5 Conclusion and recommendations

In this research, the awareness towards Non-Communicable Disease (NCD) by the rural women of newly formed taluk of Nemili in Arakonam district of Vellore district of Tamilnadu was studied and an attempt was also made by the researcher to highlight the importance of NCDs and the dangers for the selected NCDs like Diabetes, Hypertension, Cardio Vascular Disease (CVD), Chronic Kidney Disease (CKD) and Breast and Cervical Cancer.

The results of this research will be the true representation of the health consciousness and health awareness of rural women in Nemili taluk and it will be definitely be of help for the policy makers towards improvement.

The objectives of this study are

- To understand and evaluate the level of **awareness** of the study population towards the 5 selected non-communicable diseases(NCDs) – diabetes, hypertension, cardio vascular disease, chronic kidney disease, breast and cervical cancer
- To understand their awareness on the available **infrastructure** for treating selected NCDs
- To study their understanding on **central/state policies** on selected NCDS
- To identify the level of **risk** prevailing among rural women towards selected NCDs
- To assess their **consciousness** towards the NCDs

5.1 Profile of the respondents

The demography of the 568 respondents participating in the study was first segmented for ease of analysis.

5.1.1 Age: Nearly one third of the respondents belonged to the younger (18-32) and middle (33-48) age group by 36.8% and 34.2% respectively. A little less than one third were over 49 years of age

5.1.2Marital status: Majority (85.7%) of the women were married, 5.8% were unmarried and 8.5% of them were widowed.

5.1.3 Education: Majority of the respondents (41.5%) had middle school education and 29.9% had the privilege of higher education. 28.5% of the study population were illiterate.

5.1.4Income: Majority (78.3%) of the study population registered a monthly family income of less than Rs 5000.

5.1.5Occupation: Majority (66%) of the women worked for the state government's 100 days labour scheme, followed by farming with nearly 15.7% of the study population having this occupation. 9.2% were employed both self and privately employed, 6.7% were home makers and 2.5% students.

5.1.6Family type: Majority (68%) of the families were nuclear in nature and the remaining 32% were traditional joint families.

5.1.7 Number of family members: Evidence strongly points to Nuclear family type since households having family members up to 4 was 60.9% , 5 to 8 member families were 34.9% and families with more than 8 members were a mere 4.2%.

5.2. Analysis of awareness towards non-communicable diseases

5.2.1 Age: Majority of the respondents in the young age and middle age group showed low awareness levels. But, the respondent number in the middle age group showing low awareness was lesser compared to the young age group. Further, the respondents belonging to the menopausal age group in the low awareness category were lesser than the middle age group.

5.2.2 Marital status: Marital status found not to contribute to the awareness of NCDs in the women.

5.2.3 Education: Education of the women contributed to increased awareness for breast and cervical cancer alone.

5.2.4 Income: The overall monthly income contributed to the awareness of NCDs with those above a monthly family income of Rs5000 being more aware of the selected NCDs.

5.2.5 Occupation: Similarly the occupation of the respondents, predominantly farming (15.7%) and daily wages (66%) for working on the Tamilnadu Government's 100 day labour scheme or spinning were the top two occupations contributing to increased awareness on NCDs among the women of the Taluk.

5.2.6 Family type: No relation was found between family type and awareness of NCDs, however further analysis revealed that family type contributed to the awareness of CVD and CKD.

5.2.7 Number of family members: Number of family members did not contribute to the awareness of NCDs in the women.

5.3 Level of Awareness of Respondents towards NCDs

To assess the level of awareness of respondents towards NCDs eight variables like awareness of NCDs, awareness of the tests for detecting each of the NCDs, tests taken personally, the frequency of testing for NCDs, awareness on tests and treatments taken by family members, previous history of NCDs, awareness of the consequences of NCDs and awareness of hereditary illness were considered. All these eight variables contributed in the analysis and segmentation of respondents into three levels of awareness.

5.3.1 Individual NCD awareness: Awareness on Diabetes and hypertension was found in almost 50% of the respondents. Analysis showed nearly 75% of the respondents are unaware of CKD and CVD and nearly 87% were unaware of breast and cervical cancer.

5.3.2 Awareness of tests:

1. The test results of awareness towards detection of NCDs revealed blood sugar was the most popular test for detecting diabetes.

2. Weight and Blood pressure were routine vital checks performed when the respondents consulted a Doctor for any illness and so cannot be regarded as specifically taken to detect hypertension. The cholesterol test was specifically taken, which revealed only 2.6% of the respondents being aware of this test.

