955	.000	-6.42	-1.91
Type of housing						
Private estate	**Other**	2.357*	.615	.001	.90	3.81
Employer-provided accommodation	**Other**	1.279*	.490	.026	.12	2.44
Family Household						
Nuclear family	**Extend family**	1.979*	.491	.000	.82	3.14
Nuclear family	**Other**	3.052*	.329	.000	2.28	3.83

I = the reference category *The mean difference is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix G

Children and Stress

Table 7.10 shows having a child to be a significant indicator for stress among Mainland Chinese women. Since the Levene's test had a probability of less than .05, the population variances were assumed not to be equal. Furthermore, the two-tail significance of these two socio-demographic variables being < .05, it can be concluded that among Mainland Chinese women there is a significant relationship between self-perceived stress and having a child. Participants who did not have children had lower stress scores than those with children.

Employment and Stress

For Mainland Chinese women there appeared to be no significant relationship between being employed and suffering heightened stress.

Table 7.10 Independent Sample Test for Socio-demographic Variables and Stress in Mainland Chinese women (n=200)

	T-test for Equality of Means					
	t	**df**	**Sig.(2tailed)**	**Mean Difference**	**95% CI of the Difference**	
					Lower	**Upper**
No. of Children						
Equal variances assumed	-9.896	198	.000	-2.996	-3.593	-2.399
Equal variances not assumed	-9.485	144.999	.000	-2.996	-3.620	-2.372
	(F=18.055, P=.000)*					

*The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix G

7.3 Mainland Chinese Women's Use of Health Care Services in Mainland China

A six-item questionnaire was used to measure the different types of health services used by Mainland Chinese women. The results of the study show that the great

majority of participants had accessed hospital emergency room services (72%). While nearly half (46%) had sought treatment at hospital outpatient clinics, a mere 3% of the women had gone to a community health clinic. Almost all participants had purchased over the counter medication (98.5%).

Table 7.10A Health Service Utilization by Mainland Chinese women (n=200) (Multiple selection possible)

Health Services Utilization	Frequency	%
Hospital emergency room	144	72.0
Hospital outpatient clinic	92	46.0
Community health clinic	6	3.0
Over the counter medication	197	98.5

In order to understand how comprehensively Mainland Chinese women access the available health care services, the responses to all six questions on health services were added to form a health service utilization score out of 6. The higher the score, the more comprehensive the use of health services, a score of zero indicating no use of the available services.

Table 7.10B shows that none of the Mainland Chinese women reported a 0 score, thus each of the participants accessed some form of health care service. Twenty-five % of the women availed themselves of only one type of health service in Mainland China; 33.5% made use of two types of health service; and 38.5% of the Mainland Chinese women surveyed reported utilizing all three types of health service listed.

Table 7.10B Number of Health Services Utilized by Mainland Chinese women (n=200)

Health Services	Number of Users	%
1	50	25.0
2	67	33.5
3	77	38.5
4	6	3.0

7.3.1 Socio-demographic Variables Indicating Utilization of Health Services

A one-way ANOVA test was performed to determine if there were significant associations between the socio-demographic variables (independent variables) and utilization of health services (dependent variables). As shown in Table 7.11 below, the results suggest that a significant relationship between Mainland Chinese women's utilization of health services ($p < 0.01$) and their education ($F = 4.361$, $P = .014$), their family income ($F = 47.050$, $P = .000$), their family household ($F = 7.6121$, $P = .001$), and being employed ($F = 17.229$, $P = .000$).

There were no further variables which indicated significant association with the utilisation of health services but the detailed results for each variable can be viewed in Appendix G.

Table 7.11 ANOVA for Association between Socio-demographic Variables and Health Service Utilization of Mainland Chinese women (n=200)

Socio-demographic Components	N	Mean	Std	95% Confidence Interval for Mean		df	F	P
				Lower Bound	Upper Bound			
Education								
Primary or below	71	2.34	.861	2.13	2.54	2	4.361	.014
Secondary	126	2.14	.827	2.00	2.29			
University	3	1.00	.000	1.00	1.00			
Family Income								
$500-1,000	46	2.91	.590	2.74	3.09	2	47.050	.000
$1,001-1,500	75	2.31	.854	2.11	2.50			
>$1,500	79	1.67	.593	1.54	1.80			
Family Household								
Nuclear family	91	2.42	.831	2.24	2.59	2	7.612	.001
Extended family	25	1.76	.723	1.46	2.06			
Other	84	2.08	.839	1.90	2.27			
Employment								
No	13	2.15	.376	-.525	.437	1	17.229	.000
Yes	187	2.20	.873	-.297	.209			

The P-value is significant at the 0 .01 level.

Full table available in Appendix G

Multiple comparison analysis of Mainland Chinese women's utilization of health services demonstrated that their education, family income, and family household were significant variables.

Education and Utilization of Health Services

As seen from the results in Table 7.12, women with a higher education (university level) made greater use of the available health services than those with a lower education (primary or below), the mean difference being 1.338 (P=.019).

Income and Utilization of Health Services

Regarding the family income, multiple comparison analysis showed that Mainland Chinese women with a family income of between RMB 1,001-1,500 Yuan made greater use of health services than those with an income of between RMB 500 - 1,000 Yuan (mean difference = .606, P=.000); similarly, women with a family income greater than RMB 1,500 Yuan reported more utilization of health services than those with an RMB 500-1,000 Yuan family income (mean difference = 1.242, P=.000), and those with an RMB 1,001-1,500 Yuan family income (mean difference = .636, P=.001). Thus the results indicate that the higher the family income, the more likely Mainland Chinese women are to utilize health services.

Family Household and Utilization of Health Services

Multiple comparison analysis showed that Mainland Chinese women living with their extended families accessed health services more than those living in a nuclear family (mean difference = .658, P=.001) and that women in 'other' family households also scored higher on health service utilization than those in nuclear families (mean difference = .334, P=.021) (see Table 7.12).

This analysis yielded no further significant relationships between Mainland Chinese women's utilization of health services and any other socio-demographic variables such as include the variables. However, independent sample tests did offer some further socio-demographic indicators for health service utilization.

Table 7.12 Multiple Comparison of Socio-demographic Variables and Health Service Utilization for Mainland Chinese women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Education						
Primary or below	**University**	1.338*	.492	.019	.18	2.50
Family Income						
RMB 500-1,000	**RMB 1,001-1,500**	.606*	.131	.000	.30	.92
RMB 500-1,000	**> RMB 1,500**	1.242*	.130	.000	.93	1.55
RMB1,001-1,500	**> RMB 1,500**	.636*	.113	.000	.37	.90
Family Household						
Nuclear family	**Extended family**	.658*	.186	.001	.22	1.10
Nuclear family	**Other**	.334*	.124	.021	.04	.63

I the reference category

*The mean difference is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix G

Employment Status and Utilization of Health Services

Independent sample tests suggest that being employed is a significant indicator of health service utilization for Mainland Chinese women. Since the Levene's test had a probability of less than .05, the population variances were assumed not to be equal. With a two-tail significance of these socio-demographic variables of < .05, it can be concluded that for Mainland Chinese women there is a significant relationship between their utilization of health services being employed.

Children and Utilization of Health Services

Having a child appeared to be of no significance in terms of participants' utilization of health services (see Table G.7.13 in Appendix G).

Table 7.13 Independent Sample Test on Socio-demographic Variables and Health Service Utilization for Mainland Chinese women (n=200)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference Lower	Upper
Occupation						
Equal variances assumed	-.180	198	.857	-.044	-.525	.437
Equal variances not assumed	-.360	22.499	.722	-.044	-.297	.209
	(F=17.229, P=.000)					

*The P-value is significant at the 0 .01 level.

7.4 Health Promotion and Prevention Behaviours

As a preliminary measure to assessing Mainland Chinese women's attitudes towards and behaviour regarding health promotion or preventative activities, participants were asked whether they had performed any strategies to improve their health in the previous year. According to their Responses, more than half of them (61.5%) had undertaken some form of health promotion or preventative behaviour to improve their health status (see Table 7.14).

In order to understand their concept of health promotion and health prevention, participants were then asked to specify what strategies they had used to improve their health. The preventative options included having regular Pap smear check-ups, performing regular breast self-examination, and having had a mammogram within the last two years. The suggested strategies for health promotion activities included exercising, having regular check-ups, losing weight, changing diet or eating habits, quitting smoking or reducing the number of cigarettes smoked, drinking less alcohol, and taking vitamins, among others.

The results show that 33% of Mainland Chinese women did nothing to improve their health status. 46% of Mainland Chinese women used one of the eleven stated health

promotion and preventative strategies to improve their health status; 16% of Mainland Chinese women performed two strategies to do so; and 5% of Mainland Chinese women performed three to four strategies to improve their health status (for details see Table G.7.14 in Appendix G).

Among these 11 health promotion and health prevention activities, more than half of the Mainland Chinese women had taken vitamins as health prevention activities (56%) (see Table 7.14A).

Table 7.14 Mainland Chinese women Undertaking Health Improvement Strategies in Previous Year (n=200)

Performing strategies to improve own health in previous year	Number of Participants	%
No	77	38.5
Yes	123	61.5

Table 7.14A Health Promotion and Preventative Activities by Mainland Chinese women (n=200)

Type of health promotion or preventative activity	Number of Participants	%
Increase exercise, sports or physical activity	31	15.5
Regular body check-ups	3	1.5
Lose weight	6	3.0
Change diet or eating habits;'	8	4.0
Quit smoking or reduce amount smoked	2	1.0
Drink less alcohol	5	2.5
Take vitamins	112	56.0
Others	4	2.0
Pap smear	13	6.5
Perform breast self examination regularly	3	1.5
Test Mammogram within last 2 years	0	0.0

7.4.1 Socio-demographic Indicators of Health Improvement Strategies

A one-way ANOVA test was performed to determine any significant associations between socio-demographic variables (independent variables) and the performance of health improving strategies (dependent variables) by Mainland Chinese women.

Income and Performance of Health Improvement Strategies

The results illustrate that family income was the only factor to have significant bearing on whether Mainland Chinese women performed strategies to improve their health (F = 9.480, p< .000) (see Table 7.15). None of the other socio- demographic variables showed significant associations (see Table G.7.15 in Appendix G for full details).

Table 7.15 ANOVA for Association between Socio-demographic Variables and Performance of Health Improvement Strategies by Mainland Chinese women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Family Income						2	9.480	.000*
$500-1,000	46	.4348	.58318	.2616	.6080			
$1,001-1,500	75	1.0000	.80539	.8147	1.1853			
>$1,500	79	.9620	.77531	.7884	1.1357			

* The P-value is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix G

As shown in Table 7.16, multiple comparison analysis indicates that family income is a significant indicator of whether Mainland Chinese women performed health improvement strategies. According to the results, the higher the family income, the more strategies participants made use of to improve their health status. Thus, for example, Mainland Chinese women with a family income of RMB 1,001-1,500 Yuan

or above RMB 1,500 Yuan performed more strategies to improve their health than those with a family income of RMB 500-1,000 Yuan (mean difference =56522, P=.000 and .52724, P=.001, respectively).

There appeared to be no significant relationship between Mainland Chinese women's age, their education, marital status, and the type of housing and family household they lived in and their performance of health improvement strategies (see Table G.7.16 in Appendix G for full details).

Table 7.16 Comparative Socio-demographic Variables (Incomes) Indicating Performance of Health Improvement Strategies by Mainland Chinese women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Family Income						
RMB 500-1,000	**RMB 1,001-1,500**	-.56522*	.14006	.000	-.8960	-.2345
	>RMB 1,500	-.52724*	.13871	.001	-.8548	-.1997

I = reference category

*The mean difference is significant at the 0 .05 level.

Only significant results were shown here, full table available in Appendix G

The t-tests showed that there was also no significant relationship between being employed or having children and participants' performance of strategies to improve their health (see Table G.7.17 in Appendix G).

7.4.2 Perceived Importance of Health Promotion Activities

Among the 200 Mainland Chinese women, 85% expressed that they could do more to improve their health (see Table 7.17). Further questions such as 'What kinds of health promotions and prevention activities do you plan to do?' were asked. The results,

shown in Table 7.18, indicate that a number of health promotion and preventative activities were considered to be important. In order of prevalence, they are as follows: 84.5% 'learn to manage stress'; 80.0% 'take vitamins'; 45.5% 'other', and 27.5% 'change diet or eating habits'.

Furthermore, only 5% of participants perceived efforts towards improving their health as unimportant. In contrast, a total of 89% of the women felt that doing two to four of the listed activities was relevant to their health (see Table G.7.18 in Appendix G). In order to assess number of activities the participants are perceiving important to improve their health, answers to all questions were added to yield a health promotion and prevention activities scale. Some variables with zero frequency, such as "increase physical exercise and regular body check up", were excluded from the scale.

Table 7.17 Number of Mainland Chinese Women Who Think They Can Do More to Improve Their Health (n=200)

Can do more to improve own health	Number of Participants	%
No	30	15.0
Yes	170	85.0

Table 7.18 Importance of Health Promotion and Preventative Activities as Perceived by Mainland Chinese women (n=200)

Health promotion and preventative activities considered most important	**Number of Participants**	**%**
Change diet or eating habits	55	27.5
Quit or reduce smoking	56	28.0
Drink less alcohol	4	2.0
Learn to manage stress	54	27.0
Take vitamins	46	23.0
Other	8	4.0

Socio-demographic Associations with Perceived Importance of Health Promotion Activities

A one-way ANOVA test was performed to determine whether there were significant associations between the socio-demographic variables (independent variables) and the importance Mainland Chinese women placed on health promotion activities (dependent variables). The results showed that participants perception of the importance of health promotion activities had a significant relationship with their age ($F = 8.053$, $P = .000$), education ($F = 10.941$, $P = .000$), marital status ($F = 8.802$, $P = .000$), family income ($F = 9.537$, $P = .000$), and the type of family household they lived in ($F = 14.961$, $P = .000$) (see Table 7.19 below). However, they showed no significant relationship between their number of children, type of housing, and whether they were employed or not ($p > 0.01$) (see Table G.7.19 in Appendix G for full details).

Table 7.19 Socio-demographic Variables for Perceived Importance of Health Promotion Activities by Mainland Chinese women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	8.053	.000*
20-30	29	1.1724	1.07135	.7649	1.5799			
31-40	112	1.2589	1.08840	1.0551	1.4627			
41-50	59	1.5763	1.14776	1.2772	1.8754			
Education						2	10.941	.000
primary or below	29	1.1724	1.07135	.19894	29			
secondary	112	1.2589	1.08840	.10284	112			
university	59	1.5763	1.14776	.14943	59			
Marital Status						2	8.802	.000
single	96	2.3125	1.19923	2.0695	2.5555			
married	98	2.9898	1.18839	2.7515	3.2281			
other	6	3.3333	1.03280	2.2495	4.4172			
Family Income						2	9.537	.000
RMB 500-1,000	46	3.0652	1.06254	2.7497	3.3808			
RMB 1,001-1,500	75	2.9067	1.10494	2.6524	3.1609			
> RMB 1,500	79	2.2278	1.31996	1.9322	2.5235			
Family Household						2	14.961	.000
nuclear family	91	3.1648	1.06733	2.9426	3.3871			
extended family	25	2.2800	1.42945	1.6900	2.8700			
other	84	2.2619	1.16287	2.0095	2.5143			

* The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix G

Age and Attitude towards Health Promotion Activities

As shown in Table 7.20, multiple comparison analysis illustrated significant differences in the relationship between participants' view of health promotion and their age, education, marital status, family income and family household. According to the results, younger participants saw it as more important to perform health promotion activities than older Mainland Chinese women. Thus those aged 20 to 30

perceived their actions towards health promotion as more important to their overall health than those aged 31 to 40 (mean difference =.1.875, P=.001), or those aged 41 to 50 (mean difference =2.843, P=.000) did. Similarly, those aged 31 to 40 also attributed greater importance to performing health promotion activities than women aged 41 to 50 (mean difference =.969, P=.040).

Education and Attitude towards Health Promotion Activities

With regard to education as a socio-demographic factor influencing attitudes towards health promotion, the results show that the better educated participants (university level), and (secondary level) perceived health promotion and health preventative activities to be more important than those with a lower education (primary or below) (mean difference = 1.83568, P=.024, and .74044, P=.000, respectively). The results indicated that the higher the educational level, the more important active health promotion was perceived to be (the mean difference is larger).

Marital Status and Attitude towards Health Promotion Activities

Results show that among the Mainland Chinese women marital status is an indicator of attitude towards health promotion. The single women clearly perceived health promotion and health preventative activities to be more important than their married peers.

Family Income and Attitude towards Health Promotion Activities

Family income too appeared to influence attitude. Mainland Chinese women with a family income of above RMB 1,500 Yuan perceived health promotion and preventative activities to be more important than those with a family income of RMB 500-1,000 Yuan (mean difference =.83737, P=.001) and those with an income of RMB 1,001-1,500 Yuan (mean difference =.67882, P=.001) (see Table 7.20). There

were no significant differences between the other income groups (see Table G.7.20 in Appendix G for full details).

Family Household and Attitude towards Health Promotion Activities

Mainland Chinese women living with their extended family perceived health promotion and health prevention activities to be significantly more important than those living in a nuclear family (mean difference =.88484, P=.002), while Mainland Chinese women in 'other' family households also perceived health promotion and health prevention activities to be significantly more important than those in nuclear families (mean difference =.90293, P=.000) (see Table 7.20). The other (Mainland Chinese women live in accommodation provided by employer) did not show a significant difference.

Table 7.20 Comparative Socio-demographic Variables of Mainland Chinese Women Indicating Perceived Importance of Health Promotion Activities (n=200)

Socio-demographic variable		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Age						
20-30	31-40	-1.875*	.511	.001	-3.08	-.67
	41-50	-2.843*	.556	.000	-4.16	-1.53
31-40	41-50	-.969*	.395	.040	-1.90	-.04
Education						
primary or below	**secondary**	.74044*	.17485	.000	.3275	1.1534
	university	1.83568*	.69449	.024	.1956	3.4758
Marital Status						
single	**married**	-.67730*	.17088	.000	-1.0808	-.2738
Family Income						
RMB 500-1,000	**> RMB 1,500**	.83737*	.21994	.001	.3180	1.3568
RMB 1,001-1,500	**> RMB 1,500**	.67882*	.19119	.001	.2273	1.1303
Family Household						
nuclear family	**extended family**	.88484*	.26130	.002	.2677	1.5019
nuclear family	**other**	.90293*	.17509	.000	.4894	1.3164

I = reference category * The mean difference is significant at the 0.05 level.

Only significant results were shown here, full table available in Appendix G

Children and Being Employed and Attitude towards Health Promotion Activities

T-tests showed that whether participants had children or were employed at the time of survey did not have any significant relationship with the importance they accorded health promotion activities. The Levene's test had a probability of more than .05 confirming that children and being employed bore no significance for Mainland Chinese women's attitude towards health promotion (see Table G.7.21 in Appendix G).

7.4.3 Obstacles to Performing Health Promotion Activities

Among the Mainland Chinese women, 93.5% expressed encountering obstacles in performing health promotion and preventative activities (see Table 7.21).

Table 7.21 Obstacles to Mainland Chinese women Performing Health Promotion Activities (n=200)

Having obstacles to performing health promotion activities	Number of Participants	%
No	13	6.5
Yes	187	93.5

Participants were asked about eight obstacles thought to be potentially inhibiting them from performing health promotion and preventative activities; these included lack of will power, lack of self-discipline, lack of time, being too tired, it being too difficult or too costly, participants being too stressed, and because of health problems. The results show that most of the Mainland Chinese women (88.0%) felt 'too stressed' to take any active measures towards safeguarding their health, while a further 80% saw having

'health problems' as preventing them from action. Another 75.50% of participants listed 'other' reasons, which might include the lack of available facilities and lack of knowledge about health promotion and health prevention activities, as to why they did not actively pursue better health (see Table 7.22).

Participants' answers to all eight questions on obstacles to performing health promotion activities were added to yield a single obstacle to health promotion score, the scale ranging between 0 and 8 with higher scores indicating greater experience of obstacles.

Among the 200 Mainland Chinese women assessed, only 0.5% indicated experiencing no obstacles toward improving their health status. The majority (56%) indicated two obstacles to actively improving their health; 24% indicated three obstacles; 18% indicated one; and 1.5% experienced four obstacles to pursuing better health (see Table G.7.22 in Appendix G).

Table 7.22 Obstacles Inhibiting Mainland Chinese women from Performing Health Promotion Activities (n=200)

Obstacles	Number of Participants	%
Lack of time	95	47.5
Too tired	4	2.0
Too costly	12	6.0
Too stressed	176	88.0
Due to health problem	160	80.0
Other	151	75.5

Socio-demographic Indicators of Obstacles to Improving Health Status

A one-way ANOVA test was performed to determine any significant associations between socio-demographic variables (independent variables) and obstacles to improving the health status among Mainland Chinese women (dependent variables). The results illustrate that education (F = 9.444, P = .000), family income (F = 8.006, P = .000), and family household (F = 7.010, P = .001) are significant indicators (p <0.01) of the existence of such obstacles (see Table 7.23).

However, the same test revealed no significant relationships between perceived obstacles to pursuing better health and the women' age, marital status, number of children, type of housing they live in, and whether they are employed (p >0.01)(see Table G.7.23 in Appendix G for full details).

Table 7.23 Socio-demographic Variables Indicating Obstacles to Health Promotion Activities by Mainland Chinese women (n=200)

Socio-demographic component	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Education						2	9.444	.000
primary or below	71	3.1690	1.23040	2.8778	3.4602			
secondary	126	2.4286	1.14143	2.2273	2.6298			
university	3	1.3333	1.52753	-2.4612	5.1279			
Family Income						2	8.006	.000
RMB 500-1,000	46	3.5217	.83637	3.2734	3.7701			
RMB 1,001-1,500	75	3.0133	1.21359	2.7341	3.2926			
> RMB 1,500	79	2.6835	1.19340	2.4162	2.9509			
Family Household						2	7.010	.001
nuclear family	91	3.2747	1.02270	3.0617	3.4877			
extended family	25	2.3600	1.31909	1.8155	2.9045			
other	84	2.8929	1.19253	2.6341	3.1517			

* The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix G

As shown in Table 7.24, multiple comparison analysis confirmed that socio-demographic factors such as education, family income, and family household were significant variables in the perception of obstacles inhibiting health promotion activities.

Education and Obstacles to Improving Health Status

According to the results, the lower their education, the more obstacles participants saw to improving their health. Thus, women with a primary or lower educational background experienced more obstacles to improving their health status than those with a secondary level education (mean difference = .71876, P=.000).

Income and Obstacles to Improving Health Status

Family income also featured strongly as an indicator for obstacles inhibiting women from undertaking health improvement measures. Results indicate that Mainland Chinese women with a family income of Yuan 500-1,000 experienced more obstacles to improving their health than those with a family income of RMB 1,001-1,500 Yuan (mean difference =.50841, P=.045), and of those with a family income of above RMB 1,500 Yuan (mean difference =.83819, P=.000) (see Table 7.24).

Family Household and Obstacles to Improving Health Status

Results also showed that Mainland Chinese women living in a nuclear family perceived significantly more obstacles to improving their health status than those living in an extended family (mean difference =.91473, P=.001) (see Table 7.24). There were no other significant differences inhibiting the Mainland China women

with “other” type of family household to perform the Health Promotion Activities (see Table G.7.24 in Appendix G for full details).

Table 7.24 Socio-demographic Inhibitors of Health Promotion Activities among Mainland Chinese women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Education						
primary or below	**secondary**	.71876*	.16657	.000	.3254	1.1121
Family Income						
RMB 500-1,000	**RMB 1,001-1,500**	.50841*	.21162	.045	.0086	1.0082
RMB 500-1,000	**> RMB 1,500**	.83819*	.20958	.000	.3433	1.3331
Family household						
nuclear family	**extended family**	.91473*	.25637	.001	.3093	1.5201

I the reference category * The mean difference is significant at the 0.05 level.

Only significant results were shown here, full table available in Appendix G

Children and Being Employed and Obstacles to Improving Health Status

T-tests showed that there was no significant relationship between having children or being employed and participants encountering obstacles to improving their health status. With a probability of more than .05, the Levene’s test confirmed these findings (see Table G.7.25 in Appendix G).

7.4.4 Intention to Perform Health Improvement Activities in the Coming Year

While only 61.5% of participants already performed health improvement activities, a significantly larger number of women (81%) indicated that they intended to do so in the coming year (see Table 7.25). Furthermore, 73% of the Mainland Chinese women surveyed planned to follow one to four strategies for health promotion in the coming year (see Table G.7.26 in Appendix G).These results suggest that Mainland Chinese women might be becoming more aware of the importance of health promotion and preventative activities for their future health.

Table 7.25 Mainland Chinese women Intending to Perform Health Promotion and Preventative Activities in the Coming Year (n=200)

Intention to perform health promotion and preventative activities in coming year	Number of Participants	%
No	38	19.0
Yes	162	81.0

Regarding the actual health promotion measures they intended to take, 38% of the women indicated they would like to take vitamins, 37.5% aimed to reduce the amount they smoked, 30% wanted to reduce their stress level, and 22 % were interested in improving their eating habits (see Table 7.26).

Table 7.26 Health Promotion Activities Intended by Participants in the Coming Year (n=200)

Health promotion activities intended	Number of Participants	%
Improve eating habits	44	22.0
Quit smoking	11	5.5
Reduce smoking	75	37.5
Learn to manage stress	2	1.0
Reduce stress level	60	30.0
Take vitamins	76	38.0

Socio-demographic Variables Indicative of Intention to Perform Health Promotion Activities

A one-way ANOVA test was performed to determine any significant associations between socio-demographic variables (independent variables) and Mainland Chinese women's intentions to perform health promotion activities in the coming year (dependent variables).

The results showed that education ($F = 7.162$, $P = .001$), marital status ($F = 5.358$, $P = .005$), type of housing ($F = 5.181$, $P= .006$), and family household ($F = 4.116$, $P= .018$) were significantly related ($p <0.01$) to whether the women planned to take active measures in safeguarding their health in the coming year (see Table 7.27). The same test revealed no such significant relationship ($p >0.01$) with their age, number of children, family income, and whether they were employed (see Table G.7.27 in Appendix G for full details).

However, multiple comparison analysis regarding the Mainland Chinese women

planning to perform health promotion activities in the coming year illustrated significant differences between their socio-demographic variables such as age, education attainment, marital status, family income, type of housing, and family household.

Table 7.27 Socio-demographic Variables Indicating Intention to Perform Health Promotion Activities in the Coming Year (n=200)

Socio-demographic component	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Education						2	7.162	.001
primary or below	71	1.70	1.139	1.43	1.97			
secondary	126	1.16	1.046	.97	1.34			
university	3	.33	.577	-1.10	1.77			
Marital Status						2	5.358	.005
single	96	1.11	1.025	.91	1.32			
married	98	1.59	1.156	1.36	1.82			
others	6	.83	.753	.04	1.62			
Type of Housing						2	5.181	.006
private estate	34	1.38	1.045	1.02	1.75			
employer-provided accommodation	133	1.47	1.145	1.27	1.66			
other	33	.79	.857	.48	1.09			
Family Household						2	4.116	.018
nuclear family	91	1.58	1.096	1.35	1.81			
extended family	25	1.12	1.236	.61	1.63			
other	84	1.14	1.043	.92	1.37			

* The P-value is significant at the 0 .01 level.

Only significant results were shown here, full table available in Appendix G

Age and Intention to Perform Health Promotion Activities

As shown in Table 7.28, comparison analysis indicated that the older Mainland Chinese women were significantly more inclined towards performing health promotion activities in the coming year than younger participants. Thus, for example, Mainland Chinese women from both the 31 to 40 and the 41 to 50 age groups planned to do more for their health than those aged 20 to 30 (mean difference = .75647, P=.008, and 1.08591, P=.000, respectively).

Marital Status and Intention to Perform Health Promotion Activities

Being married clearly signaled a significantly stronger inclination by Mainland Chinese women to do more for health promotion and disease prevention in the coming year than being single (mean difference = .47725, P=.007). Being widowed or divorced showed no significant bearing on their health intentions (see Table G.7.28 in Appendix G for full details).

Family Income and Intention to Perform Health Promotion Activities

For Mainland Chinese women belonging to the highest family income bracket were a significant indicator for whether they intended to perform health improvement activities in the future. Participants with a family income of above RMB 1,500 Yuan were significantly more likely to be planning on doing something about their health in the coming year than those with a family income RMB 500-1,000 Yuan (mean difference = .83737, P=.001) or those with a family income RMB 1,000-1,500 Yuan (mean difference = .67882, P=.001). There were no other significant differences.

Housing and Intention to Perform Health Promotion Activities

Regarding the type of housing, Mainland Chinese women in accommodation provided by their employer were significantly more likely to be planning health promotion and prevention activities in the coming year than those in ‘other’ types of

housing (mean difference = -.678, P=.004).

Family Household and Intention to Perform Health Promotion Activities

As seen in Table 7.28, multiple comparison analysis showed that Mainland Chinese women living within a nuclear family were significantly more inclined towards performing health improvement activities in the coming year than those in 'other' types of family household (mean difference =.440, P=.023).

