Profile of the Respondents
Attitude towards health and disease is rooted in the socio-cultural ethos in which the individuals are socialized and conditioned. Thus, the socio-demographic profile of an individual forms the basis on which causal factors; awareness, treatment, acceptance and well-being can be analyzed. It is thus important to juxtapose the physical health conditions with the socio-cultural attitudes of the individuals.

The present study attempts to explore the role of socio-demographic factors, family structure, and work status of the respondents in determining quality of life and rehabilitation after AMI. These parameters form the basis for further analysis and will provide insights for effective counseling, intervention, and prevention. These factors play an important part in molding an individual’s ideas and perceptions.

Unhealthy behaviour patterns, which include harmful dietary habits, substance abuse, sedentary life styles combine with stress, high cholesterol and hypertension as causes, which may lead to AMI.

Any individual leading a fairly healthy and consistent life style may still be at risk of developing heart disease due to family history, gender and age. However when social status, interaction patterns and changes in ways of life take place, the impact on health is evident. “When people change jobs, move their place of residence, or make other major life alterations, the risk of heart disease increases two to three times, independent of such factors as age, sex, race, cigarette smoking, cholesterol, blood pressure history, physical inactivity and obesity” (Antman and Braunwald, 2001; Eliot, 2001).

Numerous studies show that persons of lower socio-economic status fare poorly on a wide variety of indices of health and state of well-being (Bernheim et al 2007; Rahimi et al 2007; Reddy, Rao and Reddy 2002; Adler, et al 1993; Kaplan and Keil, 1993). It is time to identify reasons for this, and ultimately, try and reduce if not eliminate the disparity (Powell, Hoffman and
Shahabi, 2001). It has been found that patients with a lower socio-economic status are more likely to be smokers and more likely to be obese than other patients. Also they are more likely to have higher levels of co morbidity and depression and lower self-efficacy expectations (AltenHoener et al, 2005).

For the present study, detailed information regarding the respondents' various aspects of life has been outlined. These parameters include physical, social and psychological facets of life which are enumerated below:

Demographic Profile

The socio-demographic variables included in the present study are age, weight, height, place of residence, and initial years of residence, education, occupation, income and family type. They are discussed in detail below along with the possible ramifications they may have had on the occurrence of the AMI.

Age

Age is an important non-modifiable factor in the occurrence of AMI. The mean age for first presentation of acute myocardial infarction in Indians is 53 years. Age may also affect optimum rehabilitation after an AMI and is a significant determinant of 'return to work' of the individual. AMI that manifests at a younger age can have devastating consequences for an individual, the family, and society. (Sharma and Ganguly, 2005; Mittag et al, 2001; Monpere et al, 2000; Soejima et al, 1999).
A little less than half of the respondents (43 percent) were in the 51-56 years age group. While a little above one fourth (26 percent) of the respondents were in the age group of 46-50 years. 18 percent of the respondents were in the age group of 41 to 45 years and 4 percent of the respondents were in the age group of 36 to 40 years. Only 9 respondents were in the 30-35 years group. There is a tendency for AMI to become progressively more common with increasing age (Sharma and Ganguly, 2005). Data in the present study (Figure 3.1) also shows that as the age increases, the number of respondents having an AMI also increases as a little less than half of the respondents were more than fifty years of age.

**Education**

Level of education has been consistently related to work disability after the occurrence of heart disease (Barnes, et al, 1977; Fisher, 1970), but the reason for this association is not certain. Lower education attainment is mostly correlated with more menial and physically demanding jobs, which may consequently exceed the patients’ limited exercise capacity post AMI.
It is assumed that the level of education enjoyed by the individual affects the eventual recovery process. The literate persona would be more inclined to go by the instructions of the medical and other staff rather than fight them or succumb to bouts of depression induced by lack of understanding of the situation. The rural patient would also be more inclined to be scared of the debilitating factors of the disease and would not be in a position to comprehend the ameliorative or restorative steps being advocated. The lack of education would also tend to dilute the gravity of the situation in the eyes of the rural patient making him less inclined to understand the risk factors that induced the MI and the steps he should take to reduce the risk he presented. Thus, ‘beedi’ smoking a high risk factor in many cases would not be ascribed the seriousness it deserves in the eyes of the rural patient as for him it is an essential part of his existence and habits.

