Regulation of the prevention and control of non-communicable chronic diseases in Sri Lanka

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Table of Content

1. Executive Summary

Diseases develop on personal behavior, activities, external cases and genotype and diseases not transmit from one person to another are called non communicable diseases. Due to non communicable diseases in Sri Lanka persons debilitate or die and its social and economic effect is currently a serious problem. Attention is paid to resolve this problem through various programs of the Health Sector and our audit had drawn attention in respect of non – communicable chronic diseases associated with common risk factors which can be modifiable. Activation of the National Multisectoral Action Plan for the Prevention and Control of Non – communicable Diseases (2016-2020) implemented by the Non- Communicable Diseases Unit of the Ministry of Health in respect of cardiovascular diseases, respiratory diseases and diabetes stated under the National Policy for Prevention and Control of chronic Non-Communicable Diseases is considered under our scope. Objectives on the prevention and control of non – communicable diseases need to be conquered with the participation of many parties. In order to implement the functions include in this Multisectoral Action Plan, the parties given responsibilities include, the Ministry of Health and various units under the Ministry Provincial and District Directors of Health Services, several Ministries such as Education, Environment, Agriculture, Sports including Provincial Councils, Department of Excise, and lots of institutions like the National Authority on Narcotic and Alcohol. The objective of our audit is to evaluate whether action had been taken to achieve the objectives relating to the prevention and control of non – communicable diseases through the programs being implemented by the responsible institutions and related special units by which action to be taken to prevent and control non – communicable diseases and whether there are any obstructions therefor.

The National Policy on non – communicable diseases has recognized as basic risk factors affected to non – communicable diseases, comprising the use of tobacco and liquor, consumption of non – healthy food, lack of physical exercises and other risk factors such as air pollution and stress. The activities to minimize such risk factors are recognized in the National Multisectoral Action Plan. The main observations in this audit include; non – preparation of a National policy on the use of tobacco connected with smoking, non – incorporation of laws to reduce sale of a cigarette which has a highest market, availability of communication problems to continuous implementation of free zones separated for smoking, with a view to reduce the

expansion of tobacco use, weaken the supervision of the public Health Inspectors since they are very busy and intervention of tobacco companies. In addition, it was also observed complications such as not sufficiently conducted the training programs for target groups engage in the minimization of tobacco use, existence of sales stalls selling cigarettes near the educational institutions and the increase of tobacco imports was also predominated. It is also observed some issues in the indention of illustrated instructions in packets of tobacco products and the recovery of tobacco taxes.

The maximum quantity of foreign liquor to be soled by retail and the quantity to be transported in terms of provisions in the Excise Ordinance on liquor control, increase of issue of foreign liquor licenses during the period from 2016 to 2019, and rising the issue of spirit distillery licenses, arrack manufacturing licenses and licenses to manufactures who had produce foreign liquor locally during the period 2016 to 2020 were also observed in audit. Similarly, alcohol imports had increased by 16 per cent in the year 2018 as compared to the year 2016 as per the information of the Department of Sri Lanka Customs.

Lack of supervision in respect of improper using pesticide and fertilizer in the production of vegetable and fruits for the popularization of healthy food, taking place post-harvest losses due to falls in transportation and packaging methods, non – creation of a sufficient market for the sale of harvest under good agriculture procedures (GAP) were also observed in this audit. Audit observations, are also made non – functioning of a mechanism for monitoring the advertisement of food and beverages and complaints, regulations on food labeling and advertising not periodically revised, use of schooling age children for advertisements of food and beverages even though regulations in colour symbolizing of sugar, salt and fat in food and beverages are introduced, effective dates of such regulations are extended from time to time, complications on the control of factors within the school as well as outside in respect of student's food, non- taking necessary steps to prepare guidelines on school exercises and to update them and to ensure whether school children engage in physical training. In order to make environment require to promote and improve the physical training, advocacy meetings to be held aimed at city planners and political authority are not held and the guidelines, require for the improvement of physical training in service stations are not developed.

It was further observed that the available data are limited for the determination of quality of air in respect of atmospheric pollution, incompletion of air quality

guidelines to be available for the improvement of domestic air quality and unawareness of related parties about the quality of the air to be existed in such premises as school, factories, offices etc. Even though the responsibility is entrusted to the Ministry of Mass Media for making aware of the community about the risk factors arise due to non – performing adequate physical exercises that ministry was unaware about it and as such as the awareness programs had not been sufficiently conducted. Existence of shortage of staff in the Healthy Life Style centers which contribute to identify pre – diagnoses and management at primary level, lapses in the clinical functions to be conducted in certain Healthy Life Style centers in terms of circular instructions including their facilities are also discussed in this study. According to the health data, in 2018 the main cause for death in Sri Lanka is Coronary Heart Diseases. Accordingly, as compared to the total population in Colombo, Gampaha and Kalutara Districts for which audit attention was paid, complications in hospital facilities and lack of facilities in hospitals require for cardiologists, causing severe congestions exists in the National Hospital of Sri Lanka and deficiencies in the Intensive Care Unit clinics and operation theaters exist in the Colombo National Hospital are predominated and the existence of large number of patients in waiting lists had been a major problem.

Functions such as provision of required facilities, progress review, Co-Ordination and supervision require for the implementation of the National Multisectoral Action Plan (2016-2020) for the Prevention and Control of Non Communicable Diseases had been assigned to the National Council for Non-Communicable Diseases, and the issues on its operation and related parties were observed. It was targeted to reduce premature deaths by 10 percent by the year 2020 and to reduce one third of premature deaths caused due to non-communicable diseases, by way of treatments and preventive methods by the year 2030. However, since the informative system for death age analysis is not updated it could not be measured, and the correct date in respect of deaths in government hospitals are not included in the IMMR reports.

As remedies on the above issues, the following recommendations are made. Necessary steps to be taken to encourage the consumption of healthy foods, make aware of the school students and the community including teenagers on the out turns of the use of tobacco and liquor, giving reliefs to encourage healthy foods, increase taxes to discourage the use of tobacco and liquor, encourage the community including

school children about physical exercises, make aware of the people on the adverse effects of domestic air pollution and taking action to minimize domestic and external air pollution etc. In addition to this, taking action to make aware of the people on Healthy Life Style Centres, in order to maintain the services of Healthy Life Style Centres more effectively. It is also recommended that required testing facilities and testing materials need to be supplied without lacking. In the case of cardiology diseases units, expedite the supply of required facilities for cardiac treatments in the Colombo National Hospital and Karapitiya Teaching Hospital to minimize the existing long waiting lists and the improvement of services and facilities for treatments to respiratory and diabetics are recommended.

In the case of monitoring, taking action to get the contribution of all parties for the progress review meetings, holding meeting sessions at the specific time, if targets are deviated make strategies to direct expected targets, facilitate to hospitals which have no required facilities, enabling them to get data from all hospitals to the health data system and the commencement of clinical audit are recommended.

02. Introduction

2.1 Background

Public Health Service in Sri Lanka consists of main aspects including prevention of diseases, care, rehabilitation of patients and Health Service promotion functions. Under the free health policy of Sri Lanka, the provision of service to the people under the principle of not charging any fees in providing health services it is an essential welfare matter. Financial resources require to maintain health services are provided through the central government and provincial councils and the provisions are made mainly through the line Budget.

The number of hospitals operates western medical service in Sri Lanka amounted to 641 by the year 2018 and the number of beds amounted to 84,728. The whole number of medical officers, nurses and other staff therein amounted to 19,720 and 82,231 respectively. A recurrent expenditure of Rs. 198,334 million and a capital expenditure of Rs. 36,565 million had been spent by the government in the year 2018 for the maintainable of free medical policy. Accordingly, the government of Sri Lanka had allocated 5.92 percent from its budget to operate the free medical policy. This percentage spends for the health needs of public is a matter, subjected to be discussed, since the increase of population and problems periodically arise. Meanwhile, of the above main aspects specially in the health service, it is inclined mainly to non-communicable diseases and at present audit is subjected to discuss towards variant profiles. According to the definition of the World Health Organization, a disease not directly transmitted form one person to another is called a non-communicable disease. Basic diseases recognized as non-communicable diseases include heart diseases paralysis, cancer, diabetes, chronic or long tern respiratory diseases renal diseases etc..

Health Ministry statistics in 2019 state that the life expectancy of female and male population in Sri Lanka stands at 78 years and 72 years respectively. It was established that many people suffer from non-communicable diseases such as diabetes cholesterol, high blood pressure, cardiac, vascular diseases cancer, renal diseases etc.. Even though such concepts as social welfare like pensions and free medical service are available in Sri Lanka, according to the data published by the World Health Organization relating to the year 2016, the annual percentage of deaths caused by non-communicable diseases in Sri Lanka had taken a high value as compared with other countries in the region and it is 83 per cent.

When the community becomes diseased, deliberated and passing away due to non-communicable diseases, it becomes an onerous health problem in Sri Lanka. Living more such diseased people in a country, severely affect the national product and the state expenditure. It is the opinion of the medical expert that non-availability of health food pattern, lack of exercises, air pollution, tobacco consumption, and alcohol consumption may cause to increase non-communicable diseases.

2.2 Authority for Audit

This audit was carried out under my direction in pursuance of Provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka in conjunction with Sections 3(1)(d), 5(2) and 12(h) of the National Audit Act No. 19 of 2018.

2.3 Audit Approach

(a) As compared with the other countries in the region about 83 percent of deaths out of total deaths in Sri Lanka is due to non-communicable diseases. Based on the welfare concept of free health service, the requirement has arisen to find out in an investigative manner how far the health problems will be able to prevail through various programs conducted in the health sector on non-communicable diseases.

(b) In addition, this had become a complicated social-economic problem, even beyond the health sector.

2.4 Audit Objective

Varied programs are conducted by the institutions and various specific units, by which action being taken to prevent and control nan-communicable diseases and evaluate in audit whether the expected objectors have been achieved through the provision of facilities to related institutions, planning the process, implementation, regulation and follow up process to conquer challenges by way of using the funds allocated form the annual state budget thereon appropriately.

Audit Sub Objectives

Based on this principle objective, the audit is conducted along with the following alternative objectives.

(a) Evaluation of the institutional readiness for multipurpose functions such as preventions of non-communicable diseases, care and health promotion.