Children and Being Employed and Intention to Perform Health Promotion Activities

Both T-tests and the Levene's test indicated that there was no significant relationship between Mainland Chinese women's intention to perform health promotion activities in the coming year and whether they had children or were employed (see Table G.7.29 in Appendix G for detailed results).

Table 7.28 Significant Variables for Intention to Perform Health Promotion Activities in the Coming Year among Mainland Chinese women (n=200)

Socio-demographic variable		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Age						
20-30	**31-40**	-.75647*	.24880	.008	-1.3440	-.1689
20-30	**41-50**	-1.08591*	.27081	.000	-1.7255	-.4464
Education						
primary or below	**secondary**	.54550*	.15974	.002	.1683	.54550*
Marital Status						
Single	**Married**	-.47725*	.15592	.007	-.8455	-.1090
Family Income						
RMB 500-1,000	**>RMB 1,500**	-.83737*	.21994	.001	.3180	1.3568
RMB 1,001-1,500	**>RMB 1,500**	.-67882*	.19119	.001	.2273	1.1303
Type of Housing						
employer-provided accommodation	**other**	.678*	.211	.004	.18	1.18
Family household						
nuclear family	**other**	.440*	.165	.023	.05	.83

I the reference category

* The mean difference is significant at the 0.05 level.

Only significant results were shown here, full table available in Appendix.

Summary of Section

This chapter has presented the results of the survey conducted into the physical and mental health of Mainland Chinese women, their utilization of health care services, and their attitudes towards and behaviour regarding health promotion and disease prevention.

The results demonstrate that socio-demographic variables such as age, education, marital status, number of children and family household are influential in determining Mainland Chinese women's actual health status, their attitudes towards health promotion and their health related behaviour. As regards mental health, even the type of housing participants live in can be seen to be a significant determinant. With regard to Mainland Chinese women's physical health, being older, having a higher education, being single and living in a family household in accommodation provided by an employer signifies better outcomes than their counterparts.

Mainland Chinese women's utilization of health care services is predicted by socio-demographic variables such as their education, family income, family household, and being employed. Thus Mainland Chinese women with a higher education, those with a higher family income, those living with their extended family, and those who were employed at the time of survey each made greater use of the available health care services than their counterparts.

The overall results on health promotion and preventative behaviours of Mainland Chinese women show that 85% of the participants perceived performing health promotion and preventative activities as important for their health. While more than half (61.5%) of the participants in fact consciously performed such activities, 93.5%

of them indicated encountering obstacles inhibiting them from doing so. Eighty-one percent of the Mainland Chinese women surveyed intended to take active measures toward improving their health in the coming year.

The findings reveal that the only significant socio-demographic variable in determining whether Mainland Chinese women performed health promotion and preventative behaviours was family income. Mainland Chinese women from higher income families performed more strategies to improve their health status than those from lower income family .The results show further that being younger, single, having a higher education and family income, and living with their extended family were significant variables for attaching greater importance to health promotion and preventative activities.

Perhaps unsurprisingly then, results also show that having a lower education, lower family income, and living in a nuclear family provided greater obstacles to participants actively improving their health status.

Finally, the results demonstrate that being older, married, having a higher family income, and living in accommodation provided by an employer greatly enhanced the likelihood of participants' intention to perform more health promotion and preventative activities in the future.

The following chapter will compare the Chinese migrant women and China women's health status, use of health care services, and health promotion behaviours.

Chapter Eight: Chinese Migrant Women and Mainland Chinese Women: Comparative Analysis

This chapter presents a comparison of Chinese migrant women in Hong Kong and Mainland Chinese women according to their socio-economic background; their heath status; their use of health care facilities; and their performance of health promotion activities.

8.1 Comparison of Socio-demographic Characteristics

Age and Marital Status

The result shows that in regard to age, the group of Chinese migrant women were generally younger than Mainland Chinese women. Almost twice as many Chinese migrant women (28%) were under the age of 31 years as Mainland Chinese women (14.5%) although the same proportion of participants in both two groups (29.5%) were between 41 and 50 years old (see Table 8.1).

Most of the Chinese migrant women (90.5%) were married; whereas nearly half the Mainland Chinese women were single (see Table 8.1).

In regard to marital status and age, all the single Chinese migrant women were in the age group of “20 to 30”, whereas the single Mainland Chinese women were fairly evenly distributed among the different age groups: 14.5% being 20-30 years old, 26.5% aged 20-30, and 7% aged 41-50.

Table 8.1 Socio-demographic Characteristics for Chinese Migrant Women and Mainland Chinese Women

Socio-demographic Variables	Chinese Migrant Women		Mainland Chinese Women	
Age	N	%	N	%
20-30	56	28.0	29	14.5
31-40	85	42.5	112	56.0
41-50	59	29.5	59	29.5
Marital Status	N	%	N	%
Single	12	6.0	96	48.0
Married	181	90.5	98	49.0
Other	7	3.5	6	3.0

Table 8.2 Family Conditions for Chinese Migrant Women and Mainland Chinese women

Family Condition Variables	Chinese Migrant Women		Mainland Chinese women	
Total family income (HK dollars)	N	%	N	%
< 10.999k	27	13.5		
11k-14.999k	71	35.5		
>15k	102	51.0		
Total family income (China dollars)				
$500-$1,000			46	23.0
$1,001-$1,500			75	37.5
>$1,500			79	39.5
Number of children				
No children	12	6.0	110	55.0
1 child	48	24.0	89	44.5
2 children	103	51.5	1	0.5
3 and above children	37	18.5		
Family Household				
Nuclear family*	147	73.5	91	45.5
Extended family*	53	26.5	109	54.5
Type of Housing (HK)				
Renting public flat	135	67.5		
Renting private room/flat	22	11.0		
Owning flat	29	14.5		
Other	14	7.0		
Type of Housing (China)				
Owning private flat			30	15.0
Accommodation provided by employer			133	66.5
Other			37	18.5

Table 8.3 Education and Employment Status of Chinese Migrant Women and Mainland Chinese women

Education and Employment Variables	Chinese Migrant Women		Mainland Chinese women	
Education attained	N	%	N	%
Primary or below	112	56	71	35.5
Secondary	69	34.5	128	64.0
University	19	9.5	1	.5
Employment status				
Unemployed	168	84.0	13	6.5
Employed	32	16.0	187	93.5

Family Conditions

In terms of total family income, the measures for these two groups are not only different in terms of currency, they are not in themselves very helpful in assessing participants' living standards either since the latter would depend on the individual family's expenses in terms of number of children/dependents to support and the amount spent on accommodation. Nevertheless, the results indicate that nearly half of the Chinese migrant women in Hong Kong, had a total family income of below HK$15,000 (49%), and 38.5% among them had two or more children to support on this income.

Mainland Chinese women were also in largely in the lower income groups. Only 39.5% of the Mainland Chinese women had a total family income of more than 1,500 China dollars ($ 100 Hong Kong dollars = 88.2 China dollars on 27.08.09); 37.5% had an income of $ 1,001 to 1,500 China dollars, and 23% had an income of between $ 500 and 1,000 China dollars (see Table 8.2). For those with a total family income of above $1,500 China Dollars, 22 % had children, 17% living in a nuclear family, 11% living with their extended family).

In terms of living conditions, most of the Chinese migrant women (67.5%) rented public flats, while 66.5% of Mainland Chinese women lived in accommodation provided by employers (see Table 8.2).

Education and Employment

With regard to level of education, 56% of migrant participants, mostly aged 31 or above, had only reached primary school or below. The 34.5% of Chinese migrant women who had enjoyed a secondary education were mostly in the age group of 20-30 years old. In comparison, only 35.5% of the Mainland Chinese women had not progressed beyond a primary or lower level of education (see Table 8.3). Similarly, this group too were mostly aged 31 or above with none in the age group of 20-30. The younger Mainland Chinese women generally had a higher level of education. 64% of the Mainland Chinese women had reached secondary level, and one had a tertiary education. Among the Chinese migrant women in Hong Kong, 9.5% had reached university level, 6% among them being aged 20 to 30.

With regard to their employment, only 16% of Chinese migrant women in Hong Kong were employed as opposed to the 93.5% of Mainland Chinese women who were employed at the time of survey. Among the 6.5% of unemployed Mainland Chinese women, the majority (5.5%) had a primary or below level of education.

8.2 Comparative Health Status

8.2.1 Bivariate Analysis of General Health

The results demonstrate that the self-perceived general health of Chinese migrant women was much better than that of Mainland Chinese women. Seventy-eight and a half percent of Chinese migrant women rated their general health as good or very

good, whereas only 51.5% of the women in China rated their general health similarly highly.

With regard to their physical health, 21.5% of Chinese migrant women claimed to be suffering from at least one disease, as compared to 30% of Mainland Chinese women who did the same. Among the Mainland Chinese women up to 5% were suffering from three diseases, such as hypertension, diabetes and heart disease (see Table 8.4 and Table 8.5).

Analysis of Variance showed that in regard to physical health variables there were significant relationships between both Chinese migrant women's and Mainland Chinese women's age, education, number of children, and family household. However, while the physical health of Chinese migrant women was not significantly associated with their marital status, but Mainland Chinese women did; and while type of housing was not significantly associated with the physical health for Mainland Chinese women, it was for Chinese migrant women in Hong Kong (see Table 8.6).

With regard to stress, both Chinese migrant women and Mainland Chinese women scored in the stress scale range of 6-19. The average score for Chinese migrant women was 14, represented by 25.5% of women while the average for Mainland Chinese women was 10, represented by 19.5%; these results would suggest that migrant women report more stress than their counterparts (see Table H.8.1 in Appendix H).

The results also showed that for both Chinese migrant women and Mainland Chinese women there was a significant relationship between their perceived stress levels and

their age, education, number of children, and marital status. Thus younger women aged 20 to 30 showed less stress than those aged 31 to 40 and those aged 41 to 50, respectively. With regard to educational status, Chinese migrant women with a higher educational level showed less stress. With regard to marital status, married women showed significantly higher stress than the single women; the "other" group (divorced or widowed) also showed significantly higher stress than the single and married women. The more children Chinese migrant women had the higher the likelihood that they would experience stress; thus, Chinese migrant women with three or more children showed more stress than those with no children. Regarding family income, Chinese migrant women with a higher income showed less stress.

However, Chinese migrant women's stress levels seem to have no significant association with their type of housing, and family household; whereas for Mainland Chinese women these factors were significantly associated. Mainland Chinese women who lived in private housing or accommodation provided by their employer exhibited less stress than those who lived in "other" types of housing (all temporary houses or shelters). While there was no significant relationship between stress and family income or employment status for Mainland Chinese women, for Chinese migrant women family income was significantly associated, those with a higher income clearly showing less stress (see Table 8.6).

Table 8.4 General Health Variables of Chinese Migrant Women and Mainland Chinese Women

General Health Variables	Chinese Migrant Women		Mainland Chinese Women	
Self-perceived general health	N	%	N	%
Very Good/Good	157	78.5	103	51.5
Fair	43	21.5	96	48.0
Poor			1	0.5
Physical health				
Hypertension	18	9.0	36	18.0
Diabetes	2	1.0	4	2.0
Heart disease			19	9.5
Other	29	14.5	41	20.5

Table 8.5 Physical Health Scale of Chinese Migrant Women and Mainland Chinese Women

Physical Health Scale	Chinese Migrant Women		Mainland Chinese women	
	N	%	N	%
No disease	157	78.5	140	70.0
Suffering one disease	37	18.5	30	15.0
Suffering two diseases	6	3.0	20	10.0
Suffering three diseases	0	0.0	10	5.0

Table 8.6 Comparisons Analysis of Health and Socio-demographic Predictors for Chinese Migrant Women and Mainland Chinese women

Group	Health Variable	Significant predictor	F	P
Chinese migrant women	Physical Health	Age	14.858	.000
		Education	7.023	.001
		Number of children	10.580	.000
		Type of housing	5.363	.001
		Family household	6.843	.010
Mainland Chinese Women	Physical Health	Age	7.392	.001
		Education	6.151	.003
		Number of children	9.494	.002
		Type of housing	9.357	.000
		Family household	5.331	.006
Chinese migrant women	Stress scale	Age	9.483	.000
		Education	9.359	.000
		Number of children	18.423	.000
		Marital status	24.070	.000
		Family income	4.983	.008
		Employment status	8.327	.004
Mainland Chinese Women	Stress scale	Age	13.066	.000
		Education	44.536	.000
		Marital status	31.871	.001
		Number of children	18.055	.000
		Type of housing	7.356	.000
		Family household	43.705	.000

8.2.2 Bivariate analyses of Use of Health Care Services by Chinese Migrant Women and Mainland Chinese Women

The results demonstrate that the Chinese migrant women in Hong Kong mainly used two to three health services. The most commonly used health services were community health clinics (89%), and over the counter medication (81%). Nevertheless, 20.5% of Chinese migrant women still used health facilities in China.

For Mainland Chinese women, 33.5% used two health services, and 38.5% used three health services; while they too mainly used over the counter medication (98.5%), they also frequented hospital emergency rooms (72%) (See Table 8.7 and Table 8.8).

A comparison of both groups' use of health care services, showed no shared significant associations with the same socio-demographic variables. Chinese migrant women's use of health care services had a significant association with their type of housing such that those who rented a flat or private room or owned their own flat all exhibited greater utilization of health services than those who lived in temporary houses or shelters.

For Mainland Chinese women significant associations were found to exist between their use of health care services and their education, family income, family household, and being employed. Those with a higher education (university level) utilized more health services than those with a lower education (primary or below). Similarly, the higher the income of participants was, the more likely they were to utilize health services. Mainland Chinese women living with their extended family showed greater utilization of health services than those living in a nuclear family (see Table 8.7).

Table 8.7 Descriptive Statistics of Health Services Utilization by Chinese Migrant Women and Mainland Chinese Women

Health Services Utilization	Chinese Migrant Women		Mainland Chinese Women	
	N	%	N	%
Hospital emergency room	36	18	144	72.0
Hospital outpatient clinic	72	36	92	46.0
Community health clinic	178	89	6	3.0
Private general practitioner	16	8.0	0	0.0
Over the counter medication	162	81	197	98.5
Others	9	4.5	0	0.0
Use of China health facilities	41	20.5	NA	NA

Table 8.8 Number of Health Services Utilized by Chinese Migrant Women and Mainland Chinese Women

Health Services Utilized	Chinese Migrant Women		Mainland Chinese Women	
	N	%	N	%
0	0	0.0	0	0.0
1	14	7.0	50	25.0
2	119	59.5	67	33.5
3	47	23.5	77	38.5
4	19	9.5	6	3.0
5	1	0.5	0	0.0

Table 8.9 Comparisons Analysis of Health Service Utilization by Chinese Migrant Women and Mainland Chinese Women using Socio-demographic Predictor Variables

Criterion	Health Variables	Significant predictor	F	P
Chinese migrant women	Use of health care service	Type of housing	10.955	.000
Mainland Chinese Women	Use of health care services	Educational attainment	4.361	.014
		Family income	47.050	.000
		Family household	7.6121	.001
		Employment status	17.229	.000

8.2.3 Bivariate Analysis of Health Promotion and Prevention Behaviours

In regard to performing strategies to improve their health in the previous year, the results showed that more than three-quarters of the Chinese migrant women (78 %) did not perform any strategy to improve their health status, whereas only 38.5% of the Mainland Chinese women were as inactive (see Table 8.10).

The results from the Chinese migrant women in Hong Kong demonstrated that nearly half, 57% of the Chinese migrant women performed one strategy to improve their health status and 21.5% performed two to five strategies to do so. Among the 11 health promotion and health prevention activities, most of the Chinese migrant women (75.5%) had had a Pap smear done. (These results appear to contradict Chinese migrant women's response by which 78% did not perform health promotion activities in previous year. In fact, they did not see Pap smears as a health promotion activity. Pap smears is set compulsory in the antenatal and postnatal assessment by The Hong Kong Government) For the Mainland Chinese women group, the results showed that while 33% Mainland Chinese women did not perform any strategy to improve their health status; 46% performed one strategy, 16% performed two strategies, and 5% of Mainland Chinese women performed three to four strategies to improve their health status. Among the 11 health promotion and health prevention activities, more than half of the Mainland Chinese women 56% had taken vitamins as a health prevention activity (see Table 8.10).

Table 8.10 Health Promotion and Prevention Behaviours for Chinese Migrant Women and Mainland Chinese Women

	Chinese Migrant Women		Mainland Chinese Women	
Performing strategies to improve own health in previous year	N	%	N	%
No	156	78.0	77	38.5
Yes	44	22.0	123	61.5
Performed health promotion and prevention activities				
Increase exercise, sports or physical activity	31	15.5	0	0.0
Regular check ups	7	3.5	0	0.0
Lose weight	18	9.0	0	0.0
Change diet or eating habits	31	15.5	55	27.5
Quit smoking or reduce amount smoked	0	0.0	56	28.0
Drink less alcohol	0	0.0	4	2.0
Take vitamins	4	2.0	46	23.0
Others	0	0.0	8	4.0
Pap smear	151	75.5	13	6.5
Perform breast self-examination regularly	0	0.0	3	1.5
Mammogram within last 2 year	8	4.0	0	0
Number of strategies performed to improve health status				
None	42	21.0	66	33.0
1 strategy	114	57.0	92	46.0
2 strategies	15	7.5	32	16.0
3 strategies	16	8.0	9	4.5
4 strategies	9	4.5	1	0.5
5 strategies	3	1.5	0	0
7 strategies	1	0.5	0	0

8.2.4 Bivariate analysis of perceived importance of health promotion and prevention activities

In regarding to the perceive importance of health promotion and prevention activities, the results showed that 95% of the Chinese migrant women in Hong Kong felt they could do more to improve their health. The activities they considered to be important were to “increase exercise, sports, or physical activity” (79.5%); to “change diet or eating habits” (78%); to have “Regular check ups” (61%); and a total of 89% of the Chinese migrant women considered doing two to four such activities.

For Mainland Chinese women, 85% expressed that they could do more to improve their health. The particular health promotion and prevention activities considered to be important among this group were, to “learn to manage stress” (84.5%); to “take vitamins” (80%); and to “change diet or eating habits” (27.5%). A total of 84% of these women considered doing two to five health promotion and prevention activities (see Table 8.11).

Table 8.11 Perceived Importance of Health Promotion and Prevention Behaviours for Chinese Migrant Women and Mainland Chinese Women

	Chinese Migrant Women		Mainland Chinese Women	
Can do more to improve own health	N	%	N	%
No	10	5.0	30	15.0
Yes	190	95.0	170	85.0
Health Promotion and Health Prevention Activities Perceived as Important				
Increase exercise, sports or physical activity	159	79.5	0	0
Regular check ups	122	61.0	0	0
Change diet or eating habits	156	78.0	55	27.5
Quit smoking or reduce amount smoked	1	0.5	56	28.0
Drink less alcohol	0	0.0	4	2.0
Learn to manage stress	54	27.0	54	27.0
Take vitamins	46	23.0	46	23.0
Others	8	4.0	8	4.0
Number of Health Promotion Activities Perceived as Important				
None	10	5.0	11	5.5
1 activity	7	3.5	21	10.5
2 activities	62	31.0	53	26.5
3 activities	74	37.0	65	32.5
4 activities	42	21.0	37	18.5
5 activities	5	2.5	13	6.5

8.2.5 Bivariate analysis of obstacles inhibiting women from performing health promotion activities

According to the results, 99.5% Chinese migrant women expressed that they encountered obstacles to performing health promotion and health prevention activities. Specifically, most of the Chinese migrant women felt they could not perform such activities due to "lack of time" (88.0%); it being "too costly" (60.0%), and "lack of will power / self-discipline" (42.0%). While 56% of the migrant participants indicated two obstacles to improving their health status, 24% perceived three obstacles; and 18% only one (see Table 8.12).

Among Mainland Chinese women, 93.5% expressed that they encountered obstacles to performing health promotion and health prevention activities. Most of them felt they could not perform health promotion and health prevention activities due to being "too stressed" (88%); "having health problem" (80%), and for "other" reasons (75.50%) such as there being no facilities available or their lacking relevant knowledge of appropriate activities. Overall, only 6.5% perceived no obstacles to improving their health status; 40% indicated the presence of three obstacles and 37.5% indicated that four obstacles were inhibiting their pursuit of health improvement activities (see Table 8.12).

Table 8.12 Obstacles to Performance of Health Promotion Activities for Chinese Migrant Women and Mainland Chinese Women

	Chinese Migrant Women		Mainland Chinese Women	
Perceiving obstacles to performing health promotion activities	N	%	N	%
No	1	.5	13	6.5
Yes	199	99.5	187	93.5
Obstacles inhabiting performance of health promotion activities				
Lack of will power/self-discipline	84	42.0	0	0.0
Lack of time	176	88.0	95	47.5
Too tired	27	13.5	4	2.0
Too difficult	2	1.0	0	0.0
Too costly	120	60.0	12	6.0
Too stressed	5	2.5	176	88.0
Due to health problem	1	.5	160	80.0
Other	1	.5	151	75.5
Number of obstacles to improving health status				
None	1	.5	13	6.5
1 obstacle	36	18.0	13	6.5
2 obstacles	112	56.0	16	8.0
3 obstacles	48	24.0	80	40.0
4 obstacles	3	1.5	75	37.5
5 obstacles	0	0.0	3	1.5

8.2.6 Bivariate analysis of intention to perform health promotion and health prevention activities in the coming year

Eighty- four percent of the Chinese migrant women indicated that they planned to perform health promotion and prevention activities in the coming year. Regarding the activities they intended to pursue, 71 % of the Chinese migrant women wanted to "start/increase exercise", 71.5 % to "improve their eating habits", and 46.5 % wanted to "lose weight". Furthermore, 83 % of the Chinese migrant women planned to perform one to four strategies to improve their health status in the coming year.

A similar 81% of the Mainland Chinese women indicated that they intended to perform health promotion and prevention activities in the coming year. Regarding the activities they preferred, 38% said they would like to "take vitamins", 37.5% wanted to "reduce amount smoked", 30% wanted to "reduce stress level", and 22 % wanted to "improve eating habits". 73% of this group planned to perform one to four strategies to improve their health in the coming year (see Table 8.13).

Table 8.13 Intended Health Promotion and Prevention Activities in the Coming Year for Chinese Migrant Women and Mainland Chinese Women

	Chinese Migrant Women		Mainland ChineseWomen	
Plan to perform health promotion and prevention activities in the coming year	N	%	N	%
No	32	16.0	38	19.0
Yes	168	84.0	162	81.0
Activities intended to be performed in the coming year				
Start/ Increase exercise	142	71.0	0	0.0
Lose weight	93	46.5	0	0.0
Improve eating habits	143	71.5	44	22.0
Quit smoking	0	0.0	11	5.5
Reduce amount smoked	1	.5	75	37.5
Learn to manage stress	25	12.5	2	1.0
Reduce stress	1	0.5	60	30.0
Take vitamins	29	14.5	76	38.0
Other	4	2.0	0	0.0
Number of intended health promotion activities to perform in the coming year				
None	32	16.0	54	27.0
1 activity	19	9.5	64	32.0
2 activities	52	26.0	48	24.0
3 activities	75	37.5	28	14.0
4 activities	20	10.0	6	3.0
5 activities	2	1.0	0	0.0

8.2.7 Associations between Socio-demographic Components and Performing Strategies to Improve Health Status

A comparison of Chinese migrant women and Mainland Chinese women's performance of strategies to improve their health status, the results showed that family income was the only variable that showed significant association for both groups. Other than family income, Chinese migrant women's performance of strategies to improve health status had a significant association with their age, education, marital status, number of children, years since migration, and type of housing. For Mainland Chinese women's family income was the only significantly associated variable (see Table 8.14).

In regard to the perceived importance of health promotion activities, the results showed both groups shared family income as a significantly associated variable. Other than family income, Chinese migrant women's perceived importance of health promotion activities also had a significant association with their amount of time since their migration. For Mainland Chinese women there were a number of other significant associations such as with their age, education, marital status, and family household (see Table 8.14).

In regard to obstacles to improving their health status, the results showed that the same socio-demographic variables were not significantly associated with both groups' perceived obstacles. For Chinese migrant women obstacles to improving their health status were significantly associated with their marital status, being able to speak Cantonese, and being employed after migration. For Mainland Chinese women obstacles to improving their health status were significantly associated with their education, family income, and family household (see Table 8.14).

Similarly both groups shared no significant associations in regard to their intention to perform health promotion and prevention activities in the coming year. While Chinese migrant women had a significant association between intended performance of such activities and their age, family income, and type of housing, for participants in significant association occurred with their education, marital status, type of housing, and family household (see Table 8.14).

Table 8.14 Comparative Analysis of Health Promotion and Prevention Behaviours for Chinese Migrant Women and Mainland Chinese Women using Socio-demographic Predictors

Criterion	Health Variables	Significant predictor	F	P
Chinese migrant women	Health Improvement Behaviours	Age	9.427	.000
		Education	4.974	.008
		Marital status	3.301	.039
		Number of children	2.997	.032
		Family income	8.691	.000
		Years of migration	6.437	.012
		Type of housing	6.318	.000
Mainland Chinese women	Health Improvement Behaviours	Family income	9.480	.000
Chinese migrant Women	Perceived Importance of Health Promotion Activities	Family income	17.616	.000
		Years of migration	6.437	.012
Mainland Chinese women	Importance of Health Promotion Activities	Age	8.053	.000
		Education	10.941	.000
		Marital status	8.802	.000
		Family income	9.537	.000
		Family household	14.961	.000
Chinese migrant Women	Obstacles to Health Promotion Activities	Marital status	4.830	.009
		Cantonese speaking	3.158	.077
		Employed	3.958	.048
Mainland Chinese women	Obstacles to Health Promotion Activities	Education	9.444	.000
		Family income	8.006	.000

		Family household	7.010	.001
Chinese migrant Women	Performance of Health Improvement Activities in the Coming Year	Age	4.062	.019
		Family income	5.195	.006
		Type of housing	3.976	.009
Mainland Chinese women	Performance of Health Improvement Activities in the Coming Year	Education	7.162	.001
		Marital status	5.358	.005
		Type of housing	5.181	.006
		Family household	4.116	.018

8.2.8 Bivariate Correlations between the Health Status and Use of Health Care Services

The bivariate correlations between health status and use of health care services are reported separately for Chinese migrant women and Mainland Chinese women.

For Chinese migrant women in Hong Kong, their stress scale was significantly associated with their physical health (r=0.211, p= 0.003), their utilization of health services (r=0.284, p= 0.000), as well as with barriers to health services (r=0.409, p= 0.000) (see Table H.8.2 in Appendix H).

The Spearman's rho Correlation Coefficient for association between other variables potentially affecting migrant women' health status were as follows: physical health with performance of health promotion and prevention behaviours (r=0.201, p= 0.004), stress scale with performance health promotion and prevention behaviours (r=0.409, p= 0.000), utilization of health care services with performance of health promotion

and prevention behaviours (r=0.319, p= 0.000), stress scale with perceived importance of health promotion activities (r=0.177, p= 0.012), stress scale with obstacles to performing health promotion activities (r=0.252, p= 0.000), utilization of health care services with obstacles to performing health promotion activities (r=0.306, p= 0.000), barriers to health services with obstacles to performing health promotion activities (r=0.361, p= 0.000), and utilization of health care services with intention to perform health promotion activities in coming the year (r=0.319, p= 0.000) (see Table H.8.2 in Appendix H).

In regard to Hong Kong Chinese migrant women' performance of health promotion activities, the Spearman's rho Correlation Coefficient has strong association with obstacles to performing health promotion activities (r= 0.361, p= 0.000), while migrants' perceived importance of health promotion activities had strong associations with obstacles to performing health promotion activities (r= 0.328, p= 0.000), as well as with their intention to perform health promotion activities in the coming year (r=0.368, p= 0.000) (see Table H.8.2 in Appendix H) .

For Mainland Chinese women, the Spearman's rho Correlation Coefficient showed strong associations between the following variables: physical health and stress scale (r= 0.139, p= 0.05), stress scale and utilization of health services (r= 0.343, p= 0.000), stress scale and barriers to health services (r= 0.344, p= 0.000), as well as utilization of health services and barriers to health services (r= 0.488, p= 0.000) (see Table H.8.3 in Appendix H).

Further strong association were found to exist between: physical health and performance of health promotion and prevention behaviours (r= 0.230, p= 0.001),

stress scale and perceived importance of health promotion activities (r= 0.177, p= 0.012), stress scale and obstacles to performing health promotion activities (r= 0.344, p= 0.000), stress scale and intention to perform health promotion activities in the coming year (r= 0.192, p= 0.006), utilization of health care services and obstacles to performing health promotion activities (r= 0.488, p= 0.000), barriers to health services and intention to perform health promotion activities in the coming year (r=0.379, p= 0.000), and utilization of health care services and intention to perform health promotion activities in the coming year (r= 0.269, p= 0.000). However, utilization of health care services and performance of health promotion and prevention behaviours had a negative association (r= - 0.250, p= 0.000) (see H.8.3 in Appendix H).

8.2.9 Multiple Regression Analysis of Health Status, Use of Health Services, and Performing Health Promotion Activities

Physical health

For Chinese migrant women in Hong Kong, only their number of children was found to be an important variable for their physical health. The more children they had, the more at risk they were of having physical health problems. For Mainland Chinese women, the important variable for physical health was age. The older they were the more physical health problems they had.

