

# **Evaluation of Health Policy: How Well Have the Policies on Prevention and Control of Ischemic Heart Disease Been Evaluated in Sri Lanka?**

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## **Introduction**

Policy development and implementation are integral and continuing process of economic development of a country. How to ensure that the research evidence is meaningfully utilized is a major concern for policy makers and managers since it has a greater impact on the policy making process, the service delivery and professional practice (Nutley et al, 2002).

At the same way, the need for scientific analysis of clinical research and research informed policy making is increasingly recognized and it's really a global pressure for accountability and emerging focus (Clancy, C. M., Stryer, D. B., & Tunis, S. R., 2003; Hanney, S. R., Gonzalez-Block, M. A., & Buxton, M. J., 2003; Sadoulet, E., & De Janvry, A., 1995). Improve patients' lives efficiently and economic benefits can be considered as two obligations for health policy makers in implementing a policy. The two obligations will be fulfilled respectively through the choice of methods for designing a policy and through the policy statement.

Recently there are many literature and review literature focused on the relationship between production of scientific knowledge and its use in policy formulation and implementation (Almeida, C. & Báscolo, E., 2006). Similarly, a range of factors are involved in interactions between health research and policy-makers and many gaps identified as existence of inadequate supply of policy relevant research (Keating, Maxwell, & Stone, 2001). Such research impact can take many forms and has various facets; for example, it may focus on translation on specific research findings or be concerned with the redesign of the already implemented policy process and service delivery practices (Nutley, S., Davies, H., & Walter, I., 2002).

There are several formats used by the international bodies in policy formulation approach (Heckman, J. J., & Vytlačil, E., 2005; Morestin, 2012; Bardach, E. & Patashnik, E. M.,

2012; CDC, 2013). It is highlighted that the policy format has to be equal as much as possible facilitating easy analysis and upgrading (UCDAVIS, 2017).

The investigators have considered policies related to Ischemic Heart Disease (IHD) since it is the leading cause of death in Sri Lanka and there will not be any doubt that study on the policies related to IHD would be worth.

There is hardly any analysis and evaluation of health policies related to prevention and control of Ischemic Heart Disease (IHD) in Sri Lanka which based on scientifically formulated evaluation guide. This study was aimed for evaluation and generate timely recommendations for policy makers on more scientific and standard way of policy making.

## **Research Problem**

Have the health policies on prevention and control of IHD in Sri Lanka ever been evaluated?

## **Objectives**

To evaluate the currently implemented policies related to prevention and control of ischemic heart disease in Sri Lanka.

To explore and evaluate the existing policies on prevention and control of Ischemic Heart Diseases in respect of their format and process on implementation

To suggest recommendations to policy makers and programme planners on the use of a scientific approach in the formulation of policies

## **Methodology**

A desk review of existing policies with short interviews for relevant programme managers were carried out. The policies related to IHD published from year 2000 to 2016 were selected from the “Policy repository of the Ministry of Health Sri Lanka” which is available at the website of the Ministry of Health. Policy selection and evaluation guide were used as research instruments based on several core indicators which were identified to guide the data collection process supported by some empirical literatures. Core indicators were identified such as 1. Number of policies with any evidence based reasons, 2 Number of policies with properly given citations and references for the basis of the policy 3. Number of policies with monitoring or follow-up plan given in the body of the policy, 4. Number of policies achieved what they have set out to do, 5. Number of policies which could solve the original problem, 6. Number of policies which could solve a different problem other than the one originally identified, etc.

## **Results**

Out of 26 published policies in the “Policy repository”, 24 fall into our study scope as we have considered only the policies published between years 2000 to 2016. Among 24 policies we have considered, 11 policies which are directly related to either prevention or control of IHD.

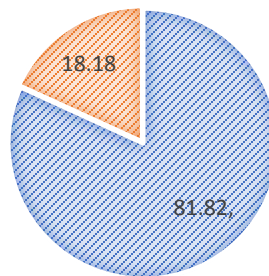
Several core units under the ministry of health have taken lead in taking steps to publish the relevant policy documents we considered in this study. The accepted approval

procedure of publishing the policies was followed in all cases. There are only few policies satisfactory in consistency of their format and has properly addressed outcome evaluation plan. According to the information gathered, any evidence based reasons for initiation of the policy were given in 81.82 percent (Please refer figure 1-Evidence based reasons clearly given or not). 45.5 percent of the policies were based on Survey results and 18.2 percent were based on empirical studies. In 27.3 percent, not mentioned about the type of information they were based on (Please refer Figure 1- The type of evidence based reasons contributed).