(b) Evaluation of the performance of prevention of diseases functions.

(c) Evaluation of the control functions of diseases.

(d) Evolution of the successfulness of regulation process in the multi-purpose functions such as prevention of non-communicable diseases, care and health promotion.

2.5 Related Institutions and their Functions

Related Institution	Function in Brief
(i) Ministry of Health - non-Communicable Diseases Unit.	(i) Execution regulation and evaluation of the National Policy on non-communicable diseases (ii) Implementation of Multi-Sectorial action plan (2016-2020) with the co-operation of units belong to the Ministry of Health and external institutions and supervision of activities in those institutions
(ii) National Authority on Tobacco and Alcohol.	Action taken to minimize the use of tobacco and alcohol which are the 2 risk factors cause to non-communicable diseases.
(iii)Ministry of Mass Media.	To make the general public aware about the risk of suffering from non-communicable diseases as a result of using tobacco and alcohol unhealthy

		food consumption and get rid of physical exercises.
(iv)	Ministry Education.	(i) Popularize vigorous food among school children (ii) Make the children engage in physical activities to prevent corpulence. (iii) Make aware the children on bad consequences in using liquor and tobacco and prepare syllabus as relevant.
(v)	Ministry of Sports.	Preparation and implementation of guidelines helpful to improve the physical activities for the people.
(vi)	Provincial and District Office of the Director of Health Services (PDHS)	Giving assistance requires to implement the multi sectorial plan and engage in healing patients.
(vii)	Ministry of Agriculture	Encourage to cultivate vigorous food (vegetable and fruits) and make them available in plenty.

2.6 Audit Criteria

(a) National policies and basic controls

(i) National policy on non-communicable diseases

(ii) Basic functions to be fulfilled according to the multi sectorial action plan (2016-2020) for the prevention of non-communicable diseases.

(b) Acts and Regulations

(i) Regulations Enacted Under Food Act No.26 of 1980.

(ii) National Authority on Tobacco and Alcohol Act, No. 27 of 2006

(iii) National Environment Act, No. 47 of 1980.

(c) Guidelines in the establishment of Healthy Life Style Centres

(i) Minimum personal participation for clinics held once a week (20)

(ii) Examination of patients and follows up them.

(iii) Composition of medical and non-medical staff.

(iv) Improvement level of the males participation for clinic.

(v) Availability of essential medicinal prescriptions and laboratory facilities.

(d) Recent data on non-communicable diseases (prospective conditions, comparisons and tendencies)

2.7 Audit Methodology

This audit was carried out along with the following methodologies

(a) Study the National Health policy, National Policy on the prevention and control of non-communicable diseases, multi sectorial Action Plan on the prevention of non-communicable diseases, food Act, No 26 of 1980 and regulations enacted thereunder and other relevant laws, rules and regulations and to find out how for they have been applied.

(b) Holding discussions with the officers in the non-communicable diseases control unit of the Ministry of Health Regional Directors of Health Services, including with other officials.

(c) Obtain registers, reports, records and filled information prepared by the related institutions and units.

(d) Spot inspections and observation of physical resources available therein in order to evaluate the relevant units and institutional functions.

(e) Obtain required information though the related institutions which generate such data and information and via internet.

(f) Obtain information and explanations from the related parties by way of specimen forms and questionnaires prepared towards audit objectives.

2.8 Scope of Audit

(a) Activation of the multi sectorial Action Plan (2016-2020) for the prevention and control of non-communicable diseases implemented by the non-communicable diseases unit of the Ministry of Health has been considered in respect of Colombo, Kalutara, Gampaha and Galle districts.

(b) More than two third of the total population of Sri Lanka is centralized in four provinces out of the nine provinces and the prominent province is the western province, representing 28.7 per cent of the total population live in that province. Galle District takes the third place in the population density of Sri Lanka and it is the most population density district in the southern province. Therefore, we have chosen the Western Province and the Galle District in the Southern Province as scope of audit for the purpose of our audit.

2.9 Limitations on Scope of Audit

(a) Attention is drawn in this audit on cardio vascular diseases, diabetes and chronic respiratory diseases stated under the nation policy on the prevention and control of non-communicable chronic diseases (2010). However since the chronic renal diseases occur due to unidentified medical causes are limited to North Central Province and North Western Province and a separate performance audit had been carried out before this audit regionally on the prevention and central of renal diseases and the cancer is discussed under a separate program, attention in this audit was not paid thereon.

(b) Necessary audit examinations on smooth operation of the National policy on the prevention and control of non-communicable diseases and other strategic plans have been limited only to Western Province and Galle District in the Southern Province, in carrying out this audit.

(c) Even though the national policy on non-communicable diseases had recognized the 'stress' as a risk factor affects non-communicable diseases, attention was paid in this audit only the activities included in the multi sectorial action plan for the prevention and control of nan-communicable diseases (2016-2020), which was used for scope of audit.

(d) Since the outbreak of covid – 19 pandemic within Sri Lanka since 16 march 2020, it was compelled to limit sections which needed to be physically observed.

03. Detailed Audit Findings

3.1 Institutional Readiness

3.1.1 National Health Policy

The National Health policy in Sri Lanka has been adopted for a period of 10 years (2016-2025) having being recognized the following main policy – operations, in order to realize preventive objects. Strengthening the supply of services, provision of high quality medical treatment service to all Sri Lankans which can be obtained by everybody, promotion of fair access to quality rehabilitation hospitality service, establishment of a designed methodology based on supply data for strengthening continuous health service supply methods, minimize the opportunities of spending money personally by patients, secure a broad health system, by a far better restructuring system, including human resources management, building a strategic partnership with all health treatment service suppliers etc.. In relation to audit scope it was recognized improvements to be made in the areas such as prevention of diseases. Healing, rehabilitation services and health administrative functions.

3.1.2 National Policy and Strategic Plan on the Prevention and Control of Non-communicable Chronic Diseases.

The national policy on the prevention and control of non-communicable chronic diseases prepared in the year 2010 is implemented in Sri Lanka for the prevention and control of non-communicable chronic diseases.

The target of this policy is to minimize the weight sustained by Sri Lanka due to non-communicable chronic diseases, having being encouraged healthy living patterns minimizing common risk factors and supply of integrated treatments based on evidence for diagnosed non-communicable chronic patients.

In addition, the objective of this policy is broadening more evidence based treatment services, Launching health promotion programs with the private and community participation thereby reduction of premature deaths (Less than 65 years of age) due to non-communicable chronic diseases by 02 per cent annually. In order to achieve this objective 9 strategic are identified in this policy.

Having being considered the gravity of non-communicable chronic diseases by the year 2010 and considering all resources require for the prevention them, this policy statement had paid attention only for the following diseases and their risk factors.

(a) Diseases

i. Vascular Heart Diseases
ii. Diabetes
iii. Chronic Respiratory Diseases
iv. Chronic Renal Diseases

(b) Risk factors identified as follows

i. Smoking
ii. Unhealthily meals
iii. Non availability of physical exercises
iv. Use of alcohol
v. Stress
vi. Air pollution

} other risk factors

This policy needs to be reviewed within 5 years that is by 2015 being complied with required changes. But this national policy had not been subjected to review even 5 years elapsed after the period.

3.1.3 Institutional Structure of the Ministry of Health and Required Provisions.

3.1.3.1 Prevention and Control of Non-communicable Chronic Diseases Unit.

The prevention and control of non-communicable chronic diseases unit is operated as the Head quarter the Ministry of Health on the prevention and control of communicable chronic diseases. This unit is operated under a Director, headed by a Deputy Director General on non-communicable chronic diseases and the execution, regulation and evaluation are carried out under this unit. Since this unit is operated as the Headquarters in connection with the prevention and control of communicable chronic diseases in the Ministry of Health, including the regulation and evaluation of the national policy on the prevention and control of non-communicable diseases, the necessity of operating its functions more strongly is recognized in the National multi sectorial action plan. In order to fulfill such necessity, it was intended to establish a

non-communicable diseases unit with a full cadre through the following activities by the year 2018.

(a) Identify and complete the cadre requires for the non-communicable diseases unit.
(b) Capacity development of the relevant cadre.
(c) Provision of necessary infrastructure facilities. However, the relevant purpose had not been completed as expected even by the year 2020 and it had been an impediment to operate the functions of the relevant unit more efficiently and effectively.
(d) The cabinet approval was received on 21.07.2010 for the cabinet memorandum presented on 09.06.2010 by the Ministry of Health. According the national non-communicable diseases policy and the strategic plan had been as the basis of the National Prevention and control of communicable diseases program and it should supply human and financial resources require for the implementation at national and provincial level with the assistance of the political leadership and other sectors. The Ministry of Health needs to realize the matters included in the relevant policy through an action plan prepared, conjoined with other related institutions. Observations in this regard are as follows.
    (i) A sectorial plan had been prepared and implemented by the Ministry of Health including the other related institution for the period from 2016-2020. However, being included the objectives in action Plans of the other relevant institutions stated thorn, financial and human resource require to implement them had not been provided.
    (ii) Similarly, in getting participated the responsible persons of the related institutions, in the steering committee meetings of the Ministry of Health, constant attention needs to be drawn for the achievement of their objective. Nevertheless, since the Ministry of Health does not do so, it was observed that the evaluation of the achievement of expected objectives by the related institution is a difficult matter.

(e) Ceasing from physical exercises has been identified as a prime criterion for the prevention of nan-communicable diseases. In this connection, an extensive task is entrusted to the Ministry of Sports in the multi sectorial action plan. However, since the Ministry of Health had not taken necessary action to provide required

facilities being supervised the functions included in the multi sectorial Action plan of non-communicable diseases unit, expected functions could not be achieved as anticipated.

