CHAPTER I

INTRODUCTION

1.1 Background and Significance of the Problem

During the 2nd UN HABITAT conference on June 14th 1996 held in Istanbul, Turkey, members declared that "adequate shelter means more than a roof over one's head. It also means adequate privacy; adequate space; physical accessibility; adequate security; security of tenure; structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure, such as water supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work and basic facilities: all of which should be available at an affordable cost. Adequacy should be determined together with the people concerned, bearing in mind the prospect for gradual development. Adequacy often varies from country to country, since it depends on specific cultural, social, environmental and economic factors. Gender-specific and age-specific factors, such as the exposure of children and women to toxic substances should be considered..." (UN-HABITAT, 1996).

Having adequate housing, therefore, means having a home where the family can have privacy and security and where individuals are able to develop and maintain their physical and psychological well-being. When an individual feels safe and secure at home it has a major psychosocial benefit as it enables the person to develop a sense of identity and attachment and represents a space to be ones-self and a safehaven from the outside world. When external factors or stressors intrude this refuge the individual's feeling of safety, control and intimacy becomes endangered and hence limits the home's psychological, emotional and social function (World Health Organization [WHO], 2004).

According to the WHO's definition, "health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." Based on this definition, housing conditions clearly play an important and significant role for individual and public health. For young children who spend a significant amount of their time in the household environment, housing conditions have direct effects to their overall well-being.

It has been observed that, in the developing countries, children diarrhea incidence and acute lower respiratory infections, which represent a significant portion of the global disease burden, are linked strongly to housing conditions, as allergies and asthma in children in the developing world (Chaudhuri, 2004). Moreover, the specific problem of chronic residential crowding has been linked to children's difficulties in school behavioral adjustment, poor academic achievement, elevated blood pressure and strained parent-child interpersonal relationships (Evans et al., 1998).

1.2 Problem Statement

The need to improve the overall health of children in developing countries requires addressing all facets that affect it, including environmental factors. Although

it is widely believed that inadequate housing conditions have significant adverse effect on the overall health of children, there have been limited studies undertaken on this particular area. In Cambodia, where the state of children's health is one of the lowest in the region and where the state of housing is a serious problem, there is an urgent need for a study that shows how the two are interrelated, in order to inform everyone involved in children's health and shelter improvement programs in the country.

In line with this, the main research problem focuses on these interrelated elements:

- 1. Limited data available on the health effects of housing in children's health in the developing countries, and particularly in Cambodia. The limited number of initiatives to improve housing conditions of the poor indicates the unduly low priority given to the problem in the overall poverty alleviation and social development strategy by the different actors involved. Although there are numerous initiatives (government, NGO and other private institutions) to address children's health in the country, very few of them intentionally include housing improvement initiatives as part of their overall program strategy. This is an indication that there is insufficient data that will show and convince these actors to integrate housing improvement programs for the poor in their children's health improvement programs. Organizations that are directly involved in housing improvement programs in Cambodia need the necessary data to show the far-reaching effects of their work, especially in the state of public health in the country.
- 2. Based on the above stated data inadequacy, there is a lack of clear understanding of the health problems that are directly related to inadequate housing

conditions. Moreover, Habitat for Humanity, which implements shelter improvement projects in Phnom Penh does not have any data to demonstrate the specific improvements in children's health as a result of improved housing conditions among the families who have benefited from its program in Cambodia. This information is crucial for the organization and for other entities that are involved in the program to be able to ensure that the projects they undertake prioritize elements that impact children's health. There are three aspects that require data to understand their direct impact on children's health: (1) The design and quality of the dwelling, such as its ability to protect inhabitants from external elements, ventilation, hygiene, sanitation facilities, adequate space, etc.; (2) the housing environment, such as public services and infrastructure, community common areas and other surrounding areas; and (3) Other health-relevant aspects of the community that may be less closely related to housing conditions, such as social cohesion of the community and sense of trust among members.

1.3 Research Questions:

- Does the condition of the houses affect the health status of the children and their mothers?
- 2. What elements or factors of the houses affect the health status of the children and their mothers?
- 3. What illnesses and diseases are related to poor housing conditions?