**Figure 1: Indicates that Evidence Based Reasons Clearly Given or Not**

**EVIDENCE BASED REASONS CLEARLY GIVEN OR NOT**

■ Evidence based reasons clearly given 9      ■ Evidence based reasons not given 2

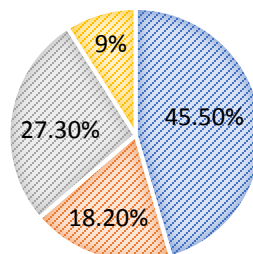


In some cases, either the citations or the references were not indicated though the policy itself state that it is evidence based. The level of the justification for the recommended course of action were adequate or average in 73 percent (Please refer Figure 2 for the level of the justification for the recommended course of action addressed in the policy). In 45.45 percent due citations are given in the context (Please refer Figure 4). Whereas in 9.09 percent due references given in the reference list. (Please refer Figure 5 for the due references given in the reference list)

**Figure 2: The type of Evidence Based Reasons Contributed**

**THE TYPE OF EVIDENCE BASED REASONS CONTRIBUTED**

■ Survey results- 5      ■ Literature -2      ■ Not mentioned-3      ■ Previous experience-1

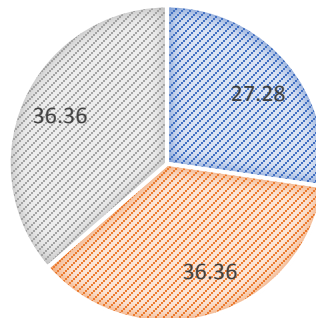


Some policy documents were based on the guidelines and findings of the international bodies which were based on the research finding of other countries. In few policies though the evidences are given but the local relevance is not clearly defined.

**Figure 3: The Level of the Justification for the Recommended Course of Action Addressed in the Policy**

**THE LEVEL OF THE JUSTIFICATION FOR THE RECOMMENDED COURSE OF ACTION**

■ inadequate-3    ■ average-4    ■ well adequate -4

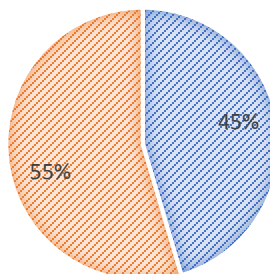


Only in 4 policies out of 11 (36.4%) an outcome evaluation plan or a process were included (Please refer Figure 3-Existence of outcome evaluation plan). Only in 9 percent an outcome assessment has been done (Please refer Figure 4 Status of the Evaluation done to access the progress). The study revealed that different policies have followed different formats.

**Figure 4: Whether the Due Citations are Given in the Context**

**WHETHER THE DUE CITATIONS ARE GIVEN IN THE CONTEXT**

■ Due citations are given in the context    ■ Due citations are not given in the context



## Discussion

According to the results of this study the policymakers should be encouraged to follow a standard policy format in the process of formulating the policy. The importance of using evidence based policy formulation and proper evaluation have to be noted. To prove that a policy is evidence based the citation and references should be given correctly. Every source listed in the references should be accessible by others who read the work. The following Table 1 gives the fundamental difference between “citation” and “reference”.

**Table 1: Difference between Citation and Reference**

Citation	Reference
a specific source that you mention in the body of the document	a list of the sources one has cited shown at the end of the policy/ document

## Conclusions

Policies based on locally done research has to be encouraged since the research done in other parts of the globe may not be fitting to the Sri Lankan population with its unique socio-cultural context. On the other hand, the formats used in each and every policy is different and we recommend that while formatting a policy, it should follow a standard format which should be guided and initiated by a specific unit of the Ministry of Health Sri Lanka enabling future analysis and upgrading easy. So far, the outcomes of the policies were not assessed to a satisfactory level. There should be some regular mechanism of evaluating outcome of each and every policy with keeping a strong responsibility by such unit of the Ministry of Health.