Stress scale

For Chinese migrant women in Hong Kong, both the number of children and being employed since migration were important variables for their stress scale. However, while the number of children had a greater impact on worsening their stress (beta-regression coefficient of 0.330), employment since migration had less impact but actually lessened stress levels (beta-regression coefficient of -0.142), thus Chinese migrant women who were unemployed, experienced more stress.

For Mainland Chinese women, the important variables affecting stress were the type of housing they were living in, the number of children they had, their total family income, and the type of family household they belonged to. The degree of their impact on these women's stress scale from top to bottom was: number of children (β= .260), type of housing (β= .149), family household (β= .025), and total family income (β= .003).

Use of health services

For Chinese migrant women in Hong Kong, both type of housing and education were important variables for their use of health services, but type of housing (β = 0.314) had a greater impact than education, which had a negative impact on their use of health services. Thus, higher education led to less use of health services.

For Mainland Chinese women, the important variables for their use of health services were total family income, and family household. Their total family income had a greater impact on their use of health services (β = 0 .630) than the family household they lived in, which had a negative impact. This means that women living with their extended family made less use of health care services than those living in a nuclear family.

Barriers to use of health services

For Chinese migrant women in Hong Kong, both speaking Cantonese and family household were important variables associated with barriers to use of health care services. Speaking Cantonese had a positive impact in reducing barriers to use of health care services (β = - 0 .274) while family household was shown to have a weaker but negative impact (β = 0.203) by increasing the barriers to using health care services.

For Mainland Chinese women, the important variables for barriers to use of health care services were education, employment, and total family income. Their impacts were as follows: total family income (β= - .333), education (β= -.282), and employment (β= .207). Thus the higher the total family income, the less barriers there were; the higher their education, the less barriers there were; and if they were

employed, they also perceived less barriers to using health care services (see Table 8.15).

Performance of health promotion and health prevention activities

For Chinese migrant women in Hong Kong, speaking Cantonese and family household were both important variables for the performance of health promotion activities. Speaking Cantonese had a greater impact (β = -0.274) on reducing the performance of health promotion activities; while living with their extended family (β = 0.203) meant Chinese migrant women performed more health promotion activities than if they lived in a nuclear family.

For Mainland Chinese women, the important variable for performing health promotion activities was total family income (β = 0 .228). Thus the higher the total family income, the more health promotion activities these women performed.

Perceived importance of health promotion and health prevention activities

For Chinese migrant women in Hong Kong, their education (β = 0.194) and being employed (β = -0.176) were important variables for seeing health promotion activities as important. Thus the more educated the Chinese migrant women were, the more important they considered health promotion activities to be. In contrast, being employed made Chinese migrant women more predisposed to perceiving health promotion activities as being less important. Perhaps simply having less time meant they had to prioritise differently.

For Mainland Chinese women, the important variable for performing health

promotion activities was total family income (β = -0.350). Thus the higher their total family income, the less important Mainland Chinese women perceived health promotion activities to be.

Obstacles to performing health promotion and health prevention activities

For Chinese migrant women in Hong Kong, none of the socio-demographic variables showed significant prediction of obstacles to performing health promotion activities.

However, for Mainland Chinese women, education, employment, and total family income were important variables for obstacles to performing health promotion activities. In order of impact the variables predicting obstacles to performing health promotion activities were total family income (β = -0.333), education (β = -0.282), and employment (β = -0.207).

Intention to perform health promotion activities in the coming year

For Chinese migrant women in Hong Kong, only total family income was a predictor of the intention to perform health promotion activities in the coming year. Thus Chinese migrant women with a higher total family income in Hong Kong, were more likely to be intending to perform health promotion activities in the coming year.

For Mainland Chinese women, none of the socio-demographic variables showed significant prediction for their intention to perform such activities in the coming year (see Table 8.16).

Table 8.15 Multiple Regression Analysis of Chinese Migrant women and Mainland Chinese Women's Health Status, Utilization of Health Services, and Barriers to Use of Health Services

Dependent variable	Significant predictor	Beta-regression coefficient	F	Sig
Chinese migrant women				
Physical health	Number of children	.215	2.159	.032
				[R^2 = .221%, F=5.356, P=.032]
Stress scale	Number of children	.330	3.351	.001
	Employment after immigration	-.142	-2.079	.039
				[R^2 = .235%, F=5.809, P=.000]
Use of health services	Type of Housing	.314	4.195	.000
	Education	-.199	-2.277	.024
				[R^2 = .132%, F=2.873, P=.002]
Barriers to use of health services	Speaking Cantonese	-.274	-3.980	.000
	Family household	.203	2.885	.004
				[R^2 = .205%, F=4.873, P=.002]
Mainland Chinese women				
Physical health	Age	.169	2.241	.026
				[R^2 = .125%, F=3.397, P=.001]
Stress scale	Type of Housing	.149	-2.623	.009

	Number of children	.260	2.085	.038
	Total family income	-.178	-3.043	.003
	Family Household	-.197	-2.256	.025
				[R^2 = .434%, F=18.298, P=.000]
Use of health services	Total family income	.630	-10.509	.000
	Family Household	-.216	-2.413	.017
				[R^2 = .408%, F=16.486, P=.000]
Barriers to use of health services	Education	-.282	-3.180	.002
	Employment	-.207	-2.932	.004
	Total family income	-.333	-4.812	.000
				[R^2 = .209%, F=6.295, P=.000]

Table 8.16 Multiple Regression Analysis of Chinese Migrant Women and Mainland Chinese Women's Performing Health Promotion Activities

Dependent variable	Significant predictor	Beta-regression coefficient	F	Sig
Chinese migrant women				
Performing health promotion and health prevention strategies	Speaking Cantonese	-.274	-3.980	.000
	Family household	.203	2.885	.004
				[R^2 = .205%, F=4.873, P=.002]
Perceived importance of health promotion activities	Education	.194	2.183	.030
	Employment after immigration	-.176	-2.370	.019
				[R^2 = .235%, F=5.809, P=.000]
Obstacles to performing health promotion activities	No Significant predictor			
Intention to perform health promotion activities in coming year	Total family income	.370	4.652	.000
				[R^2 = .165%, F=3.722, P=.000]
Mainland Chinese women				
Performing health promotion and health prevention strategies	Total family income	.228	3.025	.003
				[R^2 = .065%, F=1.663, P=.110]
Perceived importance of health promotion activities	Total family income	-.350	-5.254	.000
				[R^2 = .270%, F=8.834, P=.000]
Obstacles to performing health promotion activities	Education	-.282	-3.180	.002
	Employment	-.207	-2.932	.004
	Total family income	-.333	-4.812	.000
				[R^2 = .209%, F=6.295, P=.000]
Intention to perform health promotion activities in coming year	No Significant predictor			

Summary of Main Findings

This section presents a summary of the comparative results from the surveys conducted for Chinese migrant women and Mainland Chinese women.

Regarding the comparison of general health, Chinese migrant women in Hong Kong perceived their health as better than Mainland Chinese women did theirs, with 78.5% and 51.5% respectively rating their health as very good/good. While only 3% of Chinese migrant women suffered from two or more diseases and 78.5% had no physical diseases at all, 15% of the Mainland Chinese women suffered two or more diseases and only 70% reported having no physical diseases. However, the reason Chinese migrant women seemed healthier were because they were generally younger than the Mainland Chinese women's group. The most significant predictor for Chinese migrant women's physical health was the number of children they had, while for Mainland Chinese women age was the most significant predictor.

Regarding stress, age, education, number of children, and marital status were significant predictors of stress for both groups of women. For Chinese migrant women the most significant predictors of stress were the number of children they had and being unemployed, while Mainland Chinese women type of housing, number of children, total family income, and family household were the most significant predictors.

Regarding their use of health care services, the comparative results demonstrated that the Chinese migrant women in Hong Kong mainly used two to three health services, particularly community health clinics (89%) and over the counter medication (81%),

but that 20.5% of them still used health facilities in China. While Mainland Chinese women also mainly used two to three health services, their preference was for over the counter medication (98.5%) and hospital emergency rooms (72%). The two groups did not share any of the same socio-demographic variables as having significant association with their use of health care services. While type of housing and education were the most significant predictors of health care usage for Chinese migrant women, total family income and family household were the most significant predictors for Mainland Chinese women.

In regard to performing health promotion and health prevention activities, the results showed that despite more than 75% of migrant women having had a Pap smear done, a slightly higher percentage of them (78%) did not see themselves as having performed any strategy to improve their health status. Just over a third of the Mainland Chinese women (38.5%) did not perform any strategy to improve their health status but for more than half of them (56%) taking vitamins had been the only health prevention activity they did perform. Speaking Cantonese and family household were the most significant predictors for Chinese migrant women's performance of health promotion and prevention activities, while total family income was the most significant predictors for their Mainland Chinese counterparts.

More Chinese migrant women in Hong Kong expressed that they could do more to improve their health (95%) than Mainland Chinese women did (85%). Education and being employed were the most significant predictors for Chinese migrant women's perceptions of the importance of health promotion and prevention activities, whereas total family income was the most significant predictors for Mainland Chinese women. In regard to obstacles inhibiting women from performing health promotion activities,

the results showed that 99.5% of Chinese migrant women perceived such obstacles. They lack the time (88.0%), felt it was too costly (60.0%), and lacked the will power/ self-discipline (42.0%). Among Mainland Chinese women, 93.5% expressed that they encountered obstacles to performing health promotion and prevention activities in the form of being “too stressed” (88%) and “having health problems” (80%). They were no significant predictors for the perception of such obstacles by Chinese migrant women, however, for Mainland Chinese women education and total family income were found to be significant predictors of obstacles inhibiting them to perform health promotion activities.

The clear majority of both groups of women (84% of the Chinese migrant women and 81% of the Mainland Chinese women) indicated their intention of performing health promotion and prevention activities in the coming year. The only significant predictor for having the intention to perform health improvement activities in the coming year was total family income and it only applied to migrant women in Hong Kong.

For both groups significant association was found between family income and the performance of strategies to improve health status, and the perceived importance of health promotion activities. In regard to obstacles to improving health status, and the intention to perform health promotion and prevention activities in the coming year, the results showed no shared variables that had significant association.

To summarise, the results suggest that while Chinese migrant women enjoyed better physical health since arriving in Hong Kong, they did experience more stress. Their family income was the main determinant of whether they performed health promotion and prevention activities.

Chapter Nine: Discussion and Conclusion

This chapter discusses the implications of the results presented in Chapters Six, Seven and Eight. The chapter is arranged into four sections. The first discusses the descriptive findings of the study. The second discusses the main findings according to the aims and hypotheses. The aims were to: 1).explore the health status of Chinese migrant women now residing in Hong Kong; 2). the attitudes and perceptions of Chinese migrant women toward health promotion; 3). the health promotion behaviours of Chinese migrant women; 4). the difference in the health status of Chinese migrant women compared with Mainland Chinese women; 5). the differences in the performance of health promotion and prevention activities among Chinese migrant women and Mainland Chinese women. Finally sections three and four present the conclusions to be drawn from these results and make practical suggestions for the future.

9.1 Discussion of the Descriptive Findings

Chinese Migrant Women in Hong Kong

The background characteristics of the migrant women in Hong Kong suggest that the largest group of participants (42.5%) fell within the age ranges of 31-40, while nearly a quarter of the participants were aged 20-30. Most of them (90.5%) were married and 94% have had children. These findings confirm the statement in the literature that about 80% of new migrant women from China in Hong Kong is female and mothers in their thirties and forties with children (Wong, 1998).

Almost half of the Chinese migrant women had migrated to Hong Kong recently,

only five years prior to participation or less. They had generally migrated to Hong Kong between the age of 18 and 25. This finding matches the demographic data from the Hong Kong Year Book (2005) which indicates that since 1996 the increased ratio of female immigrants has been particularly strong in the 20-39 age groups. However, there was less agreement on the average period since migration: according to the Census and Statistics Department (2007), 84.1% of the existing Chinese migrant women from Mainland China had migrated to Hong Kong seven years or more ago. The discrepancy between the results of this study and those of the Census and Statistics Department (2007) is likely to have arisen because the participants for this study were recruited from immigrant centres whose courses or seminars would primarily attract the recently migrated.

Regarding Chinese migrant women's level of education, more than half (56%) of them had only gone to primary school or not even completed that. The women in this category were, however, mostly aged 31 or above; the younger Chinese migrant women generally had a higher level of education. Nevertheless, compared to the statistics for local Hong Kong women, whereby in 2006 84.4% of the female population aged 15 years and above had attained a secondary education and above (Census and Statistics Department, 2007), the migrant women are clearly at a disadvantage.

According to studies by Leduc (2004), the process by which migrant families begin to use the health care services in their host country is through understanding and eventual adaptation to the healthcare system, thus the more educated families and those and from urban settings were more likely to make choices, and adopt the services that suit them best. Consequently migrant women's lower level of education

is likely to affect their utilization of health services in Hong Kong.

In terms of family conditions, this study found that 38.5% of the immigrant families had two or more children, and that 15% lived with their other relatives (i.e. their extended family). Also, since most of the Chinese migrant women (67.5%) rented public flats, their living conditions were very crowded. A study on the mental health of new migrants' children found that over-crowded living environment may lead to stress and conflict (Sun et al., 1999).

The family conditions found to exist for Chinese migrant women - having children and living in close quarters in some cases even with their extended family - indicate likely support for Wong (1998)'s findings that many of the Chinese migrant women in Hong Kong have difficulty finding childcare and frequently experience conflict with their husbands and in-laws, a factor linked to the increasing incidence of domestic violence in Hong Kong.

With regard to employment, only 16% of Chinese migrant women in the study were employed. This finding supports the studies done by Wu (2004) and Chow & Ho (1996) who found that adult immigrants, especially females, are confronted with a variety of resettlement difficulties, particularly in employment, finance, and accommodation. A survey for exploring the reasons why migrant women in Hong Kong experience difficulties in finding a job found that these women are discriminated against because they are from China. Not only is it more difficult for them to find a job, when they so get work, it is low-paid unskilled labour with extremely long working hours (Society for Community Organization's, 2003).

Mainland Chinese Women

The results obtained from the Mainland Chinese women participating in this study indicated that the majority of them belonged within the mid range of 31 to 40 years of age (56.0%). Over a quarter of the women were aged between 41 and 50 years old, while 14.5% of the participants were aged between 20 and 30. In terms of the marital status, an almost equal number of participants were married as were single (49% and 48% respectively). Among the Mainland Chinese women, 55% had no children at all, 44.5% had one child. This is different with the Chinese migrant women in Hong Kong, because there is one child policy in Mainland China. In terms of accommodation, most of these women (66.5%) lived in accommodation provided by their employers. This situation is different with the situation for Chinese migrant women in Hong Kong, since there are unlikely to have employers provided accommodation for employees in Hong Kong.

With regard to the Mainland Chinese women's educational background, a large proportion (35.5%) had only received education at a primary or lower level. However, all of the women under the age of 31 had attended secondary school at least, while one had studied at university.

9.2 Discussion of the Main Findings

This section discusses the findings of the study with regard to its aims, and attempts to answer the research questions relating to the Chinese migrant women, for example, how the health status of Chinese migrant women in Hong Kong compares with that of Mainland Chinese women. This section also discusses the utilization of health care services by Chinese migrant women and Mainland Chinese women; the barriers to migrant women's use of health care services in Hong Kong, and the attitudes and

perceptions of both Chinese migrant women and Mainland Chinese women toward health promotion.

9.2.1 Physical health and mental health

Physical health

The findings regarding the physical health of Chinese migrant women in Hong Kong demonstrate that there were significant associations ($p < 0.01$) between their age, education, number of children and years since migration and their physical health. So did being Cantonese speaking, type of housing, family household, and employment. However, no significant association was found to exist between Chinese migrant women's physical health and their marital status or family income ($p > 0.01$).

The results of the Analysis of Variance showed that for both Chinese migrant women and Mainland Chinese women there was a significant relationship between physical health and their age, education, number of children, and family household. That means the older the age, the poorer the physical health; the higher education they had, they tend to do more things for health prevention, so their physical health should be better. The more children they have, their health is poorer, and if the living environment is bad, their health is poorer.

Mental health

The findings regarding the mental health of Chinese migrant women in Hong Kong demonstrate significant associations ($p < 0.01$) between socio-demographic variables such as their age, education, marital status, number of children, family income, and employment status and their mental health. However, there were no significant associations between their self-perceived levels of stress and the period since their

migration or the type of housing and family household they lived in ($p > 0.01$)

For both groups of women age was significantly associated with stress such that the younger women, aged 20 to 30, showed less stress than those aged 31 to 40 or 41 to 50. With regard to educational status, Chinese migrant women with a higher education showed less stress. Married women showed significantly higher stress than the single women; while the group of divorced or widowed women showed significantly higher stress than both those who were single and those who were married. The more children the women had, the more stress they experienced. For example, Chinese migrant women with three or more children showed more stress than those with no children. Family income was significant in that Chinese migrant women with a higher income showed less stress. All these results are same as Mainland Chinese women.

Similar findings of higher stress among married migrant women in the United States (Frone et al., 1992) found that much of this stress was a result of their frequently having to perform multiples roles as wives, mothers and breadwinners, often also having to look after their parents or husband's parents. The conflicts generally experienced by women who are married and working are well documented in the literature as a source of stress that potentially influence important psychological and physical outcome (Cronbach, 1990).

Similar situation happened in the other studies done by Tsai et al (2007) indicated that Chinese immigrants to the United States face a series of adjustments and psychosocial responses, such as frustration, embarrassment, nervousness, and social isolation during resettlement. These psychosocial responses can lead to serious

mental health problems or emotional disorders.

According to Ganong (1996), stressful events such as migration adaptation are similar to traumatic physical events. The neuro-endocrine system becomes activated with subsequent release of hormones, which mobilize resources to meet immediate adaptive demands. The results are increased cardiac strain, increased blood pressure, and elevated blood sugar to prepare for "fight". If the perceived stress continues for a period of time, elevated hormone levels may lead to a reduction of adaptive capacity and ultimately to adverse changes in health.

9.2.2 Use of Health Care Services and Barriers to Health Care Utilization

Use of health care services

The findings for Chinese migrant women in Hong Kong demonstrate that there were significant associations ($p < 0.01$) between the type of housing they lived in and their utilization of health services. However, none of the other socio-demographic variables, such as age, education attainment, marital status, number of children, family income, years of migration, Cantonese speaking, family household, and employment, showed any significant association with their utilization of health services ($p > 0.01$).

In contrast, for Mainland Chinese women, significant associations between their use of health care services and their education, family income, family household, and occupation were observed. Mainland Chinese women who had a higher level of education (university level) made more use of health services than those who had a lower education (primary or below). Regarding their family income, the results showed that the higher their income was the more likely participants were to utilize

health services. Mainland Chinese women living with their extended family also showed increased utilization of health services than those living within a nuclear family.

Comparative analysis for the use of health care services by Chinese migrant women and Mainland Chinese women showed no significant association for the same socio-demographic variables.

Barriers to health care utilization

The findings regarding barriers to health care utilization by Chinese migrant women in Hong Kong demonstrate that there were significant associations ($p < 0.01$) between experiencing such barriers and the socio-demographic variables such as education, marital status, number of children, being Cantonese speaking, family household, type of housing and employment status. However, there appeared to be no significant association between such barriers and Chinese migrant women's age and family income ($p > 0.01$).

The significant associations of barriers to health care utilization and these socio-demographic variables are consistent with the reports by Padilla and Villalobos, 2007, and Gebre-Egzbiabher and Michael, 2004. The latter studies also found that due to their poor educational background and child-bearing responsibilities, most Chinese migrant women remained at home and that, in the case of marriage migration, these women might not be sufficiently socially integrated to exchange information about and overcome their unfamiliarity with and their apprehensions towards the health care system in the host country. In regard to the results of this survey, 72% of the Mainland Chinese women had attended hospital emergency rooms; whereas there

are only 18% of Hong Kong Chinese migrant women attended hospital emergency room.

9.2.3 Performance of Health Promotion and Prevention Activities and Obstacles to such Activities

Performing Health Promotion and Prevention Activities

In regarding to performing health promotion and health prevention activities, the results showed that despite more than 75% of migrant women having had a Pap smear done, a slightly higher percentage of them (78 %) did not see themselves as having performed any strategy to improve their health status. Speaking Cantonese and family household were the most significant predictors for immigrant women's performance of health promotion and prevention activities.

The findings regarding prevention activities by migrant women show that there were significant association between the activities they undertook and their age, education, marital status, number of children, family income, migration status and type of housing. These results reflect those of Jo et al's (2003) study in which the more educated Korean urban residents reported greater practice of health promotion behaviours, such as exercise, weight management, etc. compared to their lower educated counterparts. The difference in degree to which migrant women engaged in health promotion and preventative activities as compared to Hong Kong-born residents may be due to the background migrant women come from. In Mainland of China, the health care system is geared mainly toward treatment and curative services, with a relative less emphasis on public health programs of primary prevention, thus the orientation and education of most of the doctors and health workers is also toward medical-biological approaches to illness as opposed health promotion and

maintenance.

For Mainland Chinese women, the results illustrate that family income was the only factor to have significant bearing ($p < 0.01$) on whether they performed strategies to improve their health. It is because they are used to paying for health promoting activities such as taking vitamins and body checks.

Obstacles to Performing Health Promotion and Prevention Activities

The findings regarding what obstacles inhibit Chinese migrant women from performing health promotion and prevention activities demonstrate that there were significant associations ($p < 0.01$) between the socio-demographic variables such as their marital status, being Cantonese speaking, and being employed and whether they undertook health promotion and prevention activities. However, there are no significant associations with Chinese migrant women's age, educational attainment, number of children, family income, type of housing, and family household ($p > 0.01$) to suggest that these might be acting as barriers to improving their health.

For Mainland Chinese women, multiple comparison analysis confirmed that socio-demographic factors such as education, family income, and family household were significant variables in the perception of obstacles inhibiting health promotion activities.

Lambrew et al. (1996) and Sanchez et al. (1997) explain this underutilization by the fact that migrant women may come from a rural background, lack of literacy skills, or even experience language barriers. These findings support observations made in the literature. While Balcazar et al. (1993) document similar underutilization of use of

preventive services including prenatal care, immunization, and screening for cancers among migrant women, to care or no regular provider are less likely to receive preventive services. These findings are consistent with the results from the present study which show that not speaking Cantonese is a significant predictor of obstacles inhibiting Chinese migrant women from performing health promotion and prevention activities.

More immigrant women in Hong Kong expressed that they could do more to improve their health (95%) than participants in Mainland China did (85%). Education and being employed were the most significant predictors for immigrant women's perceptions of the importance of health promotion and prevention activities.

The clear majority (84%) of the immigrant women in Hong Kong indicated their intention of performing health promotion and prevention activities in the coming year. The only significant predictor for having the intention to perform health improvement activities in the coming year was total family income.

9.3 Conclusions

This section will draw conclusions from the results presented in this study on the utilization of health care services among Chinese migrant women in Hong Kong, as well as their attitudes towards health promotion and health prevention.

In this survey data were collected to identify any socio- demographic characteristics related to the Chinese migrant women's health status, their utilization of health care services, and their attitudes towards health promotion and health prevention. In this section, only factors found to have a significant association will be discussed and

related to the aims and research questions of this survey.

With regard to the health status of Chinese migrant women, the results of this survey show that 78.5% of the Chinese migrant women rated their health as "very good/good" at the time they migrated to Hong Kong, and that 78.5% of them had no physical diseases they were aware of. Compared to the 1999 report by the Harvard team which found that 49.7% of local Hong Kong females rated their health status as fair and 6.8% regarded it as poor (The Harvard Team, 1999), our results demonstrate that the self- perceived health of Chinese migrant women in Hong Kong is, in fact, better than local women's. This may be because the average age of the participating Chinese migrant women was younger.

In comparison, 51.5% of Mainland Chinese women rated their health status as "good", while 70% of them stated that they had no physical diseases at the time of survey. The difference in these findings may be due to the fact that the Mainland Chinese women were older than the participants who had migrated to Hong Kong.

Regarding the mental health of Chinese migrant women, 83% stated that they were "a bit stressed" most of the time, usual; altogether out of a total stress score of 28 points, 86% of Chinese migrant women scored between 12 and 17. The respective assessment of Mainland Chinese women, showed similar results in that 78% of these women were a "bit stressed" most of the time; however, the total stress score for Mainland Chinese women showed that, with 90.5% recording stress scores of "8 to 15", they generally suffered lower stress levels than their migrant counterparts in Hong Kong.

Comparison of Chinese migrant women's health before and since migration measured according to their visits to a physician showed these to be significantly related to their age, and that the younger migrants were generally healthier. Despite this, 32.5% of the migrant women aged between 31 and 50 years old reported that their health was "much worse than before migration." Pearson Chi-square results showed that the Chinese migrant women's health before and since migration was also significantly related to their education level.

The results regarding the physical health of Chinese migrant women in Hong Kong demonstrate that there were significant associations between this and their age, education, number of children, years since migration, being Cantonese speaking, type of housing, family household, and employment. The findings regarding their mental health demonstrate that there were significant associations between their mental health and age, education, marital status, number of children, family income, and employment status.

Other data, suggests that female immigrants in Hong Kong might encounter problems in family relationships. The majority of Chinese migrant women from Mainland China found that their relationship with their spouse got worse when they began to settle in Hong Kong, and that during their first two years of settlement, they might encounter conflicts with both their husbands and their mothers-in-law (Zhang, 1999). Obvious that most of the Mainland Chinese women are disturbed by the language barrier, being unemployed, financial concerns, poor living conditions, and their family relationships.

Generally, younger and more educated Chinese migrant women show better physical

and mental health. Most of Chinese migrant women felt stress because of financial difficulties and lack of social support after migration to new country.

With regard to the use of health care services among Chinese migrant women in Hong Kong, the majority of the participants visited community health clinics (89%), and purchased over the counter medication (81%). However, 99% of Chinese migrant women expressed failure to use health care services and 20.5% of them were continuing to use health facilities in China. 92% of these women encountered between two to five barriers to accessing health care in Hong Kong. For 82% doing so entailed “waiting too long”, 60% claimed there were “no such health facilities” nearby; 46.5% considered the health care services in Hong Kong “too expensive”; and 44% were “too busy” to seek appropriate care – not surprising considering the high percentage that indicated waiting times were too long.

The findings regarding utilization of health care services by Chinese migrant women in Hong Kong demonstrate that the only significant association was with the type of housing they lived in. Regarding the barriers to their health care utilization, results indicated significant associations with their education, marital status, number of children, being Cantonese speaking, family household, type of housing and their employment status. Clearly these findings suggest a lack of sufficient health care resources in Hong Kong. Since most of the Chinese migrant women live in more remote areas, having to travel longer distances to access health care is not only a cost but a time resource they appear to lack of time. Furthermore, since most of the Chinese migrant women are unemployed, they do not have medical insurance to cover the costs of obtaining needed health care. Consequently, they have no regular source of primary care, and, if they are hospitalized, these low income patients

receive fewer services and less specialty care.

As mentioned before most of the new immigrant families have a low household income. This means that they usually live in low standard accommodation and under less favourable living and health conditions. The new immigrants very often confronted with barriers when using health services. Their use of health services is also lower, when compared with their non-immigrant counterparts (Garrett et al., 1998). Language barriers and cultural difference are by no means the only factors that may act as a barrier.

The results of this study showed that only 22% of Chinese migrant women performed health promotion and preventative strategies, while 95% of them felt they could and wanted to do more to improve their health status. The obstacles they considered relevant in inhibiting them from performing health promotion and prevention activities were lack of time (88%), cost (60%), and lack of will power/self-discipline (42%).

The results for Mainland Chinese women showed that a much larger percentage of these women (61.5%) performed health promotion and prevention strategies, and that a slightly lower proportion (85%) felt they could be doing more to improve their health status. The obstacles they felt were inhibiting them from performing health promotion and prevention activities were being “too stressed” (88.0%), having health problems (80%), and other causes (75.5%) such as lacking facilities and knowledge on health promotion and health prevention activities.

For Chinese migrant women significant associations were found to exist between

their performance health promotion and prevention activities and their age, education, marital status, number of children, family income, years since migration, and type of housing. Regarding the obstacles found to be inhibiting Chinese migrant women from performing such activities, results demonstrated significant associations between their marital status, being Cantonese speaking, and being employed.

The Chinese migrant women come from a background health care system geared mainly toward treatment and curative services in which public health programs and primary prevention are largely neglected. As Leduc (2004) points out, ideally these women will gradually begin to understand the local health care system in Hong Kong and eventually adapt to it. However, for those from a rural background, those lacking literacy skills, and those with language barriers whose knowledge about the availability of health care and health preventive services is normally particularly poor, this may take more time.

The primary needs of newly arrived women will be to settle down. This means that they are primarily concerned with orientating themselves in the community, enrolling their children in school, seeking employment, learning Cantonese, and adapting to their new life. Secondary needs are usually only expressed once the family has been settled for a while. Even then, the main concern will be on family development, such as on interactions between family members, learning parenting and communication skills, and the marital relationship within the new surroundings. It may take between three to five years to settle these issues. Nevertheless, people's ability to adjust to new living environment varies. The most common adjustment difficulties experienced are lack of social networks and communication problems due to incapability of using local language etc. These adjustment difficulties may prevent them from integrating

into the local community well enough to receive health education and promotion messages.

