CHAPTER 2: LITERATURE REVIEW

2.1 Overview

The choice of healthcare service provider and the subsequent utilization of healthcare services is a complex multifaceted process, especially in the context of a developing nation like India. National sample survey (60th Round, 2004) data highlights a perplexing scenario in India that is characterized by low rates of utilization of highly subsidized public healthcare services and greater utilization of higher priced private healthcare services. Statistics show that, out of pocket expenditure as a percentage of private expenditure (which consists of out of pocket expenditure and expenditure through other sources like insurance) on health, in India, is as high as 94% (WHO Statistics on health, 2012). According to the WHO report (2012) this high number on the out of pocket expenditure is largely due to the fact that government spending on healthcare (as a percentage of total outlay) is a bare minimum of 3%. Dominance of private healthcare services is a cause of concern for the government agencies as lack of financing options pushes many citizens towards abject poverty or ill-health due to non-treatment of diseased condition (Duggal, 2007). Therefore, given the relevance of public services in a welfare state like India, the key question that lies at the heart of healthcare services scenario is related to the choice of healthcare service providers particularly between public and non-public providers.

There are two dimensions to this query. The first dimension deals with the supply side of public healthcare services. The number of healthcare facilities, human resource working in these facilities and other ancillary services (eg. medicines) provided along with these healthcare services are parts of the supply side. The other dimension is the demand side of the healthcare services that deals with the characteristics of an individual as well as the environment that an individual lives in. The supply and demand related issues coupled with uncertainty in terms of
the time for availing the service and the benefits from availing the service, make healthcare services, unique. Moreover, as majority of common people have limited knowledge of the diseases/illnesses, there is a lot of information asymmetry that exists in the ensuing service exchange. As a result, an individual’s choice is influenced by a myriad of factors when choosing a healthcare service provider. The focus of the subsequent section is to understand this choice by reviewing the healthcare service related frameworks (supply as well as demand side) and literature on the determinants of healthcare services utilization.

**2.2 Theoretical Models to Explain Utilization of Healthcare Services**

Scholars from different streams of economics, anthropology, epidemiology, public policy and management have explored the reasons behind utilization of healthcare services by an individual. There are different models to explain healthcare services utilization for instance, a psychological model based on social structure and individual medical orientation of an individual (Suchman, 1965), the health belief model based on the various perceptions and motivations of the individual (Rosenstock, 1974), and utility driven healthcare seeking decision steps model (Young, 1981).

When it comes to the healthcare seeking behavior of an individual the focus is on contextual elements related to the socio economic conditions of the individual and the prevailing health system characteristics. Consequently the focus of healthcare services utilization research from a behavioral perspective is on identifying the most appropriate factors (both individual and environmental) that may influence the choice of the healthcare services provider. There are two major frameworks that have been proposed to explain the healthcare services utilization of an individual from the behavioral aspect. These are: Andersen & Newman model (1973) and the Kroeger’s model (1983).
Considered as one of the seminal works in the area of health care services utilization, Andersen & Newman’s (1973) framework (Refer to Figure 1, Appendix I) envisages that an individual’s use of health care depends on three components: predisposing, enabling and illness level. Predisposing component tries to explain the inclination of an individual towards use of health services prior to beginning of an illness episode. It consists of demographic, social structure and belief variables. Enabling component consists of variables that play a supporting role in fulfillment of an individual’s need of health care. It consists of variables representing family attributes and community resources. Illness level focuses on the immediate grounds for use of health services by an individual. It consists of perceived illness and evaluated illness levels for the individual.

The second prominent framework is given by Kroeger (1983), who on the basis of a detailed literature review in the field of healthcare utilization proposed a conceptual framework suitable for both developed as well as developing countries (Refer to Figure 2, Appendix I). His framework consisted of patient characteristics, disorder characteristics, patients’ perception and service characteristics as key characteristics of health care services utilization. Patient characteristics’ is similar to predisposing factors suggested by Andersen & Newman (1973). It included demographic and society related variables. Disorder characteristics consisted of the severity and nature of the disease. Patient’s perception consisted of perceptions about expected benefits of treatment, perceptions about disorder type and perceptions about cause of the disease. Service characteristics consisted of variables representing systemic and enabling factors such as accessibility, appeal, acceptability, quality, communication and cost of health services. Kroger (1983) identifies four different types of healthcare service resources available to a patient. These include the modern treatment, traditional healers, drug sellers and self/no treatment. He argues
that meaningful approaches to understand healthcare utilization should take into consideration the cultural fabric of the geography and the subjects.