1.4 Purpose of the Study

To determine the effects of Habitat for Humanity housing by comparing non-Habitat housing in the communities of Khmer Kampuchea Khrom, Samaki and Sen Sok in Phnom Penh, Cambodia on children (10 years old and below) and their mothers.

Objectives of the Study

- To assess the impact on children's health and their mothers of the housing improvement projects implemented by Habitat for Humanity in Khmer Kampuchea Khrom, Samaki and Sen Sok communities.
- To identify the specific aspects of housing that is most closely associated with housing-related differences in children's and mothers' health. Such specific aspects include ventilation, protection from rain and dampness, toilet or sanitary facilities, and indoor air pollution.
- To identify children and their mothers' illnesses and diseases that may be related to poor housing conditions.

1.5 Benefits of the Study

- This study is an addition to the body of studies on the effect of housing on the health of children and their mothers, especially on the limited number undertaken in the least-developed countries such as Cambodia.
- The study demonstrates how environmental factors, such housing condition, have direct effects on the health of children and women and offers those who work to

improve the lives of these vulnerable population more information that will aid them in developing effective strategies and programs.

- 3. The study gives Habitat for Humanity and the communities involved in their projects in Cambodia hard data on the health-effects of the housing improvement initiatives, allowing them to make improvements or adjustments to their strategies.
- 4. The results of this study give Habitat for Humanity and other community housing improvement organizations data to demonstrate the broader effects of their work, especially their impact on the state of public health.

1.6 Brief Description of the Study Area

- 1.6.1 Cambodia Country Profile: Cambodia is one of the least-developed countries in the world. Emerging from a recent traumatic history, the majority of Cambodia's thirteen million people live in desperate poverty and struggle to meet the most basic needs of food, shelter and clean water. Cambodia's social indicators are amongst the worst in Asia, and children are particularly vulnerable. The following are some of the socioeconomic facts according to the UNDP (Human Development Report, 2004):
 - The infant mortality rate, 96 per 1,000 live births; child mortality (deaths
 before the age of five), 138 per 1,000 live births; and maternal mortality, 450
 per 100,000 live births.
 - Population with access to improved water: 30 percent (2002); population access to improved sanitation 17 percent.
 - Thirty four percent (34%) of the population live on less than US \$1 a day.

One of the highest HIV/AIDS infection rates in Asia, and it is expected that
the number of orphans and vulnerable children may escalate to 140,000 by
2007.

1.6.2 State of Phnom Penh Urban Housing: In the capital city of Phnom Penh, housing is still inadequate in both quantitative and qualitative terms. It is estimated that at least 20% of the city's population (approximately 250,000 people or 50,000 families) live in squatter settlements where more than half of them live in houses made of bamboo and leaves. Fifty percent (50%) of these squatter dwellers are children who face numerous problems, including inadequate shelter and lack of clean water supply, sanitation and waste-management facilities. According to the 1998 Population Census, only 25% of the households in the urban areas have access to piped water, 51% do not have toilet facility within the premises and 50% of the households do not use electricity provided by the public electricity company (UN Habitat, 2002).

1.6.3 Khmer Kampuchea Khrom, Samaki and Sen Sok Communities, Phnom Penh: Khmer Kampuchea Khrom, Samaki and Sen Sok are two of the 19 resettlement communities opened by the city government to relocate squatter families living in the inner city. The settlements are located in the outskirts of the city.

1.6.3.1 Khmer Kampuchea Khrom is located in the outskirts of Phnom Penh, approximately 15 kilometers Northwest of the downtown area. It is a community of at least 150 families who are mainly from an ethnic group called Kampuchea Khrom, which refers to the people originating from the shared border of Cambodia and Vietnam. These people have been affected by "artificial" border that now divides the two countries. Many of them were discriminated or expelled from

their land in Vietnam and have migrated to the capital city. Although the community began as a resettlement site of this group, it has presently been transformed into one that is composed of families from the middle class and the working poor. Presently, the community's basic infrastructure is adequate with functioning roads and community sewer system. It has also access to running water and electricity (Habitat for Humanity - Cambodia, 2005).