9.4 Practical Recommendations

The results of this study provide constructive information for Chinese migrant women, their families, and the Hong Kong health care service providers. This information can hopefully be used towards improved programme planning and resource commitment in the implementation of appropriate health care facilities, and health promotion and prevention programmes for Chinese migrant women.

Based on the findings, the following initiatives could assist new Chinese migrant women in becoming familiar with and using the available services thereby enabling them to better settle in Hong Kong:

Strategies to improve migrant women's health

Develop databases on Chinese migrant women health

Limited research data monitoring the health status of immigrant populations has been published. Normally the immigrant population is simply included surveys on the general population and is not represented separately in the health statistics. This lack of data on immigrant health inhibits the study and assessment of conditions and, of course, program development. Cross-cultural instruments are needed to allow for the inclusion of health data specifically on under-represented immigrant populations in Hong Kong. This would give policy makers the necessary data on which to make informed and strategically considered decisions helping regard to the provision of future services, especially to Chinese migrant women, infants, and children.

Routine health assessments for Chinese migrant women are needed to monitor and heighten the awareness of their significance among policy makers. Again, better and more comprehensive health data is a first step in the development of more appropriate strategies to improve overall health and reduce inequalities in health status for the Chinese migrant women.

Mainstream migrant health needs

There is a need for the government to collect, collate and maintain a central database on this information rather than relying upon private and volunteer organisations to do so.

The implications of these results for health professionals, in particular mental health nurses, suggest a number of areas that warrant attention. Increased emphasis is needed on health education and promotion, in particular on stress management for Chinese migrant women. Psycho-social contributors to mental health issues have frequently been neglected in the predominately bio-medical education of nurses; instead, community mental health nursing needs a much greater profile in this region. Currently, due to limited provision of services, community mental health nursing in Hong Kong deals more with crisis intervention for diagnosed conditions than prevention (Ana, et al., 2006).

More public health education campaigns emphasising the physical and psychological health needs of immigrants and using a multidisciplinary perspective are needed. Health professionals could also play a significant role in promoting greater awareness of the harm brought on by stigmatization and physical violence**.**

Offer effective social networks and health services for Chinese migrant women

In many Western countries, social services are devoted to assisting people, especially migrants, with their problems; nevertheless many immigrants experience barriers in accessing these social services, especially during their initial and most difficult period of adjustment (Bathum, et al., 2007). In Hong Kong, there are social and language barriers that limit Chinese migrant women from seeking help. Their integration into society depends significantly on the availability of an effective social network and health services. The recent news and data suggests that the government offered help for Chinese migrant women seemed to be fragmented. This could be addressed by the following steps:

1. Comprehensive Orientation for New Arrivals

While the younger new immigrants aged 15 or below have access to free compulsory education and there appears to be adequate provision for their occupational and social needs, the needs of those aged 20 to 49, who make up 45% of the total new migrants from Mainland China, are not so well addressed. The probably greatest problem this group face is in finding jobs in the local labour market. While efforts have been made to assist new migrants to upgrade their skills and qualifications through subsidized programmes such as the Skills Upgrading Scheme and the part-time courses offered by the Vocational Training Council, there may not be sufficient such opportunities available. While those aged 30 or above may also join the full-time placement-tied training offered by the Employees Retraining Board.

Clearly what is needed is a comprehensive orientation program for the new arrivals, one which should include details on health care services and health promotion

programs.

In order to prepare new immigrants about to settle in Hong Kong, the Hong Kong Branch of the International Social Services has set up pre-migration centres in Guangdong and Fujian Provinces. While these centres help prospective new arrivals to learn more about Hong Kong's way of life, relevant government departments should implement programmes to help Chinese migrant women adapt to their new life after arrival and focus on providing and developing appropriate services to address the health needs of new arrivals on different age-groups.

2. Access to Hong Kong health care services

Access to health services could be improved by:

– Maintaining high quality communications in the face of language barriers

  In order to make sure all Chinese migrant women are able to access to health care, the government should consider pursuing legislation that enables migrant women to communicate about their health care in their preferred language, for example by making it mandatory for health service providers to offer interpreting services.

- Ensuring collaboration between governmental, private and public health sectors in addressing issues relative to migration and issues that are important to Chinese migrant women.

- Providing a more flexible approach to informing Chinese migrant women of public utilities and community resources by means of telephone hotlines.

- Conducting regular evaluations to ensure that the policies are implemented to an expected standard and are achieving their aims.

3. Development of Health Promotion Model for Chinese Migrant Women

The Hong Kong health care system is characterized by a top-down approach that focuses on individual responsibilities with little commitment to community empowerment. Powerful interest groups such as doctors, hospital heads and the government determine both the "problem" and the service delivery and resource allocation in ways that do not respond to community needs. Although everyone is saying health promotion is good, the evidence suggests that the traditional approach prevails in practice.

The government ought to take on a more active role in promoting health education and raising Chinese migrant women's awareness of health issues through community education or working in partnership with the local organisations. The pamphlets could be used to disseminate such information in picture format and/or in Chinese languages so as to cater for the illiterate and newly arrived women who come from a non-English language background. Health promotion messages can also be promoted in the media, such as TV in different dialects, as Chinese migrant women are often too busy, or have difficulties to access health care centres.

Physicians' recommendations on health promotion activities and disease prevention screening have been proven to be effective. Physicians and nurses could play a significant role in promoting greater awareness of health promotion messages. The positive attitude from nurses towards health education and health promotion, without stigmatization or discrimination is very important.

In addition, due to the time constraints of physician visits, there is a lack of health promotion information in the Chinese language. Increasing the availability and awareness of educational materials in Chinese language, providing low-cost services, and delivering these services at times that the immigrant population is available would be important interventions.

If the government is to continue to allow Mainland Chinese women to migrate to Hong Kong, then it must shoulder the responsibility of ensuring that this increasingly large section of the population can enjoy the same access to health care and get equally involved in actively looking after their health through health promotion and preventative activities.

Overall, the Chinese migrant women benefit less in Hong Kong than the Mainland Chinese women living in their home country, especially those who do not speak Cantonese, have only primary education level and are unemployed. Their adaptation time to the host country may be longer. The government should provide tailor-made training programs for new immigrant women for settlement.

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Appendices

Appendix A

Table A.1 One-way Permit Holders Entering Hong Kong by Age Group and Sex

Number of persons

Age Group	Sex	1986	1991	1996	1999	2000	2001	2002	2003
0-9	F	2323	2262	9057	8562	6001	6547	5485	5473
	M	3085	2653	9980	8982	6420	7130	5764	5759
10-19	F	2018	2028	5214	4454	5038	2704	3115	3377
	M	2904	2797	5134	4132	4819	2704	2753	3148
20-29	F	3766	4260	7650	4037	6092	7402	6570	7514
	M	1929	2036	1980	1171	2019	1914	914	658
30-39	F	4410	3855	7600	14671	14069	13752	12159	17845
	M	1400	1326	1512	1508	2251	4709	2320	2092
40-49	F	1798	2270	5306	3699	3278	3561	2485	3672
	M	844	754	1464	749	994	1242	937	1120
50-59	F	965	1165	1771	1042	2172	824	776	979
	M	369	340	291	187	379	363	290	314
60-69	F	549	534	664	793	2501	968	810	744
	M	183	194	317	149	378	351	279	220
70-79	F	216	160	160	307	846	271	380	405
	M	61	70	67	96	141	81	90	81
80-84	F	19	29	17	51	75	36	64	59
	M	12	14	7	13	15	14	12	13
Above 85	F	8	7	5	17	35	28	27	26
	M	2	7	3	5	7	4	4	8
Unknown	F	71	15	0	0	0	0	0	0
	M	53	6	0	0	0	0	0	0
Sub-total	F	16 143	16 585	40 984	37 633	40 107	35 143	31 871	40 094
	M	10 842	10 197	20 195	16 992	17 423	18 512	13 363	13 413
	Total	26 985	26 782	61 179	54 625	57 530	53 655	45 234	53 507

Source: Demographic Statistics Section, Census and Statistics Department, (2007).

Appendix B

Table B.2.1 Mid-year Population by Age Group and Sex

Number of persons

Age group	Sex	1981	1986	1991	1996	2000	2001	2002	2003	2004	2005	2006
0-4	F	200 200	200 600	177 500	181 300	141 300	132 400	129 000	127 200	125 400	106 700	102 600
	M	214 500	215 900	191 700	197 200	153 400	143 900	138 600	135 700	134 600	114 400	110 400
5-9	F	200 900	201 600	196 900	187 200	192 700	191 700	189 500	180 000	170 200	161 500	151 800
	M	215 300	217 400	213 000	200 400	208 800	206 000	202 800	192 600	181 400	171 300	162 300
10-14	F	216 700	209 000	201 200	212 000	210 000	208 700	210 800	210 700	207 600	201 900	200 800
	M	229 700	229 200	218 400	226 000	221 900	221 400	223 700	223 000	220 500	213 100	211 300
15-19	F	276 200	217 500	200 000	216 400	222 600	216 500	213 600	211 900	216 900	214 000	213 900
	M	295 700	237 200	217 600	229 300	236 400	229 500	226 600	223 500	226 900	220 200	222 300
20-24	F	287 500	278 500	227 400	239 000	242 100	241 600	227 000	221 200	229 900	244 500	246 800
	M	318 100	290 000	227 600	236 700	224 700	225 100	222 800	222 300	226 800	226 400	225 600
25-29	F	235 600	298 000	303 600	289 300	290 600	284 100	274 700	261 300	255 900	266 200	278 500
	M	270 500	315 400	294 100	249 400	242 600	240 700	236 800	229 400	225 900	220 500	223 800
30-34	F	190 600	245 000	308 800	347 800	322 100	327 600	334 700	335 500	331 800	314 600	309 600
	M	231 400	267 000	317 600	315 100	263 200	256 300	253 700	250 700	248 200	241 800	238 800
35-39	F	108 600	196 500	250 200	336 500	366 500	371 700	372 900	362 700	357 800	334 300	331 400
	M	142 800	224 200	265 900	333 600	323 100	312 900	302 200	285 500	275 100	256 600	248 000
40-44	F	113 300	114 100	197 000	268 800	331 900	344 100	356 300	368 700	379 800	370 800	365 300
	M	146 100	140 600	224 100	275 600	326 900	335 700	337 100	336 000	332 500	381 400	304 400
45-49	F	123 600	117 500	114 300	212 400	253 900	269 600	288 700	306 200	322 800	328 700	335 700
	M	147 100	141 300	140 700	236 000	260 700	270 400	283 300	297 600	311 600	319 500	323 700
50-54	F	124 600	126 900	115 000	119 700	190 800	210 800	225 500	236 800	250 300	256 000	267 600

	M	141 300	147 600	140 200	144 600	210 400	227 000	235 000	240 900	247 900	253 900	264 000
55-59	F	107 400	121 600	123 300	118 500	109 400	116 800	133 800	152 100	172 200	190 100	207 800
	M	114 100	132 300	140 400	140 300	132 400	136 000	149 600	164 100	179 800	198 000	214 700
60-64	F	93 300	107 600	118 000	128 100	121 600	117 000	112 600	107 700	107 600	109 900	116 300
	M	94 000	108 100	125 100	140 600	135 800	133 800	128 700	124 300	124 400	125 200	127 600
65-69	F	76 300	85 900	98 900	119 600	122 600	122 000	122 900	121 800	121 600	119 900	116 600
	M	68 200	79 700	93 600	118 600	129 000	128 300	128 800	127 400	126 500	126 300	125 200
70-74	F	57 000	68 800	75 500	96 200	104 600	107 900	110 400	112 400	115 500	115 600	115 900
	M	39 900	55 600	64 500	84 400	97 800	102 500	105 300	109 100	113 400	112 700	112 400
75-79	F	37 300	43 600	53 700	68 200	78 200	80 400	83 900	86 600	90 100	92 400	96 300
	M	19 300	26 800	39 700	52 400	61 100	63 700	67 300	70 900	74 700	77 400	82 300
80-84	F	21 700	28 400	30 300	43 400	48 900	52 000	54 600	57 600	60 800	65 100	67 900
	M	8 200	11 700	16 500	27 100	32 000	34 000	36 500	38 600	41 100	42 600	44 800
85 and above	F	12 900	18 600	22 200	31 100	38 700	43 000	46 200	48 700	50 900	57 000	62 200
	M	3 500	4 900	7 500	12 700	16 300	19 600	21 100	22 400	24 200	25 700	28 500
Sub-total	F	2 483 700	2 679 700	2 813 800	3 215 500	3 388 500	3 437 900	3 487 100	3 509 100	3 567 100	3 549 200	3 587 000
	M	2 699 700	2 844 900	2 938 200	3 220 000	3 276 500	3 287 000	3 299 900	3 294 000	3 315 500	3 264 000	3 270 100
Total		5 183 400	5 524 600	5 752 000	6 435 500	6 665 000	6 724 900	6 787 000	6 803 100	6 882 600	6 813 200	6 857 100

Source: Census and Statistics Department, 2005

Table B.2.2 Hong Kong Population Aged 15 and Over by Sex and Educational Attainment in 2007

In Thousands

Sex/Educational Attainment	1986	1991	1996	2001	2003	2004	2005	2006
Female								
No schooling/ Kindergarten	430.9 (21.4%)	404.5 (18.5%)	371.9 (14.4%)	312.2 (10.8%)	303.4 (10.2%)	300.8 (10.0%)	286.7 (9.4%)	266.5 (8.6%)
Primary	576.6 (28.6%)	547.8 (25.0%)	587.5 (22.7%)	621.8 (21.6%)	620.9 (20.6%)	609.6 (19.8%)	606.9 (19.9%)	602.9 (19.5%)
Lower secondary	274.2 (13.6%)	281.2 (12.9%)	353.1 (13.7%)	410.8 (14.2%)	439.2 (14.6%)	447.8 (14.6%)	434.9 (14.2%)	450.8 (14.6%)
Upper secondary/ Matriculation	572.8 (28.4%)	735.5 (33.6%)	904.2 (35.0%)	1 024.9 (35.6%)	1 040.3 (35.1%)	1 068.7 (35.5%)	1090.8 (35.7%)	1095.3 (35.4%)
Tertiary (non-degree)	111.4 (5.5%)	132.6 (6.1%)	179.3 (6.9%)	199.1 (6.9%)	221.5 (7.6%)	212.3 (7.2%)	222.2 (7.3%)	235.5 (7.6%)
Tertiary (degree)	50.4 (2.5%)	85.9 (3.9%)	190.6 (7.4%)	312.1 (11.0%)	347.1 (11.9%)	379.1 (12.9%)	415.4 (13.6%)	438.7 (14.2%)
Total	2 016.4 (100%)	2 187.5 (100%)	2 586.6 (100%)	2 885.3 (100%)	2 972.3 (100%)	3 018.3 (100%)	3057.0 (100%)	3089.8 (100%)
Male								
No schooling/ Kindergarten	113.4 (5.3%)	136.9 (6.2%)	120.8 (4.8%)	96.8 (3.5%)	91.9 (3.3%)	89.7 (3.2%)	83.7 (3.1%)	77.2 (2.8%)
Primary	718.0 (33.7%)	635.5 (28.6%)	626.5 (24.6%)	580.5 (21.5%)	540.0 (19.7%)	525.5 (19.0%)	509.4 (18.6%)	491.4 (17.8%)

Lower secondary	450.5 (21.2%)	434.0 (19.5%)	503.4 (19.8%)	529.3 (19.5%)	539.1 (19.6%)	528.8 (19.1%)	504.1 (18.4%)	512.2 (18.6%)
Upper secondary/ Matriculation	628.0 (29.5%)	738.5 (33.2%)	849.9 (33.4%)	912.5 (33.9%)	916.5 (33.6%)	945.3 (34.5%)	957.2 (34.9%)	966.3 (35.1%)
Tertiary (non-degree)	108.2 (5.1%)	130.6 (5.9%)	168.6 (6.9%)	192.5 (7.2%)	220.2 (8.1%)	215.8 (8.0%)	223.9 (8.2%)	230.0 (8.4%)
Tertiary (degree)	111.2 (5.2%)	149.8 (6.7%)	273.0 (10.7%)	382.3 (14.4%)	413.9 (15.5%)	431.8 (16.2%)	466.1 (17.0%)	476.3 (17.3%)
Total	2 129.3 (100%)	2 225.3 (100%)	2 542.2 (100%)	2 693.9 (100%)	2 721.6 (100%)	2 736.8 (100%)	2744.4 (100%)	2753.4 (100%)
Sex ratio								
No schooling/ Kindergarten	263	339	325	310	303	298	292	290
Primary	1 245	1 160	1 066	927	870	862	839	815
Lower secondary	1 643	1 543	1 426	1 289	1 227	1 181	1159	1136
Upper secondary/ Matriculation	1 096	1 004	940	890	881	885	878	882
Tertiary (non-degree)	971	985	940	967	994	1 017	1007	977
Tertiary (degree)	2 204	1 744	1 432	1 225	1 192	1 139	1122	1086
Total	1 056	1 017	983	934	916	907	898	891

Source: Census and Statistics Department, 2007

Table B.2.3 Self Assessment of Health Status

Self assessment of health status	Males	Females
Excellent	7.4%	5.8%
Very good	17.8%	15.1%
Good	26.9%	22.6%
Fair	43.6%	49.7%
Poor	4.3%	6.8%

The Harvard Team (1999)

Table B.2.4 Level of Physical Activity (Survey conducted in October 2005)

Classification (BMI)	Male Number (%)	Female Number (%)
Low	183 (17.9%)	244 (21.2%)
Moderate	550 (53.9%)	643 (56.0%)
High	238 (23.3%)	203 (17.7%)
Unknown/Missing/ Outliers	50 (4.9%)	58 (5.1%)
Total	1 021 (100.0%)	1 147 (100.0%)

Note: Add-ups may not be equal to total due to rounding.

Source: Centre of Health Protection (2006).

Table B.2.5 Vigorous Physical Activity (Survey conducted in October 2005)

Day	Male Number (%)	Female Number (%)	Overall Number (%)
None	584 (53.7%)	841 (73.3%)	1425 (65.7%)
One day	147 (14.4%)	99 (8.6%)	246 (11.3%)
Two days	115 (11.3%)	83 (7.2%)	198 (9.1%)
Three or more days	174 (17.1%)	119 (10.4%)	293 (13.5%)
Unknown/Missing/ Outliers	0 (0.0%)	6 (0.5%)	6 (0.3%)
Total	1021 (100.0%)	1147 (100.0%)	2168 (100.0%)

Note: Add-ups may not be equal to total due to rounding.

Source: Centre of Health Protection (2006).

B.2.6 Moderate Physical Activity (Survey conducted in October 2005)

Day	Male Number (%)	Female Number (%)	Overall Number (%)
None	576 (56.5%)	609 (53.1%)	1185 (54.7%)
One day	110 (10.8%)	120 (10.5%)	230 (10.6%)
Two days	107 (10.5%)	117 (10.2%)	224 (10.3%)
Three or more days	226 (22.1%)	294 (25.6%)	520 (24.0%)
Unknown/Missing/ Outliers	1 (0.1%)	7 (0.6%)	9 (0.4%)
Total	1021 (100.0%)	1147 (100.0%)	2168 (100.0%)

Note: Add-ups may not be equal to total due to rounding.

Source: Centre of Health Protection (2006)

Table B.2.7 Walking Exercises (Survey conducted in October 2005)

Day	Male Number (%)	Female Number (%)	Overall Number (%)
Everyday	779 (76.3%)	845 (73.6%)	1624 (74.9%)
5-6 days	110 (10.8%)	131 (11.4%)	242 (11.1%)
3-4 days	57 (5.5%)	81 (7.1%)	138 (6.4%)
2 days or less	73 (7.2%)	89 (7.8%)	162 (7.5%)
Unknown/Missing/ Outliers	1 (0.1%)	1 (0.1%)	2 (0.1%)
Total	1021 (100.0%)	1147 (100.0%)	2168 (100.0%)

Note: Add-ups may not be equal to total due to rounding.

Source: Centre of Health Protection (2006)

Table B.2.8 Consumption of five servings of fruit and vegetables per day (Survey conducted in April 2006)

Servings of fruit and vegetables per day*	Male Number (%)	Female Number (%)	Overall Number (%)
Less than 5	779 (82.3%)	809 (73.5%)	1 588 (77.6%)
5 or more	160 (16.9%)	283 (25.7%)	443 (21.6%)
Unknown/Missing/ Outliers	7 (0.7%)	9 (0.9%)	16 (0.8%)
Total	946 (100.0%)	1 101 (100.0%)	2 047 (100.0%)

Notes:*Average number of servings of fruit and vegetables eaten per day is equal to the sum of the average number of fruit eaten per day and twice the average number of bowls of vegetables eaten per day. Add-ups may not be equal to total due to rounding.

Source: Centre of Health Protection (2006).

Table B.2.9 Food Habits by Gender for Hong Kong People, 2003/2004

	Male	Female
Removing none of fat when eating	26.2%	10.5%
Having inadequate consumption of fresh fruits (less than once a day)	51.5%	37.1%
Having inadequate consumption of fresh vegetables (less than once a day)	18.4%	10.7%
Drinking milk less than once a week	48.0%	41.1%
Eating soybean curd less than once a week	48.2%	46.0%

Source: Population Health Survey 2003/2004, Department of Health (2007).

Table B.2.10 Alcohol Consumption by Gender for Hong Kong People, (April 2006)

Day	Male Number (%)	Female Number (%)	Overall Number (%)
None	526 (55.6%)	912 (82.9%)	1438 (70.3%)
Less than 1 day per week	120 (12.6%)	106 (9.6%)	225 (11.0%)
1-3 days within a week	203 (21.5%)	60 (5.5%)	263 (12.9%)
4-6 days within a week	33 (3.5%)	10 (0.9%)	43 (2.1%)
Daily	57 (6.0%)	11 (1.0%)	68 (3.3%)
Unknown/Missing/ Outliers	8 (0.8%)	2 (0.2%)	9 (0.5%)
Total	946 (100.0%)	1 101 (100.0%)	2 047 (100.0%)

Note: Add-ups may not be equal to total due to rounding.

Source: Centre of Health Protection (2006).

Table B.2.11 Cigarettes Smoking by Gender for Hong Kong People, (April 2006)

Smoking status	Male Number (%)	Female Number (%)	Overall Number (%)
Daily smokers	248 (26.2%)	66 (6.0%)	314 (15.3%)
Occasional smokers (less than one cigarette per day)	9 (0.9%)	8 (0.7%)	17 (0.8%)
Ex-smokers	158 (16.7%)	46 (4.2%)	205 (10.0%)
Never smoked	530 (56.0%)	979 (88.9%)	1 509 (73.7%)
Unknown/Missing/ Outliers	1 (0.1%)	1 (0.1%)	2 (0.1%)
Total	946 (100.0%)	1 101 (100.0%)	2 047 (100.0%)

Note: Add-ups may not be equal to total due to rounding.

Source: Centre of Health Protection (2006)

Appendix C

Table C.1 Proportion of male and female working population aged 15 and over from the Mainland China having resided in Hong Kong for less than 7 years [1]

	Percentage of specified population			
Monthly income from main employment (HK$)	**Sex**	**1991**	**1996**	**2001**
< 2 000	F	14.7	2.4	2.5
	M	9.3	2.2	2.2
2 000 - 3 999	F	55.0	13.9	13.3
	M	24.6	5.3	6.1
4 000 - 5 999	F	25.1	37.7	35.8
	M	41.4	15.7	13.7
6 000 - 7 999	F	3.3	23.1	29.0
	M	14.5	25.9	25.2
8 000 - 9 999	F	0.8	10.3	9.8
	M	4.8	18.5	18.9
10 000 - 14 999	F	0.6	7.1	6.4
	M	3.2	16.1	22.1
15 000 - 19 999	F	0.2	2.6	1.4
	M	0.9	5.8	4.9
20 000 - 29 999	F	0.1	1.7	1.0
	M	0.7	5.4	3.1
30 000 or above	F	0.1	1.2	0.9
	M	0.6	5.1	3.7
Total	F	100.0	100.0	100.0
	M	100.0	100.0	100.0
Median monthly income from main employment (HK$)	F	3 200	5 500	5 800
	M	4 500	8 000	8 000

(1) only persons reported in the Population Census / By- census as being: (i) born in Mainland China; (ii) of Chinese nationality with place of domicile in Hong Kong; and (iii) as having lived in Hong Kong for less than seven years.

Source: Demographic Statistics Section, Census and Statistics Department 2005.

Appendix D

Questionnaire
(For Chinese migrant women in Hong Kong)

Information Sheet for the project "Health Status and Concept of Health Promotion for Chinese migrant women"

The following questionnaire was designed as part of an independent research study of Chinese migrant women's health. We would like to know if you have had any medical complaints and how your health has been in general before and after your migration to Hong Kong. Please answer ALL the questions on the following pages simply by tick the appropriate boxes, which you think most nearly, applies to you.

It is important that you try to answer ALL the questions.

All persons participating will stay anonymous and will be contributing valuable information that may make a difference in providing health care for Chinese migrant women. The data collected would only be used for academic purposes and will be kept confidential.

You may withdraw to the program anytime if you want.

Should you have any queries, please contact Ms. Denise Chow at 2819 2685
Thank you very much for your participation and co-operation.
Yours sincerely,

Denise Chow
Department of Nursing Studies
Faculty of Medicine
The University of Hong Kong

Part 1:

Demographic data

1. Age: □ 20-25 □ 26-30
□ 31-35 □ 36-40
□ 41-45 □ 46-50

2. Marital status □ single □ married
□ divorced □ other: _____

3. If married, number of children _____

4. Educational attainment:
□ never attend school □ primary
□ secondary □ University or above
□ other: _____

5. Languages speak:
(You may choose more than one item)
□ English □ Cantonese
□ Mandarin □ Province Dialect
□ Other: _____

6. Housing:
Type of dwelling
□ Renting public estate □ Government home-ownership scheme
□ Renting private: room □ Renting private: flat
□ Owning private flat □ Temporary house area
□ Interim House □ Squatter area
□ Others _____

7. District of residence in Hong Kong: _____

8. How many generations live in your household? _____
It includes: (you may choose more than one item)
□ your children □ your parents
□ your husband's parents □ your siblings or your husband's siblings
□ others _____

9. Occupation

   Before migration: _____

   After migration: _____

10. Have you worked at a job or business at any time since you migrated to Hong Kong?

    □ Yes, how long: _____

    □ No

11. Monthly family income (H.K. Dollars)

    □ < 3,000 □ 3,000 – 4,999

    □ 5,000 – 6,999 □ 7,000 – 8,999

    □ 9,000 – 10,999 □ 11,000 – 12,999

    □ 13,000 – 14,999 □ ≥ 15,000

12. Place of birth? _____

13. Place of residence in the Mainland _____

14. Years of migration to Hong Kong

    □ ≤ 2 years □ 3-5 years

    □ 5-10 years □ > 10 years

15. Category of migration

    □ Individual □ Family reunion

General Health status:

1. How do you describe your health before migration to Hong Kong?
   - □ Excellent
   - □ Very good
   - □ Good
   - □ Fair
   - □ Poor

2. Have you got any of the following health problems?
   - □ Hypertension
   - □ Diabetes
   - □ Heart disease
   - □ Other diseases or health problems, please specify:_____

3. Compared with "before and after migration" how would you say your health is now. Is it:
   - □ much better than before migration.
   - □ somewhat better now than before migration.
   - □ about the same.
   - □ somewhat worse now than before.
   - □ much worse now than before.

Since you migrated to Hong Kong,

4.1 would you say that most of the time you are:

- □ Extremely stressful
- □ Quite a bit stressful
- □ A bit stressful
- □ Not very stressful
- □ Not at all

4.2 have you seen a doctor in last two months?

- □ Yes, what are the reasons you see the doctor?
  Reasons: _____
- □ No

4.3 have you been feeling of run down and out of sorts?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

4.4 have you been lost much sleep over worry?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

4.5 have you been felt constantly under strain?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

4.6 have you been getting edgy and bad-tempered?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual
□ Less well than before □ Much less well

4.7 have you been thinking of yourself as a worthless person?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

4.8 have you been felt that life is entirely hopeless?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

4.9 have you been found at times you couldn't do anything because your nerves were too bad?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

5.1 Do you feel on the whole you are doing things well?

□ Better than before □ About the same
□ Less well than before □ Much less well

5.2 Have you been able to enjoy your normal day-to-day activities?

□ More so than before □ Same as before
□ Less so than before □ Much less than before

6. Have you ever had a Pap smear test?
   □ Yes, go to next question.
   □ No, go to question 8.

7. When was the last time?
   □ Less than 6 months ago
   □ 6 months to less than 1 year
   □ 1 year to less than 3 years
   □ More than 3 years

8. Have you been tested or done the following items before?
   (You may choose more than one item.)
   □ Perform breast self examination regularly
   □ Test Mammogram within last 2 years

Use of Health facilities:

1. How often you make physician visit per year before migration?
   □ 0-1 time / year □ 2 times / year
   □ 3-4 times / year □ > 4 times / year

2. How often you make physician visit per year after migration?
   □ 0-1 time / year □ 2 times / year
   □ 3-4 times / year □ > 4 times / year

3. Where does the most contact take place?
   □ Hospital emergency room
   □ Hospital outpatient clinic
   □ Community health clinic
   □ Private general practitioner
   □ Over the counter medication
   □ Others: pls. specify: _____

4. In the recent twelve months, have you been or how many times you have seen or talked on the telephone for your emotional or mental health?
   □ A family doctor or general practitioner, times/year: _____
   □ A nurse for care or advice, times/year: _____
   □ A psychologist, times/year: _____
   □ A social worker or counselor, times/year: _____
   □ A friend, times/year: _____

5. Are you still using the health facilities in Mainland China? If yes, how often?
   □ Yes, how often? _____
   □ No

6. Since you migrated to Hong Kong, was there ever a time when you felt that you needed health care but did not receive it?
   □ Yes, go to next question.
   □ No, go to part II.