Education
Figure3.2

The figure above shows that only 7 percent of the respondents were illiterate, while more than three fourth (40 percent) of the respondents had studied up to high school, 7 percent of them had done an additional diploma. 13 percent of the respondents had studied up till class twelfth. 14 percent of them had done graduation only. Only 8 percent had done an additional diploma along
with graduation. Only 11 of the respondents had attained some professional degree. Data in the present study (Figure 3.2) shows that respondents who had studied up to high school were more prone to a heart attack as compared to those who were illiterate and also those respondents who had attained a professional degree.

**Occupation**

Nearly one third of the respondents (31 percent) were manual physical workers. Little over one fourth (28 percent) of the respondents, were government servants. 12 percent of the respondents had a small business of their own or had a junior level private job. Only 3 percent respondents were professionals and 11 percent of them were on managerial posts. Another 6 percent of the respondents were in teaching profession. There were 9 percent respondents who had an industry of their own. It needs to be mentioned that a significant number of government servants avail of medical facilities at PGIMER since it offers them specialized treatment as well as reimbursement facilities. In the present sample there are a considerable number of government employees (both lower and upper strata).
Data of the present study (Figure 3.3) shows that respondents engaged in manual physical work were more prone to having a heart attack as compared to those doing desk job or to those who were self employed.

**Income**

Studies show that economic conditions play a vital role in the choice of decision regarding treatment, hospitalization as well as the rehabilitation process. A majority of the respondents considered for the present study belonged to the lower economic class. There were a little above one fourth (26 respondents) who were earning between rupees 500/- to rupees 2000/- per month, 17 respondents were earning between rupees 2001/- to rupees 3500/- per month and another 17 respondents were earning between rupees 3501/- to rupees 5000/- per month respectively. 14 respondents were earning between rupees 5001/- to rupees 6500/- per month, 12 respondents were earning between rupees 6501/- to rupees 8000/- per month, and only 8 respondents were earning between rupees 8001/- to rupees 9500/- per month.
Four respondents were earning between rupees 9501/- to rupees 11,500/- per month, one respondent was earning between rupees 11,501/- to rupees 13,000/- per month and another respondent was earning between rupees 13,001/- to rupees 15,000/- per month. Data shows (Figure 3.4) that respondents with a lower income were more prone to having a heart attack in the present study.

**Initial place of residence**

It is assumed that place of residence has important implications or general lifestyle of an individual. Present data shows (Figure 3.5) that irrespective of the fact that a majority of respondents, at the time of AMI were residing in urban area; about 50 percent of them had spent their initial years in a village. In the present sample, nearly half (48 percent) of the respondents had spent their initial years in a village and nearly one third (30 percent) of the respondents had spent their initial life in a town. Only around one fourth (22 percent) of the respondents had lived in a city initially.
Present place of residence

It is essential to reach the hospital immediately after an AMI for treatment and recovery. Doing so is easier for individuals living in urban areas due to easy accessibility and close proximity of the hospitals. The rural/urban place of residence of the individual who has had an AMI could also influence his recuperation, attitude towards the disease, post-treatment behaviour and also acceptance of the post-discharge rehabilitation programmes advised to them. It is evident from the data (Figure 3.6) that nearly three fourth of the respondents (73 percent) belonged to urban area.

Present Place of Residence
Figure 3.6

Only a little over one fourth (27 percent) of the respondents were from rural area at the time of having an AMI. Majority of respondents in the present study belonged to urban area. This is similar to findings from a study done by Chadha et al, 1990
Family type

With the processes of urbanization and modernization the nuclear family system began to evolve. With the nuclear family as the crucial soci unit in our present society, there are potential stresses inherent in the relationship between the ill person and his family, stresses which are not likely to be as severe in an extended family.

Family Type
Figure 3.7

Nuclear family systems tend to lack the support system, which a joint extended family systems are likely to provide. Our sample shows (Figure 3.7) a preponderance of nuclear families of which a sizable number (86 percent) were living in a nuclear family. There were only 14 respondents living in a joint family set up.
Dependents
The onset of disease adds to the financial burden of the family as well. Since a significant number of respondents in the present study belong to low socio-economic strata, the number of dependents (family composition and size), issues of responsibility and caring for the family become paramount. Added to this is the pressure of bringing up and marrying off a daughter. This particular aspect has to be viewed in the socio-cultural context in which the respondents live.