3.1.3.2 Financial Provisions

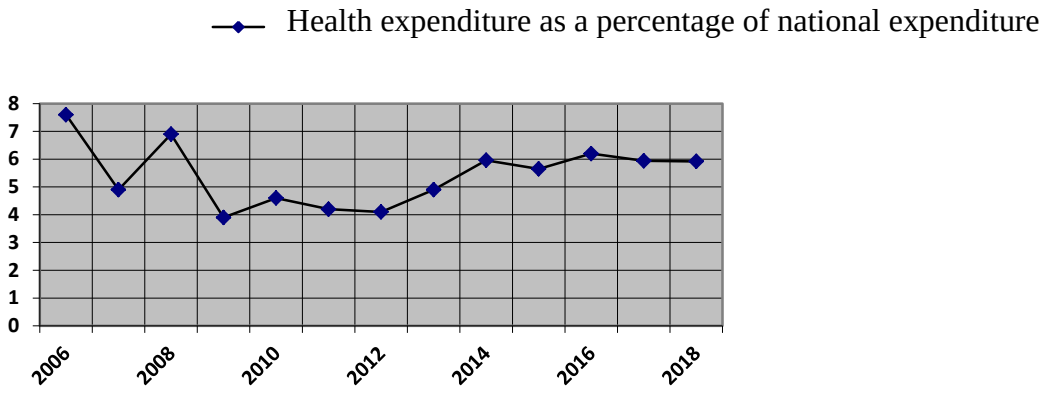
(a) Of the elementary features identified to be included in the Strategic Plans require for the development of country in considering the up liftmen of human capital and improvement of livelihood of the people, very important and if it is not so, the social cost to be born thereon may be an obstruction to the development of the country. Accordingly, particulars of expenditure incurred on Health sector during the post 15 years, as a percentage of national expenditure in Sri Lanka are as follows.

year	National expenditure Rs. Mn.	Health expenditure Rs. Mn.	Health expenditure as a percentage of national expenditure
2006	713,145	54,363	7.6
2007	885,952	63,464	4.9
2008	996,126	68,604	6.9
2009	1,747,064	67,448	3.9
2010	1,751,113	80,027	4.6
2011	1,961,053	82,179	4.2
2012	2,192,234	89,291	4.1
2013	2,411,606	120,346	4.9
2014	2,601,723	155,008	5.96
2015	3,203,280	181,122	5.65
2016	3,106,443	192,535	6.2
2017	3,470,589	206,182	5.94
2018	3,970,636	234,899	5.92

Source : Annual Health Statistics – 2018

According to the above data, financial provisions made for the prevention and control of non-communicable diseases relevant to this topic could not be separately identified.

(b) Even though the expenditure incurred on Health during the period 2006 to 2018 in Sri Lanka had continuously increased from Rs.54,363 million to Rs.234,899 million, the expenditure incurred on health from the national expenditure had ranged from 3.9 percent and 7.6 percent. The highest percentage had depicted in the beginning year used for this comparison but it had depicted a low percentage subsequently being largely fluctuated as shown in the graph below.



3.2 Health Promotion and Risk Factors

According to the definition of the World Health Organization health promotion means the people increase the control on their health and its criteria and the process of improving their health therefrom.

Smoking, unhealthy food, lack of physical exercises use of alcohol, stress and air pollution have been recognized as risk factors affect the non-communicable diseases in the national health policy having being minimized such risk factors, a health promotion can be anticipated. The following observations are made in this connection.

3.2.1 Use of Tobacco

(a) Performance of Functions in the National Multi Sectorial Action Plan (2016-2020)

According to the Global Action Plan on the prevention and control of non-communicable diseases of the World Health Organization, the propagation of the use of tobacco of the persons at the age of 15 years and more expected to be reduced by 30 per cent by the year 2025. The reduction of use of tobacco is a crucial factor in fulfilling sustainable development targets and it is a specific target in the access template on tobacco control as well. The party assumes the main responsibility to minimize the use of tobacco and alcohol in Sri Lanka is the National Authority on Tobacco and Alcohol as stated in the multi sectorial

Action Plan for the prevention and control of non-communicable diseases (2016-2020). The observation are made on the fulfillment of relevant functions.

(i) Tobacco Market Analysis in Sri Lanka –

According to the 2019 report, it was observed that the most marketable item is the "single cigarette". According to the Sri Lanka Tiny Targets Report presented by the National Authority on Tobacco and Alcohol in the year 2018 recommendations were made stating that laws need to be enacted for the marketing of "single cigarette" and its intention is to prevent easy purchases of cigarettes. Even though it was stated in the multi sectorial Action Plan for the prevention and control of non-communicable diseases (2016-2020) that laws will be incorporated on retail sale of cigarettes, necessary steps in this regard had not been taken even up to 31 December 2020.

(ii) According to the activity 2.1.1 in the multi sectorial Action Plan for the prevention and central of non-communicable diseases 2016-2020, it was proposed to hold training programs on the minimization of the expansion of tobacco, use. Accordingly, an expense of Rs. 5,952,937 had been incurred for conducting 202 training programs and 20,882 persons, representing school principals, teachers, school children and various groups in the society had participated therein. However, since a large number of people and persuadable population use tobacco, the progress of conducting training programs during the past 05 years was not satisfactory, as compared to that.

(iii) According to the tobacco market analysis report, 2019 in Sri Lanka, it was observed that the tobacco market stalls are situated within a walking distance of 3 minutes from their locations in 34 education institutions of 07 districts. Accordingly, the attention was drawn by the National Authority on Tobacco and Alcohol to prohibit the sale of tobacco and alcohol within a distance area of 500 m. from the school but it was unable to take action to implement the prohibition order even up to the date of this report.

(iv) In order to reduce the expansion of tobacco use, the establishment of "tobacco free zones" is stated under activity 2.1.1 of the multi sectorial action plan and 432 such zones had been set up during the period of 05 years from2016 to 2019. Even though, constant follows up, required technical and financial assistants have been provided, to continue operation of such zones important problems such as busiest functions of the Public Health Inspectors, Communication faults etc. had been identified in the continuous operation.

(v) In terms of activity 2.1.1 (i) of the multi sectorial action plan for the prevention and control of non-communicable diseases, the National Authority of Tobacco and Alcohol had contributed to 8 researches in respect of conducting researches on the use of tobacco during the period 2016 to 2020 and a sum of Rs. 3,566,240 had been spent there far.

(vi) Apart from the above research report, the following observations are made by the Alcohol and Intoxicant information Centre, National Authority on Tobacco and Alcohol, World Health Organization and the agreement frame work on tobacco control from the report on " Tobacco Market Analysis in Sri Lanka – 2019"

- John Player Gold Leaf is observed as a cigarette brand with most marketable.
- Purchase of the single cigarette as the common basis is observed in all 07 districts in purchasing cigarettes.
- To make a crucial impact on the porches of cigarettes and researches in Sri Lanka it is observed that the sale of the 'single cigarette' needs to be banned.

(vii) According to the information of the Department of Customs on tobacco and tobacco products during the period from 2016 to 20 August 2020, imports in the year 2016 amounted to 4,966,447 kg and the imports in the year 2019 as compared with that had increased by 16

per cent. The expenses incurred on tobacco imports in the year 2016 amounting to Rs. 10,695 million had increased up to Rs. 16,663 million or 56 per cent by the year 2019.

(viii) The National Authority on Tobacco and Alcohol Act No. 27 of 2006 was passed with the intention of protecting public health being introduced and implementation of national policy on tobacco and alcohol including other functions but a national policy on tobacco was not formulated. Even though this requirement is identified in the Multi sectorial Action Plan for 2016-2020,it had not been put into operation even by 31 December 2020.

(ix) Having being amended Section 34 of the National Authority on Tobacco and Alcohol act No 27 of 2006, the National Authority on Tobacco and Alcohol amendment Act, No. 03 of 2015 had been passed, and it is stated in the amended Act that the including of pictorial caution, covering 80 per cent of the packages of tobacco products and to be changed such pictorial cautions once in 06 months. According to the information made available to audit by the Chairman of the National Authority on Tobacco and Alcohol dated 31 December 2020 even though 80% pictorial cautions are included, changes in every 6 months had not been made.

(x) As stated in paragraph 2.2.1 (a) of the multi sectorial Action Plan for the prevention and control of non-communicable diseases in order to reduce the use of tobacco by adults, it was proposed to ban all types of advertising but action had not been taken to enact necessary laws to ban cross border advertising and social media which is not covered by the Tobacco and Alcohol Act No. 27 of 2006.

(xi) In terms of paragraph 2.1.1(c) of the Multi Sectorial Action Plan for the prevention and control of non-communicable diseases 2016-2020 it was proposed to formulate a methodology to change the price of tobacco and tobacco tax in terms of inflation but it was failed to

formulate such a methodology in the recovery of such taxes even up to 31 December 2020. Accordingly, it is observed that the above activities recognized in the Multi Sectorial Action Plan for the prevention and control of non-communicable diseases to minimize the use of tobacco, identified as a risk factor which affects the infection of non- communicable diseases could not efficiently and effectively performed.

(b) Recovery of Taxes on Tobacco

Production tax recoverable on the products contain tobacco (cigarettes) had been continuously increased from 2010 to 2020 and as a result, the number of sales units contain tobacco products had decreased from 4,286 million units to 2286 million units, which is a moral tendency but the taxes thereon collected by the government had increased from Rs. 42,132 million to Rs. 90,226 million. The following observations are made in this regard

(i) According to the recommendations of the World Health Organization, a minimum of 70 per cent taxes needs to be recovered for tobacco from retail price. According to the "Global Tobacco Epidemic 2019" report of the world Health Organization, the tax percentage recoverable on retail price of a packet of cigarettes consisting of 20 cigarettes, marketed largely in Sri Lanka was observed as 66 percent.

(ii) The recovery of production tax on cigarettes, produced in Sri Lanka is done by the Department of Sri Lanka customs. The maximum tax percentage recovered from one cigarette with a length of 72-84 mm is 30 percent on retail price. The tax percentage of other cigarettes, less than 60 mm in length is 12 on retail price. Particulars are in **Annex 01.**

(iii) Under the Manufacturing Tax (Special Provisions) Act No 13 of 1989, according to the regulations stated in the extraordinary gazette notifications published by the Minister from time to time production taxes are recovered for tobacco products. Accordingly extraordinary gazette had been issued in 19 occasions from 2010 to 2019.

(iv) In terms of section 17 of the manufacturing tax special provisions Act provisions are made on stock limits to be processed in the custody. But

such limitations had not been imposed as per such provisions. As a result, it was observed in audit that it had caused opportunities promote sale of cigarettes.