7. Thinking of the most recent time, why didn't you get care?

- □ Not available in the area
- □ Waiting time too long
- □ Cost
- □ Too busy
- □ Didn't bother it
- □ Didn't know where to go
- □ Language problems
- □ Personal or family responsibilities
- □ Other – specify _____

Part II

Health promotion concept

- General health beliefs
- Knowledge about health promotion

1. Since you migrated to Hong Kong, did you do anything to improve your health?
   □ Yes, go to next question.
   □ No, go to question 3.

2. Do you make any change on the following item?
   (You may choose more than one item.)
   □ Increase exercise, sports or physical activities
   □ Regular body check up
   □ Lose weight
   □ Change diet or eating habits
   □ Quit smoking / reduce amount smoked
   □ Drink less alcohol
   □ Take vitamins
   □ Other – please specify _____

3. Do you think there is anything else you should do to improve your physical health?
   □ Yes, go to next question.
   □ No, go to question 5.

4. What is the most important thing?
   □ Increase exercise, sports
   □ Regular body check up
   □ Improve eating habits
   □ Quit smoking / reduce amount smoked
   □ Drink less alcohol
   □ Learn to manage stress
   □ Take vitamins
   □ Other – please specify _____

5. Is there anything stopping you from making this improvement?
   □ Yes, go to next question.
   □ No, go to question 7.

6. What is that?
   □ Lack of - will power / self-discipline
   □ Lack of - time
   □ Too tired
   □ Too difficult
   □ Too costly
   □ Too stressed
   □ Due to health problem
   □ Other – Please specify: _____

7. Is there anything you intend to do to improve your physical health in the next year?
   □ Yes, go to next question.
   □ No, go to question 9.

8. What is that?
   □ Start / increase exercise
   □ Lose weight
   □ Improve eating habits
   □ Quit smoking
   □ Reduce amount smoked
   □ Learn to manage stress
   □ Reduce stress level
   □ Take vitamins
   □ Other – please specify: _____

9. In the last year, did you attend a seminar for health promotion?
   □ Yes, how many times? _____
   □ No.

Thank You!

Questionnaire

(For Mainland Chinese Women)

Information Sheet for the Project " Health Status and Concept of Health Promotion for Mainland Chinese Women"

The following questionnaire was designed as part of an independent research study of China women's health. We would like to know if you have had any medical complaints and how your health has been in general Please answer ALL the questions on the following pages simply by tick the appropriate boxes, which you think most nearly, applies to you.

It is important that you try to answer ALL the questions.

All persons participating will stay anonymous and will be contributing valuable information that may make a difference in providing health care for Chinese migrant women. The data collected would only be used for academic purposes and will be kept confidential.

You may withdraw to the program anytime if you want.

Should you have any queries, please contact Ms. Denise Chow at 852 2819 2685

Thank you very much for your participation and co-operation.

Yours sincerely,

Denise Chow

Department of Nursing Studies

Faculty of Medicine

The University of Hong Kong

Part 1:

Demographic data

1. Age: □ 20-25 □ 26-30
□ 31-35 □ 36-40
□ 41-45 □ 46-50

2. Marital status □ single □ married
□ divorced □ other: _____

3. If married, number of children _____

4. Educational attainment:
□ never attend school □ primary
□ secondary □ University or above
□ other: _____

5. Housing:
Type of dwelling
□ Renting private: room
□ Renting private: flat
□ Owning private flat
□ Living in accommodation provided by employer
□ Other: _____

6. District of residence: _____

7. How many generations live in your household? _____
It includes: (you may choose more than one item)
□ your children □ your parents
□ your husband's parents □ your siblings or your husband's siblings
□ others: _____

8. Occupation: _____

9. Monthly family income (China Dollars – R.M.B.)

□ < 500 Yuan □ 500 -1,000 Yuan

□ 1,001-1,500 Yuan □ > 1,500 Yuan

10. Place of birth? _____

11. Place of residence in the Mainland China _____

General Health status:

1. How do you describe your health?

□ Excellent

□ Very good

□ Good

□ Fair

□ Poor

2. Have you got any of the following health problems?

□ Hypertension

□ Diabetes

□ Heart disease

□ Other diseases or health problems, please specify: _____

3.1 Would you say that most of the time you are:

□ Extremely stressful

□ Quite a bit stressful

□ A bit stressful

□ Not very stressful

□ Not at all

3.2 Have you seen a doctor in last two months?

□ Yes, what are the reasons you see the doctor?

Reasons: _____

□ No

3.3 Have you been feeling of run down and out of sorts?

□ Not at all □ No more than usual

□ Rather more than usual □ Much more than usual

3.4 Have you been lost much sleep over worry?

□ Not at all □ No more than usual

□ Rather more than usual □ Much more than usual

3.5 Have you been felt constantly under strain?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

3.6 Have you been getting edgy and bad-tempered?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

3.7 Have you been thinking of yourself as a worthless person?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

3.8 Have you been felt that life is entirely hopeless?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

3.9 Have you been found at times you couldn't do anything because your nerves were too bad?

□ Not at all □ No more than usual
□ Rather more than usual □ Much more than usual

4.1 Have you been felt on the whole you were doing things well?

□ Better than before □ About the same
□ Less well than before □ Much less well

4.2 Have you been able to enjoy your normal day-to-day activities?

□ More so than before □ Same as before
□ Less so than before □ Much less than before

5. Have you ever had a Pap smear test?

□ Yes, go to next question.
□ No, go to question 7.

6. When was the last time?

□ Less than 6 months ago
□ 6 months to less than 1 year
□ 1 year to less than 3 years
□ More than 3 years

7. Have you been tested or done the following items before?
(You may choose more than one item.)
□ Perform breast self examination regularly
□ Test Mammogram within last 2 years

Use of Health facilities:

1. How often you make physician visit per year?
   □ 0-1 time / year □ 2 times / year
   □ 3-4 times / year □ > 4 times / year

2. Where do the most contact take place?
   □ Hospital emergency room
   □ Hospital outpatient clinic
   □ Community health clinic
   □ Private general practitioner
   □ Over the counter medication
   □ Others: please specify: _____

3. In the recent twelve months, have you been or how many times you have seen or talked on the telephone for your emotional or mental health?
   □ A family doctor or general practitioner, times/year: _____
   □ A nurse for care or advice, times/year: _____
   □ A psychologist, times/year: _____
   □ A social worker or counselor, times/year: _____
   □ A friend, times/year: _____

4. Was there ever a time when you felt that you needed health care but did not receive it?
   □ Yes, go to next question.
   □ No, go to part II.

5. Thinking of the most recent time, why didn't you get care?
   □ Not available in the area
   □ Waiting time too long
   □ Cost
   □ Too busy
   □ Didn't bother it
   □ Didn't know where to go
   □ Language problems
   □ Personal or family responsibilities
   □ Other – please specify _____

Part II

Health promotion concept

- General health beliefs
- Knowledge about health promotion

1. In the past 12 months, did you do anything to improve your health?
   □ Yes, go to next question.
   □ No, go to question 3

2. Do you make any change on the following item?
   (You may choose more than one item.)
   □ Increase exercise, sports or physical activities
   □ Regular body check up
   □ Lose weight
   □ Change diet or eating habits
   □ Quit smoking / reduce amount smoked
   □ Drink less alcohol
   □ Take vitamins
   □ Other – please specify _____

3. Do you think there is anything else you should do to improve your physical health?
   □ Yes, go to next question.
   □ No, go to question 5.

4. What is the most important thing?
   □ Increase exercise, sports
   □ Regular body check up
   □ Improve eating habits
   □ Quit smoking / reduce amount smoked
   □ Drink less alcohol
   □ Learn to manage stress
   □ Take vitamins
   □ Other – please specify _____

5. Is there anything stopping you from making this improvement?
   □ Yes, go to next question.
   □ No, go to question 7.

6. What is that?
   □ Lack of - will power / self-discipline
   □ Lack of - time
   □ Too tired
   □ Too difficult
   □ Too costly
   □ Too stressed
   □ Due to health problem
   □ Other – please specify _____

7. Is there anything you intend to do to improve your physical health in the next year?
   □ Yes, go to next question.
   □ No, go to question 9.

8. What is that?
   □ Start / increase exercise
   □ Lose weight
   □ Improve eating habits
   □ Quit smoking
   □ Reduce amount smoked
   □ Learn to manage stress
   □ Reduce stress level
   □ Take vitamins
   □ Other – please specify: _____

9. In the last year, did you attend a seminar for health promotion?
   □ Yes, how many times? _____
   □ No

Thank You!

Appendix E

Table E.5.1 Socio-demographic Characteristics of Chinese Migrant Women from Mainland China According to Age (n=200)

	Single		Married	
Age	No.	%	No.	%
20-30	12	6	44	22
31-40	0	0	81	40.5
41-50	0	0	56	28
Total	12	6	181	90.5

	Cantonese Speaking		Non-Cantonese Speaking	
Age	No.	%	No.	%
20-30	45	22.5	11	5.5
31-40	52	26.0	33	16.5
41-50	29	14.5	30	15.0
Total	126	63.0	74	37.0

	Primary or below		Secondary		University or above	
Age	No.	%	No.	%	No.	%
20-30	13	6.5	31	15.5	12	6.0
31-40	64	32.0	19	9.5	2	1.0
41-50	35	17.5	19	9.5	5	2.5
Total	112	56.0	69	34.5	19	9.5

	Unemployed		Employed	
Age	No.	%	No.	%
20-30	44	22.0	12	6.0
31-40	76	38.0	9	4.5
41-50	48	24.0	11	5.5
Total	168	84.0	32	16.0

Table E.5.2 Total Family Income and Number of Children for New Arrivals (n=200)

	Total family income					
	<10.999k		11k-14.999k		>15k	
No. of children	No.	%	No.	%	No.	%
0	0	0.0	4	2.0	8	4.0
1	1	0.5	16	8.0	31	15.5
2	21	10.5	39	19.5	44	22.0
3 and above	5	2.5	12	6.0	19	9.5
Total	27	13.5	71	35.5	102	51.0

Table E.5.3 Stress Scale of Chinese Migrant Women (n=200)

Stress scale	Chinese Migrant Women	
	Number of women	%
6	1	0.5
7	1	0.5
8	1	0.5
9	3	1.5
10	9	4.5
11	5	2.5
12	16	8.0
13	23	11.5
14	51	25.5
15	44	22.0
16	21	10.5
17	17	8.5
18	6	3.0
19	2	1.0

Table E.5.4 Health Service Utilization Scale by Chinese Migrant Women (n=200)

Health Services Utilization Scale	Number of women	%
0	0	0.0
1	14	7.0
2	119	59.5
3	47	23.5
4	19	9.5
5	1	0.5

Table E.5.5 Number of Failure Experience to Use Hong Kong Health Services by Chinese Migrant Women (n=200)

Items of Failure Experience	Number of women	%
No barrier	1	.5
1 barrier	5	2.5
2 barriers	48	24.0
3 barriers	69	34.5
4 barriers	44	22.0
5 barriers	22	11.0
6 barriers	8	4.0
7 barriers	2	1.0
8 barriers	1	.5

Table E.5.6 Number of Strategies Chinese Migrant Women Performing to Improve Health Status (n=200)

Number of strategies performed	Number of women	%
No	42	21.0
1 strategy	114	57.0
2 strategies	15	7.5
3 strategies	16	8.0
4 strategies	9	4.5
5 strategies	3	1.5
7 strategies	1	0.5

Table E.5.7 Number of Health Promotion Activities Perceived as Important by Chinese Migrant Women (n=200)

Number of Important Health Promotion Activities	Number of women	%
No	10	5.0
1 activity	7	3.5
2 activities	62	31.0
3 activities	74	37.0
4 activities	42	21.0
5 activities	5	2.5
6 activities	0	0.0
7 activities	0	0.0
8 activities	0	0.0

Table E.5.8 Number of Obstacles to Improving Health Status for Chinese Migrant Women (n=200)

Number of obstacles	Number of women	%
No	1	0.5
1 obstacle	36	18.0
2 obstacles	112	56.0
3 obstacles	48	24.0
4 obstacles	3	1.5

Table E.5.9 Chinese Migrant Women Intended to Perform Strategies in the Coming Year in order to Improve Their Health (n=200)

Intended to Perform Strategies	**Number of women**	**%**
Yes	168	84.0
No	32	16.0

Appendix F

Table F.6.1 The Socio-demographic Characteristics for Chinese Migrant Women by Age (n=200)

	Singled		Married	
Age	No.	%	No.	%
20-30	12	6	44	22
31-40	0	0	81	40.5
41-50	0	0	56	28
Total	12	6	181	90.5
	Short time migration (5 years or less)		Long time migration (6 years or more)	
Age	No.	%	No.	%
20-30	41	20.5	15	7.5
31-40	52	26.0	33	16.5
41-50	6	3.0	53	26.5
Total	99	49.5	101	50.5
	Cantonese		**Mandarin**	
Age	No.	%	No.	%
20-30	45	22.5	36	18.0
31-40	52	26.0	40	20.0
41-50	29	14.5	25	12.5
Total	126	63.0	101	50.5
	Primary or below		**Secondary**	
Age	No.	%	No.	%
20-30	13	6.5	31	15.5
31-40	64	32.0	19	9.5
41-50	35	17.5	19	9.5
Total	112	56.0	69	34.5
	unemployed		**employed**	
Age	No.	%	No.	%
20-30	44	22.0	12	6.0
31-40	76	38.0	9	4.5
41-50	48	24.0	11	5.5
Total	168	84.0	32	16.0

Table F.6.2 The Socio-demographic Characteristics for Chinese Migrant Women by Educational Attainment (n=200)

Total family income (HK dollars)						
Education	**Less than 10.999k**		**11k-14.999k**		**>15k**	
Attainment	No.	%	No.	%	No.	%
Primary or below	17	8.5	51	25.5	44	22.0
Secondary	10	5.0	17	8.5	42	21.0
University	0	0.0	3	1.5	16	8.0
Total	27	13.5	71	35.5	102	51.0

Employment after migration				
Education	**No**		**Yes**	
Attainment	No.	%	No.	%
Primary or below	101	50.5	11	5.5
Secondary	60	30.0	9	4.5
University	7	3.5	12	6.0
Total	168	84.0	32	16.0

Table F.6.3 The Socio-demographic Characteristics for Chinese Migrant Women by Total Family Income (n=200)

	Number of children							
Total family	**0**		**1**		**2**		**3 and above**	
income	No.	%	No.	%	No.	%	No.	%
<10.999k	0	0.0	1	0.5	21	10.5	5	2.5
11k-14.999k	4	2.0	16	8.0	39	19.5	12	6.0
>15k	8	4.0	31	15.5	43	21.5	20	10.0
Total	12	6.0	48	24.5	103	51.5	37	18.5

	Family Household			
Total family	Nuclear family		Extended family	
income	No.	%	No.	%
<10.999k	18	9.0	9	4.5
11k-14.999k	57	28.5	14	7.0
>15k	72	36.0	30	15.0
Total	147	73.5	53	26.5

Table F.6.4 ANOVA for Comparing the Socio-demographic Variables with Physical Health of Chinese Migrant Women (n=200) (Full table)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	14.858	.000*
20-30	56	.0536	.22721	-.0073	.1144			
31-40	85	.1882	.42241	.0971	.2793			
41-50	59	.5085	.65319	.3383	.6787			
Education						2	7.023	.001*
primary or below	112	.3571	.58290	.2480	.4663			
secondary	69	.1159	.32250	.0385	.1934			
University	19	.0526	.22942	-.0579	.1632			
Marital Status						2	2.600	.077
single	12	.0000	.00000	.0000	.0000			
married	181	.2707	.51497	.1952	.3462			
others	7	.0000	.00000	.0000	.0000			
No. of Children						3	10.580	.000*
No children	12	.0000	.00000	.0000	.0000			
1 child	48	.0417	.20194	-.0170	.1003			
2 children	104	.2500	.47766	.1571	.3429			
3 and above children	36	.5833	.69179	.3493	.8174			
Family Income						2	3.739	.025
less than 10.999k	27	.0370	.19245	-.0391	.1132			
11k - 14.999k	71	.3380	.53301	.2119	.4642			
>15k	102	.2353	.51080	.1350	.3356			
Cantonese speaking								
Yes	126	.1667	.41473					
No	74	.3784	.58993					
Years of Migration						1	17.911	.000*
short time migration	99	.1010	.30288	.0406	.1614			
long time migration	101	.3861	.59950	.2678	.5045			
Type of housing						3	5.363	.001*
renting public flat	135	.2593	.47258	.1788	.3397			
renting private room or flat	22	.0000	.00000	.0000	.0000			
owning flat	29	.1724	.38443	.0262	.3186			

others	14	.6429	.92878	.1066	1.1791			
Family Household						1	6.843	.010*
nuclear family	147	.2993	.54162	.2110	.3876			
extend family	53	.0943	.29510	.0130	.1757			
Occupation after migration						1	3.586	.060
No	168	.2738	.52143	.1944	.3532			
Yes	32	.0938	.29614	-.0130	.2005			

* The P-value is significant at the 0 .01 level.

Table F.6.5 Multiple Comparisons of the Socio-demographic Variables and Physical Health of Chinese Migrant Women (n=200) (Full table)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
	Age					
20-30	31-40	-.13466	.08001	.214	-.3236	.0543
	41-50	-.45490*	.08673	.000*	-.6597	-.2501
31-40	20-30	.13466	.08001	.214	-.0543	.3236
	41-50	-.32024*	.07877	.000*	-.5063	-.1342
41-50	20-30	.45490*	.08673	.000*	.2501	.6597
	31-40	.32024*	.07877	.000*	.1342	.5063
	Education					
primary or below	secondary	.24120*	.07374	.004	.0671	.4153
	University	.30451*	.11955	.031	.0222	.5868
secondary	primary or below	-.24120*	.07374	.004	-.4153	-.0671
	University	.06331	.12483	.868	-.2315	.3581
University	primary or below	-.30451*	.11955	.031	-.5868	-.0222
	secondary	-.06331	.12483	.868	-.3581	.2315
	Marital Status					
Single	Married	-.27072	.14673	.158	-.6172	.0758
	Others	.00000	.23411	1.000	-.5529	.5529
Married	Single	.27072	.14673	.158	-.0758	.6172
	Others	.27072	.18962	.329	-.1771	.7185
Others	Single	.00000	.23411	1.000	-.5529	.5529
	Married	-.27072	.18962	.329	-.7185	.1771
	No. of Children					
No child	1 child	-.04167	.14970	.992	-.4296	.3462
	2 children	-.25000	.14141	.292	-.6164	.1164
	3 and above children	-.58333*	.15461	.001*	-.9840	-.1827
1 child	No child	.04167	.14970	.992	-.3462	.4296
	2 children	-.20833	.08094	.052	-.4181	.0014
	3 and above children	-.54167*	.10226	.000*	-.8067	-.2767
2 children	No child	.25000	.14141	.292	-.1164	.6164
	1 child	.20833	.08094	.052	-.0014	.4181
	3 and above children	-.33333*	.08969	.001*	-.5657	-.1009
3 and above	No child	.58333*	.15461	.001*	.1827	.9840
children	1 child	.54167*	.10226	.000*	.2767	.8067

	2 children	.33333*	.08969	.001*	.1009	.5657
Family Income						
< 10.999k	11k - 14.999k	.19826	.10594	.150	-.0519	.4484
	>15k	-.10273	.07566	.365	-.2814	.0759
11k - 14.999k	<10.999k	-.19826	.10594	.150	-.4484	.0519
	>15k	-.30099*	.11068	.019	-.5624	-.0396
>15k	< 10.999k	.10273	.07566	.365	-.0759	.2814
	11k - 14.999k	.30099*	.11068	.019	.0396	.5624
Type of housing						
Renting public	Renting private room					
flat	or flat	.08685	.09837	.814	-.1681	.3417
	Owning flat	.25926	.11051	.091	-.0271	.5456
	Others	-.38360*	.13495	.025	-.7333	-.0339
Renting private	Renting public					
room or flat	flat	-.08685	.09837	.814	-.3417	.1681
	Owning flat	.17241	.13589	.584	-.1797	.5245
	Others	-.47044*	.15642	.016	-.8758	-.0651
Owning flat	Renting public					
	flat	-.25926	.11051	.091	-.5456	.0271
	Renting private room					
	or flat	-.17241	.13589	.584	-.5245	.1797
	Others	-.64286*	.16432	.001	-1.0686	-.2171
Others	Renting public flat	.38360*	.13495	.025	.0339	.7333
	Renting private room					
	or flat	.47044*	.15642	.016	.0651	.8758
	Owning flat	.64286*	.16432	.001	.2171	1.0686

Table F.6.6 Independent Samples Test for the Socio-demographic Variables and Physical Health of Chinese Migrant Women (n=200) (Full table)

	T-test for Equality of Means					
	t	**df**	**Sig.(2tailed)**	**Mean Difference**	**95% CI of the Difference**	
					Lower	**Upper**
Cantonese Speaking						
Equal variances assumed	2.570	198	.011	. .799	.186	1.413
Equal variances not assumed	2.730	181.185	0.07	.799	.222	1.377
			(F=2.007, P=.158)			
Years of Migration						
Equal variances assumed	1.094	198	.275	.333	-.267	.933
Equal variances not assumed	1.094	197.972	..275	.333	-.267	.933
			(F=.383, P=.537)			
Family Household						
Equal variances assumed	.125	198	.901	.043	-.639	.725
Equal variances not assumed	.136	109.366	.892	.043	-.587	.673
			(F=1.709, P=.193)			
Occupation after migration						
Equal variances assumed	2.886	198	.004.	1.17708	.37269	1.98148
Equal variances not assumed	2.564	39.774	.014	1.17708	.24920	2.10497
			(F=1.267, P=.262)			

*The P-value is significant at the 0 .01 level.

Table F.6.10 ANOVA for Comparing the Socio-demographic Variables with Stress Scale of Chinese Migrant Women (n=200) (Full table)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age								
20-30	56	13.12	2.081	12.57	13.68	2	9.483	.000*
31-40	85	14.52	1.887	14.11	14.92			
41-50	59	14.58	2.291	13.98	15.17			
Education								
primary or below	112	14.42	2.146	14.02	14.82	2	9.359	.000*
secondary	69	14.23	1.880	13.78	14.68			
University	19	12.21	2.250	11.13	13.30			
Marital Status								
single	12	10.67	1.231	9.88	11.45	2	24.070	.000*
married	181	14.29	1.822	14.03	14.56			
others	7	16.29	4.608	12.02	20.55			
No. of Children								
No children	12	10.67	1.231	9.88	11.45	3	18.423	.000*
1 child	48	13.69	2.165	13.06	14.32			
2 children	104	14.38	1.927	14.01	14.76			
3 and above children	36	15.22	1.692	14.65	15.79			
Family Income								
less than 10.999k	27	15.33	2.418	14.38	16.29	2	4.983	.008*
11k - 14.999k	71	14.01	1.975	13.55	14.48			
>15k	102	13.92	2.119	13.51	14.34			
Years of Migration								
short time migration	99	14.31	2.117	13.89	14.74	1	1.196	.275
long time migration	101	13.98	2.186	13.55	14.41			
Type of housing								
renting public flat	135	14.05	2.107	13.69	14.41	3	1.300	.276
renting private room or flat	22	14.64	2.060	13.72	15.55			
owning flat	29	13.83	2.037	13.05	14.60			
others	14	14.93	2.841	13.29	16.57			
Family Household								

nuclear family	147	14.16	2.250	13.79	14.52	1	.016	.901
extend family	53	14.11	1.878	13.60	14.63			
Occupation after migration								
No	168	14.33	2.049	14.02	14.65	1	8.327	.004*
Yes	32	13.16	2.438	12.28	14.04			

* The P-value is significant at the 0 .01 level.

Table F.6.11 Multiple Comparisons of the Socio-demographic Variables and Stress Scale of Chinese Migrant Women (n=200) (Full table)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
					Lower	*Upper*
(I)	*(J)*	*(I-J)*			*Bound*	*Bound*
	Age					
20-30	**31-40**	-1.39265*	.35577	.000*	-2.2328	-.5525
	41-50	-1.45127*	.38565	.001*	-2.3620	-.5405
31-40	**20-30**	1.39265*	.35577	.000*	.5525	2.2328
	41-50	-.05862	.35027	.985	-.8858	.7686
41-50	**20-30**	1.45127*	.38565	.001*	.5405	2.3620
	31-40	.05862	.35027	.985	-.7686	.8858
	Education					
primary or below	**secondary**	.18776	.31653	.824	-.5597	.9353
	University	2.20912*	.51317	.000*	.9972	3.4210
secondary	**primary or below**	-.18776	.31653	.824	-.9353	.5597
	University	2.02136*	.53586	.001*	.7559	3.2868
University	**primary or below**	-2.20912*	.51317	.000*	-3.4210	-.9972
	secondary	-2.02136*	.53586	.001*	-3.2868	-.7559
	Marital Status					
Single	**Married**	-3.626*	.578	.000*	-4.99	-2.26
	Others	-5.619*	.923	.000*	-7.80	-3.44
Married	**Single**	3.626*	.578	.000*	2.26	4.99
	Others	-1.993*	.747	.023	-3.76	-.23
Others	**Single**	5.619*	.923	.000*	3.44	7.80
	Married	1.993*	.747	.023	.23	3.76
	No. of Children					
No child	**1 child**	-3.021*	.619	.000*	-4.62	-1.42
	2 children	-3.718*	.584	.000*	-5.23	-2.20
	3 and above children	-4.556*	.639	.000*	-6.21	-2.90
1 child	**No child**	3.021*	.619	.000*	1.42	4.62
	2 children	-.697	.334	.162	-1.56	.17
	3 and above children	-1.535*	.423	.002*	-2.63	-.44
2 children	**No child**	3.718*	.584	.000*	2.20	5.23
	1 child	.697	.334	.162	-.17	1.56
	3 and above children	-.838	.371	.111	-1.80	.12

3 and above	**No child**	4.556*	.639	.000*	2.90	6.21
children	**1 child**	1.535*	.423	.002*	.44	2.63
	2 children	.838	.371	.111	-.12	1.80
	Family Income					
< 10.999k	**11k - 14.999k**	1.319*	.477	.017	.19	2.45
	>15k	1.412*	.457	.006	.33	2.49
11k - 14.999k	**<10.999k**	-1.319*	.477	.017	-2.45	-.19
	>15k	.093	.326	.957	-.68	.86
>15k	**< 10.999k**	-1.412*	.457	.006	-2.49	-.33
	11k - 14.999k	-.093	.326	.957	-.86	.68
	Type of housing					
Renting public flat	**Renting private room or flat**	-.585	.494	.638	-1.86	.70
	Owning flat	.224	.440	.957	-.92	1.36
	Others	-.877	.603	.468	-2.44	.69
Renting private room or flat	**Renting public Flat**	.585	.494	.638	-.70	1.86
	Owning flat	.809	.607	.544	-.77	2.38
	Others	-.292	.735	.979	-2.20	1.61
Owning flat	**Renting public Flat**	-.224	.440	.957	-1.36	.92
	Renting private room or flat	-.809	.607	.544	-2.38	.77
	Others	-1.101	.699	.396	-2.91	.71
Others	**Renting public flat**	.877	.603	.468	-.69	2.44
	Renting private room or flat	.292	.735	.979	-1.61	2.20
	Owning flat	1.101	.699	.396	-.71	2.91

Table F.6.13 ANOVA for Comparing the Socio-demographic Variables with Health Services Utilization Scale for Chinese Migrant Women (n=200) (Full table)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age								
20-30	56	2.23	.660	2.06	2.41	2	1.462	.234
31-40	85	2.46	.839	2.28	2.64			
41-50	59	2.37	.763	2.17	2.57			
Education								
primary or below	112	2.46	.793	2.32	2.61	2	2.093	.126
secondary	69	2.28	.765	2.09	2.46			
University	19	2.16	.602	1.87	2.45			
Marital Status								
single	12	1.92	.669	1.49	2.34	2	2.416	.092
married	181	2.39	.779	2.28	2.51			
others	7	2.57	.535	2.08	3.07			
No. of Children								
No children	12	1.92	.669	1.49	2.34	3	1.957	.122
1 child	48	2.33	.753	2.11	2.55			
2 children	104	2.38	.767	2.24	2.53			
3 and above children	36	2.53	.810	2.25	2.80			
Family Income								
less than 10.999k	27	2.41	.797	2.09	2.72	2	.037	.964
11k - 14.999k	71	2.37	.849	2.17	2.57			
>15k	102	2.36	.715	2.22	2.50			
Years of Migration								
short time migration	99	2.38	.724	2.24	2.53	1	.063	.803
long time migration	101	2.36	.820	2.19	2.52			
Type of housing								
renting public flat	135	2.27	.717	2.15	2.40	3	10.955	.000*
renting private room or flat	22	2.36	.581	2.11	2.62			
owning flat	29	2.31	.712	2.04	2.58			
others	14	3.43	.938	2.89	3.97			
Family Household								

nuclear family	147	2.40	.791	2.27	2.53	1	.915	.340
extend family	53	2.28	.717	2.09	2.48			
Occupation after migration								
No	168	2.36	.769	2.25	2.48	1	.084	.773
Yes	32	2.41	.798	2.12	2.69			
Cantonese speaking								
No	74	2.35	.748	2.18	2.52	1	.068	.794
Yes	126	2.38	.788	2.24	2.52			

* The P-value is significant at the 0 .01 level.