Non-working spouses and children were included in the dependent category. The patriarchal society and its socio-cultural dimensions assign the role of the bread earner and head of the family to the man. The spouse who is not gainfully employed is considered to be her husband’s dependent. Nearly one third of the respondents (30 percent) had four dependents; a little over one fourth (26 percent) of the respondents had three dependants; a little less than one fourth of the respondents (20 percent) had two dependants, 10 percent of the respondents had only one dependent; while fourteen respondents had 5 to 7 dependents. (Figure 3.8).

Number of dependents
Figure 3.8
Researcher also tried to look into the dynamics of family support system. Gathered information revealed that there were only five respondents whose daughters were gainfully employed. Also more than one fourth (twenty-six percent) of the respondents' sons were also working. They have not been considered as dependents.

Social Attributes

The state of health and well-being are dependent on the attitudinal framework in which the individuals function. These then translate into habits. In the present study the state of health of the individual at the time of the AMI has been assessed by the parameters of the respondent's habits. The changed patterns in these habits in the post AMI period have been documented in the successive chapters and inferences drawn thereof.

General Habits

There has been a phenomenal increase in the incidence of heart disease due to lifestyle changes attributable to globalization and urbanization. Cardiovascular disease affects the young population in their most productive years with its crippling effects on the family and society.

Cigarette Smoking

Smoking produces relaxing, stimulating, or other pleasurable or rewarding effects in the user. Cigarettes become a crutch to support stress, a weapon to fight anger and frustration, and a means of enhancing pleasure. And for many, smoking becomes not merely a habit, but a very strong addiction to nicotine. The resulting dependence on nicotine – both psychological and physical, is responsible for the persistence of the cigarette habit even in smokers who know that it may be (or is) harming their health.
Smoking is a high risk factor for AMI and further health complications. The prognosis of patients with established coronary artery disease improves greatly with the cessation of smoking. Cessation of smoking after an acute myocardial infarction has been associated with a fifty percent reduction in mortality (van Berkel, van der Vlugt and Boersma 2000; Dornelas et al, 2000; Wilhelmson, 1998).

Cigarette Smoking
Figure 3.9

In the present study, at the time of their myocardial infarction, almost half of the respondents were non-smokers (49 percent). Out of the other half (51 percent) of the respondents who were smokers, 3 percent respondents smoked up to five cigarettes per day; 7 respondents smoked between six to ten cigarettes per day. 18 percent respondents smoked eleven to twenty cigarettes per day. There were initially one fourth (23 percent) of the
respondents who smoked more than twenty cigarettes per day. Smoking emerged as one of the risk factors in the present study (Figure 3.9) as the data shows that half of the respondents (51 percent) were smokers. This finding is similar to other studies (Rastogi et al., 2005; Piegas et al., 2003; Pais, Fay and Yusuf, 2001).

**Habitual to Alcohol Drinking**

The drinking of beverage alcohol, although not essential to life, is and has been a part of many cultures throughout the world. Beverage alcohol is interwoven with many aspects of human life in such cultures including social interaction, celebration, and religious rituals. Condemned and regarded as something alien to local cultures a century ago, it is now fast becoming “the in thing”, a sign of social sophistication and a symbol of prestige. The consumption of beverage alcohol provides enjoyment and pleasure to most who drink it. Thus, in spite of the past social stigma and serious cultural reservations, the use of alcohol has gradually spread to most of the communities in developing countries. An individual generally takes to alcohol drinking as a means to enliven social life, to overcome anxiety or to induce sleep. He becomes an alcoholic if he gets dependent on alcohol physically or psychologically. He resorts to heavy drinking because of his maladaptive ways of dealing with life’s stresses. Frequent and regular alcohol consumption can have far reaching health related implications.

In the present study, there were more than half (58 percent) respondents who were drinkers. At the time of their myocardial infarction, 16 respondents drank occasionally, 9 were social drinkers and there were 7 respondents who were regular mild alcohol drinkers. 12 of the respondents consumed alcohol regularly, but in moderation. There were 14 respondents who were heavy drinkers and used to drink heavily on daily basis.
Data shows (Figure 3.10) that alcohol in itself did not pose to be a risk factor in determining the onset of heart attack as though a little less than half of the respondents (42 percent) did not consume alcohol at all but still had an AMI.