(v) Even though provisions are available under the manufacturing tax (Special Provisions) Act making raids of illicit tobacco products inside the port, the relevant amendments to vest such powers to the administrative affaires director general of customs had not been made even up to now. The Committee on public accounts had directed the Sri Lanka customs to submit a detailed report, stating the progress of the action taken to enforce this act before 07 April 2019. Accordingly the relevant report had been submitted to the committee on public account (COPA). However, the information about action taken after 31 October 2016 in respect of the enforcement of the Act had not been included therein. Since the Act is not enforced keeping information on making raids of illicit tobacco products had not been done by the Sri Lanka Customs.

3.2.2 Fulfillment of Functions in the Multisectoral Action Plan (2016-2020)

(i) In terms of activity 2.2.1(a) of the multisectoral plan, it was prosed to make a national Policy and alcohol having being examined the existing system of issuing Liquor Licenses to control the availability of alcohol products, to revise such system.

(ii) In terms of activity 2.2.1(d) of the multisectoral action plan for the prevention and control of non communicable diseases, (2016-2020) once in every 3 year period. an alcohol prevalence survey 3 year period an alcohol prevalence survey should be conducted in respect of the adverse effect of the elder persons who use alcohol by the mental Health Unit. But they have not conducted such a survey during the period under review, that is 2016 to 2020.

(iii) Even though a surveillance mechanism needs to be set up for reporting violence, accidents and injuries caused by the use of alcohol, it had not been set up by the mental health unit.

(iv) Although conducting surveys on alcohol and related problems had been planned it had not been so done.

(c) Execution of the National Policy on Alcohol Control

The National Policy on control of alcohol had been published by gazette notification No. 1967/62 of 20 May 2016. Among its objectives, include the prevention of all types of activities in the promotion of production and use of alcohol, implementation of policies on pricing and investment's bound with various profiles in the sale of alcohol, reduction of availability and easy obtainable of alcohol of alcohol products. It was expected to achieve such objectives.

The following observations are made in the achievement of such objectives

(i) In terms provisions in Excise Ordinance and according to the Excise Notice No. 985 issued in the year 2015, the quantity of 7.5 liter of foreign liquor to be sold at retail price and to be transported without a license had been increased to 80 liters up to 966 per cent by the Excise Notice No. 5/2019 in the year 2019. It was observed that it is the formost cause to increase the use of liquor by the community.

(ii) The issues of foreign liquor licenses during the period 2016 to 2019 had been increased from 3897 to 3920 by the Department of Excise.

(iii) Issue of spirit distillery licenses, arrack manufacturing licenses and locally made foreign liquor manufactures licenses had been increased from 37 per cent to 56 percent during the period 2016 to 2020. Details appear in Annex 2.

(iv) According to the information of the Department of Customs, a sum of Rs. 5467 million had been spent for the import of 3,979,150 liters of Liquor in the year 2016 and that quantity had increased to 4,637,372 liters by 16 percent in the year 2018. However, it was observed that the decrease of 0.2 percent of the import of liquor in the year 2019 as compared to the year 2016 is insufficient.

(d) Illicit use of Liquor

Illicit Liquor and toxicants are raided by the Excise officers of the Excise Department Island wise and a sum of Rs. 142 million was earned from 32,781 raids in the year 2016. As compared with that year, Liquor and Drugs raids

had increased by 44 percent in the year 2019 and the income earned was Rs. 244 million. This situation observed that the use of illicit Liquor and drugs are extensively increased and it will badly effect non-communicable diseases. Accordingly, activities such as taking action to minimize the production and use of alcohol and reporting violence, accidents and injuries caused due of alcohol are identified in the National Policy on alcohol and the multi sectorial Action Plan for the prevention and control of non-communicable diseases 2016-2020 but it is observed that such activities were not effectively implemented.

3.2.3 Healthy Food

Nutrient elements, need for the function of the body and for the smooth physical and mental growth are provided by food. A healthy diet, means a diet contains all nutrient elements with a required quantity. When this healthy diet is promoted, multi sectorial action plan (2016-2020) draws attention on a diet contains fruit and vegetable but minimum salt, fat and sugar content.

3.2.3.1Advertising on Food

The following observations are made in respect of strategies recognized in the multi sectorial Action Plan for the supply of a healthy diet and their progress.

(a) A mechanism to regulate advertisement of food and beverages and complaints had to be introduced by the vocational and environment Health unit of the Ministry of Health. According to the information obtained from the Vocational and Environment Health unit observed that an advertisement regulation mechanism has been introduced under the amended regulations (food labeling and advertising regulations). However, action had not been taken to publish relevant regulations after becoming final position.

(b) Regulations in respect of food labeling and advertisement come into effect in Sri Lanka by now are the regulations made under the Food Act No. 26 of 1980 (food labeling and advertising regulations) and gazetted in the year 2005. The following observations are made in this regard

(i) These regulations have been introduced under the gazette extraordinary No. 137/9 of 19 January 2005 and 15 years had elapsed by now.

(ii) Currently available various advertising methods on food and beverages, Hygienically awareness matters of consumers and to go for a far better option, such regulations need to be timely revised.

(iii) This matter had been identified by Food Control Administrative Unit (FCAU) of the Ministry of Health as well and arrived to amend the relevant regulation

(iv) Such amendment purposes had been started in the year 2017 and its progress had been discussed at all meetings of the National Council non-communicable diseases, by the end of the year 2019 but the regulation had not come to the end position and it was observed that attention of the Minister in charge of the subject had been drawn about the delay. Accordingly, the Minister had suggested at the meeting held on 03 October 2019 to expedite the finalization progress of the regulation. However, even by the end of the year 2020, action had not been taken to finalize and gazette the regulation. Accordingly, it was observed that they have failed to perform the amendment process of the food laboring and advertising regulation efficiently.

(c) According to the labor laws, a child is defined as a person less than the age of 18 years in Sri Lanka. Similarly, in terms of Children and Young Persons Ordinance of 1939, persons below the age of 14 years are defined as children. Definition of a child and the effects on the food pattern by using children for advertisements are as follows.

(i) In viewing television advertisements observed that children are used in plenty for different advertisements transmit in respect of food and beverages at present. This was observed in respect of instant foods like noodles, biscuits, chocolates, margarine etc.

(ii) Food (labeling and adverting) regulations currently effective in Sri Lanka are the regulations published in the gazette notification No. 1376/19 of 19 January 2005. However, it was observed in the examination of age limits of children use for advertisements, age limits of children use for advertisement or the manner how to use them are not included in these regulations.

(iii) According to the requirement of the timely amendment of food labeling regulations of 2005, effective now, these regulations are being amended by the food control administrative unit of the Ministry of Health. When inquired how the age limit is considered, it was informed the audit that they decided to consider the age limit as 12 years.

(iv) However, the Family Health Bureau Which performs the duties of school children's health had paid the attention on this matter at the meetings of the National Council on prevention and control of non-communicable diseases and the Family Health Specialist Doctor indicated who participated in these meetings the requirement of increasing this age limit up to 18 years.

(v) According to the above observations it was observed that there is on age limit of children use for advertisements now and there is also no methodology to get the prior approval before being published such advertisements.

Accordingly it was further observed in audit that this will make a negative effect on the program carried out by the Ministry of Health in connection with the impact caused to children with similar age in taking this massage to the public through children and encourage the society to get a healthy diet.

3.2.3.2 Need of a Healthy Diet

The following observation are made in this regard.

(a) In the promotion of healthy diet with plentiful fruit and vegetable, attention needs to be paid in respect of marketing and distribution of high quality vegetable and fruits, produced in accordance with good agricultural procedures, availability for the purchase at a price bearable to the customer and the use of chemical fertilizer and pesticides.

(b) As revealed at the review study (2018) carried out by the Hector Kobbakaduwa Agrarian Research and Training Institute in the year 2018, based on the research studies conducted by researchers on the quality and protection of fruit and vegetable supply chain it was stated that there is a risk on the quality and safety of fruit and vegetable due to such reasons inducting the content of heavy metals such as Asamic(AS), led(pd), mercury(Hg), Cadmium(Cr) and pesticides in fruit and vegetable may affect public health, there is on proper scrutinized methodology in

respect of malpractices and misuse of pesticides by the farming community and the use of overdose fertilizer and pesticides safely and efficiently. Nevertheless, the strategies had not been recognized in the multi sectorial Action Plan for the improper use of pesticides and fertilizer in the production of fruit and vegetable and to minimize the health impacts caused thereon.

(c) It was stated that, as a result of improper transportation methods and weak packaging methods, post-harvest lose is increased, through the minimization of pre and post-harvest loss, demand for the consumption of quality fruit and vegetable of the people can be increased. Therefore, it was observed that the attention on this matter needs to be paid in providing contributing to the control of non-communicable diseases program by the Ministry of Agriculture.

(d) In terms of section 2 (i) (a) of the food Act, No. 26 of 1980 if any meal contains any natural a added a content a substance which becomes harmful to Health production import, sale or distribution of such food should be prohibited. Similarly in terms of section 20 of the pesticide control Act No.33 of 1980 under the control of pesticide residence for agricultural products it is stated the maximum limits of pesticides and residues to be contained in a diet. Agricultural products used in excess of the limits of residues should not be presented adversely affect te health, the food protection methods need to be followed therefore. By 22 May 2019 the number of active constituents registered in Sri Lanka amounted to 200 and 219 limits on pre harvest period and maximum residues quantities for 60 active constituents had been determined by extra ordinary gazette notification No. 2023/34 of 14 June 2017.

3.2.3.3 Need of a Healthy Diet, Devoid of Poisonous

Audit observed that the attention of the Ministry of Agriculture to which the responsibility is entrusted in the multisectoral action plan for the provision of a healthy diet in the agricultural purposes, needs to be drawn in respect of the followings as well.

(a) Even though the farmers are aware that the use of pesticides is badly affected to the human health and the environment, pesticides are used on the instructions given by the pesticides market with his own discretion without getting the appropriate technical instructions on the quantity of use of pesticides, instance and the type of pesticides.

(b) Due to lack of laboratory facilities at regional level for sample tests to to be carried out in respect of diseases cause to agri – crops, the advice is taken from the sales shop for the use of pesticides, since the required mechanism is insufficient for giving advice to peasants about what kinds of approved pesticides and agro-chemicals to be used, having being obtained test reports within a shorter period to minimize the damages cause to crops.