Table F.6.14 Multiple Comparisons of the Socio-demographic variables and Health Services Utilization Scale for Chinese Migrant Women (n=200) (Full table)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
					Lower Bound	*Upper Bound*
(I)	*(J)*	*(I-J)*				
	Age					
20-30	**31-40**	-.227	.133	.204	-.54	.09
	41-50	-.141	.144	.591	-.48	.20
31-40	**20-30**	.227	.133	.204	-.09	.54
	41-50	.086	.131	.788	-.22	.39
41-50	**20-30**	.141	.144	.591	-.20	.48
	31-40	-.086	.131	.788	-.39	.22
	Education					
primary or below	**secondary**	.189	.118	.245	-.09	.47
	University	.306	.191	.245	-.14	.76
secondary	**primary or below**	-.189	.118	.245	-.47	.09
	University	.117	.199	.825	-.35	.59
University	**primary or below**	-.306	.191	.245	-.76	.14
	secondary	-.117	.199	.825	-.59	.35
	Marital Status					
Single	**Married**	-.476	.229	.096	-1.02	.06
	Others	-.655	.365	.174	-1.52	.21
Married	**Single**	.476	.229	.096	-.06	1.02
	Others	-.179	.295	.817	-.88	.52
Others	**Single**	.655	.365	.174	-.21	1.52
	Married	.179	.295	.817	-.52	.88
	No. of Children					
No child	**1 child**	-.417	.247	.335	-1.06	.22
	2 children	-.468	.234	.191	-1.07	.14
	3 and above children	-.611	.256	.082	-1.27	.05
1 child	**No child**	.417	.247	.335	-.22	1.06
	2 children	-.051	.134	.981	-.40	.30
	3 and above children	-.194	.169	.659	-.63	.24
2 children	**No child**	.468	.234	.191	-.14	1.07
	1 child	.051	.134	.981	-.30	.40
	3 and above children	-.143	.148	.769	-.53	.24

3 and above	**No child**	.611	.256	.082	-.05	1.27
children	**1 child**	.194	.169	.659	-.24	.63
	2 children	.143	.148	.769	-.24	.53
	Family Income					
< 10.999k	**11k - 14.999k**	.041	.175	.970	-.37	.46
	>15k	.045	.168	.962	-.35	.44
11k - 14.999k	**<10.999k**	-.041	.175	.970	-.46	.37
	>15k	.003	.120	1.000	-.28	.29
>15k	**< 10.999k**	-.045	.168	.962	-.44	.35
	11k - 14.999k	-.003	.120	1.000	-.29	.28
	Type of housing					
Renting public flat	**Renting private room or flat**	-.090	.166	.949	-.52	.34
	Owning flat	-.036	.147	.995	-.42	.35
	Others	-1.154*	.202	.000*	-1.68	-.63
Renting private room or flat	**Renting public Flat**	.090	.166	.949	-.34	.52
	Owning flat	.053	.204	.994	-.47	.58
	Others	-1.065*	.246	.000*	-1.70	-.43
Owning flat	**Renting public Flat**	.036	.147	.995	-.35	.42
	Renting private room or flat	-.053	.204	.994	-.58	.47
	Others	-1.118*	.234	.000*	-1.73	-.51
Others	**Renting public flat**	1.154*	.202	.000	.63	1.68
	Renting private room or flat	1.065*	.246	.000*	.43	1.70
	Owning flat	1.118*	.234	.000*	.51	1.73

Table F.6.15 ANOVA for comparing the Socio-demographic variables with Barriers to health services of Chinese Migrant Women (n=200) (Full table)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	2.581	.078
20-30	56	3.0000	1.29334	2.6536	3.3464			
31-40	85	3.4706	1.35038	3.1793	3.7619			
41-50	59	3.4068	1.05240	3.1325	3.6810			
Education						2	6.859	.001*
primary or below	112	3.5625	1.27894	3.3230	3.8020			
secondary	69	3.1449	1.21601	2.8528	3.4370			
University	19	2.5263	.90483	2.0902	2.9624			
Marital Status						2	7.387	.001*
single	12	2.0833	.90034	1.5113	2.6554			
married	181	3.3757	1.23480	3.1946	3.5568			
others	7	4.0000	1.41421	2.6921	5.3079			
No. of Children						3	5.315	.002*
No children	12	2.0833	.90034	1.5113	2.6554			
1 child	48	3.1458	.94508	2.8714	3.4203			
2 children	104	3.4615	1.37892	3.1934	3.7297			
3 and above children	36	3.5556	1.15745	3.1639	3.9472			
Family Income						2	1.105	.333
less than 10.999k	27	3.6296	1.52286	3.0272	4.2321			
11k - 14.999k	71	3.3380	1.31956	3.0257	3.6504			
>15k	102	3.2255	1.14240	3.0011	3.4499			
Cantonese speaking						1	16.046	.000*
No	74	3.8243	1.45582					
Yes	126	3.0238	1.03123					
Years of Migration						1	3.057	.082
short time migration	99	3.4646	1.35008	3.1954	3.7339			
long time migration	101	3.1782	1.16100	2.9490	3.4074			
Type of housing								
renting public flat	135	3.3111	1.35198	3.0810	3.5413	3	2.478	.063
renting private room	22	3.3636	1.25529	2.8071	3.9202			

or flat								
owning flat	29	2.9655	.86531	2.6364	3.2947			
others	14	4.0714	.73005	3.6499	4.4929			
Family Household						1	5.978	.01*
nuclear family	147	3.1905	1.24049	2.9883	3.3927			
extend family	53	3.6792	1.26755	3.3299	4.0286			
Occupation after migration						1	3.538	.061
No	168	3.3929	1.32247	3.1914	3.5943			
Yes	32	2.9375	.80071	2.6488	3.2262			

* The P-value is significant at the 0 .01 level.

Table F.6.16 Multiple Comparisons of the Socio-demographic variables with Barriers to health services of Chinese Migrant Women (n=200) (Full table)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
					Lower Bound	*Upper Bound*
(I)	*(J)*	*(I-J)*				
	Age					
20-30	**31-40**	-.47059	.21570	.077	-.9800	.0388
	41-50	-.40678	.23381	.193	-.9589	.1454
31-40	**20-30**	.47059	.21570	.077	-.0388	.9800
	41-50	.06381	.21236	.951	-.4377	.5653
41-50	**20-30**	.40678	.23381	.193	-.1454	.9589
	31-40	-.06381	.21236	.951	-.5653	.4377
	Education					
primary or below	**secondary**	.41757	.18786	.070	-.0261	.8612
	University	1.03618*	.30457	.002	.3169	1.7554
secondary	**primary or below**	-.41757	.18786	.070	-.8612	.0261
	University	.61861	.31804	.129	-.1324	1.3697
University	**primary or below**	-1.03618*	.30457	.002	-1.7554	-.3169
	secondary	-.61861	.31804	.129	-1.3697	.1324
	Marital Status					
Single	**Married**	-1.29236*	.36500	.001	-2.1543	-.4304
	Others	-1.91667*	.58235	.003	-3.2919	-.5414
Married	**Single**	1.29236*	.36500	.001	.4304	2.1543
	Others	-.62431	.47167	.384	-1.7382	.4896
Others	**Single**	1.91667*	.58235	.003	.5414	3.2919
	Married	.62431	.47167	.384	-.4896	1.7382
	No. of Children					
No child	**1 child**	-1.06250*	.39504	.039	-2.0861	-.0389
	2 children	-1.37821*	.37316	.002	-2.3451	-.4113
	3 and above children	-1.47222*	.40799	.002	-2.5294	-.4150
1 child	**No child**	1.06250*	.39504	.039	.0389	2.0861
	2 children	-.31571	.21358	.453	-.8691	.2377
	3 and above children	-.40972	.26986	.429	-1.1090	.2895
2 children	**No child**	1.37821*	.37316	.002	.4113	2.3451
	1 child	.31571	.21358	.453	-.2377	.8691
	3 and above children	-.09402	.23668	.979	-.7073	.5193
3 and above	**No child**	1.47222*	.40799	.002	.4150	2.5294

children	**1 child**	.40972	.26986	.429	-.2895	1.1090
	2 children	.09402	.23668	.979	-.5193	.7073
	Family Income					
< 10.999k	**11k - 14.999k**	.29160	.28545	.564	-.3825	.9657
	>15k	.40414	.27324	.303	-.2411	1.0494
11k - 14.999k	**<10.999k**	-.29160	.28545	.564	-.9657	.3825
	>15k	.11254	.19513	.833	-.3483	.5733
>15k	**< 10.999k**	-.40414	.27324	.303	-1.0494	.2411
	11k - 14.999k	-.11254	.19513	.833	-.5733	.3483
	Type of housing					
Renting public flat	**Renting private room or flat**	-.05253	.28724	.998	-.7968	.6918
	Owning flat	.34559	.25570	.531	-.3170	1.0082
	Others	-.76032	.35078	.136	-1.6693	.1486
Renting private room or flat	**Renting public flat**	.05253	.28724	.998	-.6918	.7968
	Owning flat	.39812	.35322	.673	-.5172	1.3134
	Others	-.70779	.42712	.349	-1.8146	.3990
Owning flat	**Renting public flat**	-.34559	.25570	.531	-1.0082	.3170
	Renting private room or flat	-.39812	.35322	.673	-1.3134	.5172
	Others	-1.10591*	.40658	.036	-2.1594	-.0524
Others	**Renting public flat**	.76032	.35078	.136	-.1486	1.6693
	Renting private room or flat	.70779	.42712	.349	-.3990	1.8146
	Owning flat	1.10591*	.40658	.036	.0524	2.1594

***** The mean difference is significant at the 0 .05 level.

Table F.6.17 Independent Samples Test for the Socio-demographic variables and Chinese Migrant Women's Barrier scale of Using Hong Kong Health Services (n=200) (Full table)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference	
					Lower	Upper
Cantonese Speaking						
Equal variances assumed	4.535	198	.000	.80051	.45240	1.14863
Equal variances not assumed	4.157	116.457	.000	.80051	.41914	1.18189
				(F=.16.046, P=.000)		
Years of Migration						
Equal variances assumed	1.610	198	.109	.28643	-.06447	.63732
Equal variances not assumed	1.607	192.463	.110	.28643	-.06506	.63791
				(F=3.057, P=.082)		
Family Household						
Equal variances assumed	-.2.445	198	.015	-.48877	-.88297	-.09456
Equal variances not assumed	-2.420	90.279	.018	-.48877	-.88996	-.08758
				(F=.183, P=.670)		
Occupation after migration						
Equal variances assumed	1.881	198	.061	.45536	-.02207	.93278
Equal variances not assumed	2.610	68.168	.011	.45536	.10719	.80352
				(F=18.382, P=.000)		

*The P-value is significant at the 0 .01 level.

Table F.6.18 ANOVA for Comparing the Socio-demographic Variables and Perform Strategies to Improve Health Status by Chinese Migrant Women (n=200) (Full table)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	9.427	.000*
20-30	56	.89	.888	.66	1.13			
31-40	85	1.13	.897	.94	1.32			
41-50	59	1.76	1.546	1.36	2.17			
Education						2	4.974	.008*
primary or below	112	1.28	1.109	1.07	1.48			
secondary	69	1.01	1.007	.77	1.26			
University	19	1.95	1.747	1.11	2.79			
Marital Status						2	3.301	.039*
single	12	.42	.996	-.22	1.05			
married	181	1.30	1.179	1.13	1.48			
others	7	1.29	.756	.59	1.98			
No. of Children						3	2.997	.032*
No children	12	.42	.996	-.22	1.05			
1 child	48	1.08	.710	.88	1.29			
2 children	104	1.38	1.225	1.15	1.62			
3 and above children	36	1.36	1.437	.87	1.85			
Family Income						2	8.691	.000*
less than 10.999k	27	.63	.565	.41	.85			
11k - 14.999k	71	1.06	1.120	.79	1.32			
>15k	102	1.55	1.240	1.31	1.79			
Cantonese speaking						1	.471	.493
Yes	74	1.32	1.273	1.03	1.62			
No	126	1.21	1.112	1.01	1.40			
Years of Migration						1	6.437	.012*
short time migration	99	1.04	.880	.86	1.22			
long time migration	101	1.46	1.375	1.18	1.73			
Type of housing						3	6.318	.000*
renting public flat	135	1.07	1.108	.88	1.26			
renting private room or flat	22	1.64	1.002	1.19	2.08			

owning flat	29	1.97	1.426	1.42	2.51			
others	14	.93	.730	.51	1.35			
Family Household						1	1.123	.291
nuclear family	147	1.20	1.192	1.00	1.39			
extend family	53	1.40	1.115	1.09	1.70			
Occupation after migration						1	2.206	.139
No	168	1.20	1.090	1.03	1.36			
Yes	32	1.53	1.524	.98	2.08			

* The P-value is significant at the 0 .05 level.

Table F.6.19 Multiple Comparisons of the Socio-demographic Variables and Perform Strategies to Improve Health Status by Chinese Migrant Women (n=200) (Full table)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
					Lower	*Upper*
(I)	*(J)*	*(I-J)*			*Bound*	*Bound*
Age						
20-30	31-40	-.237	.194	.442	-.69	.22
	41-50	-.870*	.210	.000	-1.37	-.37
31-40	20-30	.237	.194	.442	-.22	.69
	41-50	-.633*	.191	.003	-1.08	-.18
41-50	20-30	.870*	.210	.000	.37	1.37
	31-40	.633*	.191	.003	.18	1.08
Education						
primary or below	secondary	.262	.176	.298	-.15	.68
	University	-.671	.285	.051	-1.34	.00
secondary	primary or below	-.262	.176	.298	-.68	.15
	University	-.933*	.298	.006	-1.64	-.23
University	primary or below	.671	.285	.051	.00	1.34
	secondary	.933*	.298	.006	.23	1.64
Marital Status						
Single	Married	-.887*	.345	.029	-1.70	-.07
	Others	-.869	.551	.258	-2.17	.43
Married	Single	.887*	.345	.029	.07	1.70
	Others	.018	.446	.999	-1.04	1.07
Others	Single	.869	.551	.258	-.43	2.17
	Married	-.018	.446	.999	-1.07	1.04
No. of Children						
No child	1 child	-.667	.373	.282	-1.63	.30
	2 children	-.968*	.352	.033	-1.88	-.06
	3 and above children	-.944	.385	.071	-1.94	.05
1 child	No child	.667	.373	.282	-.30	1.63
	2 children	-.301	.202	.443	-.82	.22
	3 and above children	-.278	.255	.696	-.94	.38
2 children	No child	.968*	.352	.033	.06	1.88
	1 child	.301	.202	.443	-.22	.82
	3 and above children	.024	.223	1.000	-.56	.60
3 and above	No child	.944	-.024	.071	-.05	1.94

children	1 child	.278	.255	.696	-.38	.94
	2 children	-.024	.223	1.000	-.60	.56
	Family Income					
< 10.999k	11k - 14.999k	-.427	.255	.219	-1.03	.18
	>15k	-.919*	.244	.001	-1.50	-.34
11k - 14.999k	<10.999k	.427	.255	.219	-.18	1.03
	>15k	-.493*	.175	.014	-.90	-.08
>15k	< 10.999k	.919*	.244	.001	.34	1.50
	11k - 14.999k	.493*	.175	.014	.08	.90
	Type of housing					
Renting public flat	Renting private room or flat	-.570	.259	.128.00	-1.24	.10
	Owning flat	-.899*	.231	.001	-1.50	-.30
	Others	.138	.317	.972	-.68	.96
Renting private room or flat	Renting public flat	.570	.259	.128	-.10	1.24
	Owning flat	-.329	.319	.731	-1.16	.50
	Others	.708	.386	.260	-.29	1.71
Owning flat	Renting public flat	.899*	.231	.001	.30	1.50
	Renting private room or flat	.329	.319	.731	-.50	1.16
	Others	1.037*	.367	.027	.09	1.99
Others	Renting public flat	-.138	.317	.260.97	-.96	.68
	Renting private room or flat	-.708	.386	2	-1.71	.29
	Owning flat	-1.037*	.367	.027	-1.99	-.09

*. The mean difference is significant at the 0.05 level.

Table F.6.20 Independent Samples Test for the Socio-demographic Variables and Perform Strategies to Improve Health Status by Chinese Migrant Women (n=200) (Full table)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference Lower	Upper
Cantonese Speaking						
Equal variances assumed	.686	198	.493	.118	-.221	.457
Equal variances not assumed	.663	137.082	.509	.118	-.234	.470
				(F=.780, P=.378)		
Years of Migration						
Equal variances assumed	-2.537	198	.012*	-.415	-.738	-.092
Equal variances not assumed	-2.548	170.602	.012*	-.415	-.737	-.093
				(F=24.455, P=.000)		
Family Household						
Equal variances assumed	-1.060	198	.291	. -.199	-.569	.171
Equal variances not assumed	-1.093	97.712	.277	-.199	-.560	.162
				(F=.030, P=.863)		
Occupation after migration						
Equal variances assumed	-1.485	198	.139	-.335	-.779	.110
Equal variances not assumed	-1.187	37.276	.243	-.335	-.906	.237
				(F=11.947, P=.001)		

*The P-value is significant at the 0 .01 level.

Table F.6.21 ANOVA for comparing the Socio-demographic variables and Perceived Important Health Promotion Activities by Chinese Migrant Women (n=200) (Full table)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	1.310	.272
20-30	56	2.3036	1.12686	2.0018	2.6053			
31-40	85	2.0235	1.20492	1.7636	2.2834			
41-50	59	2.3220	1.41958	1.9521	2.6920			
Education						2	2.996	.052
primary or below	112	2.0893	1.24881	1.8555	2.3231			
secondary	69	2.1739	1.21215	1.8827	2.4651			
University	19	2.8421	1.30227	2.2144	3.4698			
Marital Status						2	.890	.412
single	12	2.1667	1.11464	1.4585	2.8749			
married	181	2.2155	1.26183	2.0304	2.4005			
others	7	1.5714	1.27242	.3946	2.7482			
No. of Children						3	.821	.484
No children	12	2.1667	1.11464	1.4585	2.8749			
1 child	48	2.3958	1.30040	2.0182	2.7734			
2 children	104	2.0673	1.29423	1.8156	2.3190			
3 and above children	36	2.2778	1.11127	1.9018	2.6538			
Family Income						2	17.616	.000*
less than 10.999k	27	1.6296	1.04323	1.2169	2.0423			
11k - 14.999k	71	1.7183	1.22104	1.4293	2.0073			
>15k	102	2.6667	1.14609	2.4416	2.8918			
Cantonese speaking						1	.471	.493
No	74	1.32	1.273	1.03	1.62			
Yes	126	1.21	1.112	1.01	1.40			
Years of Migration						1	6.437	.012*
short time migration	99	1.04	.880	.86	1.22			
long time migration	101	1.46	1.375	1.18	1.73			
Type of housing								
renting public flat	135	2.1407	1.25284	1.9275	2.3540	3	2.032	.111
renting private room or flat	22	2.3182	1.21052	1.7815	2.8549			

owning flat	29	2.5862	1.32334	2.0828	3.0896			
others	14	1.6429	1.00821	1.0607	2.2250			
Family Household						1	1.123	.291
nuclear family	147	1.20	1.192	1.00	1.39			
extend family	53	1.40	1.115	1.09	1.70			
Occupation after migration						1	2.206	.139
No	168	1.20	1.090	1.03	1.36			
Yes	32	1.53	1.524	.98	2.08			

* The P-value is significant at the 0 .01 level.

Table F.6.22 Multiple Comparisons of the Socio-demographic variables and Perceived Important Health Promotion Activities by Chinese Migrant Women (n=200) (Full table)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Age						
20-30	**31-40**	.28004	.21544	.397	-.2287	.7888
	41-50	-.01846	.23353	.997	-.5700	.5330
31-40	**20-30**	-.28004	.21544	.397	-.7888	.2287
	41-50	-.29850	.21211	.339	-.7994	.2024
41-50	**20-30**	.01846	.23353	.997	-.5330	.5700
	31-40	.29850	.21211	.339	-.2024	.7994
Education						
primary or below	**secondary**	-.08463	.18997	.896	-.5333	.3640
	University	-.75282*	.30798	.041	-1.4801	-.0255
secondary	**primary or below**	.08463	.18997	.896	-.3640	.5333
	University	-.66819	.32160	.097	-1.4277	.0913
University	**primary or below**	.75282*	.30798	.041	.0255	1.4801
	secondary	.66819	.32160	.097	-.0913	1.4277
Marital Status						
Single	**Married**	-.04880	.37392	.991	-.9318	.8342
	Others	.59524	.59658	.579	-.8136	2.0041
Married	**Single**	.04880	.37392	.991	-.8342	.9318
	Others	.64404	.48320	.379	-.4971	1.7851
Others	**Single**	-.59524	.59658	.579	-2.0041	.8136
	Married	-.64404	.48320	.379	-1.7851	.4971
No. of Children						
No child	**1 child**	-.22917	.40518	.942	-1.2791	.8207
	2 children	.09936	.38274	.994	-.8924	1.0911
	3 and above children	-.11111	.41846	.993	-1.1954	.9732
1 child	**No child**	.22917	.40518	.942	-.8207	1.2791
	2 children	.32853	.21906	.440	-.2391	.8962
	3 and above children	.11806	.27679	.974	-.5992	.8353
2 children	**No child**	-.09936	.38274	.994	-1.0911	.8924
	1 child	-.32853	.21906	.440	-.8962	.2391
	3 and above children	-.21047	.24276	.822	-.8395	.4186
3 and above	**No child**	.11111	.41846	.993	-.9732	1.1954

children	**1 child**	-.11806	.27679	.974	-.8353	.5992
	2 children	.21047	.24276	.822	-.4186	.8395
	Family Income					
< 10.999k	**11k - 14.999k**	-.08868	.26240	.939	-.7084	.5310
	>15k	-1.03704*	.25117	.000	-1.6302	-.4439
11k - 14.999k	**<10.999k**	.08868	.26240	.939	-.5310	.7084
	>15k	-.94836*	.17937	.000	-1.3720	-.5248
>15k	**< 10.999k**	1.03704*	.25117	.000	.4439	1.6302
	11k - 14.999k	.94836*	.17937	.000	.5248	1.3720
	Type of housing					
Renting public flat	**Renting private room or flat**	-.17744	.28603	.925	-.9186	.5637
	Owning flat	-.44547	.25462	.301	-1.1052	.2143
	Others	.49788	.34930	.485	-.4072	1.4030
Renting private room or flat	**Renting public flat**	.17744	.28603	.925	-.5637	.9186
	Owning flat	-.26803	.35174	.871	-1.1794	.6434
	Others	.67532	.42532	.388	-.4268	1.7774
Owning flat	**Renting public flat**	.44547	.25462	.301	-.2143	1.1052
	Renting private room or flat	.26803	.35174	.871	-.6434	1.1794
	Others	.94335	.40487	.095	-.1057	1.9924
Others	**Renting public flat**	-.49788	.34930	.485	-1.4030	.4072
	Renting private room or flat	-.67532	.42532	.388	-1.7774	.4268
	Owning flat	-.94335	.40487	.095	-1.9924	.1057

*. The mean difference is significant at the 0.05 level.

Table F.6.22a Independent Samples Test for the Socio-demographic variables and Perceived Important Health Promotion Activities by Chinese Migrant Women (n=200) (Full table)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference Lower	Upper
Cantonese Speaking						
Equal variances assumed	-.707	198	.480	-.130	-.493	.233
Equal variances not assumed	-.709	154.712	.479	-.130	-.492	.232
				(F=.500, P=.480)		
Years of Migration						
Equal variances assumed	-1.793	198	.074	-.316	-.664	.031
Equal variances not assumed	-1.795	197.107	.074	-.316	-.664	.031
				(F=2.069, P=.152)		
Family Household						
Equal variances assumed	-1.790	198	.075	-.358	-.752	.036
Equal variances not assumed	-1.967	111.721	.052	-.358	-.718	.003
				(F=.2.238, P=.136)		
Occupation after migration						
Equal variances assumed	-.448	198	.654	-.109	-.586	.369
Equal variances not assumed	-.450	43.788	.655	-.109	-.595	.378
	(F=.008, P=.929)					

*The P-value is significant at the 0 .01 level.

Table F.6.23 ANOVA for Comparing the Socio-demographic Variables and Obstacles of Inhabit Health Promotion Activities by Chinese Migrant Women (n=200) (Full table)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	.799	.451
20-30	56	2.0179	.72591	1.8235	2.2123			
31-40	85	2.1529	.69874	2.0022	2.3037			
41-50	59	2.0339	.69397	1.8530	2.2147			
Education						2	3.072	.049
primary or below	112	2.1339	.71654	1.9998	2.2681			
secondary	69	1.9275	.67123	1.7663	2.0888			
University	19	2.3158	.67104	1.9924	2.6392			
Marital Status						2	4.830	.009
single	12	1.9167	.66856	1.4919	2.3414			
married	181	2.0608	.67631	1.9616	2.1600			
others	7	2.8571	1.06904	1.8684	3.8458			
No. of Children						3	.255	.858
No children	12	1.9167	.66856	1.4919	2.3414			
1 child	48	2.1042	.77842	1.8781	2.3302			
2 children	104	2.0769	.66380	1.9478	2.2060			
3 and above children	36	2.1111	.74748	1.8582	2.3640			
Family Income						2	1.278	.281
less than 10.999k	27	2.2593	.59437	2.0241	2.4944			
11k - 14.999k	71	2.0986	.75885	1.9190	2.2782			
>15k	102	2.0196	.68910	1.8843	2.1550			
Cantonese speaking						1	3.158	.077
No	74	2.16	.759	-.07270	.33353			
Yes	126	2.03	.669	-.08008	.34091			
Years of Migration						1	.009	.923
short time migration	99	2.12	.704					
long time migration	101	2.04	.706					
Type of housing								
renting public flat	135	2.0815	.69165	1.9637	2.1992	3	.753	.522
renting private room	22	2.1818	.85280	1.8037	2.5599			

or flat								
owning flat	29	1.9310	.70361	1.6634	2.1987			
others	14	2.2143	.57893	1.8800	2.5486			
Family Household						1	.002	.965
nuclear family	147	2.06	.714					
extend family	53	2.13	.680					
Occupation after migration						1	3.958	.048
No	168	2.07	.688	-.32204	.21490			
Yes	32	2.12	.793	-.35650	.24935			

* The P-value is significant at the 0 .01 level.

Table F.6.24 Multiple Comparisons of the Socio-demographic Variables and Obstacles of Inhabit Health Promotion Activities by Chinese Migrant Women (n=200) (Full table)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Age						
20-30	**31-40**	-.13508	.12135	.507	-.4216	.1515
	41-50	-.01604	.13154	.992	-.3267	.2946
31-40	**20-30**	.13508	.12135	.507	-.1515	.4216
	41-50	.11904	.11947	.580	-.1631	.4012
41-50	**20-30**	.01604	.13154	.992	-.2946	.3267
	31-40	-.11904	.11947	.580	-.4012	.1631
Education						
primary or below	**secondary**	.20639	.10669	.132	-.0456	.4583
	University	-.18186	.17296	.545	-.5903	.2266
secondary	**primary or below**	-.20639	.10669	.132	-.4583	.0456
	University	-.38825	.18061	.083	-.8148	.0383
University	**primary or below**	.18186	.17296	.545	-.2266	.5903
	secondary	.38825	.18061	.083	-.0383	.8148
Marital Status						
Single	**Married**	-.14411	.20603	.764	-.6307	.3424
	Others	-.94048*	.32871	.013	-1.7167	-.1642
Married	**Single**	.14411	.20603	.764	-.3424	.6307
	Others	-.79637*	.26623	.009	-1.4251	-.1676
Others	**Single**	.94048*	.32871	.013	.1642	1.7167
	Married	.79637*	.26623	.009	.1676	1.4251
No. of Children						
No child	**1 child**	-.18750	.22861	.845	-.7799	.4049
	2 children	-.16026	.21595	.880	-.7198	.3993
	3 and above children	-.19444	.23611	.843	-.8062	.4174
1 child	**No child**	.18750	.22861	.845	-.4049	.7799
	2 children	.02724	.12360	.996	-.2930	.3475
	3 and above children	-.00694	.15617	1.000	-.4116	.3977
2 children	**No child**	.16026	.21595	.880	-.3993	.7198
	1 child	-.02724	.12360	.996	-.3475	.2930

	3 and above children	-.03419	.13697	.995	-.3891	.3207
3 and above	**No child**	.19444	.23611	.843	-.4174	.8062
children	**1 child**	.00694	.15617	1.000	-.3977	.4116
	2 children	.03419	.13697	.995	-.3207	.3891
	Family Income					
< 10.999k	**11k - 14.999k**	.16067	.15903	.571	-.2149	.5362
	>15k	.23965	.15222	.259	-.1198	.5991
11k - 14.999k	**<10.999k**	-.16067	.15903	.571	-.5362	.2149
	>15k	.07898	.10871	.748	-.1777	.3357
>15k	**< 10.999k**	-.23965	.15222	.259	-.5991	.1198
	11k - 14.999k	-.07898	.10871	.748	-.3357	.1777
	Type of housing					
Renting public	**Renting private room**	-.10034	.16224	.926	-.5207	.3201
flat	**or flat**					
	Owning flat	.15045	.14443	.725	-.2238	.5247
	Others	-.13280	.19813	.908	-.6462	.3806
Renting private	**Renting public**	.10034	.16224	.926	-.3201	.5207
room or flat	**flat**					
	Owning flat	.25078	.19951	.591	-.2662	.7678
	Others	-.03247	.24125	.999	-.6576	.5927
Owning flat	**Renting public**	-.15045	.14443	.725	-.5247	.2238
	flat					
	Renting private room	-.25078	.19951	.591	-.7678	.2662
	or flat					
	Others	-.28325	.22965	.606	-.8783	.3118
Others	**Renting public flat**	.13280	.19813	.908	-.3806	.6462
	Renting private room	.03247	.24125	.999	-.5927	.6576
	or flat					
	Owning flat	.28325	.22965	.606	-.3118	.8783

The mean difference is significant at the 0.05 level.