2.3 Empirical Evidence

These frameworks of healthcare services utilization have been applied on patients suffering from specific ailments as well as on the general usage of healthcare services (i.e. utilization of healthcare services without focusing on the nature of ailment). The present dissertation is concerned with general healthcare services utilization. The literature reviewed here deals with application of the established frameworks for general healthcare services usage. It is focused in terms of the determinants that are part of the said frameworks and that may influence an individual in making the choice for the healthcare services provider. Empirical studies have suggested a number of modifications in the above stated frameworks depending on the context where these studies have been carried out. Accordingly a wide variety of results have been reported that are at times contrasting in nature. A review of these factors would assist in building the required framework for this dissertation.

Age

Andersen and Newman (1973) as well as Kroeger (1983) mentioned age as one of the demographic variables that may influence an individual’s decision to utilize health care services. Past studies have empirically tested and reported the significance of age as a determinant for health care usage. Studies done in the developed nations (Lahana, Pappa & Niakas, (Greece) 2011; Brown et al. (USA) 2009; Jatrana and Crampton, (New Zealand) 2009; Asada and Kephart, (Canada) 2007; Forbes & Janzen, (Canada) 2004; Hendryx et al., (USA) 2002; Field et al., (UK) 2001; Birch, Eyles & Newbold, (Canada) 1993) reported that with an increase in age
the odds of utilizing the health care services increase for an individual. This is due to physiological changes that happen with passage of time. Such changes make an individual more vulnerable to health care problems and therefore lead to greater utilization of healthcare services.

Similar results are observed for studies done in developing nations (Pourreza et al. (Iran) 2011; Cevallos & Chi, (Ecuador) 2010; Amin, Shah & Becker, (Bangladesh) 2010; Chen & Li, (China) 2009; Majumder, (India) 2006; Chakraborty et al., (Bangladesh) 2003; Vissandjee, Barlow & Fraser, (India) 1997; Subedi, (Nepal) 1989).

**Gender**

Andersen and Newman (1973) recognized the importance of gender and included it as one of the demographic variables under the predisposing component in their framework explaining health care services utilization for an individual. Kroeger (1983) has also included gender as part of his framework explaining the utilization of health care services. Research done in the developed countries has shown that females are more sensitive towards their health requirements owing to the fact that females are socially more active and pay more attention towards their physical health (Parslow, 2004). Results on the influence of gender on health care services utilization are of mixed nature. Some authors (Jatrana and Crampton, 2009; Brown et al. 2009; Asada and Kephart, 2007; Arcury, (USA) 2005; Forbes & Janzen, 2004; Hendryx et al., 2002) report that females are more likely to use health care services, while others have found that gender plays no role in utilization of services (Lahana, Pappa & Niakas, 2011).

Similar to many developed countries, studies done in developing countries (Pourreza et al., 2011; Mendoza & Bertozzi, (Honduras) 2008; Majumder, 2006; Thind, (India) 2004; Ahmed et al. 2000; Subedi, 1989), show that gender is an important determinant of utilization of health
care services. However, contrary to developed nations findings, majority of these studies reveal that females are less likely to utilize healthcare services owing to social status issues.

**Education**

The time and place of utilization of healthcare services to maximize the possible benefits is greatly aided by the educational qualifications of an individual. In accordance with this viewpoint both Andersen & Newman (1973) as well as Kroeger (1983) have included education as one of the variables that may affect the health care utilization of an individual. Asada & Kephart (2007) have found that in Canada, the level of education of their respondents influenced their healthcare usage practices. People with higher education were more likely to opt for healthcare services as compared to their less educated counterparts. Hendryx (2002) reported that in the United States of America, people with more years of education are more likely to be sensitive towards their health and are better aware about access to healthcare options. In a study done in Greece, Lahana, Pappa & Niakas (2011) found that the level of education not only influence the healthcare usage but also the type of healthcare service provider used by an individual. They report that people with lower education are more likely to use emergency department healthcare services as opposed to people with university education who were more likely to use government funded primary healthcare services for similar needs.