(c) Under the Good Agricultural Practices (GAP) program of the Department of Agriculture, the uses of good agricultural practices are compulsory for the manufacture of fresh, health safety fruit and vegetable. Having been identified the opportunities leading to production pollution by agri inputs in a manner by protecting land, soil, water fertilizer wildlife and the health, sanitation and facilities of farmers, it is expected to minimize it. Since a sufficient market is not created for the sale of crop obtains under the GAP certificate, it was observed that the purchasing powers of the consumer to buy health protected fruit and vegetable is insufficient.

3.2.3.4 Food (sugar, salt and fat colour coding) Regulations – 2019

Undue consumption of sugar, salt, and fat had been recognized as dietary factors for such diseases as Cardiac diseases, diabetes, high cholesterol etc, along with the increasing trend of non communicable diseases in Sri Lanka at present. The Ministry of Health had introduced a colour coding system to control the content of sugar, salt and fat in foods as a new regulation under the food Act, No.26 of 1980.

Consumption of unhealthy food is identified as a main risk factor to develop non communicable diseases and this can be considered as a satisfactory step taken by the Ministry of Health to minimize that risk factor. The following observations are made on activation of this regulation.

(a) As published in the gazette notification No. 2119/3 of 17 April 2019, this regulation is effective since 01 June 2019. A directive had been issued by the then Acting Director General of Health Services under No. PA/EOH/FCAU/43/2017 of 24th May 2019 stated as directive No. 01 relating to the implementation of this

colour coding system. Accordingly, it was informed that guidance needs to be given to producers live within the area of authority through the authorized officers to carry out the colour coding of hard and semi hard foods appropriately, produced after the date of 01st June 2019.

(b) Even after this grace period, a further grace period had been given for the implementation of the above regulation on requests made by the Chamber of Commerce and the persons engage in food industry and it would have been effective on 01 January 2020. However, on the comments made by various parties stating the difficulty in the implementation of colour coding system practically, the effective date of this regulation had been changed again as 30 June 2020. On the requests subsequently made by varied parties due to Covid-19 pandamic, the effective date of the relevant regulation, an additional grace period of 6 months up to 31 December 2020 had been given. As a result, it was observed in audit that the attempt made for the prevention and control of non communicable diseases will be further delayed.

(c) This food (sugar, salt and fat colour coding) regulations to be effective from 01 June 2019 should have been applied all hard and semi – hard food stuffs. If any person labels a hard or semi hard food which contains the quantity of sugar, salt and fat as specified in scheduled, of the regulations, except in a manner stated specifically in the regulations, packeting, selling, advertising for selling should not be done as per details below.

Sugar content	**Salt content**	**Fat content**	**Colour**
(per 100g)	**(per 100g)**	**(per 100g)**	
Over 22g	Over 1.25g	Over 17.5g	red
From 05g to 22g	From 0.25g to 1.25g	From 03g to 17.5g	amber
Less than 05g	Less than 0.25g	Less than 3g	green

In compliance with this regulation by the small scale industrialists, financial difficulties in the printing of labels including color coding methods had arisen. However, it was observed in audit that at a monitoring mechanism is needed to

monitor them, since they also represent in the market, as excessive consumption of foods contain sugar, salt and fat is identified as adverse dietary factors caused to non communicable diseases.

Accordingly, it was observed that even though regulations for the control of quantities of sugar, salt and fat contain in foods have been introduced by the Food Control Unit of the Ministry of Health, such regulations are not effectively implemented.

3.2.3.5 Food and Beverages use for School Festivals

(a) According to the cabinet decision of 06 June 2017 given to the cabinet memorandum presented by the Minister of Health on 11 May 2017 for the prevention of corpulence among the school children, giving assistance and patronage to sport meets by food producers who supply foods not complied with health had been banned but that decision had not been implemented within the schools. It is a common scene in getting assistance and patronage of unhealthy food producers at the sport meets and other festivals in schools. The Ministry had not taken action to implement this decision strictly.

(b) The above Cabinet of Ministers had decided that action needs to be taken to control the sale of unhealthy food and beverages to students far away in the distance of 100 meters from the boundary, the outside the school. Since attention of the officers of the Ministry of Health and the Ministry of Education was not paid in this regard, places selling malign food and beverages to health within the school as well as around the school, are functioning.

(c) Even though the above cabinet decision had paid attention to take policy decision to limit the production of malign food evidence was not available whether such a decision was taken.

(d) Even though it was emphasized that the use of malign food in the programs conducted in connection with school students should be banned, appropriate attention of the officers of the Ministry of Education had not been paid thereon.

3.2.3.6 School Canteens

In taking action for the promotion of healthy diet by the Ministry of Health, proposals to make available healthy foods were presented in the multi sectorial action plan. One of these steps is to implement a healthy canteen policy in the schools. It's main responsibility is given to the Ministry of Education and the Ministry of Education had taken various steps to raise the percentage of nourished children.

Objectives of operating Health protected canteens stated by the Ministry of Education include;

- Supply of purified and nutrient food to school children
- Promotion among the school children about correct food habits and routines
- Increase of students percentage with proper nutrient condition
- Minimization of non communicable diseases tendency
- Assisting to increase the education provable level
- Giving message to the community on correct food habits

The present valid circular to achieve such objectives for schools is the Circular No. 35/2015 on the maintenance of Healthy canteen. The following observations are made in that connection.

(a) If a canteen is operated by the school development society within the school, an agreement needs to be entered into with the Zonal Director of Education by the school development society and the copy thereof should be displayed in the canteen. Similarly, according to that Circular, once in a school term, an evaluation report on the school canteen should be prepared and it should be submitted to the Regional Deputy/Assistant Director of Education and the Health Promotion Committee in the Zonal Education Office. Further, looking into school canteens is the responsibility of the Zonal Director of Education and the follow up report need to be submitted to the school food committee. Accordingly, an assurance in taking necessary action by the school food committee should be taken by the Zonal Director of Education, but it was not established in audit that every school had taken action in terms of such requirements.

(b) Even the schools are treased as urban and rural schools or national and provincial schools, every school had students with various dietary problems. Economic condition, food pattern and factors such as care placed on that awareness and food abundance are caused to these problems. According to the guidance on the sale of food in the school canteen, stated in the instructions manual for school canteens healthful grain, vegetable, herbs, local natural fruit, animal food and crops, beverages should be soled in the school canteen but it was observed that such foods are scarce in canteens. In terms of the Letter on the implementation of school canteen circular No. ED/01/21/08/12 of 31 December 2019 issued by the Ministry of Education, it was stated that school canteens are not functioning properly and inform that the relevant circular being considered as a welfare activity, school canteens be operated without a profit making object. It was also stated therein that school canteens need to be operated under the integral responsibility and supervision of the school development society.

(c) According to the school canteen instructions manual, sale of food containing high fat, trans fat, food with high sugar, high salt and flavoring foods, foods with simply calorie without substance and processed food had been prohibited in canteens but it can be seen that many school canteens sell such foods.'

(d) The National Coordinating Committee on school Health held on 18 February 2020 had proposed by proposal No. 2020/01 that, canteens belong to 'C' category should be cancelled in accordance with the new canteen assessment form No. H1306 but attention in this regard had not been drawn.

(e) As stated in the National Policy on the prevention and control of non communicable chronic diseases under the healthy food promotion program, strategies need to be included in the national agricultural and education policies under the popularization of healthy food. However, the accepted educational and agricultural policies had not been published even up to the date of audit.

Accordingly, procedures have been instituted on the supply of healthy diet to school children in the programs conducted within the school being joined the children and when they buy food from the canteen, but it was observed that such procedures are not effectively functioned.

3.2.3.7 Canteens Maintain in the Work Places

The tendency in suffering from non communicable diseases is being increasing due to undue fatness of Sri Lankans and non healthy protective foods.

In order to prevent it as far as possible, the Ministry of Health had prepared circulars and guidelines to operate canteens as health safety canteens, maintain in the government institutions. The following observations are made in this connection.

(a) A guideline had been prepared by the Nutrition Division of the Ministry of Health in the year 2013 require for the maintenance of canteens in work places and the Circular No. 2015/4/24 had been issued by the Ministry of Health, being concerned it. As stated therein, foods belong to six main food groups should be contained every day but fruits were not available in the hospital canteens of Kalubovila, Gampaha and Kalutara subjected to audit check, necessary facilities had not been provided to purchase foods contain grain with fat and seed varieties daily.

(b) In displaying food for sale in the canteen in compliance with the instructions manual issued by the Ministry of Health on the maintenance of healthy canteens natural foods within the green range and foods with high salt, sugar and fat within the yellow and red range need to be exhibited for sale, but it had not been not so done. Foods in the Gampaha, Kalubovila and Kalutara Nagoda Hospitals subjected to physical verification had not been so graded.

(c) In entering agreements with canteen owners, conditions that the guidelines issued by the Nutrition Division relating to the maintenance of health protected canteen to be followed, are not included in the agreements.

(d) Even though according to the guidelines manual, relating to the maintenance of health safety canteens in service stations, posters and notices should be displayed in respect of health safety food and good living patterns, such notices were not seen in all these 3 hospitals.

Restaurant in Gampaha Hospital Premises

Restaurant in Kalubowila Hospital Premises

3.2.4 Physical Exercises

Of the total deaths in Sri Lanka non communicable disease had caused to 59 per cent. Along with them the number of persons being hospitalized due to main non communicable diseases like ischemic heart disease, hypertension and diabetes is being increased.

Non communicable diseases caused to premature deaths before 60 years of age are increasing recently. These premature deaths had become a severe problem to the economy family group and the society. Teenagers in Sri Lanka suffer more from non communicable diseases caused to main two communicable disease risk factors of unhealthy food and lack of physical exercises. Out of men in Sri Lanka 49.6 percent between 9-15 years of age, 52.4 percent between 20-24 years of age do not engage in exercises and it is 76.2 percent and 80.8 percent in case of women respectively.

Foods with high sugar, salt and fat are denoted as foods unfavorable to health and about 50 per cent of teenagers have addicted these foods. Non availability of exercises and unhealthy food directly affect the corpulence. 15 per cent of teenagers suffer from corpulence. Due to corpulence, unfavorable mental blocks, like diminutions of attention on education, poor living condition etc. can be seen. As such, the corpulence creates health and socially adventurous situation. Since school children spend one third of time of the day in the school, it will be a better place of the students to engage in exercises and to popularize healthy food.