3. ECG test was popular among 8.8% of the respondents for detecting CVD.

4. Urinary tract infection and kidney stones are prevalent in this hot region of the state and therefore respondents were checked for infection. Due to this 7.4% were aware of urine routine tests and 6.9% were aware of one of the imaging tests for kidney function.

5. Breast self examination was known to only 3 respondents among 568.

5.3.3 Tests taken by the respondents

1. Respondents who have previously undergone tests for any of the selected NCDs revealed that 22.7% of the respondents have tested their blood sugar levels at some point. This falls in line with the earlier result that 36.1% are aware of the existence of this test. 4.8% have tested their glucose tolerance, thereby authenticating that 10.7% are aware of the test and 1.4% have tested their HbA1C levels suggesting accuracy in the earlier result that 5.1% are aware of the test.

2. Weight and BP are vitals which are being checked routinely during Doctor Consultations, however cholesterol an invasive test has been done for 2.1% of the respondents and yet earlier results suggest 2.6% are aware of the test. These results suggest that without personally undertaking the tests and treatments some respondents are aware of the tests. This has been observed for Diabetes and Hypertension as shown above as well as other NCDs like CVD, CKD and breast and cervical cancer.

3. Only 8.5% of the respondents have taken ECG specifically to detect CVD

4. Only 4.9% have taken a urine test, 0.9% have taken the primary kidney function test and 3.7% have had an X-ray or ultrasound or CT imaging of the kidneys. However, a larger percentage is aware of the tests. Results show an awareness of 7.4%, 1.6% and 6.9% for the tests respectively.

5. Though only 1 respondent has done breast examination, 3 respondents are aware of it and 1 respondent is aware of the mammogram test.

5.3.4 Frequency of testing: Percentage analysis on testing frequency shows more than 85% of the women have not tested themselves for the NCDs at all. This shows that awareness has not triggered the women to test themselves either to detect, control or prevent the possibility of developing any of the selected NCDs.

5.3.5 Tests done by Family members

1 Among the 36.1% of the respondents who were aware of the glucose test, 22.7% have personally taken the test and 23.6% acknowledge that the family member underwent the blood sugar test. This signifies

that a family member getting tested could also contribute to the awareness component. The glucose tolerance test also shows similar numbers 10.7% aware, 4.8% have personally taken the test and 7.2% have family members who have taken the test.

It was not possible to accurately determine whether the HbA1C test was known to the respondents because there was no marked way of differentiating it with random glucose test.

The same cannot be said about Hypertension, CVD, CKD and breast and cervical cancer because those who have personally tested are more in number than the family members known to have tested for the respective diseases.

2 It is possible to detect if a family member suffers from hypertension from the symptoms of the disease. Regular medication is advised and failure to take the medication prescribed can show adverse effects. However less than 20% of the population understand the tests associated in detection of hypertension. Among the 23.4% of the respondents who were aware of the association of body weight to Hypertension, all the 23.4% have personally taken the test, though 25.7% have measured their blood pressure only 21.1% and 19% can associate the significance of blood pressure measurement to them and to their family members. 2.6% are aware of the cholesterol test and its association to hypertension because 2.1% have taken the test themselves and 1.8% are aware of the family members taking the test.

3 Unlike diabetes and hypertension, attention given to CVD tests are more pronounced because of the nature of the disease. Among the 8.8% of them who are aware of ECG tests, 8.5% have taken the test and 2.8% have gained awareness through family members.

4 Similar to CVD, attention given to CKD tests are more pronounced because of the nature of the disease and the common stone problems prevalent in the region. Among the 7.4%,1.6% and 6.9% of them who are aware of urine routine tests, urea and creatinine tests and imaging like X-ray/Ultrasound or CT respectively, 4.9%,0.9% and 37% have taken the test and 2.3%,0.5% and 1.2% have gained awareness respectively through family members.

5 The lethal nature of a disease like cancer generally alerts the family and provokes preventive health care in the family. However, a reasonable conclusion could not be drawn like the other NCDs because only 13.2% are aware of the disease, less than 1% know about the tests for detecting breast and cervical cancer and only 1 respondent has done the self examination. The analysis of the question on testing frequency of the respondents further confirms the above finding.

5.3.6 History of NCDs: With reference to the data collected on the respondent's previous history of the diseases, a negative response can be considered equivalent to an unaware response, since the testing frequency and awareness level(less than 50% overall) of the respondent is questionable in such cases. Less than 7% of the respondents have suggested a history of any of the chosen NCDs present in the family.