Similar types of findings are reported for developing countries as well. Chakraborty et al. (2003) report that for maternal care in Bangladesh, mothers with secondary or higher education are more likely to utilize the services of a doctor or nurse as compared to illiterate mothers. Similar findings were reported by Ghosh (2004) for the state of Uttar Pradesh in India, wherein mothers
who had more education were more likely to use institutional delivery and maternal care from trained personnel as compared to illiterate mothers.

**Income**

The income of an individual plays a crucial part in determining the health care services utilized by an individual. Along with the income and the standard of living of an individual the sensitivity of that individual towards healthy living also rises. The income influences affordability to spend on health care that in turn influences the type of health care service chosen by an individual. It has been found that with a rise in household income of an individual the likelihood of utilizing healthcare services (Regidor, (Spain) 2008; Asada & Kephart, 2007) and visits to the private practitioners (Lahana, Pappa & Niakas, 2011) are more likely to happen. Forbes & Janzen (2004) report that the tendency to use cheaper healthcare services is found more in individuals belonging to the lower income category as they cannot afford the higher priced services available in hospitals.

Studies conducted by Birch, Eyles & Newbold (1993) as well as Arcury (2005) have reported that income is an insignificant factor for utilization of healthcare services. These contrasting results can be attributed to the severity of illness or criticality of disease that may cause lower income people to opt for treatments which are less affordable and costlier.

Vissandjee, Barlow & Fraser (1997) found out that in rural Gujarat, India, women belonging to higher income households were more likely to utilize healthcare services. Thind (2004) reports that in rural Bihar, India, children belonging to households with higher standards of living are more likely to utilize healthcare services. Amin et al. (2010) reported that women belonging to wealthiest quintile of income in Bangladesh were more likely to use trained healthcare
professionals for maternal and child health care. More recently, Pourezza et al. (2011) and Prinja, Kanavos & Kumar (2012) found similar results for studies conducted in Tehran (Iran) and the state of Haryana (India) respectively.

**Religion**

Every religion has its own unique characteristics and peculiar influences on individual and societal decision making. Especially in Indian context, where religious healers also find an important place, religion has a role to play in influencing an individual’s choice regarding healthcare services utilization. This is evident from the findings of Ghosh (2004) who reported that Muslim women from rural Uttar Pradesh, India are less likely to use modern health care services for maternal health services as compared to Hindu women. Similar results were reported by Thind (2005) regarding female’s use of contraceptives health care services in rural Bihar, India. He found that Muslim females were less likely to utilize modern contraceptives for reproductive healthcare services. Rani and Bonu (2003) with the help of NFHS – 2 data, reported that in rural areas across India, Hindu women were more likely to seek healthcare services from private providers as compared to Muslim women for gynecological healthcare issues. Studies done in the developed nations have shown that ethnicity is an important variable in determining healthcare utilization for an individual (Lahana, Pappa & Niakas, 2011; Jatrana & Crampton, 2009; Arcury, 2005; Hendryx, 2002, Kushel, 2002). Though, the terminologies may be culture specific, empirical evidence indicates that religion or ethnicity does play a role in determination of health care service utilization behavior.
Caste

Apart from religion based identification, Indian society has a system of caste based classification that makes it fairly complicated as compared to many other countries. Similar to religious influences, various norms and customs related to caste are still followed across the country and play a part in the way the health services are utilized by an individual. This is evident from the findings of Vissandjee, Barlow & Fraser (1997) who reported that rural women from Gujarat, India and belonging to upper caste Hindu or upper caste Muslim families are more likely to use health care services as compared to low caste Hindu females (reference category). Navaneetham & Dharmalingam (2002) found that in the states of Karnataka and Andhra Pradesh in India, females belonging to scheduled caste are less likely to use maternal healthcare services. Rani & Bonu (2003) in a study done across India using NFHS – 2 data reported that general category females were more likely to utilize private providers as compared to scheduled caste women living in rural areas for gynecological symptoms. Similar results for children’s use of health care services in rural Bihar (India) were reported by Thind (2004) who found that those belonging to scheduled caste or tribes were less likely to utilize health care services.

