CHAPTER I

INTRODUCTION

1. Rationale and objective of the study

The majority of health problems faced by Filipinos are rooted in the inability of the majority to access basic health care services (Tan, 1998). In response to this concern, the National Health Insurance Program (NHIP) was instituted in 1995 through the Philippine Health Insurance Corporation law under Republic Act (RA) No. 7875. It envisions providing health insurance coverage and ensuring affordable, acceptable, available and accessible health care services within 15 years of implementation (Bautista, *et al.*, 1999). This program was further strengthened in the year 2000 with the adoption of the Health Sector Reform Agenda (HSRA) by the government. The NHIP however, is not the country's first attempt at universal health coverage. The first program was the Philippine Medical Care Plan (Medicare) established through Republic Act No. 6111 in August 1969. With the approval of RA 7875, the status and responsibility of the Philippine Medical Care Commission (PMCC)—the agency responsible for Medicare—was changed by turning it into a government corporation called the Philippine Health Insurance Corporation (PHIC or PhilHealth) to implement the NHIP.

PhilHealth acknowledges utilization monitoring as a way of ensuring quality of health care delivered to its members. It has a performance monitoring system, in place, of

all health care providers which safeguards against over and under utilization of services; unnecessary diagnostic and therapeutic procedures and interventions; irrational drug use; inappropriate referral practices; gross, unjustified deviations from currently accepted practice guidelines or treatment protocols; use of fake, adulterated or misbranded pharmaceuticals or unregistered drugs and use of drugs other than those recognized in the Philippine National Drug Formulary (PNDF) and those for which exemptions were granted. The monitoring system includes, among others, activities such as periodic inspection of facilities and offices; gathering of utilization data from services rendered by all health care providers who shall be required to submit mandatory reports thereon; periodic review of these data; utilization review; peer review; periodic assessment of the performance of all health care providers and submission of mandatory monthly reports and other requirements as determined by PHIC (RA 7875). Such monitoring is basically retrospective that examines the structure i.e. resources, personnel, policies and procedure, of the health care delivery as exemplified by the evaluation of monthly reports, rather than the process (how well the structure is used).

A descriptive analysis however, of health care utilization while providing very useful information may be inadequate if one would like to understand the pattern of utilization and infer policy recommendations for the improvement of services offered by the Corporation.

Moreover, in addition to ensuring quality of health care, it cannot be argued that monitoring of utilization of health care services is also important for efficient allocation

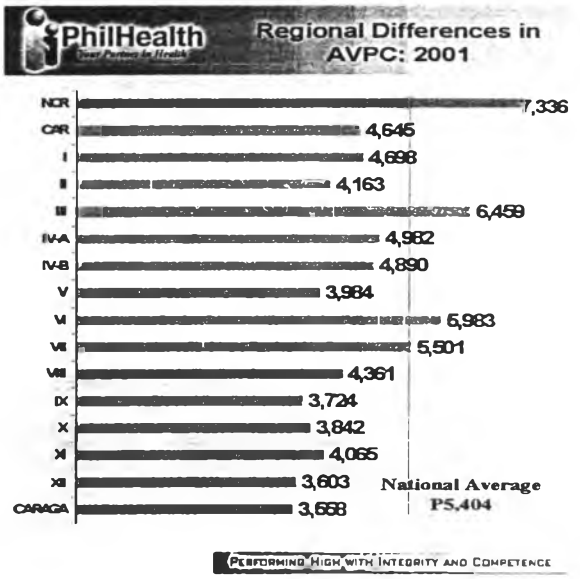
and spending of resources which can only be emphasized especially in developing countries such as the Philippines whose resources are particularly scarce.

In the highly developed countries such as the United States, monitoring of quality of health care has included variation studies in addition to monitoring avoidable errors, underutilization and overuse of services (President's advisory commission on consumer protection and quality in the health care industry, 1998).

Geographic variations in health care utilization have already been widely documented in the United States, Canada, Europe and Australia (Wennberg, 1999). For several years, investigators have recorded substantial variation in the utilization of medical and surgical procedures, hospital resources and medications across cities, hospital market areas, counties, standard metropolitan and statistical areas, states and census regions (Detsky, 1995; Tedeshi *et al.*, 1990). Various demographic, economic, epidemiologic and sociological factors have been found to account for such variation. Outcomes of such studies have raised the consciousness of health professionals, academicians, and policy makers alike inciting them to look at the implications of such variation and find means to curb its possible consequences in heath care. In the United States where variation studies abound, it provided very insightful premise for arguments that has challenged the health care system especially the Medicare and Medicaid, the federal government's insurance schemes for the elderly and the poor, respectively. They have raised questions on the knowledge base or competency of physicians due to variable practice patterns across areas, disclosed spheres of concern in resource allocation and

health care spending as well as raised equity issues in health care, all of which have been considered as important factors to be addressed in health care reform (Blumenthal, 1994, Lieberman, *et al.*, 2003; Skinner and Wennberg, 1998; Wennberg, 2002; Fischer and Welch, 1999; Wennberg *et al.*, 2002). Indeed the significance of monitoring variation cannot be dismissed if one would truly want to understand the pattern of utilization of health care.