3.2.4.1 National Policy and the Strategic Plan

The following procedures have been proposed in accordance with National Policy and Strategic Plan for the prevention and control of non communicable chronic diseases, 2010.

(a) Establishment of a coordinated mechanism being shared with education, sports and other related parties for the preparation of a national physical activities guideline.

(b) Direction of the national government and the local authorities for the provision of policies on safety walking, cycling, organized sports and other types of physical exercises.

(c) Compilation of main policies in a manner to improve physical activities.

(d) Strengthening the promotion of sports and amusing sports facilities, including concepts of increasing physical activities for all.

(e) The Ministry of Health and the Ministry of Sports had together planned to implement these policies. According to the multispectral, plan (2016-2025) the activities to be performed for the achievement of this purpose had been recognized and in the examination of its progress, the following matters were observed in audit.

   (i) Even though it was planned to hold advocacy meetings for politicians and town planners in order to make environment for the improvement of physical activities in terms of multispectral plan (2016-2020), it had not been so done.

   (ii) Policies to improve the physical activities of persons over 18 years of age need to be developed in service places, but it had not been performed.

   (iii) The multispectral plan had suggested to prepare the action plan for the promotion of physical training through the sports societies, school and other social group but it had been not so done.

   (iv) Guidelines on physical activities and behaviors, devoid of activeness for Sri Lankans to be based for the preparation of guidelines on physical activities in workplaces by the Ministry of Sports and Youth Affairs had been sent to

the Ministry of Labour and Trade Unions Relations but that Ministry had not prepared relevant guidelines.

(v) Multisectorial action plan disclosed that a policy decision is to be taken to engage in physical exercises during the office time and it was informed the Ministry of Sports and Youth Affairs. Even though the Ministry of Sports and Youth Affairs had requested from the Ministry of Public Administration on 14 July 2020 to take action accordingly, but it had not been so done.

(vi) Action had been taken to hold programs within the school to obviate excessive weight and obesity which can be seen in plenty among teenagers.

(vii) The multispectral action plan (2016-2020) stated that a guideline on exercises for schools be prepared, updated and maintained, but action had not been taken accordingly.

(viii) According to the multisectoral action plan 2016-2020, policies to develop an environment to improve the required facilities for physical activities within the school, need to be formulated but the Ministry of Education had not paid the attention in this regard.

(ix) According to the multisectoral plan, action needs to be taken to establish the implementation of the allocation of an inevitable time to practice physical exercises within the school through the circular, increase the availability of sports goods in schools, provision of accommodation facilities to practice physical exercises within the school but the attention of the Ministry of Education had not been paid thereon.

Accordingly, the gravity of engaging in physical activities on the prevention and control of non communicable chronic diseases had been recognized in the national policy and strategic plan on the prevention and control of non communicable chronic diseases. However, it was observed that activities planned in the multisectoral plan to become such recognition a reality, had not been put into operation efficiency and effectively.

3.2.4.2 Obesity of School Children

The approved had been granted by the Cabinet of Ministers met on 06 June 2017 for the cabinet memorandum on the prevention of obesity among school children submitted by the Ministry of Health on 11 May 2017. Observations on the activation thereof are as follows.

(a) The allocation of a half an hour period for physical activities during the school time had become compulsory. Accordingly, in terms of guidelines of the Ministry of Sports on physical activities and behaviors, devoid of activeness of 05 Children, young girls between the ages of 5-19 years should engage in physical exercises at least one hour per day.

(b) The Cabinet of Ministers had approved therein that children should engage in physical training ½ hour per day. In terms of Circular No. 02/2020 of 02 January 2020 issued by the Ministry of Education, it was decided to implement the holding of morning physical exercises for school children in all schools since the year 2020.

(c) In terms of the Circular No. 2006/04 of 18 March 2006 of the Ministry of Education, 15 minutes school time table time had been revised as 2 days a week at 20 minutes at a time by Circular No. 2020/02. Accordingly, 2½ hours per week at half an hours' time per day, decided by the Cabinet of Ministers had also been limited to 40 minutes by the Ministry of Education.

(d) According to the circular, 20 minutes time had been allocated but the activation in the school had not been subjected to supervision. The Ministry of Education had not ensured whether, even that time has been included in the normal school time table.

3.2.4.3 Duties of the Local Authorities

(a) Even though the proposal for the location of sports – space in the outdoors of towns and housing complexes to promote physical activities of all family members, including children, the establishment of such places, in terms of population density had not been done by the relevant local authorities. It is observed that such places are located in certain places in the Colombo District but they are insufficient as compared with the existing population.

(b) A specific duties are entrusted to the Ministry of Local Government to make the people engage in physical activities in the multisectoral plan 2016-2020. Achievement of the following functions entrusted to the Ministry of Local Government had been evaded from the Ministry of Local Government.

(i) Even though advocacy meetings for city planners and politicians for changing the environment relating to the improvement of physical activities need to be held, jointly with the Ministry of Sports, it was not so done.

(ii) The multisectoral action plan states that facilities needed for the increase of physical activities through swimming pools, sport complex and fitness centers should be given but action had not been taken therefor by the Ministry of Sports and the Ministry of Local Government which are named as responsible institutions therefor.

(iii) Introduction of protected walking track, cycle lanes in new towns and housing complexes and the construction of at least one play area in one town based on 1:3 ratio of the population, but construction had not been so carried out.

3.2.5 Air Pollution

Air pollution can be classified as ambient air pollution and indoor air pollution. Sources affect the ambient air pollution include; traffic congestion, other transportations, agriculture, conflagrations and industrial emission. As a result of disclosing the community to dust particles, chemical gases, and mixed gases, they infect air pollution related diseases. Use of bio mass for cooking in the kitchens as

suburbs and rural with poor ventilation, use of perfume, mosquito coils, non – control of indoor smoke, non- availability of sufficient ventilation inside houses, insufficient doors, windows and chimneys are caused to domestic air pollution. The air quality and health impact assessment project implemented in the year 2018 by the Ministry of environment, under the United Nations Environment aid program had been implemented based on the air quality measurements obtained from the National Building Research Organization and other institutions and the data of the Ministry of Health. It was stated in this project report that even though the ambient air pollution is effected for the developed and developing countries, the highest burden exist for the low middle income earning countries. It was stated that the main cause for deaths in the low middle income countries due to non communicable diseases is the domestic air pollution.

According to the above project report, main diseases cause for deaths during the period from 2007-2017 in Sri Lanka include, cardiac diseases, malice, diabetes, asthma, respiratory infection and the chronic pulmonary (COPS) disease had come to the first place.

According to the data stated in the research report conducted on the prevention of non communicable diseases in the minimization of environment risk factors of the World Health Organization (2012), it was stated that outdoor and ambient air pollution had caused to 6 million deaths in the world on the grounds of chronic pulmonary impediment disease, lungs cancer and vascular heart diseases.

3.2.5.1 National Policy on the Prevention and Control of Non Communicable Chronic Diseases.

Among with the strategies identified for the achievement of the objective of national policy on the prevention and control of non communicable diseases, it is stated that the risk factors of the non communicable diseases need to be minimized. Indoor and outdoor air pollution had been recognized as risk factors for chronic respiratory diseases and cardiac diseases in the national policy. In order to minimize this situation, steps proposed in the policy include; implementation of programs at community level, creating a safety service environment, strengthening and assisting for the implementation of relevant environmental policies, laws and regulations to minimize indoor and outdoor air pollution.

The following observations are made in this connection.

(a) It was observed that even though action to minimize only the indoor air pollution had been identified in the multisectoral action plan for the prevention and control of non communicable diseases 2016-2020, attention on the ambient air pollution had not been drawn.

(b) Since a pilot study on indoor air quality for the supply of baseline data to make decision on indoor air quantity had not been conducted, baseline data on indoor air quality could not be ascertained.

3.2.5.2 Multisectoral Plan for Clean Air Action Management

Action to be taken for the minimization of air pollution in Sri Lanka has been identified in the multisectoral action plan published by the Ministry of Mahaweli Development and Environment for the air quality management. It is stated therein that since the inefficient use of furnace by the community, use of flammable items like mosquito coils and joss – sticks inside their homes, indoor air is more polluted than that of the ambient air pollution and on that health risk, the community prey on morbidity and mortality associated with air pollution. The following observations are made in respect of action stated in the multisectoral action plan.

(a) Even though it was scheduled to finalize the indoor air quality guideline and clean air action plan 2025 for the improvement of indoor air quality, the preparation of such guidelines had not been completed even as at the date of audit and as such it was observed that the awareness of the related parties in respect of guidelines on air quantities to be available in indoor environments, (houses, schools, factories etc), regulations and standards is insufficient.

(b) As stated in the multisectoral action plan for the prevention and control of non communicable diseases, clean technologies, less fume ovens and improved ovens need to be introduced in order to minimize the use of solid fuel for cooking. However, it was observed in audit that even though the fuel quality road map has been compiled to be activated for the introduction of clean technologies in terms

of clean air action plan for the supply of cleaner fuel in Sri Lanka, action had not been taken to refer it to the cabinet approval.

(c) A program for the awareness of Medical Officers in respect of environmental health risk, being covered all districts had been conducted and nearly 175 public health employees in Polonnaruwa, Ratnapura, Ampara, Galle, Matara and Gampaha district had been trained on air pollution related health impact management.

(d) Three media awareness programs on the significant of air quality management had been conducted. Even though a video play let on indoor air pollution had been arranged, but it could not be published via media due to, non availability of provisions. It was not inclined to make aware of all persons in the society about the prevention of air pollution as intended.

(e) Rural level awareness programs in respect of using enhanced ovens, efficient cooking methods, enhanced, kitchens, ventilation and changers in behavioral patterns need to be conducted during the period from 2016 to 2018 for the minimization of indoor air pollution due to use of bio mass, but a sufficient attention thereon had not been paid.

(f) It was observed in audit that a sufficient attention was not paid for the awareness of people having being conducted awareness programs though mass media on passive smoking.

Accordingly, it was observed that even though action to be taken in the multisectoral action plan on air quality management for the minimization of air pollution in Sri Lanka had been identified, necessary steps had not been taken to fulfill the activities effectively relating to the observations stated in this report.