**Keywords:** Health Policies; Policies on Prevention & Control of Ischemic Heart Disease; Evaluation of Health Policies

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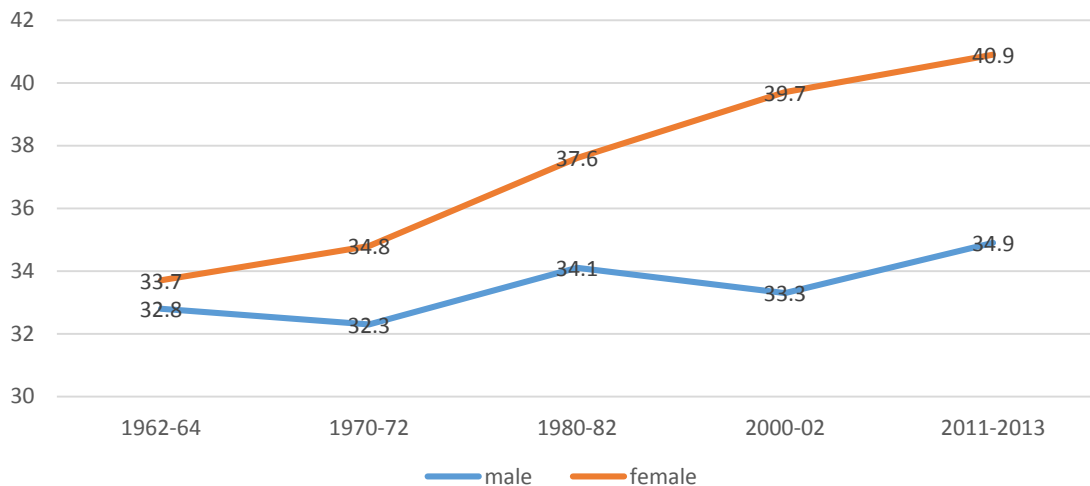
# Impact of Physical Inactivity on Non - Communicable Diseases: A Risk Factor Influencing the Health of Men in Colombo District

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## Introduction

Mortality in Sri Lanka has declined substantially over the latter half of the twentieth century and then in to the millennium. The decline of mortality during the past one hundred years has occurred at all ages and for both sexes, where the rapidity of improvement has been greater for females (Dissanayake, 1987). Life expectancy has resulted in a substantial male-female gap in Sri Lanka, one of the largest in the world. Male-female gap at birth is identified as almost 7 years (Department of Census and Statistics, 2015). This phenomenon is further presented through the figure given below.

**Figure 1: Life Expectancy at Age 40 by Sex, 1963-2012**



Source: Department of Census and Statistics - Sri Lanka - 2016

As indicated by figure 1, it is noticeable that over the years, the gap between the life expectancy of males and females at the age of 40 years has increased. The gap between the life expectancy at birth at age 40, which was at a value closer to zero, has eventually increased by the years 2011-2013 to a gap of six years; 40.9 years for females and 34.9 years for males.

Sri Lanka has come a long way from its focus on controlling of communicable diseases, improving maternal and child health, and virtually eliminating vaccine preventable diseases.

Currently, chronic non-communicable diseases (NCDs) are overtaking communicable diseases as dominant health problem and are now the leading cause of mortality, morbidity, and disability in Sri Lanka especially for men. Smoking, physical inactivity, the harmful use of alcohol and unhealthy diets are the behavioural risk factors for NCDs (World Health Organization, 2015). Physical inactivity can be identified as one of the main behavioural risk factors that cause NCDs.

### **Rationale**

The research is concerned with the role played by non-communicable diseases in creating the aforementioned disparity in life expectancy. It has been identified that men are vulnerable to suffer from NCDs more than its female counterparts. Many of the non-communicable disease burdens occur in the mid-life period. Middle and old aged men are known to have a shorter life expectancy and higher mortality compared to women. This affects men over 40 years of age the most. Smoking, physical inactivity, the harmful use of alcohol and unhealthy diets increase the risk of dying from NCDs. Physical inactivity can be identified as one of the main behavioural risk factors that cause NCDs. Although there are general discussions about the gender gap in life expectancies, a serious attempt has not been taken so far to provide a rational explanation for such a significant difference. Therefore an awareness of the actual disparity that exist with men's health in Sri Lanka still remains ignored (Dissanayake, 2014).

### **Methodology**

In the process of data collection, Colombo district has been selected as the location of study as the highest number of deaths caused by non-communicable diseases has been reported from this district according to the Self-reported Health Survey (Department of Census and Statistics, 2015). It is also justifiable as majority of the hospitals are located in the Colombo district and it presents a higher prevalence rate for NCDs.