Table F.6.25 Independent Samples Test for the Socio-demographic Variables and Obstacles of Inhabit Health Promotion Activities by Chinese Migrant Women (n=200 (Full table)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference	
					Lower	Upper
Cantonese Speaking						
Equal variances assumed	1.266	198	.207	.130	-.073	.334
Equal variances not assumed	1.225	137.959	.223	.130	-.080	.341
				(F=3.158, P=.077)		
Years of Migration						
Equal variances assumed	.819	198	.414	.082	-.115	.278
Equal variances not assumed	.819	197.943	.414	.082	-.115	.278
				(F=009, P=.923)		
Family Household						
Equal variances assumed	-.627	198	.531	-.071	-.294	.152
Equal variances not assumed	-.641	96.100	.523	-.071	-.290	.148
				(F=.002, P=.965)		
Occupation after migration						
Equal variances assumed	-.394	198	.694	-.054	-.322	.215
Equal variances not assumed	-.357	40.381	.723	-.054	-.356	.249
	(F=3.958, P=.048)					

*The P-value is significant at the 0 .05 level.

Table F.6.26 ANOVA for comparing the Socio-demographic variables and Chinese Migrant Women's plan to perform health promotion and health prevention activities in the coming year (n=200) (Full table)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	4.062	.019
20-30	56	2.6607	1.01403	2.3892	2.9323			
31-40	85	2.5529	1.10740	2.3141	2.7918			
41-50	59	3.0508	1.00728	2.7883	3.3133			
Education						2	.903	.407
primary or below	112	2.6607	1.07848	2.4588	2.8627			
secondary	69	2.8696	1.02775	2.6227	3.1165			
University	19	2.6316	1.16479	2.0702	3.1930			
Marital Status						2	3.689	.027
single	12	2.0833	1.08362	1.3948	2.7718			
married	181	2.7956	1.03128	2.6443	2.9468			
others	7	2.1429	1.57359	.6875	3.5982			
No. of Children						3	2.213	.088
No children	12	2.0833	1.08362	1.3948	2.7718			
1 child	48	2.6250	.78889	2.3959	2.8541			
2 children	104	2.7788	1.14872	2.5554	3.0022			
3 and above children	36	2.9444	1.09400	2.5743	3.3146			
Family Income						2	5.195	.006
less than 10.999k	27	2.9259	1.23805	2.4362	3.4157			
11k - 14.999k	71	2.4085	1.16591	2.1325	2.6844			
>15k	102	2.9020	.89564	2.7260	3.0779			
Cantonese speaking						1	.500	.480
No	74	2.11	1.245	1.82	2.40			
Yes	126	2.24	1.261	2.02	2.46			
Years of Migration						1	3.216	.074
short time migration	99	2.03	1.191	1.79	2.27			
long time migration	101	2.35	1.300	2.09	2.60			
Type of housing						3	3.976	.009
renting public flat	135	2.5778	1.06130	2.3971	2.7584			
renting private room or flat	22	3.2727	.82703	2.9060	3.6394			

owning flat	29	3.0690	1.06674	2.6632	3.4747			
others	14	2.6429	1.15073	1.9784	3.3073			
Family Household						1	3.204	.075
nuclear family	147	2.10	1.305	1.88	2.31			
extend family	53	2.45	1.066	2.16	2.75			
Occupation after migration						1	.201	.654
No	168	2.17	1.257	1.98	2.36			
Yes	32	2.28	1.250	1.83	2.73			

The P-value is significant at the 0 .01 level.

Table F.6.27 Multiple Comparisons of the Socio-demographic variables and Chinese Migrant Women's Plan to Perform Health Promotion and Health Prevention Activities in the coming year (n=200) (Full table)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Age						
20-30	**31-40**	.10777	.18122	.823	-.3202	.5357
	41-50	-.39013	.19644	.118	-.8540	.0738
31-40	**20-30**	-.10777	.18122	.823	-.5357	.3202
	41-50	-.49791*	.17842	.016	-.9193	-.0765
41-50	**20-30**	.39013	.19644	.118	-.0738	.8540
	31-40	.49791*	.17842	.016	.0765	.9193
Education						
primary or below	**secondary**	-.20885	.16368	.410	-.5954	.1777
	University	.02914	.26537	.993	-.5976	.6558
secondary	**primary or below**	.20885	.16368	.410	-.1777	.5954
	University	.23799	.27710	.667	-.4164	.8924
University	**primary or below**	-.02914	.26537	.993	-.6558	.5976
	secondary	-.23799	.27710	.667	-.8924	.4164
Marital Status						
Single	**Married**	-.71225	.31445	.063	-1.4548	.0303
	Others	-.05952	.50169	.992	-1.2443	1.1252
Married	**Single**	.71225	.31445	.063	-.0303	1.4548
	Others	.65272	.40634	.245	-.3069	1.6123
Others	**Single**	.05952	.50169	.992	-1.1252	1.2443
	Married	-.65272	.40634	.245	-1.6123	.3069
No. of Children						
No child	**1 child**	-.54167	.34191	.390	-1.4276	.3443
	2 children	-.69551	.32298	.140	-1.5324	.1414
	3 and above children	-.86111	.35313	.073	-1.7761	.0539
1 child	**No child**	.54167	.34191	.390	-.3443	1.4276
	2 children	-.15385	.18486	.839	-.6329	.3252
	3 and above children	-.31944	.23357	.521	-.9247	.2858
2 children	**No child**	.69551	.32298	.140	-.1414	1.5324
	1 child	.15385	.18486	.839	-.3252	.6329
	3 and above children	-.16560	.20486	.850	-.6964	.3652

3 and above	**No child**	.86111	.35313	.073	-.0539	1.7761
children	**1 child**	.31944	.23357	.521	-.2858	.9247
	2 children	.16560	.20486	.850	-.3652	.6964
	Family Income					
< 10.999k	**11k - 14.999k**	.51748	.23677	.076	-.0417	1.0766
	>15k	.02397	.22664	.994	-.5113	.5592
11k - 14.999k	**<10.999k**	-.51748	.23677	.076	-1.0766	.0417
	>15k	-.49351*	.16185	.007	-.8757	-.1113
>15k	**< 10.999k**	-.02397	.22664	.994	-.5592	.5113
	11k - 14.999k	.49351*	.16185	.007	.1113	.8757
	Type of housing					
Renting public flat	**Renting private room or flat**	-.69495*	.24045	.022	-1.3180	-.0719
	Owning flat	-.49119	.21405	.103	-1.0458	.0635
	Others	-.06508	.29364	.996	-.8260	.6958
Renting private room or flat	**Renting public flat**	.69495*	.24045	.022	.0719	1.3180
	Owning flat	.20376	.29569	.901	-.5624	.9699
	Others	.62987	.35755	.295	-.2966	1.5563
Owning flat	**Renting public flat**	.49119	.21405	.103	-.0635	1.0458
	Renting private room or flat	-.20376	.29569	.901	-.9699	.5624
	Others	.42611	.34035	.595	-.4558	1.3080
Others	**Renting public flat**	.06508	.29364	.996	-.6958	.8260
	Renting private room or flat	-.62987	.35755	.295	-1.5563	.2966
	Owning flat	-.42611	.34035	.595	-1.3080	.4558

Table F.6.28 Independent Samples Test for the Socio-demographic Variables and Plan to Perform Health Promotion and Health Prevention Activities in the coming year by Chinese Migrant Women (n=200) (Full table)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference Lower	Upper
Cantonese Speaking						
Equal variances assumed	1.266	198	.207	.13042	-.07270	.33353
Equal variances not assumed	1.225	137.959	.223	.13042	-.08008	.34091
				(F=3.158, P=.077)		
Years of Migration						
Equal variances assumed	-1.793	198	.074	-.316	-.664	.031
Equal variances not assumed	-1.795	197.107	.074	-.316	-.664	.031
				(F=2.069, P=.152)		
Family Household						
Equal variances assumed	-1.790	198	.075	-.358	-.752	.036
Equal variances not assumed	-1.967	111.721	.052	-.358	-.718	.003
				(F=2.238, P=.136)		
Occupation after migration						
Equal variances assumed	-.448	198	.654	-.109	-.586	.369
Equal variances not assumed	-.450	43.788	.655	-.109	-.595	.378
	(F=.008, P=.929)					

*The P-value is significant at the 0 .05 level.

Appendix G

Table G.7.1 The Socio-demographic Characteristics of Mainland Chinese women by Age (n=200)

	Marital Status					
	Single		**Married**		**Other**	
Age	No.	%	No.	%	No.	%
20-30	29	14.5	0	0.0	0	0.0
31-40	53	26.5	54	27.0	5	2.5
41-50	14	7.0	44	22.0	1	0.5
Total	96	48.0	98	49.0	6	3.0
	Education					
	Primary or below		**Secondary**		**University**	
Age	No.	%	No.	%	No.	%
20-30	0	0.0	28	14.0	1	0.5
31-40	44	22.0	68	34.0	0	0.0
41-50	27	13.5	32	16.0	0	0.0
Total	71	35.5	128	64.0	1	0.5
	Employed					
	No		**Yes**			
Age	No.	%	No.	%		
20-30	0	0.0	29	14.5		
31-40	8	4.0	104	52.0		
41-50	5	2.5	54	27.0		
Total	13	6.5	187	93.5		

Table G.7.2 Corresponding Education and Total Family Income for Mainland Chinese women (n=200)

Total family income (in RMB; $100 HK dollars = 87 Yuan)						
Education	**RMB 500 – 1,000**		**RMB 1,001 – 1,500**		**>RMB 1,500**	
	No.	%	No.	%	No.	%
Primary or below	16	8.0	23	11.5	32	16.0
Secondary	29	14.5	52	26.0	47	23.5
University	1	0.5	0	0.0	0	0.0
Total	46	23.0	75	37.5	79	39.5

Employment				
Education	**No**		**Yes**	
	No.	%	No.	%
Primary or below	11	5.5	60	30.0
Secondary	2	1.0	126	63.0
University	0	0.0	1	0.5
Total	13	6.5	187	93.5

Table G.7.3 Corresponding Number of Children and Total Family Income for Mainland Chinese women (n=200)

Number of children						
Total family income	**0**		**1**		**2 and above**	
(Chinese yuan)	No.	%	No.	%	No.	%
RMB500 – 1,000	31	15.5	15	7.5	0	0.0
RMB1,001– 1,500	44	22.0	31	15.5	0	0.0
>RMB 1,500	35	17.5	43	21.5	1	0.5
Total	110	55.0	89	44.5	1	0.5

Family Household						
Total family	Nuclear family		Extended family		Others	
income	No.	%	No.	%	No.	%
RMB500 – 1,000	19	9.5	2	1	25	12.5
RMB1,001– 1,500	38	19	1	0.5	36	18
>RMB 1,500	34	17	22	11	23	11.5
Total	91	45.5	25	12.5	84	42

Table G.7.4 Corresponding Socio-demographic Variables with Physical Health for Mainland Chinese women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	7.392	.001*
20-30	29	3.2759	.59140	3.0509	3.5008			
31-40	112	3.4732	.73472	3.3356	3.6108			
41-50	59	3.8475	.80545	3.6376	4.0574			
Education						2	6.151	.003*
primary or below	71	3.8028	.78594	3.6168	3.9888			
secondary	126	3.4206	.71948	3.2938	3.5475			
university	3	3.3333	.57735	1.8991	4.7676			
Marital Status						2	9.357	.000*
single	96	3.3229	.58929	3.2035	3.4423			
married	98	3.7755	.84378	3.6063	3.9447			
others	6	3.6667	.81650	2.8098	4.5235			
No of Children						1	9.494	.002*
none	110	3.3636	.60164	110	3.3636			
1 child or more	90	3.7889	.86757	90	3.7889			
Family Income						2	1.808	.167
$500-1,000	46	3.3913	.71424	3.1792	3.6034			
$1,001-1,500	75	3.5467	.66360	3.3940	3.6993			
>$1,500	79	3.6582	.86062	3.4655	3.8510			
Type of housing						2	.003	.997
private estate	34	3.5588	.82356	3.2715	3.8462			
employer-provided accommodation	133	3.5564	.71152	3.4343	3.6784			
other	33	3.5455	.90453	3.2247	3.8662			
Family Household						2	5.331	.006*
nuclear family	91	1.58	1.096	1.35	1.81			
extended family	25	1.12	1.236	.61	1.63			
other	84	1.14	1.043	.92	1.37			
Employed						1	2.903	.090
No	13	3.7692	.92681	-.20149	.65974			
Yes	187	3.5401	.74937	-.33818	.79643			

* The P-value is significant at the 0 .01 level.

Table G.7.5 Physical Health Measure of Mainland Chinese women (n=200)

Physical Health Scale	Number of Participants	%
No disease	140	70.0
Suffering one disease	30	15.0
Suffering two diseases	20	10.0
Suffering three diseases	10	5.0

Table G.7.6 Comparison of Socio-demographic Variables and Physical Health of Mainland Chinese Women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
					Lower	*Upper*
(I)	*(J)*	*(I-J)*			*Bound*	*Bound*
Age						
20-30	31-40	-.19735	.15380	.406	-.5606	.1659
	41-50	-.57160*	.16740	.002	-.9669	-.1763
31-40	20-30	.19735	.15380	.406	-.1659	.5606
	41-50	-.37424*	.11874	.005	-.6547	-.0938
41-50	20-30	.57160*	.16740	.002	.1763	.9669
	31-40	.37424*	.11874	.005	.0938	.6547
Education						
primary or below	**secondary**	.38218*	.11019	.002	.1220	.6424
	university	.46948	.43766	.532	-.5641	1.5030
secondary	**primary or below**	-.38218*	.11019	.002	-.6424	-.1220
	university	.08730	.43377	.978	-.9371	1.1117
university	**primary or below**	-.46948	.43766	.532	-1.5030	.5641
	secondary	-.08730	.43377	.978	-1.1117	.9371
Marital Status						
Single	**Married**	-.45259*	.10503	.000	-.7006	-.2046
	Other	-.34375	.30778	.505	-1.0706	.3831
Married	**Single**	.45259*	.10503	.000	.2046	.7006
	Other	.10884	.30760	.933	-.6176	.8353
Other	**Single**	.34375	.30778	.505	-.8353	-.3831
	Married	-.10884	.30760	.933	-.8353	.6176
Family Income						
RMB 500-1,000	**RMB 1,001-1,500**	-.15536	.14203	.519	-.4908	.1801
	>RMB 1,500	-.26692	.14066	.142	-.5991	.0653
RMB1,001-1,500	**RMB 500-1,000**	.15536	.14203	.519	-.1801	.4908
	> RMB 1,500	-.11156	.12227	.633	-.4003	.1772
> RMB 1,500	**RMB 500-1,000**	.26692	.14066.	.142	.0653	.5991
	RMB 1,001-1,500	.11156	12227	.637	-.1772	.4003
Type of Housing						
nuclear family	**extended family**	.00243	.14708	1.000	-.3449	.3498
	other	.01337	.18702	.997	-.4283	.4550
extended family	**nuclear family**	-.00243	.14708	1.000	-.3498	.3449
	other	.01094	.14884	.997	-.3406	.3624

other	**nuclear family**	-.01337	.18702	.997	-.4550	.4283
	extended family	-.01094	.14884	.997	-.3624	.3406
Family Household						
nuclear family	**extended family**	.21626	.16833	.405	-.1813	.6138
	other	.36722*	.11279	.004	.1009	.6336
extended family	**nuclear family**	-.21626	.16833	.405	-.6138	.1813
	other	.15095	.16983	.648	-.2501	.5520
other	**nuclear family**	-.36722*	.11279	.004	-.6336	-.1009
	extended family	-.15095	.16983	.648	-.5520	.2501

I = reference category

*The mean difference is significant at the 0 .05 level.

Table G.7.7 Independent Samples Test of Socio-demographic Variables and Physical Health of Mainland Chinese women (n=200)

	T-test for Equality of Means					
	t	**df**	**Sig.(2tailed)**	**Mean Difference**	**95% CI of the Difference**	
					Lower	**Upper**
No of Children						
Equal variances assumed	-4.081	198	.000	-.42525	-.63076	*-.21974*
Equal variances not assumed	-3.939	153.422	.000	-.42525	-.63852	*-.21199*
			(F=9.494, P=.002)*			
Employment						
Equal variances assumed	1.049	198	.295	.22912	-.20149	*.65974*
Equal variances not assumed	.872	13.114	.399	.22912	-.33818	*.79643*
	(F=2.903, P=.090)					

*The P-value is significant at the 0 .01 level.

Table G.7.7.A Mental Health of Mainland Chinese women (n=200)

Psychological Health Variables	Number of Participants	%
Stressed most of the time (stress scale 1-4)		
Not stressed	18	9.0
A bit stressed	156	78.0
Quite A bit stressed	26	13.0
Extremely stressed	0	0.0
Lost much sleep over worry (stress scale 5-8)		
Not at all	25	12.5
No more than usual	134	67.0
Rather more than usual	41	20.5
Much more than usual	0	0.0
Felt constantly under strain (stress scale 9-12)		
Not at all	38	19.0
No more than usual	83	41.5
Rather more than usual	78	39.0
Much more than usual	1	.5
Been getting edgy and bad-tempered (stress scale 13-16)		
Not at all	38	19.0
No more than usual	147	73.5
Rather more than usual	15	7.5
Much more than usual	0	0.0
Too nervous (stress scale 17-20)		
Not at all	118	59.0
No more than usual	79	39.5
Rather more than usual	3	1.5
Much more than usual	0	0.0
On the whole doing things well (stress scale 21-24)		
Better than before	37	18.5
About the same	12	6.0
Less well than before	144	72.0
Much less well	7	3.5
Able to enjoy daily life (stress scale 25-28)		
More so than before	24	12.0
Same as before	166	83.0
Less so than before	24	12.0
Much less than before	0	0.0

Table G.7.7.B The Stress Scale of Mainland Chinese women (n=200)

Stress Scale	Number of Participants	%
6	4	2.0
7	5	2.5
8	24	12.0
9	24	12.0
10	39	19.5
11	19	9.5
12	29	14.5
13	18	9.0
14	8	4.0
15	20	10.0
16	6	3.0
17	3	1.5
19	1	0.5

Table G.7.8 ANOVA Socio-demographic Variables indicative for Stress among Mainland Chinese women (n=200)

Socio-demographic variable	N	Mean	Std	95% Confidence Interval for Mean		df	F	P
				Lower Bound	Upper Bound			
Age								
20-30	29	9.24	1.994	8.48	10.00	2	13.066	.000*
31-40	112	11.12	2.393	10.67	11.56			
41-50	59	12.08	2.750	11.37	12.80			
Education								
primary or below	71	12.99	2.381	12.42	13.55	2	44.536	.000*
secondary	126	10.02	2.018	9.67	10.38			
university	3	13.67	3.055	6.08	21.26			
Marital Status								
single	96	9.83	1.721	9.48	10.18	2	31.871	.000*
married	98	12.22	2.715	11.68	12.77			
others	6	14.00	1.897	12.01	15.99			
No. of Children						1	18.055	.000*
none	110	9.78	1.656	9.47	10.09			
one child or more	90	12.78	2.595	12.23	13.32			
Family Income								
RMB 500-1,000	46	11.70	2.075	11.08	12.31	2	1.710	.184
RMB1,001-1,500	75	10.80	2.471	10.23	11.37			
>RMB1,500	79	11.11	2.940	10.46	11.77			
Type of housing								
private estate	34	12.24	2.641	11.31	13.16	2	7.356	.001*
employer-provided accommodation	133	11.16	2.461	10.74	11.58			
other	33	9.88	2.619	8.95	10.81			
Family Household								
nuclear family	91	12.66	2.405	12.16	13.16	2	43.715	.000*
extended family	25	10.68	2.854	9.50	11.86			
other	84	9.61	1.606	9.26	9.96			
Occupation								
No	13	12.92	3.427	.470	3.366	1	2.393	.123
Yes	187	11.01	2.494	-.175	4.010			

The P-value is significant at the 0 .01 level.

Table G.7.9 Comparison of Socio-demographic Variables and Stress for Mainland Chinese women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
					Lower	*Upper*
(I)	*(J)*	*(I-J)*			*Bound*	*Bound*
	Age					
20-30	**31-40**	-1.875*	.511	.001	-3.08	-.67
	41-50	-2.843*	.556	.000	-4.16	-1.53
31-40	**20-30**	1.875*	.511	.001	.67	3.08
	41-50	-.969*	.395	.040	-1.90	-.04
41-50	**20-30**	2.843*	.556	.000	1.53	4.16
	31-40	.969*	.395	.040	.04	1.90
	Education					
primary or below	**secondary**	2.962*	.321	.000	2.20	3.72
	university	-.681	1.277	.855	-3.70	2.33
secondary	**primary or below**	-2.962*	.321	.000	-3.72	-2.20
	university	-3.643*	1.266	.012	-6.63	-.65
university	**primary or below**	.681	1.277	.855	-2.33	3.70
	secondary	3.643*	1.266	.012	.65	6.63
	Marital Status					
Single	**Married**	-2.391*	.326	.000	-3.16	-1.62
	Other	-4.167*	.955	.000	-6.42	-1.91
Married	**Single**	2.391*	.326	.000	1.62	3.16
	Other	-1.776	.954	.153	-4.03	.48
Other	**Single**	4.167*	.955	.000	1.91	6.42
	Married	1.776	.954	.153	-.48	4.03
	Family Income					
RMB 500-1,000	**RMB 1,001-1,500**	.896	.485	.157	-.25	2.04
	> RMB 1,500	.582	.480	.448	-.55	1.72
RMB 1,001-1,500	**RMB 500-1,000**	-.896	.485	.157	-2.04	.25
	> RMB 1,500	-.314	.417	.733	-1.30	.67
> RMB 1,500	**RMB 500-1,000**	-.582	.480	.448	-1.72	.55
	RMB 1,001-1,500	.314	.417	.733	-.67	1.30
	Type of housing					
private estate	**employer-provided accommodation**	1.077	.484	.069	-.07	2.22
	other	2.357*	.615	.001	.90	3.81

employer-provided accommodation	**private estate**	-1.077	.484	.069	-2.22	.07
	other	1.279*	.490	.026	.12	2.44
other	**private estate**	-2.357*	.615	.001	-3.81	-.90
	employer-provided accommodation	-1.279*	.490	.026	-2.44	-.12
Family Household						
nuclear family	**extended family**	1.979*	.491	.000	.82	3.14
	other	3.052*	.329	.000	2.28	3.83
extended family	**nuclear family**	-1.979*	.491	.000	-3.14	-.82
	other	1.073	.495	.079	-.10	2.24
others	**nuclear family**	-3.052*	.329	.000	-3.83	-2.28
	extended family	-1.073	.495	.079	-2.24	.10

I = the reference category

*The mean difference is significant at the 0 .05 level.

Table G.7.10 Independent Sample Test for Socio-demographic Variables and Stress in Mainland Chinese women (n=200)

	T-test for Equality of Means					
	t	**df**	**Sig.(2tailed)**	**Mean Difference**	**95% CI of the Difference**	
					Lower	**Upper**
No. of Children						
Equal variances assumed	-9.896	198	.000	-2.996	-3.593	-2.399
Equal variances not assumed	-9.485	144.999	.000	-2.996	-3.620	-2.372
				(F=18.055, P=.000)*		
Employment						
Equal variances assumed	2.611	198	.010	1.918	.470	3.366
Equal variances not assumed	1.982	12.899	.069	1.918	-.175	4.010
	(F=2.393, P=.123)					

*The P-value is significant at the 0 .01 level.

Table G.7.11 ANOVA for Association between Socio-demographic Variables and Health Service Utilization of Mainland Chinese women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age								
20-30	29	2.07	.753	1.78	2.36	2	1.318	.270
31-40	112	2.15	.882	1.99	2.32			
41-50	59	2.34	.822	2.12	2.55			
Education								
primary or below	71	2.34	.861	2.13	2.54	2	4.361	.014
secondary	126	2.14	.827	2.00	2.29			
university	3	1.00	.000	1.00	1.00			
Marital Status								
single	96	2.14	.854	1.96	2.31	2	1.225	.296
married	98	2.22	.844	2.06	2.39			
others	6	2.67	.816	1.81	3.52			
Children						1	.039	.844
none	110	2.13	.847	-.388	.087			
one child or more	90	2.28	.848	-.388	.087			
Family Income								
RMB 500-1,000	46	2.91	.590	2.74	3.09	2	47.050	.000
RMB 1,001-1,500	75	2.31	.854	2.11	2.50			
>RMB 1,500	79	1.67	.593	1.54	1.80			
Type of housing								
private estate	34	2.21	.880	1.90	2.51	3	.756	.471
employer-provided accommodation	133	2.23	.825	2.09	2.37			
other	33	2.03	.918	1.70	2.36			
Family Household								
nuclear family	91	2.42	.831	2.24	2.59	2	7.612	.001
extended family	25	1.76	.723	1.46	2.06			
other	84	2.08	.839	1.90	2.27			
Employed								
No	13	2.15	.376	-.525	.437	1	17.229	.000
Yes	187	2.20	.873	-.297	.209			

The P-value is significant at the 0 .01 level.

Table G.7.12 Multiple Comparison of Socio-demographic Variables and Health Service Utilization for Mainland Chinese women (n=200)

Socio-demographic variables		*Mean*	*Std.*	*Sig.*	*95% Confidence Interval*	
		Difference (I-J)	*Error*		*Lower*	*Upper*
(I)	*(J)*				*Bound*	*Bound*
Age						
20-30	**31-40**	-.083	.177	.886	-.50	.33
	41-50	-.270	.192	.340	-.72	.18
31-40	**20-30**	.083	.177	.886	-.33	.50
	41-50	-.187	.136	.357	-.51	.13
41-50	**20-30**	.270	.192	.340	-.18	.72
	31-40	.187	.136	.357	-.13	.51
Education						
primary or below	**secondary**	.195	.124	.259	-.10	.49
	university	1.338*	.492	.019	.18	2.50
secondary	**primary or below**	-.195	.124	.259	-.49	.10
	university	1.143	.488	.052	.00	2.29
university	**primary or below**	-1.338*	.492	.019	-2.50	-.18
	secondary	-1.143	.488	.052	-2.29	.01
Marital Status						
Single	**Married**	-.089	.122	.745	-.38	.20
	Other	-.531	.357	.298	-1.37	.31
Married	**Single**	.089	.122	.745	-.20	.38
	Other	-.442	.357	.431	-1.28	.40
Other	**Single**	.531	.357	.298	-.31	1.37
	Married	.442	.357	.431	-.40	1.28
Family Income						
RMB 500-1,000	**RMB 1,001-1,500**	.606*	.131	.000	.30	.92
	> RMB 1,500	1.242*	.130	.000	.93	1.55
RMB 1,001-1,500	**RMB 500-1,000**	-.606*	.131	.000	-.92	-.30
	> RMB 1,500	.636*	.113	.000	.37	.90
> RMB 1,500	**RMB 500-1,000**	-1.242*	.130	.000	-1.55	-.93
	RMB 1,001-1,500	-.636*	.113	.000	-.90	-.37
Type of housing						
private estate	**employer-provided**	-.027	.163	.985	-.41	-.027

	accommodation					
	other	.176	.208	.675	-.31	.176
employer-provided accommodation	**private estate**	.027	.163	.985	-.36	.027
	other	.203	.165	.439	-.19	.203
other	**private estate**	-.176	.208	.675	-.67	-.176
	employer-provided accommodation	-.203	.165	.439	-.59	-.203
Family Household						
nuclear family	**extended family**	.658*	.186	.001	.22	1.10
	other	.334*	.124	.021	.04	.63
extended family	**nuclear family**	-.658*	.186	.001	-1.10	-.22
	other	-.323	.187	.198	-.77	.12
other	**nuclear family**	-.334*	.124	.021	-.63	-.04
	extended family	.323	.187	.198	-.12	.77

I the reference category

*The mean difference is significant at the 0 .05 level.