3.2.5.3 Air Quality Monitoring

The following observations are made on current air quality monitoring

(a) Based on 7 main objectives in respect of measurement and minimization of air pollution, an air emission trust fund has been established in the Department of the Commissioner General of Motor Traffic and 2 items of ambient air quality measuring fixed equipment valued at Rs. 130 million, 2 air quality demonstrators, one mobile air quality measuring equipment and one air quality demonstration mobile unit had been purchased during the year 2018. These items of equipment had been given to the Central Environment Authority and the National Buildings Research Organization. The mobile air quality measuring equipment given to the National Buildings Research Organization therefrom had been installed in the Colombo Municipal Council premises and made it exhibited to the general public. According to the reply received from the Central Environment Authority on 13 August 2020, since insufficient money for the measurement and calibration of air bone, air velocity, temperature, humidity and Co_2 equipment could not be properly operated.

(b) Accordingly, it is observed that the efficiency of the existing mechanism is lacking to carry out the measurements of air pollution exists in various places in the island obtaining measurements, muster the ambient air data satisfactorily.

(c) Since the existing data for the determination of air qualities are limited, updated ambient air data is insufficient for the analysis of health impacts.

(d) It is observed that even though the transport policy needs to be implemented to improve the air quality in terms of the national policy on air quality management, attention in this regard had not been drawn.

3.2.6 Communication Strategy

3.2.6.1 Implementation of Communication Strategy at Education Institutional Level

Under activity 2.5.1 (a) in the multisectoral action plan, it was expected to revise the communication strategy (NCD) for making awareness of people with the intention of reducing the risk involves in the infection of non communicable diseases among the school children, university students, students study in vocational training centers and the workforce. Moreover, this task needs to be performed together by the non communicable diseases unit and the Health Promotion Bureau. However, it was observed that according to the information obtained about the progress of activities of the multisectoral plan, such a communication strategy in respect of non communicable diseases is not in existence.

3.2.6.2 Exercise of Mass Media on Community Awareness

According to the multisectoral plan (2016-2020), propaganda responsibility to reduce the use of tobacco, to mitigate cardio metabolic risk caused by the use of non-health protected food, to engage in physical activities to identify diseases without delay, to improve the awareness of people on medical tests, entrusted to the Ministry of Mass Media. Accordingly, even though the responsibility to get the following activities done stated in the multisectoral plan is entrusted to the Ministry of Mass Media, the following activities have been performed as per the plan.

(a) Awareness programme for the society on the use of tobacco need to be conducted through the media and social media by the Ministry of Mass media, together with the medical services divisions no communicable diseases unit, National Authority on Tobacco and Alcohol, but it had not been so done.

(b) Making awareness of people to reduce the cardio metabolic risk happening from consuming non healthy protected foods need to be done via mass media. Media awareness programme also need to be conducted by the Ministry of Mass mediatogether with Health Promotion Bureau, Non Communicable Diseases Unit and Professional College. Awareness of health safety foods and non health safety foods through the advertisements on fruits and vegetable had not been done, being joined such institutions..

(c) Awareness programs for the reduction of non activity should have been conducted by the Ministry of Massmedia together with the con communicable diseases unit and Health Promotion Bureau through the newspaper advertisements, TV programmes and Social Media but it had not been so done.

3.3 Recognition of Cause of Diseases through the Healthy Life Style Centers

The minimization of impact caused by non communicable diseases through the health directions and identification of main risk factors affect the diseases is included in the Nation non communicable diseases policy framework and for this purpose, the Ministry of Health had decided to put up Healthy Life Style Centers all over the island. The required guidelines to put up Healthy Life Style Centers through the District Director of health services had been issued on 15 August 2011. In addition, being issued circular Nos. 02-/25/2013, 1-66/2017,01-68/2017 and 1-46/2019 respectively in 4 instances from 2013 to 2019 instructions have been given thereon and the revised guideline No.01-46/2019(1) of 30th June 2020 relating to the diagnosis of non communicable diseases at the Healthy Life Style Centers had been issued. The following guidelines had been given in the first guideline.

3.3.1 Guideline for Healthy Life Style Centers

Details are given below.

(a) The following guidelines need to be followed for the diagnosis of patients data management and evaluation in Healthy Life Style Centers.

(i) It is stated in the guideline that that patients who are 35 years of age or more unrecognized as patients with non communicable diseases and persons between the age of 20 years to 34 years with high risk are eligible for diagnosis tests.

(ii) Risks such as smoking non healthy protected foods decrease in physical activities, use of alcohol need to be assessed.

(iii) Assessment of body mass index, blood pressure checking blood sugar, checking cholesterol need to be carried out

(iv) At least once a week a clinical session with participation of 20 persons need to be held.

(v) Diagnosis of patients and follow up them needs to be done in accordance with ISH risk reduction graph of the United Nations.

(vi) Treatment and follow up needs to be done in terms of guidelines.

(vii) Information needs to be managed in accordance with the instructions given by the non communicable diseases unit of the Ministry of Health.

(viii) Handling and evaluation of the Healthy Life Style programmes need to be done at national and District level.

(b) The above circulars had issued guidelines for the maintenance of Healthy Life Style Centers. Strategic action area 3 of the national multisectoral action plan for the prevention and control of non communicable diseases 2016-2020 states that the minimization of the effect on non communicable diseases through the identification of risk factors affect diseases and the health direction. Accordingly, in order to strengthen the Health System to diagnose and control the disease early and to promote the serives of diagnosis of non communicable diseases and to get such services early, the following proposals were presented.

(i) Change the time of providing services in Healthy Life Style Centers

(ii) Change the maximum age limit for the diagnosis of non communicable diseases patients.

(iii) Change the Healthy Life Style Centers guidelines

(iv) Change of the basic package for the diagnosis of non communicable diseases Healthy Life Style Centers, Service stations mobile clinics

(v) Introduction of keeping health information of all persons, morethan the age of 20 years.

(vi) Develop criteria for the diagnosis of diabetes patients between the ages of 20-40

(vii) Supply of facilities for OGT test , after giving glucose to drink for persons with fasting blood sugar level between 100-125 mgld

According to the information on housing and population census issued by the Department of Census and Statistics in the year 2012, 5,851,130 or 28.7 percent of the overall population live in the western province. Within the Western province 46 offices of medical officer of Health are situated and 125 Healthy Life Style Centers were in operation as at 03rd November 2020. The following observations are made in respect of operation of the above strategies in accordance with information obtained from Healthy Life Style Centers in Colombo, Gampaha and Kalutara District.

3.3.2 Task Performed at District Level

3.3.2.1 Colombo District

According to the population and housing census in the year 2020, 2,324,349 population representing 11.4 percent of the whole population live in Colombo District 18 offices of the Mediacal Officer of Health have been established in the Colombo District and the Ministry of Health had reported that 34 Healthy Life Style Centers belong to those officers are in operation. According to the information obtained from the Healthy Life Style Centers being operated within the District, the following observations are made.

(a) Particulars of conducting clinics in 11 Healthy Life Style Centers within the Colombo District operation during the period from 2018 to 2020 are as follows.

Year	Number of Clinics conducted	No.of persons participated	No. of patients diagnosed
2018	894	4986	858
2019	826	3761	696
2020	289	906	218
Total	2009	9653	1172

During the period from 2018 to 2020 9653 persons had participated in 2009 clinics and the number of patients diagnosed patients amounted to 1772- since the average participants for a clinics was 5 and as such information, the participation in the Healthy Life Style Clinics was as a weak level. Particulars personal participation are depicted in annexure No 03-1, 03-11, 3

(iii) Conducting Clinics for 6 days per week in 4 Healthy Life Style Centers out of 11 centers is a good incidence and the other centers had conducted at least a minimum of one day per week in terms of guidelines for Healthy Life Style Centers issued by the secretary to the minister of Health bearing No.NCD/41/ of 15 August 2011. Even though about 9 years had elapsed after being opened Healthy Life Style Centers it was observed that a considerable progress in respect of the number of days conducted clinics and the number of persons participated therefor is not reached. Particulars of number of days in conducting clinics are as follows.

Name of Healthy Life Center	Days in conducting clinics	Time of conducting clinics
Central Dispensary Rukmalgama	10 Days a month	8.00 a.m-4.00 p.m
Central Dispensary Nugegoda	Tuesday Friday	8.00 a.m-12.00 noon
Primary Mediacl Care Unit, Mirigama	Expect Thurs Days, Other Days in the week	8.00 a.m-12.00 noon
Madiwela	Wednesday	8.00 a.m-12.00 noon
Primary Medical Care Unit Thummodara	Expect Thursdays, other days in the week	8.00 a.m-12.00 noon
Kaduwela	Daily	8.00 a.m-12.00 noon
Central Dispensary Brahmanagama	Expect Sunday and public holidays other days in the week	7.30 a.m-4.00 p.m
Central Dispensary Delkanda	Friday	8.30 a.m-4.00 p.m
Central Dispensary Waga	Monday	8.30 a.m-4.00 p.m
Central Dispensary Meegoda	Monday Thursday	8.00 a.m-12.00 noon
Primary Mediacal Care Unit, Dadigamuwa	Wednesday	8.00 a.m-12.00 noon

(c) In terms of General Circulars No. 2-25/2013 dated 15 January 2013 of the Secretary to the Ministry of Health the provincial Directors of Health Services need to affirm that necessary facilities to be provided to the District Medical Officers engage in non communicable diseases through the Regional Health Services officers to establish and active operation of Healthy Life Style Centers in terms of guidelines on the establishment of Healthy Life Style Centers in the primary Health Services centers.. However, the following deficiencies were observed in holding Healthy Life Style Clinics in the Central dispensaries and Primary Health Care Units.

(i) Since there is no staff separated for Healthy Life Style Centers themselves other patients come for treatments during the period of holding Healthy Life Style Clinics become inconvenience.

(ii) Since the non availability of strips need for Cholesterol tests and lack of sufficient facilities, blood cholesterol checks had been suspended (eg. Central Dispensaries in Rukmalgama and Waga and Madiwela Primary Treatment Center)

(iii) Since the non availability of glucometer strips, checkins blood sugar level had been stopped (eg. Central Dispensary Nugegoda)

(iv) Insufficient accommodation facilities (eg. Primary treatment Units, Mirigama and Madiwela)(Central Dispensary Waga and Wegoda)

(v) Dearth of sufficient staff including pharmacist and Labourers non availability of cupboard to store books and other materials become to the Healthy Life Style Center

(vi) Non availability of a separate medical officer, separate facilities for mobile clinics for Healthy Life Style Center (eg. Central Dispensory , Kaduwela)

(vii) Non availability of suitable place for physical exercises, non-availability of a public health nurse, non availability of facilities for blood tests (Central dispensary, Brahmanagama)

(viii) Since the Healthy Life Style Center is situated in a place without common transport facilities, the number of persons come for clinics have decreased.