Considering that, 128 male respondents were sought equally from patients visiting 2 medical institutions: a public hospital and a private hospital. Sample was selected from those who came for screening to the above mentioned medical institutions using the purposive sampling method. Those fitting to the above criteria a questionnaire was given with their consent and either before or after their checkups as time permitted. Ten key Informants from the field were selected using the purposive sampling method to obtain more knowledge on patients' life styles behavioural risk factors. The key informants included selected medical officers and medical specialists.

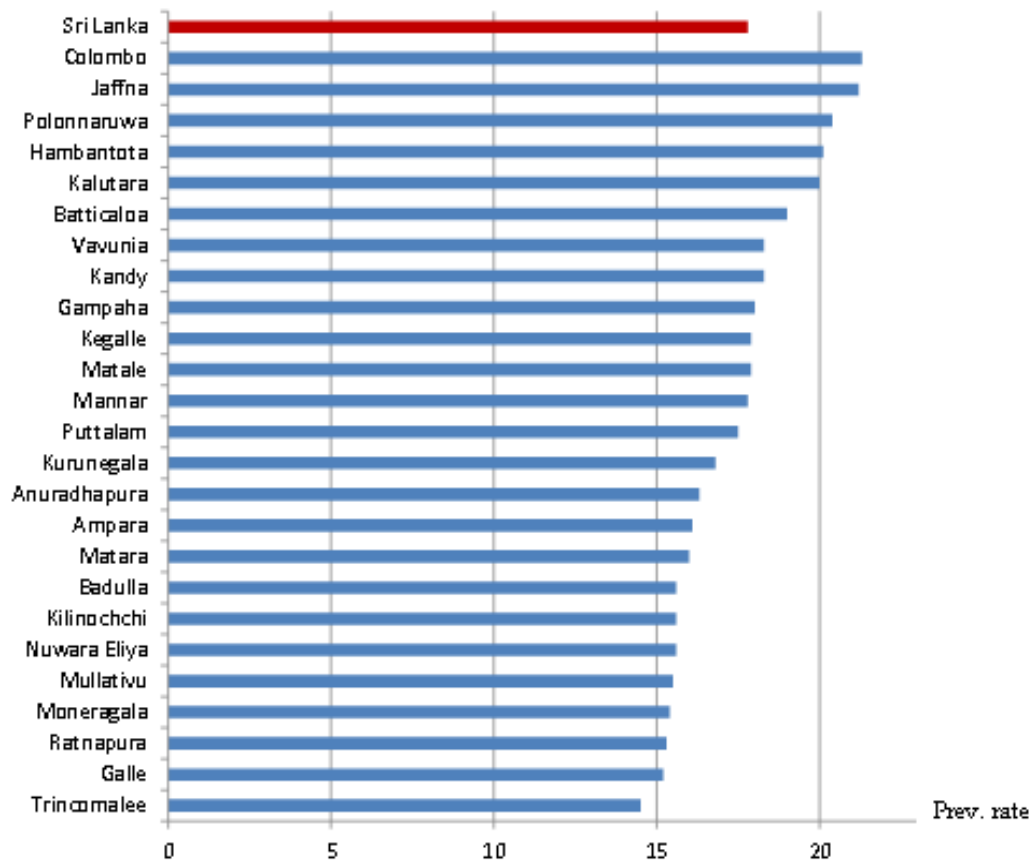
### **Analysis**

Non-communicable diseases (NCDs) can be observed as a leading cause of mortality in Sri Lanka. This affects men over 40 years of age the most. Smoking, physical inactivity, the harmful use of alcohol and unhealthy diets all increase the risk of dying from an NCD (World Health Organization, 2015). Physical inactivity can be identified as one of the main behavioural risk factors that cause NCD and its contribution to NCD has been proved through many research studies. Doctors also agree that there is a direct impact on NCDs due to the physical inactivity. This study tries to identify the impact of physical inactivity on



the morbidity of men aged 40 years and above and the extent in which they have controlled the disease after being diagnosed with a NCD.