Marital Status

Marital status has a bearing on the lifestyle of an individual. Especially, for females there might be a change in health care utilization patterns in terms of maternal and child care usage. In the past, authors in the developed (Brown et al.2009; Jatrana & Crampton, 2009; Birch, Eyles & Newbold, 1993) as well as developing countries (Sato, 2012; Patil et al. 2002; Subedi, 1989) have studied marital status as a possible determinant of health care service utilization. They
report that married females are more likely to utilize healthcare services as compared to the single females. These findings are consistent across developed as well as developing nations.

**Exposure to Mass Media**

The media that is used to disseminate information to the general public is referred to as mass media and consists of both print (newspaper, magazines etc.) and electronic (television, radio, internet etc) medium. It is believed that when an individual is exposed to any or a combination of mass media, the knowledge regarding various healthcare services increases (Amin et al. 2010; Ghosh, 2006; Ghosh, 2004). The same is also true when it comes to various schemes and incentives that are communicated to the general public by government or private agencies using these mass media tools. Literature review indicates that the influence of mass media exposure has mostly been studied in the context of the developing nations. Amin et al. (2010) have reported the significance of exposure to mass media as an influencing factor in utilization of maternal and child healthcare services in Bangladesh. The authors explained that individuals with an exposure to mass media are more likely to be aware of the health care services options available to them. In Indian context too Ghosh (2004) in his study in Uttar Pradesh (India) and Pallikadavath, Foss & Stones (2004) in their study in rural north India found that exposure to mass media resulted in greater utilization of maternal and antenatal health care services.

**Traditional Medicines Providers’**

Traditional healers are recognized as one of the widely used options for health care services (Kroeger, 1983). Subedi (1989) investigated the influence of folk and traditional providers on modern health care services utilization in Nepal. He observed that traditional healers play an important role in influencing an individual’s decision to seek modern healthcare service. He
found that individuals who seek healthcare advice from traditional healers take lesser time in their decision to utilize modern healthcare services as compared to those who do not seek advice from traditional healers. When it comes to India, there is a well developed Indian medicine system that is spread across the country. As per the Indian Medicine Central Council Act, 1970, "Indian Medicine means the system of Indian medicine commonly known as Ashtang Ayurveda, Siddha or Unani Tibb whether supplemented or not by such modern advances as the Central Council may declare by notification from time to time". Studies on health care services utilization in India (Yadav, Pandey & Singh, 2007; Ager & Pepper 2005; Majumder, 2006) have reported the importance of homeopathic, ayurvedic as well as traditional healers for the rural population of India.

**Accessibility**

Physical access to a health care service provider is considered as an enabling component for an individual to utilize health care services (Andersen & Newman, 1973). Particularly for developing countries, accessibility is considered as a critical factor for utilization of healthcare (Baker & Liu, 2006; Kroeger, 1983). Previous studies indicate the importance of physical access to service providers in influencing an individual’s decision to choose healthcare service provider and to utilize health care services. Accessibility is represented in terms of physical access of an individual to a service provider in his/her area of residence (Ager & Pepper, 2005). The associated costs of travel, the lost opportunity cost of work day pay and availability of transport mode are all interlinked to accessibility hence affecting the provider choice and utilization. Accessibility is measured as distance in earlier studies to measure its impact on healthcare utilization (Buor, 2003; Dwivedi & Sundaram, 2000; Ganatra & Hirve, 1994). Dor (1987)
reported the significance of distance and travel time in the choice of healthcare services provider in Ivory Coast, Africa.

Kakar et al. (1972) reported that accessibility to a health care provider played a vital role in utilization of health care service in the state of Punjab, India. Similar findings were reported by Ager & Pepper (2005) for the state of Orissa in India.

**Cost of Treatment**

The cost of treatment is a vital component of decisions related to utilization of healthcare services as well as the choice of healthcare service provider made by the individual. It is considered as one of the key enabling components by Andersen & Newman (1973). For those nations where there is a well developed insurance network like USA, majority of the cost of treatment for covered diseases are borne by the concerned agencies. However, for a country like India, due to lack of insurance penetration, the expenditure on health is borne out of pocket by an individual. In this scenario, cost involved in treatment of disease becomes very prominent in deciding the type of healthcare service provider to utilize the service required. Ganatra & Hirve (1994) reported that in Maharashtra, India, the gender bias in treatment increased if the expenses associated with the illness episode became higher. Ager & Pepper (2005) in a study done in Orissa, India found that rural people of Orissa prefer going to the private practitioners of traditional medicines owing to the cost factor of treatment.