1.6.3.2 Samaki is located about 17 kilometers Northwest of the downtown area. The settlement lacks adequate community infrastructure, piped running water and drainage system. It is connected to the public electricity supply and to a main road from the city proper. However, its streets are mostly impassable during rainy season. When it was established in 2001, it was comprised of 1,619 families distributed in 6 villages. A survey indicated that about half of the families in Samaki live in inadequate housing conditions (Habitat for Humanity - Cambodia, 2005).

1.6.3.3 Sen Sok is located 15 kilometers West of downtown Phnom Penh. It is an older settlement and one of the first relocation sites designated by the government. The figures from the local government, which are obtained by Habitat for Humanity, indicate that there are 3,316 households or 13,687 people in the community, and 1,282 of these families were relocated from the slums in the inner city area. The community has approximately eleven (11) non-governmental organizations that are presently implementing projects involving development of self-help groups, vocational training, HIV/AIDS, education, small business development, micro-financing, nursery, water and sanitation, etc. In spite of these, however, the community is still in need of basic community infrastructure (passable

roads, drainage, etc.) and sustainable livelihood for many families (Habitat for Humanity – Cambodia, 2005).

1.6.4 Habitat for Humanity International-Cambodia: Organization Profile: Habitat for Humanity International—Cambodia (HFHI-C) is a non-profit, Christian Housing Organization. HFHI-C, has for its vision and mission is to eliminate poverty housing and homelessness in Cambodia and to make decent, affordable shelter a matter of conscience and action. Habitat for Humanity International — Cambodia is a branch country program of Habitat for Humanity International which was founded in 1976. Its headquarters are located in Atlanta, Georgia, USA. Presently, the organization has its presence in over 100 countries around the world and has built more than 200,000 houses for over 1,000,000 people who are in needed of decent homes. Habitat carries out its mission at the community level through organized community groups. Habitat is not a giveaway program. In addition to a down payment and the monthly mortgage payments, homeowners invest their own labor — "sweat equity" - into building their house and the houses of their neighbors (HFHI Website, www.habitat.org).

HFHI-C was registered with the Royal Government of Cambodia on January 16, 2003, with initial projects, in partnership with Bileg Foundation, to help free families, with micro-loans, from the "jaws" of proliferating loan sharks in the communities, towards saving for shelter improvement. HFHI-C implemented its housing program through partnership with community-based organizations and local authorities in the suburbs of Phnom Penh since April 2003. In 2005, HFHI-C expanded its housing assistance projects around Phnom Penh city to additional three

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resettlement areas, Sen Sok, Krang Ang Krong and Samaki communities, and, presently, it has served at least 150 families (HFHI-Cambodia, 2006).

1.7 Conceptual Framework of the Research

This study identifies the association between housing conditions and the health of mothers and children. This arrangement of independent variables and dependent variables is shown in figure 1.

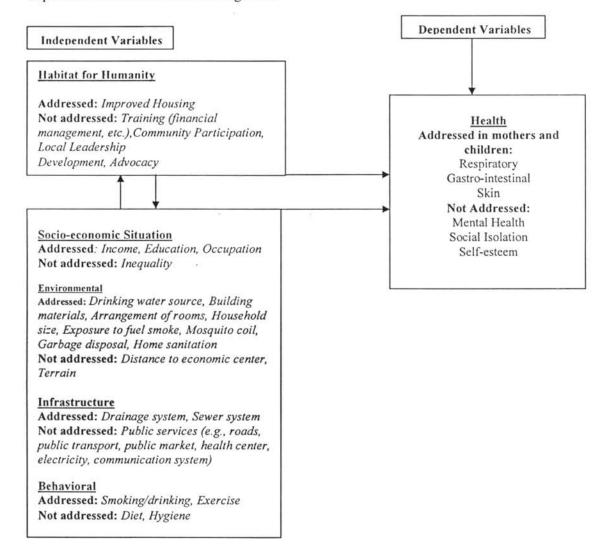


Figure 1: Conceptual Framework