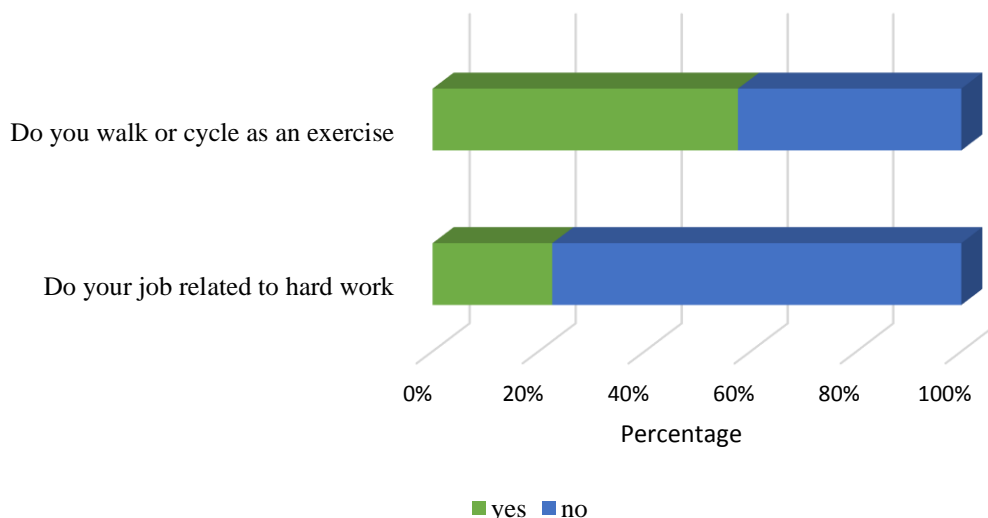
**Figure 2: Prevalence of any NCD by District, 2012**



Source: Ministry of Health - 2016

When considering the behavioural factors that cause NCD, it is important to focus on the physical activity of an individual. Physical activity has also been identified as one of the main risk factors and the question such as “do you walk or cycle as an exercise” has been directed in order to measure the physical activity. Half of the respondents replied yes and other half as no to this question and it is evident that there are no significant differences among the situations of before and after being diagnosed. When the respondents were asked whether their employment is related with hard work, it was identified that one out of five individuals is engaged in an employment related to hard work. Majority of the respondents’ employment was not related to hard work and this could be identified through figure 3 given below.

**Figure 3: Means of Physical Activity**

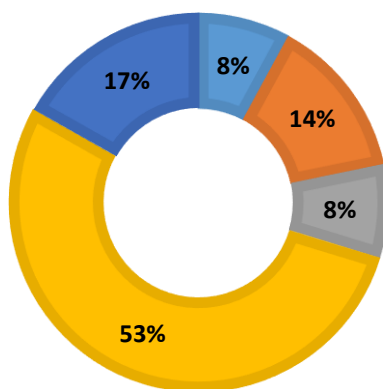


Source: Field survey - 2016

This study sought data on mode of travel to a close by place and nearly 53 per cent have replies that they walked to a close by place and the close by place was defined as a place situated in less than a KM away. It was also identified that 17 per cent used a vehicle and 14 percent used three wheelers while minority of 8 percent used cycles.

**Figure 4: Means of Travelling to a Close by Place**

■ vehicle ■ three wheel ■ public transport ■ walk ■ bicycle

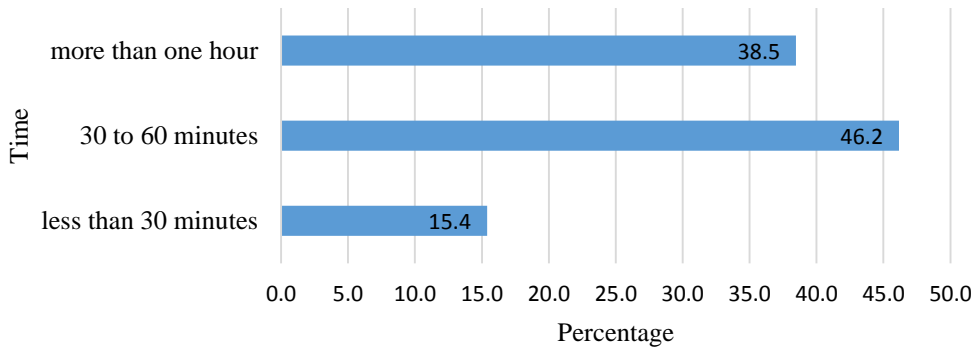


Source: Field survey - 2016

Among the respondents, the individuals who do the exercises and the duration that they are engaged in exercises were recognized. Nearly half of the respondents were identified to do exercises for 30 minutes. 38.5 percent of the respondents were identified to do exercises for more than one hour while 15 percent were to do exercises for less than 30 minutes. It

can be analysed that only half of the respondents are engaged in doing exercises and they would continue the exercises for more than 30 minutes.