Table G.7.13 Independent Samples Test for the Socio-demographic Variables and Health Service Utilization for Mainland Chinese women (n=200)

	T-test for Equality of Means					
	t	**df**	**Sig.(2tailed)**	**Mean Difference**	**95% CI of the Difference**	
					Lower	**Upper**
Number of children						
Equal variances assumed	-1.249	198	.213	-.151	-.388	.087
Equal variances not assumed	-1.249	190.125	.213	-.151	-.388	.087
	(F=.039, P=.844)					
Occupation						
Equal variances assumed	-.180	198	.857	-.044	-.525	.437
Equal variances not assumed	-.360	22.499	.722	-.044	-.297	.209
	(F=17.229, P=.000)					

*The P-value is significant at the 0 .01 level.

Table G.7.14 Health Improvement Strategies Performed by Mainland Chinese women (n=200)

Number of strategies performed	Number of Participants	%
No	66	33.0
1 strategy	92	46.0
2 strategies	32	16.0
3 strategies	9	4.5
4 strategies	1	0.5

Table G.7.15 ANOVA for Association between Socio-demographic Variables

and Performance of Health Improvement Strategies by Mainland Chinese women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval for Mean Lower Bound	Upper Bound	df	F	P
Age						2	.220	.803
20-30	29	.9310	.75266	.6447	1.2173			
31-40	112	.8571	.80379	.7066	1.0076			
41-50	59	.8136	.75372	.6171	1.0100			
Education						2	.167	.846
primary or below	71	.8873	.74736	.7104	1.0642			
secondary	126	.8413	.80412	.6995	.9830			
university	3	.6667	.57735	-.7676	2.1009			
Marital Status						2	2.158	.118
single	96	.8021	.77622	.6448	.9594			
married	98	.9388	.78407	.7816	1.0960			
other	6	.3333	.51640	-.2086	.8753			
Children						1	.515	.474
none	110	.8091	.80703	.6566	.9616			
one child or more	90	.9111	.74418	.7552	1.0670			
Family Income						2	9.480	.000*
RMB 500-1,000	46	.4348	.58318	.2616	.6080			
RMB 1,001-1,500	75	1.0000	.80539	.8147	1.1853			
> RMB 1,500	79	.9620	.77531	.7884	1.1357			
Type of Housing						2	.043	.958
private estate	34	.8235	.83378	.5326	1.1144			
employer-provided accommodation	133	.8571	.74001	.7302	.9841			
other	33	.8788	.89294	.5622	1.1954			
Family Household						2	.932	.395
nuclear family	91	.8571	.72375	.7064	1.0079			
extended family	25	1.0400	.93452	.6542	1.4258			
other	84	.7976	.78816	.6266	.9687			
Employed						1	2.611	.108

No	13	1.1538	.55470	-.11990	.75914
Yes	187	.8342	.78925	-.02945	.66869

* The P-value is significant at the 0 .05 level.

Table G.7.16 Comparative Socio-demographic Variables for Performing Health Improvement Strategies for Mainland Chinese women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
					Lower	*Upper*
(I)	*(J)*	*(I-J)*			*Bound*	*Bound*
Age						
20-30	**31-40**	.07389	.16297	.893	-.3110	.4588
	41-50	.11748	.17739	.786	-.3014	.5364
31-40	**20-30**	-.07389	.16297	.893	-.4588	.3110
	41-50	.04358	.12583	.936	-.2536	.3407
41-50	**20-30**	-.11748	.17739	.786	-.5364	.3014
	31-40	-.04358	.12583	.936	-.3407	.2536
Education						
primary or below	**secondary**	.04605	.11610	.917	-.2281	.3202
	university	.22066	.46116	.882	-.8684	1.3097
secondary	**primary or below**	-.04605	.11610	.917	-.3202	.2281
	university	.17460	.45706	.923	-.9048	1.2540
university	**primary or below**	-.22066	.46116	.882	-1.3097	.8684
	secondary	-.17460	.45706	.923	-1.2540	.9048
Marital Status						
Single	**Married**	-.13669	.11123	.438	-.3994	.1260
	Other	.46875	.32597	.323	-.3010	1.2385
Married	**Single**	-.13669	.11123	.438	-.1260	.3994
	Other	-.60544	.32597	.154	.1639	-1.3748
Other	**Single**	-.46875	.32597	.323	-1.2385	.3010
	Married	-.60544	.32577	.154	-1.3748	.1639
Family Income						
RMB 500-1,000	**RMB 1,001-1,500**	-.56522*	.14006	.000	-.8960	-.2345
	> RMB 1,500	-.52724*	.13871	.001	-.8548	-.1997
RMB 1,001-1,500	**RMB 500-1,000**	.56522*	.14006	.000	.2345	.8960
	> RMB 1,500	.03797	.12057	.947	-.2468	.3227
> RMB 1,500	**RMB 500-1,000**	.52724*	.13871	.001	.1997	.8548
	RMB 1,001-1,500	-.03797	.12057	.947	-.3227	.2468
Type of housing						
private estate	**employer-provided accommodation**	-.03361	.15045	.973	-.3889	.3217
	other	-.05526	.19131	.955	-.5070	.3965

employer-provided accommodation	**private estate**	.03361	.15045	.973	-.3217	.3889
	other	-.02165	.15225	.989	-.3812	.3379
other	**private estate**	.05526	.19131	.955	-.3965	.5070
	employer-provided accommodation	.02165	.15225	.989	-.3379	.3812
Family Household						
nuclear family	**extended family**	-.18286	.17599	.553	-.5985	.2328
	other	.05952	.11792	.869	-.2190	.3380
extended family	**nuclear family**	.18286	.17599	.553	-.2328	.5985
	other	.24238	.17756	.361	-.1769	.6617
other	**nuclear family**	-.05952	.11792	.869	-.3380	.2190
	extended family	-.24238	.17756	.361	-.6617	.1769

I = the reference category

*The mean difference is significant at the 0 .05 level.

Table G.7.17 Independent Samples Test for Socio-demographic Variables and Performing Health Improvement Strategies for Mainland Chinese Women (n=200)

	T-test for Equality of Means					
	t	**df**	**Sig.(2tailed)**	**Mean Difference**	**95% CI of the Difference**	
					Lower	**Upper**
Number of children						
Equal variances assumed	-.921	198	.358	-.10202	-.32048	.11644
Equal variances not assumed	-.928	195.148	.354	-.10202	-.31873	.11469
				(F=.515, P=.474)		
Occupation						
Equal variances assumed	1.434	198	.153	.31962	-.11990	.75914
Equal variances not assumed	1.945	15.595	.070	.31962	-.02945	.66869
	(F=2.611, P=.108)					

*The P-value is significant at the 0 .01 level.

Table G.7.18 Perceived Important Health Promotion Activities of Mainland Chinese women (n=200)

Number of Activities	Number of Participants	%
None	11	5.5
1 activity	21	10.5
2 activities	53	26.5
3 activities	65	32.5
4 activities	37	18.5
5 activities	13	6.5

Table G.7.19 Socio-demographic Variables for Perceived Importance of Health Promotion Activities by Participants in Mainland China (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	8.053	.000*
20-30	29	1.1724	1.07135	.7649	1.5799			
31-40	112	1.2589	1.08840	1.0551	1.4627			
41-50	59	1.5763	1.14776	1.2772	1.8754			
Education						2	10.941	.000
primary or below	29	1.1724	1.07135	.19894	29			
secondary	112	1.2589	1.08840	.10284	112			
university	59	1.5763	1.14776	.14943	59			
Marital Status						2	8.802	.000
single	96	2.3125	1.19923	2.0695	2.5555			
married	98	2.9898	1.18839	2.7515	3.2281			
other	6	3.3333	1.03280	2.2495	4.4172			
Children						1	.425	.515
none	110	2.3000	1.17739	2.0775	2.5225			
one child or more	90	3.1333	1.15340	2.8918	3.3749			
Family Income						2	9.537	.000
RMB 500-1,000	46	3.0652	1.06254	2.7497	3.3808			
RMB 1,001-1,500	75	2.9067	1.10494	2.6524	3.1609			
> RMB 1,500	79	2.2278	1.31996	1.9322	2.5235			
Type of Housing								
private estate	34	2.7941	1.12221	2.4026	3.1857	3	1.080	.342
employer-provided accommodation	133	2.7143	1.28848	2.4933	2.9353			
other	33	2.3939	1.11634	1.9981	2.7898			
Family Household						2	14.961	.000
nuclear family	91	3.1648	1.06733	2.9426	3.3871			
extended family	25	2.2800	1.42945	1.6900	2.8700			
other	84	2.2619	1.16287	2.0095	2.5143			
Employed						1	2.412	.122

No	13	2.9231	1.49786	-.43442	.96506
Yes	187	2.6578	1.21835	-.65167	1.18231

* The P-value is significant at the 0 .01 level.

Table G.7.20 Comparative Socio-demographic Variables of Mainland Chinese women Indicating Perceived Importance of Health Promotion Activities (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Age						
20-30	**31-40**	-1.875*	.511	.001	-3.08	-.67
	41-50	-2.843*	.556	.000	-4.16	-1.53
31-40	**20-30**	1.875*	.511	.001	.67	3.08
	41-50	-.969*	.395	.040	-1.90	-.04
41-50	**20-30**	2.843*	.556	.000	1.53	4.16
	31-40	.969*	.395	.040	.04	1.90
Education						
primary or below	**secondary**	.74044*	.17485	.000	.3275	1.1534
	university	1.83568*	.69449	.024	.1956	3.4758
secondary	**primary or below**	-.74044*	.17485	.000	-1.1534	-.3275
	university	1.09524	.68832	.252	-.5303	2.7208
university	**primary or below**	-1.83568*	.69449	.024	-3.4758	-.1956
	secondary	-1.09524	.68832	.252	-2.7208	.5303
Marital Status						
Single	**Married**	-.67730*	.17088	.000	-1.0808	-.2738
	Other	-1.02083	.50075	.106	-2.2034	.1617
Married	**Single**	.67730*	.17088	.000	.2738	1.0808
	Other	-.34354	.50045	.772	-1.5254	.8383
Other	**Single**	1.02083	.50075	.106	-.1617	2.2034
	Married	.34354	.50045	.772	-.8383	1.5254
Family Income						
RMB 500-1,000	**RMB 1,001-1,500**	.15855	.22209	.756	-.3659	.6830
	> RMB 1,500	.83737*	.21994	.001	.3180	1.3568
RMB 1,001-1,500	**RMB 500-1,000**	-.15855	.22209	.756	-.6830	.3659
	> RMB 1,500	.67882*	.19119	.001	.2273	1.1303
> RMB 1,500	**RMB 500-1,000**	-.83737*	.21994	.001	-1.3568	-.3180
	RMB 1,001-1,500	-.67882*	.19119	.001	-1.1303	-.2273

Type of Housing						
private estate	**employer-provided accommodation**	.07983	.23738	.940	-.4808	.6404
	other	.40018	.30185	.383	-.3127	1.1130
employer-provided accommodation	**private estate**	-.07983	.23738	.940	-.6404	.4808
	other	.32035	.24023	.378	-.2470	.8877
other	**private estate**	-.40018	.30185	.383	-1.1130	.3127
	employer-provided accommodation	-.32035	.24023	.378	-.8877	.2470
Family Household						
nuclear family	**extended family**	.88484*	.26130	.002	.2677	1.5019
	other	.90293*	.17509	.000	.4894	1.3164
extended family	**nuclear family**	-.88484*	.26130	.002	-1.5019	-.2677
	other	.01810	.26364	.997	-.6045	.6407
other	**nuclear family**	-.90293*	.17509	.000	-1.3164	-.4894
	extended family	-.01810	.26364	.997	-.6407	.6045

I the reference category

*The mean difference is significant at the 0 .05 level.

Table G.7.21 Independent Samples Test for Socio-demographic Variables and Perceived Importance of Health Promotion Activities by Mainland Chinese women (n=200)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference	
					Lower	Upper
Number of children						
Equal variances assumed	-5.025	198	.000	-.83333	-1.16034	-.50633
Equal variances not assumed	-5.036	191.684	.000	-.83333	-1.15973	-.50694
	(F=.425, P=.515)					
Occupation						
Equal variances assumed	.748	198	.456	.26532	-.43442	.96506
Equal variances not assumed	.624	13.127	.543	.26532	-.65167	1.18231
	(F=2.412, P=.122)					

*The P-value is significant at the 0 .01 level.

Table G.7.22 Number of Obstacles to Improving Health for Mainland Chinese women (n=200)

Number of obstacles	Number of Participants	%
None	1	.5
1 obstacle	36	18.0
2 obstacles	112	56.0
3 obstacles	48	24.0
4 obstacles	3	1.5

Table G.7.23 Socio-demographic Variables Indicating Obstacles to Health Promotion Activities by Mainland Chinese women (n=200)

Socio-demographic components	N	Mean	Std	95% Confidence Interval For Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	.461	.631
20-30	29	3.0000	1.06904	2.5934	3.4066			
31-40	112	2.9375	1.20271	2.7123	3.1627			
41-50	59	3.1186	1.16093	2.8161	3.4212			
Education						2	9.444	.000
primary or below	71	3.1690	1.23040	2.8778	3.4602			
secondary	126	2.4286	1.14143	2.2273	2.6298			
university	3	1.3333	1.52753	-2.4612	5.1279			
Marital Status						2	1.246	.290
single	96	2.8646	1.25337	2.6106	3.1185			
married	98	3.1224	1.06747	2.9084	3.3365			
other	6	3.1667	1.32916	1.7718	4.5615			
Children						1	.123	.726
none	110	2.8727	1.21993	2.6422	3.1033			
one child or more	90	3.1556	1.09042	2.9272	3.3839			
Family Income						2	8.006	.000
RMB 500-1,000	46	3.5217	.83637	3.2734	3.7701			
RMB 1,001-1,500	75	3.0133	1.21359	2.7341	3.2926			
> RMB 1,500	79	2.6835	1.19340	2.4162	2.9509			
Type of housing						2	.336	.715
private estate	34	3.1471	1.15817	2.7430	3.5512			
employer-provided accommodation	133	2.9774	1.19002	2.7733	3.1816			
other	33	2.9394	1.11634	2.5436	3.3352			
Family Household						2	7.010	.001
nuclear family	91	3.2747	1.02270	3.0617	3.4877			
extended family	25	2.3600	1.31909	1.8155	2.9045			
other	84	2.8929	1.19253	2.6341	3.1517			
Employed						1	1.194	.276
No	13	3.7692	.72501	.16985	1.47556			
Yes	187	2.9465	1.17653	.36075	1.28466			

* The P-value is significant at the 0 .01 level.

Table G.7.24 Socio-demographic Inhibitors of Health Promotion Activities among Mainland Chinese women (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Age						
20-30	**31-40**	.06250	.24425	.965	-.5143	.6393
	41-50	-.11864	.26586	.896	-.7465	.5092
31-40	**20-30**	-.06250	.24425	.965	-.6393	.5143
	41-50	-.18114	.18858	.603	-.6265	.2642
41-50	**20-30**	.11864	.26586	.896	-.5092	.7465
	31-40	.18114	.18858	.603	-.2642	.6265
Education						
primary or below	**secondary**	.71876*	.16657	.000	.3254	1.1121
	university	.79812	.66160	.451	-.7643	2.3605
secondary	**primary or below**	-.71876*	.16657	.000	-1.1121	-.3254
	university	.07937	.65572	.992	-1.4692	1.6279
university	**primary or below**	-.79812	.66160	.451	-2.3605	.7643
	secondary	-.07937	.65572	.992	-1.6279	1.4692
Marital Status						
Single	**Married**	-.25787	.16768	.276	-.6538	.1381
	Other	-.30208	.49137	.812	-1.4625	.8583
Married	**Single**	.25787	.16768	.276	-.1381	.6538
	Other	-.04422	.49108	.996	-1.2039	1.1155
Other	**Single**	.30208	.49137	.812	-.8583	1.4625
	Married	.04422	.49108	.996	-1.1155	1.2039
Family Income						
RMB 500-1,000	**RMB 1,001-1,500**	.50841*	.21162	.045	.0086	1.0082
	> RMB 1,500	.83819*	.20958	.000	.3433	1.3331
RMB 1,001-1,500	**RMB 500-1,000**	-.50841*	.21162	.045	-1.0082	-.0086
	> RMB 1,500	.32979	.18218	.169	-.1004	.7600
> RMB 1,500	**RMB 500-1,000**	-.83819*	.20958	.000	-1.3331	-.3433
	RMB 1,001-1,500	-.32979	.18218	.169	-.7600	.1004
Type of Housing						
private estate	**employer-provided accommodation**	.16962	.22543	.733	-.3627	.7020
	other	.20766	.28665	.749	-.4693	.8846
employer-provided	**private estate**	-.16962	.22543	.733	-.7020	.3627

accommodation						
	other	.03805	.22813	.985	-.5007	.5768
other	**private estate**	-.20766	.28665	.749	-.8846	.4693
	employer-provided accommodation	-.03805	.22813	.985	-.5768	.5007
Family Household						
nuclear family	**extended family**	.91473*	.25637	.001	.3093	1.5201
	other	.38187	.17178	.070	-.0238	.7875
extended family	**nuclear family**	-.91473*	.25637	.001	-1.5201	-.3093
	other	-.53286	.25866	.101	-1.1437	.0780
other	**nuclear family**	-.38187	.17178	.070	-.7875	.0238
	extended family	.53286	.25866	.101	-.0780	1.1437

I = reference category

*The mean difference is significant at the 0 .05 level.

Table G.7.25 Independent Samples Test for Socio-demographic Variables and Obstacles Inhibiting Health Promotion Activities by Mainland Chinese women (n=200)

	T-test for Equality of Means					
	t	df	Sig.(2tailed)	Mean Difference	95% CI of the Difference	
					Lower	Upper
Number of children						
Equal variances assumed	-1.710	198	.089	-.28283	-.60895	.04329
Equal variances not assumed	-1.730	196.424	.085	-.28283	-.60532	.03966
	(F=.123, P=.726)					
Occupation						
Equal variances assumed	2.485	198	.014	.82271	.16985	1.47556
Equal variances not assumed	3.762	16.760	.002	.82271	.36075	1.28466
	(F=1.194, P=.276)					

*The P-value is significant at the 0 .05 level.

Table G.7.26 Number of Health Promotion Activities Intending to Perform in the Next Year by Mainland Chinese women (n=200)

Number of health promotion activities aspired to	Number of Participants	%
None	54	27.0
1 activity	64	32.0
2 activities	48	24.0
3 activities	28	14.0
4 activities	6	3.0

Table G.7.27 Socio-demographic Variables Indicating Intention to Perform Health Promotion Activities in the Coming Year (n=200)

Socio-demographic variable	N	Mean	Std	95% Confidence Interval for Mean		df	F	P
				Lower Bound	Upper Bound			
Age						2	1.988	.140
20-30	29	1.17	1.071	.76	1.58			
31-40	112	1.26	1.088	1.06	1.46			
41-50	59	1.58	1.148	1.28	1.88			
Education						2	7.162	.001
primary or below	71	1.70	1.139	1.43	1.97			
secondary	126	1.16	1.046	.97	1.34			
university	3	.33	.577	-1.10	1.77			
Marital Status						2	5.358	.005
single	96	1.11	1.025	.91	1.32			
married	98	1.59	1.156	1.36	1.82			
other	6	.83	.753	.04	1.62			
Children						1	1.875	.172
none	110	1.15	1.051	.96	1.35			
one child or more	90	1.57	1.142	1.33	1.81			
Family Income						2	.496	.610
RMB 500-1,000	46	1.26	.855	1.01	1.51			
RMB 1,001-1,500	75	1.44	1.142	1.18	1.70			
> RMB 1,500	79	1.29	1.211	1.02	1.56			
Type of housing						2	5.181	.006
private estate	34	1.38	1.045	1.02	1.75			
employer-provided accommodation	133	1.47	1.145	1.27	1.66			
other	33	.79	.857	.48	1.09			
Family Household						2	4.116	.018
nuclear family	91	1.58	1.096	1.35	1.81			
extended family	25	1.12	1.236	.61	1.63			
other	84	1.14	1.043	.92	1.37			
Employed						1	.233	.630
No	13	1.92	1.256	.001	1.247			
Yes	187	1.30	1.091	-.147	1.394			

* The P-value is significant at the 0 .01 level.

Table G.7.28 Comparative Socio-demographic Variables for Participants' Intention to Perform Health Promotion and Preventative Activities in the Coming Year (n=200)

Socio-demographic variables		*Mean Difference*	*Std. Error*	*Sig.*	*95% Confidence Interval*	
(I)	*(J)*	*(I-J)*			*Lower Bound*	*Upper Bound*
Age						
20-30	**31-40**	-.75647*	.24880	.008	-1.3440	-.1689
	41-50	-1.08591*	.27081	.000	-1.7255	-.4464
31-40	**20-30**	.75647*	.24880	.008	.1689	1.3440
	41-50	-.32945	.19209	.202	-.7831	.1242
41-50	**20-30**	1.08591*	.27081	.000	.4464	1.7255
	31-40	.32945	.19209	.202	-.1242	.7831
Education						
primary or below	**secondary**	.54550*	.15974	.002	.1683	.54550*
	University	1.37089	.63449	.081	-.1275	1.37089
secondary	**primary or below**	-.54550*	.15974	.002	-.9227	-.54550*
	University	.82540	.62886	.390	-.6597	.82540
university	**primary or below**	-1.37089	.63449	.081	-2.8693	-1.37089
	secondary	-.82540	.62886	.390	-2.3105	-.82540
Marital Status						
Single	**Married**	-.47725*	.15592	.007	-.8455	-.1090
	Other	.28125	.45691	.812	-.7978	1.3603
Married	**Single**	.47725*	.15592	.007	.1090	.8455
	Other	.75850	.45664	.223	-.3199	1.8369
Other	**Single**	-.28125	.45691	.812	-1.3603	.7978
	Married	-.75850	.45664	.223	-1.8369	.3199
Family Income						
RMB 500-1,000	**RMB 1,001-1,500**	.15855	.22209	.756	-.3659	.6830
	> RMB 1,500	.83737*	.21994	.001	.3180	1.3568
RMB 1,001-1,500	**RMB 500-1,000**	-.15855	.22209	.756	-.6830	.3659
	> RMB 1,500	.67882*	.19119	.001	.2273	1.1303
> RMB 1,500	**RMB 500-1,000**	-.83737*	.21994	.001	-1.3568	-.3180
	RMB 1,001-1,500	-.67882*	.19119	.001	-1.1303	-.2273
Type of Housing						
private estate	**employer-provided accommodation**	-.084	.209	.915	-.58	.41
	other	.594	.266	.067	-.03	1.22

employer-provided accommodation	**private estate**	.084	.209	.915	-.41	.58
	other	.678*	.211	.004	.18	1.18
other	**private estate**	-.594	.266	.067	-1.22	.03
	employer-provided accommodation	-.678*	.211	.004	-1.18	-.18
Family Household						
nuclear family	**extended family**	.462	.247	.149	-.12	1.04
	other	.440*	.165	.023	.05	.83
extended family	**nuclear family**	-.462	.247	.149	-1.04	.12
	other	-.023	.249	.995	-.61	.56
other	**nuclear family**	-.440*	.165	.023	-.83	-.05
	extended family	.023	.249	.995	-.56	.61

I the reference category

*The mean difference is significant at the 0 .05 level.

Table G.7.29 Independent Samples Test of Socio-demographic Variables and Plans to Perform Health Promotion and Preventative Activities in the Coming Year among Mainland Chinese women (n=200)

	T-test for Equality of Means					
	t	df	Sig.(2-tailed)	Mean Difference	95% CI of the Difference	
					Lower	Upper
Number of children						
Equal variances assumed	-2.653	198	.009	-.412	-.718	-.106
Equal variances not assumed	-2.631	183.217	.009	-.412	-.721	-.103
			(F=1.875, P=.172)			
Occupation						
Equal variances assumed	1.974	198	.050	.624	.001	1.247
Equal variances not assumed	1.745	13.289	.104	.624	-.147	1.394
			(F=.233, P=.630)			

*The P-value is significant at the 0 .05 level.

Appendix H

Table H.8.1 Stress Scale by Chinese Migrant Women and Mainland Chinese Women (n=200)

Stress Scale	Chinese Migrant Women		Mainland Chinese Women	
	N	%	N	%
6	1	0.5	4	2.0
7	1	0.5	5	2.5
8	1	0.5	24	12.0
9	3	1.5	24	12.0
10	9	4.5	39	19.5
11	5	2.5	19	9.5
12	16	8.0	29	14.5
13	23	11.5	18	9.0
14	51	25.5	8	4.0
15	44	22.0	20	10.0
16	21	10.5	6	3.0
17	17	8.5	3	1.5
18	6	3.0	0	0.0
19	2	1.0	1	0.5

Table H.8.2 Spearman's Rank Order Correlation of Health Variables for Chinese Migrant Women in Hong Kong

		physical health	Stress scale	Utilization of health care services	Barriers to health services	Perform Health Promotion and Prevention Behaviors	Perceived important health promotion activities	Obstacles to Perform Health Promotion Activities	Perform health promotion activities In coming Year
Physical health	Correlation Coefficient Sig. (2-tailed)	1.000	.211** .003	.065 .357	.201** .004	.201** ·004	.022 .755	.063 .373	.036 .615
Stress scale	Correlation Coefficient Sig. (2-tailed)	.211** .003	1.000	.284** .000	.409** .000	.409** .000	.177* .012	.252** .000	.110 .122
Utilization of health care services	Correlation Coefficient Sig. (2-tailed)	.065 .357	.284** .000.	1.000	.310** .000	.319** .000	.132 .062	.306** .000	.319** .000
Barriers to health services	Correlation Coefficient Sig. (2-tailed)	.211** .004	.409** .000.	.319** .000	1.000**	1.000**	.122 .086	.361** .000	1.000**
Perform Health Promotion and Prevention Behaviors	Correlation Coefficient Sig. (2-tailed)	.201** .004	.409** .000.	.319** .000	1.000**	1.000	.122 .086	.361** .000	.062 .383
Perceived important health promotion activities	Correlation Coefficient Sig. (2-tailed)	.036 .615	.177** .012	.132 .062	.122 .086	.122 .086	1.000	.328** .000	.368** .000.
Obstacles to Perform Health	Correlation Coefficient Sig.	.063 .373	.252** .000.	.306** .000	.063 .373	.361** .000.	.328** .000.	1.000	.097 .171

Promotion Activities	(2-tailed)								
Perform health promotion and health prevention activities in the coming Year	Correlation Coefficient Sig. (2-tailed)	.045 .525	.179** .011	.034 .634	.062 .383	.062 .383	.368** .000.	.097 .171	.368** .000.
	**. Correlation is significant at the 0.01 level (2-tailed).								
	*. Correlation is significant at the 0.05 level (2-tailed).								

Table H.8.3 Spearman's Rank Order Correlation of Health Variables for Mainland Chinese Women

Spearman's rho		physical health	Stress scale	Utilization of health care services	Barriers to health services	Perform Health Promotion and Prevention Behaviors	Perceived important health promotion activities	Obstacles to Perform Health Promotion Activities	Perform health promotion activities In coming Year
Physical health	Correlation Coefficient Sig. (2-tailed)	1.000	.139* .050	-.108 .127	-.110 .121	.230** .001	.022 .755	-.110 .121	-.022 .758
Stress scale	Correlation Coefficient Sig. (2-tailed)	.139* .050	1.000	.343** .000	.344** .000	.062 .380	.177* .012	.344** .000	.192** .006
Utilization of health care services	Correlation Coefficient Sig. (2-tailed)	-.108 .127	.343** .000.	1.000	.488** .000	-.250** .000	.132 .062	.488** .000	.269** .000
Barriers to health services	Correlation Coefficient Sig. (2-tailed)	-.110 .121	.344** .000	.488** .000	1.000	-.119 .095	.122 .086	.000	.379** .000
Perform Health Promotion and Prevention Behaviors	Correlation Coefficient Sig. (2-tailed)	.230** .001	-.062 .380	-.250** .000	-.119 .095	1.000	.122 .086	-.119 .095	.058 .414
Perceived important health promotion activities	Correlation Coefficient Sig. (2-tailed)	.015 .829	.192 .006	-.503** .000	.324** .000	.058 .414	1.000	.324** .000	.263** .000
Obstacles to Perform Health Promotion Activities	Correlation Coefficient Sig. (2-tailed)	-.110 .121	.344** .000.	.488** .000	1.000**. 	-.119 .095	1.000**	1.000	.379** .000

Perform health promotion and health prevention activities in the coming Year	Correlation Coefficient Sig. (2-tailed)	-.022 .758	.192** .006	.269** .000	.379** .000	.058 .414	.263** .000	.379** .000	1.000
	**. Correlation is significant at the 0.01 level (2-tailed).								
	*. Correlation is significant at the 0.05 level (2-tailed).								