5.3.7 Consequences awareness: Furthermore, if the respondent has a history of any of the selected NCDs the consulting Doctor or specialist would have warned against the consequences of the particular NCD. The awareness of the consequences of the disease can act a prime motivating factor for disease control and early intervention. The shocking finding was that more than 76% of the respondents were unaware of the consequences of the selected NCDs.

5.3.8 Hereditary factors: However, even if the population is aware of NCDs and adopts preventive measures to avoid the illness, hereditary factors play a significant role in some of the chosen NCDs. Therefore this variable has also been used to identify the risk group of NCDs. Unfortunately figures show that 70% of the women in the taluk are ignorant of the hereditary illnesses that exist in the family.

5.4 Knowledge level of respondents on the available infrastructure for treating selected NCDs

5.4.1 Knowledge of available facilities: An ideal scenario would be, the population being fully aware of the NCDs, health conscious and inclined towards prevention of NCDs. The population needs to know and utilise the facilities available in government setups, only then out of pocket expenditure can be avoided and NCDs can be successfully managed. For this those respondents who have undergone tests or treatment for NCDs were questioned on the place of treatment, tests undergone for each of the NCDs

in government setups, usage of allopathic medicines as well as their usage of alternate medicines.

5.4.2 Place of treatment: It is seen that a large percentage of the population have not availed treatment from both Private and government sector. Those who have used it have not given priority to either of the two. When required, based on convenience they have used the facilities available in both sectors.

1. For testing or treatment of diabetes 14.1% have used government facilities, 15.3% have used private set ups, 2.5% have used both, however 68.1% have not used any of the facilities.

2. For testing or treatment of hypertension 13.4% have used government facilities, 13.7% have used private set ups, 1.9 have used both, however 71% have not used any of the facilities.

3. For testing or treatment of CVD 1.8% have used government facilities, 2.1% have used private set ups, 0.2% have used both, however an alarming 96% have not used any of the facilities.

4. For testing or treatment of CKD 1.8% have used government facilities, 1.4% have used private set ups, 0.4% have used both, disturbingly 96.5% have not used any of the facilities.

5. For testing or treatment of breast or cervical cancer 0.4% have used government facilities, 0.4% have used private set ups, none have used both, however an upsetting 99.3% have not used any of the facilities.

Adhoc treatments are more pronounced in rural areas and this is evident from the lack of coherence between awareness, test awareness, testing frequency, doctor consultation, place of treatment taken by the respondents etc. Many studies support this predominant behaviour observed in the rural population.

5.4.3 Availed tests in Government setups: As part of the study, the researcher surveyed to understand the proximity of the nearest available diagnostic test centre and the tests available there. The nearest private hospital/laboratory and the local PHC having good access to public transport had the following test facilities shown in Table 5.1

Table 5.1 : Test Facilities			
S.no	Test name	PHC	Private lab
1	Blood sugar	✓	✓
2	GTT	✓	✓
3	HbA1C	✓	✓
4	Cholesterol	✓	✓
5	ECG	✓	✓
6	Urine routine	✓	✓
7	Urea/ Creatinine	× ✓	✓ ✓
8	X ray	✓	✓
9	Ultrasound	✓	✓
10	CT	×	×
11	Pap smear	✓	✓
12	Mammogram	×	×

1. It was seen that Diabetic and hypertension tests have been predominantly known and used by the respondents. This can be attributed to the relatively high prevalence of the disease compared to other NCDs.

   The basic test for Diabetes has been done by more than one fourth of the respondents in government set ups, 28.3% have done the blood sugar test, but the other two tests GTT and HbA1C though available in government set ups have been used only by 6% and 2.3% of the respondents.

2. Cholesterol test is an important test to detect hypertension and CVD have been done by 2.5% as part of the hypertension detection process and 5.5% for CVD taking into consideration hypertension is the predominant factor for CVD.

3. Only 11.8% have taken ECG in Government set ups for detecting CVD.
4. Since Urinary tract infections and stone diseases are prevalent in this hot region of Tamilnadu, government facilities are being used considerably to screen for CKD. 7% have their urine routine done in government set ups and 6.2% have either X-ray, ultrasound or CT done here.