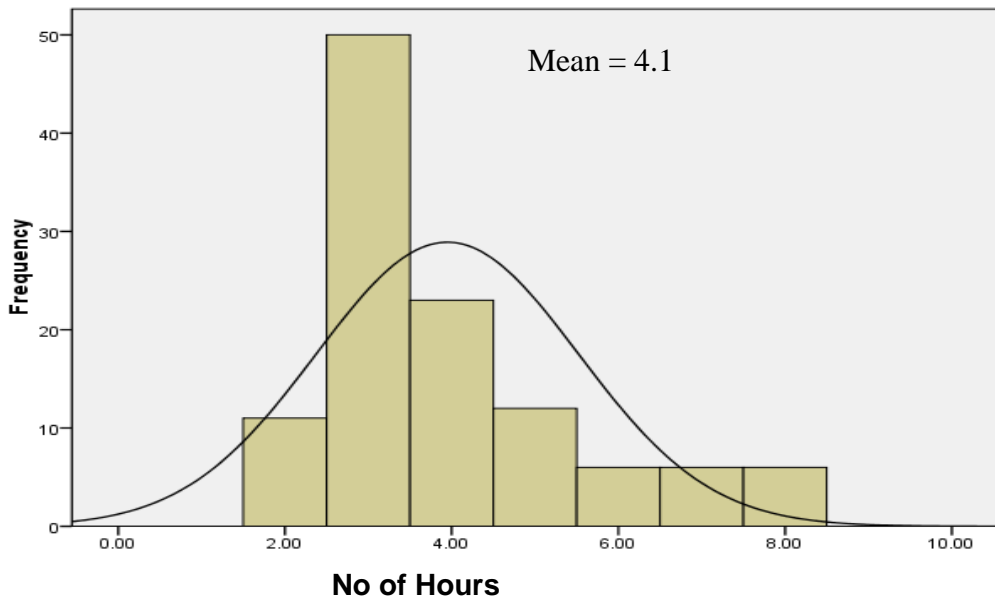
**Figure 5: Time Spent on Exercises by the Respondents**



Source: Field survey - 2016

Figure 6 explains the time spent leisurely by the respondents who are males over 40 years of age. The figure depicts that mean number of hours spent leisurely per day as 4.1 which means nearly 4 hours a day is spent leisurely. When the contribution of the age group is examined, it was recognized that males over the age of 55 years spent more time leisurely as majority of them are retired.

**Figure 6: Mean no of Hours Spent Leisurely by the Respondents**

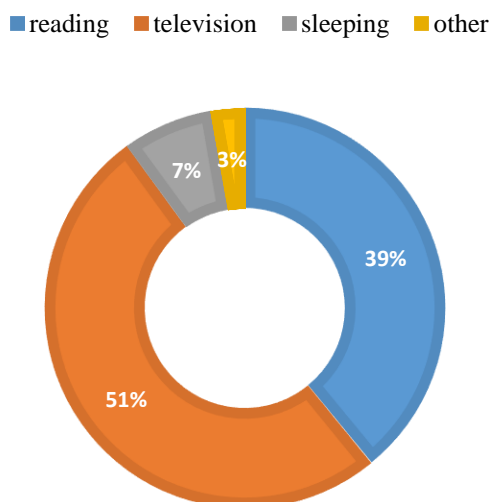


Source: Field survey - 2016

On ways of spending the leisure time is considered, according to the figure 7 half of the respondents were identified to spend their leisure time watching the television while 39 percent was found to spend their leisure time reading books and newspapers. This has

helped in creating a clear picture on the way that the respondents spend their leisure time. So it would be a timely initiative to create more awareness on this phenomenon.

**Figure 7: Means of Spending Leisure Time**



Source: Field survey - 2016

### Conclusion

There is a wide gap between the male and female life expectancy in Sri Lanka and it is identified as 7 years which is a linger gap compared to other countries. Many of the existing literature have been proved by the study as the study also discovered physical inactivity as a risk factor for NCDs. Through the study it has been revealed majority of the respondents has concerned about their physical health after the diagnosis. More than 50 percent of the individuals have started to engage in exercises and for about 30-60 minutes and take rest for about 04 hours per day, but majority of the leisure hours are spent on watching the television. This study identifies that to minimize the mortality through NCDs, physical inactivity has to be addressed.

**Keywords:** Non-Communicable Diseases; Physical Inactivity; Life Expectancy; Behavioural Risk Factors

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