In the Philippines particularly under the NHIP, although there are no formal geographic variation studies in health care utilization, in a descriptive analysis of the utilization of health care services there are evidences that variation do exist especially on health care spending. In 2001, the average reimbursement in the National Capital Region is 7,336 PhP a two-fold difference compared to CARAGA region with 3,558 PhP (Figure 1.1) although the utilization rate for these two regions is not quite different, 4% and 3.9 % respectively (PhilHealth, 2003). Are these differences justifiable? Or does it suggest inequity in this national program? Are the regions with low expenditure getting their fair share or are the providers being adequately compensated for the services they deliver? Are the regions with high expenditure using too much care or are they being overcompensated for the care they provided? These concerns may only be addressed by examining the causes of variation and identifying its possible implications on the equity of the program.



Adapted from PhilHealth, 2003

Figure 1. 1. Regional Differences in Average Reimbursements for year 2001

This study then aims to answer the following general research question:

RQ: What are the factors that affect the variation in health care utilization across the different provinces and regions across the country under the NHIP?

Specifically, it intends to address the following objectives:

- describe the utilization of health care (admission rates and health expenditure) among the different regions by choropleth mapping
- compare and reveal similarities or differences in the utilization across provinces and regions
- explore the relationship of the different factors to health care utilization
- create a model that predict health care utilization

It will be interesting to explore whether the factors that account for the variation are comparable to other countries. Can variation be accounted to the health needs of the population or the pattern of disease? If this is so, then variation is justified but if not, then variation should be a cause for concern because of its implications on the quality of health care and the equitable and efficient allocation of resources.

This study will use the expanded version of the Andersen behavioral model as conceptual framework. The Andersen Behavioral Model, otherwise known as the Health Services Utilization Model, presupposes that health care utilization is a function of the predisposition of an individual to use services (predisposing factors), factors that enable or impede use (enabling) and an individual's need for services (Coughlin, 2002). In the expanded behavioral model by Andersen and Newman, the health services system was included as an important aggregate determinant of health care seeking behavior. It denotes the arrangements made for the potential rendering of care to consumers such as the volume and distribution of services (resources) and the access to and structure of mechanisms for individuals entering and moving through the system (organization) (Aday and Awe, 1997). Andersen's behavioral model is one of the most frequently used frameworks for analyzing the factors that are associated with patient utilization of health care services like pharmaceutical care, home health care, health services for mental health problems, community service, preventive and other ambulatory services. It has also been used to understand disparities in utilization of medical services in different insurance systems as well as explain some concepts such as vulnerability (Phillips *et al.*, 1998; Shi, 2001; Henton *et al.*, 2002; Cranol and Cristensen, 2003; Cheng and Chiang, 1998;

Shippee-Rice *et al.*, 2003;Albizu-Garcia *et al.*, 2001; Bosompra *et al.*, 2001; Coughlin *et al.*, 2002).

Small area analysis will be used as the technique in examining the data. Small area analysis is an analytical method for determining the number of events occurring in a small geographic area that can be compared to similar geographic areas or a larger area benchmark. It attempts to measure the amount of variation in health care utilization across areas, decide if a pattern exists to the differences in use and identify the variables that are present with and possibly explain some of the variation. Identifying the different characteristics in each region is key to explaining the variation and becomes extremely important when determining appropriate policies for addressing the differences (Fried, 2000). Small area analysis have been applied to monitor surgical rates, hospital admissions, morbidity, mortality, health care delivery, physicians' expenditures and insurance among other things. Variation among areas is evident and factors identified that can be accounted for such variation include physician enthusiasm and practice styles, patient demand, availability of physicians and hospital facilities, differences in health care systems and patient characteristics (Wennberg and Gittelsohn, 1982; Ashton *et al.*, 1999; Wennberg, 1999; Detsky, 1995; Garg *et al.*, 2002; Rao *et al.*, 2001; Rytkonen *et al.*, 2001; Rich *et al.*, 1998).

Based on Andersen's behavioral model, this study will explore whether predisposing, enabling, need factors and the health care system can explain the variation

in utilization of hospital services in the different provinces of the country under the NHIP.

2. Expected benefits/ contributions of the study

This study will contribute to an understanding of the utilization of health care under the NHIP as well as its implications on the equitable and efficient allocation of funds. Moreover, in line with PhilHealth's thrust to ensuring quality of health care services rendered to its members as well as its collaborative effort with the different local government units in the implementation of the program, this study can serve as a future guide or system of monitoring utilization. It will provide more information by revealing the explicit concerns that are particularly distinctive in the provincial or regional level that may otherwise be overlooked when analysis is done on a national level. Such information will lead to a better understanding of utilization and thus be able to infer specific policy recommendations to improve its services, i.e. high use in a particular area may be translated as greater need and would require policies aimed at preventive measures and education or it can aid in deciding to increase benefit payments currently offered by the Corporation.