5. Only one respondent has done her mammogram test in the government hospital.

5.4.4 Regular usage of Allopathic medicines: Government hospitals and PHCs provide allopathic medicines either free of cost or at subsidised rates for certain illnesses. Private pharmacies are available throughout the taluk. However, the data obtained from the study population clearly suggests regular use of allopathic medicines to be minimal.

Peer reviewed literature says that by the time the disease is detected irreversible damage has been done to the women detected with NCDs in rural areas. Management of diseases like Diabetes, Hypertension, CVD,CKD and breast or cervical cancer is rare. Evidence of this is seen with only 15% taking diabetic medication, 9.5% for hypertension and less than 1% for the remaining 3 NCDs, this is because they are not aware of the NCDs, not ruled out the possibility of having any of the NCDs through tests.

5.4.5 Usage of alternate medicine: Proximity has a threatening factor for rural women opting to use alternate medicines. Overall less than 1% of the respondents have used alternate medicines. However lack of health consciousness could also be a contributing factor to this behaviour since it has already been seen that only a very small percentage of the respondents consume allopathic medicines regularly. Hence, probing deeper into this would be to analyse the government schemes availed by the respondents, which has been also been done and reported.

5.5 Knowledge of respondents on central/state policies on selected NCDs

The main deterrent for rural women is the out of pocket expenditures incurred for testing and treating NCDs. When the average household income is insufficient or just enough to meet the requirements of the family, preventive healthcare is not given priority and only adhoc testing and treatments seem to be logical. Government policies and schemes have been defined to provide a helping hand to such families. To understand the reach of such policies and schemes, the respondents were questioned on their awareness on policies and schemes, the policies and schemes availed and contribution of such policies or schemes towards their treatment.

5.5.1 Awareness of Government initiatives: More than 80% of the population are not aware of the government initiatives to control and prevent NCDs. Through regular advertising in the media less than 10% have acknowledged the existence of the initiatives.

1. Only 1.9% were fully aware of Government initiatives to control diabetes, 9.3% know some and 7.9 % have heard about it and 80.8 % are not aware of any such initiatives.

2. A minimal percentage of respondents (2.1%) were fully aware of Government initiatives to control hypertension, 9.9% know some and 8.8 % have heard about it and 79.2% are not aware of any such initiatives.

3. Only 1.2% were fully aware of Government initiatives to control CVDs, 4.4% know some and 1.9% have heard about it and 92.4% are not aware of any such initiatives.

4. Similarly, for CKD, only 1.4% were fully aware of Government initiatives to control CKD, 2.6% know some and 1.2 % have heard about it and 94.7 % are not aware of any such initiatives.

5. Only 1.2% were fully aware of Government initiatives to control breast and cervical cancer, 2.5% know some and 1.1% have heard about it and 95.2% are not aware of any such initiatives.

5.5.2 Availed Government schemes or policies: Tamilnadu State government “kappituthitam” is known to most of the respondents. The head of the family, similar to the safe-keeping of other identification also has custody of a card meant for this scheme. Though government has taken many initiatives as discussed under literature survey, 87.9% have not availed any scheme for testing or treating diabetes, 92.8% for hypertension, 95.2% for CVD, 98.1% for CKD and 99.8% for Breast or cervical cancer.

Some of the goals of NPCDCS,National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and StrokeareOpportunistic screening, treatment and follow up of individuals reporting at Government health facilities in Tamil Nadu, NCD Clinic with facilities for screening in all Government Health Facilities amdScreening of

women aged 30 years and above for Hypertension, Diabetes Mellitus, Cervical and Breast Cancers.

Tamilnadu Programme Implementation plan (PIP) under the National Rural Health Mission had a budget proposed for 10043.14 lakhs for 2016-17, 9457.42 lakhs was for ongoing activities and 585.42 Lakhs was for new activities.

5.5.3 Contribution towards tests and treatment: Among the very few respondents who have been treated rigorously for NCDs, three respondents have used the appropriate schemes to fully fund for diabetes treatment, one for hypertension treatment, two for CVD, one for CKD and two respondents have been fully funded by the government for treatment of breast or cervical cancer.

Twelve respondents have been partially funded for diabetes treatment, eleven for hypertension treatment, four for CVD and two for CKD. The remaining funding was out of pocket for the above mentioned respondents. These numbers, which are far too less to mentioned in percentages, clearly shows the economic impact the NCDs have on the respondents.

5.6 The level of risk prevailing among rural women towards selected NCDs

To assess the level of risk of respondents to NCDs nine variables like correlation between risk level of the respondents based on age, education, marital status, income occupation, family type, hereditary illness and history of illness were considered and the correlation with risk of NCDs with awareness level of the respondents was analysed. All these nine variables contributed in the analysis and segmentation of respondents into three levels of risk.