**Dietary Habits**

There is an age-old expression that people are what they eat. Modern research has consistently supported the idea that people’s health is largely determined by what they choose to eat. On one hand, certain vitamins and minerals have been shown to be helpful to heart health, particularly when they are consumed as a part of heart healthy diet. On the other hand, fats and oils such as saturated fat and tropical oils (palm oil and coconut oil) have been shown to be particularly harmful because they can speed up the development of diseases and conditions such as coronary artery disease and obesity.

Researchers have proven that there are linkages between vegetarian lifestyle and low risk for development of coronary heart disease. The World Health organization estimates that by the year 2015, deaths due to heart
disease will double in India, and by the year 2025, India will have 57 million diabetic patients – the highest number for any country.

Koikkalainen et al. (2002) studied the changes patients make in eating and weight control habits after a myocardial infarction. Dietary habits implicated in coronary artery disease, and the traditional Mediterranean diet, are thought to be cardio-protective. However, dietary patterns among the Indian population make them more prone to cardiovascular disease due to heavy consumption of vegetarian and fried food intake.

**Dietary habits**

**Figure 3.11**

Initially, a little more than one fourth (28 percent respondents) were predominantly vegetarian in the present study. At the time of their myocardial infarction, 72 percent respondents were predominantly vegetarian and used to consume non-vegetarian food only occasionally. Predominantly non-vegetarians were those who regularly ate non-vegetarian food as a part of their diet. There
almost one fourth (22 respondents) who were predominantly non-vegetarian at the time of their myocardial infarction (Figure 3.11).

**Cooking Medium**

For preparing Indian food, cooking medium plays a significant role and is inclusive of attitude towards type of food cooked. Vanaspati ghee, a more commonly used medium among some sections of population, contains harmful fats, which may contribute in some manner to the development of heart disease.

![Cooking Medium](image)

Data shows (Figure 3.12) that use of vanaspati ghee as a cooking medium did emerge as a risk for AMI as more than one third (41 percent) of the respondents reported using vanaspati ghee as a cooking medium in their homes. Another one third (32 percent) used pure ghee for cooking food and one fourth of the respondents (24 percent) used refined oil. Only 3 percent respondents used sarson oil for cooking.
Frequency of taking meals

At the time of AMI, more than half of the respondents (68 percent) were regular in taking all three meals in a day. Nearly one third (31 percent) respondents took two meals in a day and only one respondent was taking single meal daily.

Eating in-between meals

There were a little more than one-fourth (27 percent) respondents who did not eat anything in-between their meals. More than one-third (37 percent) respondents were habitual of nibbling in-between but not on a daily basis. There were slightly more than one third (36 respondents) who were habitual of eating snacks in-between meals regularly.
Eating in-between meals:

Figure 3.14

Nibbling in-between meals did not have much significance as far as getting a heart attack is concerned (Figure 3.14).

Being regular with meals

A little less than half (44 percent) of respondents were regular with their meals and would make it a point to eat on time. A little less than one fourth (22 percent) of the respondents would eat on time only if they could manage to, as they were not too particular about timings.
One third (34 percent) of the respondents reported that they would never eat their meals on time (Figure 3.15).

State of Physical Well Being

Once the patient has come out of the episode of AMI, some of the delirious factors to his lifestyle would emerge on the basis of his or her ability to be able to get about on his own and also to be able to exert some effort in the course of his or her day to day activities. Because of this reason, it was necessary to chart the actual ability and status of the individual as regards his physical state of well being just before the time of infarct or T1.

Among the physical attributes that the respondents showed before myocardial infarction [T1] there were several measures of what they could not carry out or were capable of doing unaided before the onset of...
The following figures show the level of physical health the respondents enjoyed before AMI.

Almost all the respondents (99 percent) reported that they enjoyed good health and were physically active before having an AMI (Figure 3.16). Only one respondent sometimes had some problem in walking because of an accident he had had a couple of years before having an AMI.

**Energy Levels**

Nearly all (98 percent) of the respondents reported high levels of energy before the onset of disease (Figure 3.17). Only 2 percent respondents reported moderate energy levels.
Day to Day Mobility

All the respondents categorically mentioned that they were dependent upon anyone else for their day-to-day mobility (Figure 3.18).