Majumder (2006) has reported that high cost of treatment increases the odds of utilization of modern sources of healthcare services by people in North Bengal, India. The author attributes this result to the fact that high costs of illness indicate presence of complex disease(s) that are beyond the capacity of traditional service providers. More recently, Chaudhuri (2012) observed
that high out of pocket expenditures on health is making individuals less likely to utilize healthcare services in Punjab, India.

**Health Insurance**

Earlier studies on health care services utilization across the globe have reported that health insurance influences health care services utilization positively (Pourreza et al., 2011; Kirby & Kaneda, 2005; Arcury, 2005; Kushel et al., 2002). Absence of insurance leads to fewer financing options that in turn have an impact on the choice of health care provider made by the individual. Research done in Vietnam have shown that individuals holding a health insurance are more likely to seek health care services as it is linked with getting access to proper health care (Jowett et al. 2004). Similar findings have been reported from Indonesia, where health insurance has been found to positively influence health care services utilization (Hidayat et al. 2004). Sreeramareddy, Sathyanarayana & Kumar (2012) for a study done on child morbidity across India using NFHS – 3 data reported that individuals having health insurance are more likely to utilize public health care services for treatment of their children.

**Service Quality**

Perceived service quality plays an important role in healthcare services utilization (Kim et al. 2012; Sharma & Narang, 2011; Narang, 2010; Lindelow, 2004; Mariko, 2003; Andaleeb, 2000; Haddad, Fournier, & Potvin, 1998; Mwabu et al. 1993; Babakus & Mangold, 1992). Previous empirical work done in the context of emergent nations (for example: Sri Lanka - Akin & Hutchinson, 1999; Nepal - Lafond, 1995; Bangladesh – Andaleeb, 2000, Tanzania – Leonard et al. 2003) have established the importance of perceived quality on the utilization of healthcare services as reporting that with an increase in perception of the healthcare services the likelihood
to utilize those services increase. The perceived quality of the healthcare services by individuals utilizing healthcare services have been found to be of importance in India as well; be it in the urban context (Pinto & Udwadia, 2010; Das & Hammer, 2007; Dilip & Duggal, 2004) or rural context (Banerjee, Deaton & Duflo, 2004).

**Residential Surroundings**

Andersen & Newman (1973) highlight the importance of residential surroundings in the healthcare services utilization context by including it as one of the variables under the enabling component. To understand the healthcare services utilization patterns of individuals from different residential surroundings, earlier studies in developed as well as developing countries have categorized residential surroundings as urban and rural (Lahana et al., 2011; Amin Shah & Becker, 2010; Forbes & Janzen, 2004, Hjortsberg, 2003). Studies done in India (Sreeramareddy, Sathyanarayana & Kumar, 2012; Ghosh, 2004; Sudha et al. 2003; Dwivedi & Sundaram, 2000) have reported that individuals belonging to urban and rural areas show different patterns of healthcare services utilization.

**2.4 Literature Review: Summary**

The literature survey indicates that the conceptual models of healthcare service utilization proposed by Andersen & Newman (1973) and Kroeger (1983) are the most versatile models that have been adapted by scholars across different contexts. In terms of the scope for investigating the reasons for the preference of a particular healthcare service provider in India, these models provide us with the platform for selection of the variables for development of the conceptual framework for the proposed dissertation.
The literature review helps in identifying the relevant variables for understanding the health care services utilization patterns for both the developed and the developing nations (Refer to Table No’s 1 & 2, (Appendix Section) for an outline of the representative studies). Some of the important variables which have been found to be relevant in both the contexts include age, gender, income, marital status, number of family members, employment status, media exposure, accessibility and cost of treatment.

Studies on developed nations and developing nations have the common aim of understanding the health care services utilization, yet they differ in a few aspects. Literature shows the presence of an advanced health insurance system in the developed nations as well as a sound infrastructure to take care of health needs. Whereas, the developing nations like India, are still at an early stage of addressing basic health care requirements.

Another distinguishing feature of health care services utilization between developed and developing nations is the availability of traditional medicines such as ayurveda. Usage of traditional medicines is more common among the patients in the developing nations mostly due to the lack of developed modern healthcare systems, easy accessibility to providers of traditional medicines and their existence for a long time in the society.