5.6.1 Age: Good correlation was seen between the three age groups, young, middle age and menopausal age and NCDs. Diabetes and hypertension showed good correlation with age.

5.6.2 Education: There was no correlation between risk and education.

5.6.3 Marital status: There was no correlation between risk and marital status.

5.6.4 Income: There was no correlation between risk and income.

5.6.5 Occupation: There was good correlation between risk and occupation.

5.6.6 Family type: There was good correlation between risk and family type.

5.6.7 Hereditary factors: Good correlation was seen between the three age groups, young, middle age and menopausal age and hereditary illness. All the chosen NCDs, Diabetes, hypertension, CVD, CKD, breast and cervical cancer showed good correlation with hereditary illness.

5.6.8 History of illness: Good correlation was observed between the three age groups, young, middle age and menopausal age and history of NCDs. All the chosen NCDs, Diabetes, hypertension, CVD, CKD, breast and cervical cancer showed good correlation with history of NCD.

5.7 Analysis of awareness with risk

The study showed good correlation was seen between awareness and risk for each of the selected NCDs

5.8 Analysis of Health consciousness

The results of consciousness towards health by rural women showed 431 respondents in the low consciousness group and 137 in the relatively high health consciousness group.

Independent variables and health consciousness

The classification results showed that with an accuracy of 98.4% the respondents have been classified accurately as low conscious individuals and health conscious individuals. The respondents were classified as health conscious individuals based on moderate to high awareness to NCDs, good awareness of the tests for detecting NCDs, being personally treated for NCDs and showing awareness to the consequences of NCDs. Further they tested regularly for NCDs and were aware of the expenses incurred in treating NCDs. More importantly they modified their lifestyle based on Doctor's advice and they did not use alternate medicines.

Low consciousness was attributed to individuals who lacked awareness of hereditary diseases and had no personal history of NCDs. They were not aware of family members being treated for NCDs. They personally did not consult with Doctors. If they consulted they did not act on the Doctor's advice to change their lifestyle and lacked the exposure to any allopathic medication.

5.8.2 Awareness, risk and health consciousness: The classification results showed that with an accuracy of 76.2% the respondents have been classified accurately as low conscious individuals and health conscious individuals. The respondents were classified as health conscious individuals based on awareness and risk of the respondents towards the chosen NCDs.

5.9 Best practice methods

The healthcare of a country is assessed based on the mental and physical care provided, infrastructure and facilities available and preventive healthcare adopted. Among the countries where no upfront payment is required for accessing the primary health facilities Japan, Spain, Germany, Russia and United Kingdom have been listed as the best in The Guardian newspaper in UK in Feb 2016. Though UK has an aging population, obesity and alcohol binging as well as cancer outcomes is taking a toll on the healthcare, UK came first in the latest Commonwealth Fund assessment of healthcare systems.

5.9.1 United Kingdom: National Health Service (NHS) is the collective term used to treat residents of United Kingdom in a comprehensive way and is free at the point of delivery. It is one of the most robust healthcare services offered to the people of a country across the Globe, since it was commissioned in 1948 after the Second World War.

The Quality and Outcomes Framework (QOF) is a system for the performance management and payment of General Practitioners (GPs) in the National Health Service (NHS) in England, Wales, Scotland and Northern Ireland. It was introduced as part of the new General Medical Services (GMS) contract in April 2004 and participation in the QOF is voluntary.

The achievement criteria are grouped into four domains: clinical, organisational, patient experience and additional services. Among the clinical areas, coronary heart disease, hypertension, diabetes mellitus,cancer,chronic kidney disease have been included. Recent QOF

database shows a surge in achievement levels for Diabetes, Hypertension, screening of riskfactors for older patients with cardiovascular disease in the community, CKD and cancers in general.

The software used across majority of the primary health care centres is connected to a sine system which links the database across the healthcare services. The software picks up from the database patients with chronic diseases who are registered at the practise and updates “recalls” for annual, half yearly and monthly screening. Reminders are sent to the patients for reviews of existing diseases and age induced conditions. In this way media and technology are effectively used to manage chronic illness in the community.