This aspect of mobility extended from being able to ride a bicycle to be able to drive a car. Before the AMI, 92 respondents were able to drive their vehicle and had a sense of confidence and a feeling of independence.
Before the onset of disease, almost all the respondents (99 percent) did not need any help with their daily chores like getting dressed and eating and were able to take care of themselves completely (Figure 3.19). Only at times one respondent needed help from others in moderate levels to go about his daily routine.

**Social and Psychological Attributes**

Interaction patterns, participation in group activities related to extended family, friends and work colleagues, form part of the social life of an individual. The quality of life of the respondents at T1 denotes his life status before being afflicted with the disease and includes the level of his social interactions.
More than three fourth of the respondents (79 percent) recounted that they were moderately interested in participating in group activities, while fifty percent were more outgoing (Figure 3.20). However, two third (66 percent) of the respondents did not contribute substantially to household responsibilities while other one third (34 percent) showed considerable interest.

The social identities and social action, the process of participating in group activities provides a sense of belongingness to the individual. Constant building and rebuilding of interaction patterns formulate integrations and make the social reality of the individual. The researcher has tried to explore the nuances, which encompass the multifarious dimensions of social quality of life of the respondents.

Intertwined with the social dimensions, are the psychological dimensions. Personality variations run through the sample, which contain a few highly anxious individuals. While others were prone to stress and worry, a very few had depressive tendencies (Figure 3.21). Over a majority of respondents (90 percent) had no psychological problems as such...
Out of the remaining ten percent, 2 percent were slightly more anxious and depressed in nature.

**Psychological QOL**
**Figure 3.21**

This detailed socio-cultural information regarding the respondent is the basis on which further data concerning changes in the quality of life post-AMI, rehabilitation and their various dimensions have been built and analyzed.

In addition to the above parameters, the educational and occupational levels of the spouses of the respondents were also taken into consideration to be able to understand the quality of life changes that they go through after their partner’s AMI. These enabled the researcher to understand the quality of life of the primary care giver, in the present study, the spouse, and also enabled the researcher to understand methods and the manner and extent of support provided to the respondent at the time of the AMI, through the recuperation and recovery period.
Education of Spouse

The data shows that a little less than one fourth (23 percent) of the spouses of the respondents were illiterate while a little more than half (55 percent) of them had done schooling up to class twelfth. Twenty one percent of the spouses had acquired a higher degree (Figure 3.22).

Occupation of Spouse

A majority (85 percent) of the spouses were not gainfully employed and contributed to household work, while 5 percent were professionals. Another 5 percent were employed in government service and yet another 5 percent were engaged in manual/skill related jobs (Figure 3.23).
To conclude, it was found that before the onset of disease, almost all the respondents were physically very active, in good health and were able to look after themselves without being dependent on anyone. Almost all respondents were moderately active socially and had no psychological problems. More than three fourth of the respondents belonged to nuclear families and were living in an urban area.

Nearly half of the respondents spent their initial years living in a village before moving out to a town or a city. Half of the respondents helped very little in household activities and interacted moderately with their family and friends. They were predominantly vegetarian and were regular in taking all three meals on time. Half of the respondents used to smoke cigarettes or beedis before getting a heart attack.

Nearly one third of the respondents were between the age group of 51 to 56 years. They had studied up to high school and were manual workers by profession. Slightly more than one third of the respondents did not consume
alcohol and used vanaspati ghee as a cooking medium. Another one third of them used pure ghee as a cooking medium. One third of the respondents ate only two meals in a day. One third of the respondents were fond of eating snacks in between meals but would never have timely meals. One third of the respondents had spent their initial years in a town.

One fourth of the respondents belonged to age group of 46 to 50 years. They were living in a rural area and had spent their initial years living in a city. One fourth of the respondents were government servants. One fourth of them were earning less than rupees two thousand per month. They interacted less with their families in day-to-day life. One fourth of the respondents were pure vegetarian and used refined oil as a cooking medium. They also did not like to eat any snacks in between meals.

This socio demographic profile of the respondents will form the basis for co relating, analyzing and interpreting level of awareness, attitudes, future expectations, changes in quality of life and patterns of rehabilitation after an AMI.