5.9.2 Following Best practice Methods: With national and state governing bodies like Indian Medical Association (IMA), which is the only representative voluntary organization of Doctors of Modern Scientific system of Medicine, which looks after the interest of Doctors as well as the community at large is already active in rural areas of Tamilnadu. Through IMA it is possible for the Government to bring the General Practitioners irrespective of public or private sectors, under one governing body, set targets, monitor and provide incentives for General Practitioners for preventive care of NCDs. Further literature suggests educational and training programmes for all health care professionals, i.e. General Practioners, specialised health care workers on continued regular monitoring and treatment options. With scarce health care resources, however an alternate, effective approach to reach the public directly and spread awareness on the disease and its complications cost savings in preventive care, seems to be the need of the hour.

Focus should be drawn to the twin diseases Diabetes and Hypertension initially among the rural women of India. Their health literacy must be improved, since they are the home makers and the health of every member of the household can be managed efficiently by them.

5.10 Suggestions for future research

The primary data on awareness of NCDs was collected from women aged 18 and over who were permanent residents living in the 53 (out of 77+) villages in NemiliTaluk, this can be extended to:

a. Men in the taluk
b. Other taluks in the district and
c. Other districts in the state and
d. Other States in India

Researchers can work on the awareness of **other non-communicable diseases** not addressed in this study like asthma, other respiratory diseases, dementia, other mental illnesses etc.

Awareness on **communicable diseases** in the Taluk, district, state etc can be assessed to help frame policies and design effective healthcare initiatives.

Case studies that can radically change the effects of non-communicable diseases in the community needs to be done by researchers to address the problems associated with the reach of healthcare initiatives, for example

- Participation of **youth** in the management of NCDs, as suggested by WHO

- The reach and continuation of services for **remote areas** with less media access**.**

- Comparative study on the reach of different **advertising tools and techniques** to ensure maximum and effective coverage of healthcare initiatives among women, who are the backbone of the family

- The **feasibility** on following best practise methods for rural India like infrastructure requirement, human resources, use of technology, continuation of services etc needs to be explored by fellow researchers.

- Towards further study of awareness and management of NCDs variables like **access to facilities** like public transport to nearby government hospitals, PHCs and diagnostic centres can be included.

Inclusion of Variables like awareness, risk and health consciousness are dependent on some of the above mentioned infrastructure and facilities as well as media access of the study population. The results may be vital for policy makers to customise policies based on geographical location for NCD management.

In this research it has been briefly mentioned about NCD management in some middle income and low income countries. **Meta analysis** on studies done in other developing, middle and low-middle income countries like India will help policy makers generate customised policies to address the risk factors affecting similar communities within India with comparable geographic, social, economic and cultural backgrounds.

With the help offered by a speciality hospital in this taluk this research has been carried out. Active participation of **Private healthcare organizations** is essential to spread awareness on preventive healthcare, research needs to be done to understand their participation in preventive healthcare of non-communicable diseases in urban and rural areas in India.

As part of the corporate social responsibility, **Corporate and multi-national companies** are beginning to concentrate on spreading health awareness within the work place and in the community. Systemic reviews on the reach of such initiatives specific to NCDs with follow up studies may be done to understand its effectiveness.

The **role of insurance** and out of pocket health care spending has been addressed in brief in this research. Further research on insurance contributions by employers for the well being of the staff and their family and the initiatives taken by organizations in advocating preventive healthcare specific to NCDs among employees needs to be analysed.

5.11 Epilogue

In this research study, the demographic profile of women respondents was done which will highlight the profile of the women population in NemiliTaluk. Factors that will influence the awareness on NCDs among women are significant because it will have an impact on the health of the family members, since women are the backbone of every family. Irrespective of age, occupation, marital status, income, education, family type if the health literacy of the women improves then they will be receptive towards initiatives taken by the Government towards healthcare were analysed. The findings and the discussion on the awareness of non-communicable diseases will lead to assess not only the level of awareness of the respondents but the level of risk towards NCDs and their health consciousness. Analyses of the health consciousness will demonstrate the preventive health behaviour of the respondents.

Based on all the above findings and discussions suitable recommendations have been made to engage in a holistic approach to manage NCDs. The results of the study will be very useful to the policy makers from preventing the selected NCDs to turning into an epidemic. Engagement of corporates, private and NGO's towards the cause has also been mentioned.

Best practice methods have been discussed and the feasibility for implementing such methods has also been outlined. Suggestions made for future research will be a starting point for future research scholars including medical students, nurses and social workers who want to contribute towards improving healthcare in the community. Case studies probing deep into the healthcare of remote communities will help policy makers evolve customised strategies for the chosen population.