(Central Dispensary, Delkanda)

(ix) It was reported that out of the number of persons diagnosed as patients and directed for treatments, about 75 percent had not come back for treatments.(Mirihana Primary Medical Unit)

(x) As replied to the draft audit report on 30 August 2021 by the Ministry of Health on 01 November 2021 that a medical officers for the coordination of prevention of non communicable diseases in the Colombo District had not been attached to the District Director of Health Services Office since 2018. It was observed that the appointment of a medical officer for that purpose is most important for the prevention of non communicable diseases.

(d) In the gradation of persons participated in the 7 Healthy Life Style Center in Colombo district during the years 2018 and 2019 in terms of gender, male participation in 6 centers in the years 2018 and 2019 was observed as very low level as 33 percent and 30 percent respectively, whereas the existence of female participation at a very high level is observed as a good tendency. Details appear below.

	Name of hospital	Percentage of participants			
		2018		2019	
		Women	Man	Women	Man
(i)	Mediwala Primary care center	68	32	76	24
(ii)	Mirihana Primary Medical Unit	67	33	74.7	25.1
(iii)	Kaduwela Central Dispensary	77	23	73	27
(iv)	Brahmanagama Central Dispensary	59	41	68	32
(v)	Delkanda Central Dispensary	67	33	63	36
(vi)	Waga Central Dispensary	80	20	71	29
(vii)	Meegoda Central Dispensary	98	02	99	01

(e) The Participation of men to obtain the services of Healthy Life Style Center had been at a very low level and according to the data of the Ministry of Health, it was observed that the number of men died of ischemic heart diseases, cerebrovascular diseases and chronic Obstructive pulmonary diseases take a more value as compared with woman. Details appear below in the years 2017 and 2018.

Disease and ICD code	Deaths			
	2017		2018	
	Men	Women	Men	Women
Ischemic Heart Diseases (120-125)	3792	2857	4233	3176
Cerebro Vascular Diseases (160-169)	2086	1499	2289	1651
Chronic obstructive pulmonary diseases (540-544)	1140	191	1147	180

(f) The case study carried out on Healthy Life Style Center belong to the office of the Colombo Regional Director of Health Services in respect of non communicable diseases had identified the following matters.

(i) In considering the age limit of persons to whom the services of Healthy Life Style Center are provided even though or large number of people belong to that age limit live within the area, the persons come to get the service of these centers had been at a very low level , since the unawareness of people about these Healthy Life Style Center and as such the resources of these centers were under unlisted.

(ii) Since a person comes to a Healthy Life Style Center at the first time, coming again to obtain the service of this had been at a weak level, there is no follow up method to monitor it and as such it was observed that taking action to prevent non communicable diseases is adversely affected by risk assessment (CVD) of heart diseases and blood – vessels diseases.

(iii) Healthy Life Style Center Clinics are maintained in the primary health centers and there is a dearth of staff in them. Since there is no separate staff for Healthy Life Style Center, it was reported that the other patients come during the Healthy Life Style Center clinics become inconvenient.

3.3.2.2 Gampaha District

According to the population and housing census in 2012, a population of 2,304,833 live in Gampaha District and it represented 11.3 percent of the total population. Information obtained from 35 Healthy Life Style Center operated under the supervision of the District Medical Officer of Health, Gampaha is as follows.

During the period from 2018 to 2020, 4409 clinics had been conducted in 35 Healthy Life Style Center belong to Gampaha District and 53,476 persons have participated therein. Of these persons, 7452 or about 14 percent persons had diagnosed as patients as per details below.

Year	No of clinics held	No. of persons participated	No of persons directed for treatments
2018	1805	19,066	2,253
2019	1665	20,565	2,641
2020*	939	13,845	2,558
Total	4409	53,476	7,452

* **It was observed in audit that the corona pandemic out broke in the country in the year 2020 had affected to decrease the participation in the clinics.**

The following observations are made in this regard

(a) The number of clinics held in the Healthy Life Style Center during the period from 2018 to 2020 had gradually Decreased from 1,805,665 and 939 respectively. But it was observed that the number of persons participated in clinics had improved as compared with the number of clinics held.

(b) Even though the number of clinics held during the period 2018 to 2020 had decreased, the number of patients diagnosed as patients from the number of participants had increased as 2253, 2641 and 2558 respectively.

(c) According to the Circular No. NCD/41/2011 of 15 August 2011 of the Secretary of the Ministry of Health Healthy Life Style Center needs to be held at least a minimum of once a week. But out of 35 a Healthy Life Style Center more than 70 per cent had not done accordingly during the period 2018 to 2020 Particulars appear below.

Year	No.of Healthy Life Style Center held more than 100 clinics	No.of Healthy Life Style Center held clinics between 50-100	No. of Healthy Life Style Center held clinics between 25-50	No of Healthy Life Style Center held clinics less than 25	No of centers not given information	Total
2018	04	06	14	06	05	35
2019	03	06	15	07	04	35
2020	01	05	05	20	04	35
Total	08	17	34	33	13	

Accordingly, it was observed that holding clinics in the Healthy Life Style Center had not been satisfactorily improved.

(d) In the classification in accordance with the age structure of the persons participated in Healthy Life Style Center in the Gampaha District, the data in the years 2018 and 2020 observed that the number of centers in which the participation of persons with age group between 35-40 years, less than 25 percent amounts to 09. Having being participated more persons belong to this age group, the vulnerable persons can be recognized at the beginning of the disease, but such a participation could not be improved at a satisfactory level. Details are as follows.

S/N	Name of Healthy Life Style Center	Percentage of participants in terms of age analysis							
		35-40 years		41-50 years		51-60 years		Over 60 years	
		2018	2019	2018	2019	2018	2019	2018	2019
01	Pamunigama	10	10	40	35	40	45	10	10
02	Kandana-Katana	17	10	36	30	32	32	13	20
03	Uswetakeyyawa	12	-	14	-	32	-	11	-
04	Ganemulla	05	08	35	40	40	40	02	04
05	Korasa	24	-	34	-	28	-	14	-
06	Ambepussa	10	14	24	25	31	28	35	33
07	Bemmulla	15	4.6	26	27	27	31	31	35
08	Alawala	10	20	30	30	40	30	20	20
09	Adiambalama	16	-	51	-	27	-	06	-
10	Akaragama	-	25	-	40	-	24	-	10
11	Bokalagama	-	21	-	26	-	28	-	04
12	Weweldeniya	-	24	-	39	-	28	-	09

(e) According to the information on gender participation percentage in 17 Healthy Life Style Center in Gampaha District in the year 2018, male participation percentage in 15 Healthy Life Style Center had been at a low level as less than 30 percent and the male percentage in other 2 centers had been at less than 40 percent level. According to the information in gender participation percentage in 18 centers in the year 2019 was received and men participation in 12 centers

and the balance 6 centers had been less than 30 percent level and 40 percent level respectively. Accordingly, it was observed that the participation of men for Healthy Life Style Center had been at a very weak level. Details appear in Annex 04.

(f) In the maintenance of Healthy Life Style Center in the central dispensaries and primary medical care units in Gampaha district, the following shortfalls were observed.

(i) Since the insufficient staff, the maintenance of Healthy Life Style Centers, even though the attendance percentage in recalling persons back who came to clinics is about 5 per cent, it is difficult to follow-up (eg. Pugoda, Halpe, Katana Healthy Life Style Centers)

(ii) Non availability of computer facilities and unable to obtain necessary equipment on time.

(iii) Since the lesser awareness of the community about the services provided by Healthy Life Style Centers, the attendance for Healthy Life Style Center clinics is very unsatisfactory

(iv) Difficulty in getting down persons to clinics since many export factories are working on Saturdays and insufficient laboratory facilities (eg. Dompe District Hospital Healthy Life Style Center)

(v) Interms of paragraph 8 of the general circular No 2-25/ 2013 of 15 January 2013 of the Secretary of the Ministry of Health, the Regional Director of Health Services should take responsibility for the availability of all essential drugs in all primary medical services centers as recommended by the Ministry of Health for the management of non communicable diseases,. However, it was observed that there were shortages of medicine during the period from 2018 to 2020 in several occasions, about a maximum period of 4 months in total within a year in 6 primary medical care units and central dispensaries where Healthy Life Style Center are operated in Gampaha District. Details appear below.

Name of Healthy Life Style Center	Years in which shortage of drugs existed	Varieties of shortage drugs	Existence of shortage period
Thihariya Central Dispensary	2018/2019/2020	Gliclazide, Metformin, Asprin DP Beclate 400mg DP asthaline 400mg	About 01 month from time to time
Maligathenna Primary care unit	2018/2019/2020	Gliclazide, Losartan, Kt, Atovantatin	Maximum about 01 month
Maladeniya Central Dispensary	2018/2019/2020	Losatan, Metformin, Lovothyroxin HCT	There is a shortage at the end of every quarter about 4 months period
Bemmulla Central Dispensary	2019	Gliclazide Metformin	Latter part of every quarter
Muddaragama Central Dispensary	2018/2019/2020	Losartan, Atovastatin, Gliclazide, Metformin	Shortage at various occasions and about a month as a total.
Alawala Central Dispensary	2019/2020	Gliclazide, Metformin, Asprin	

3.3.2.3 Kalutara District

According to the population and housing census report in 2012, a population of 1,221,948 live in Kalutara Districts representing 06 per cent of the total population of Sri Lanka. Twelve Offices of the Medical Officers of Health are operated within the District and the following observations are made relating to 23 Healthy Life Style Centers in operation by 03 November 2021

(a) The number of clinics conducted, number of persons participated therein and number of patients diagnosed by clinics in the years 2018, 2019 and 2020 in 23 centers are as follows. Details appear in annex 05

Year	No of clinics held	No.of persons participated	No.of patients diagnosed
2018	868	15056	1196
2019	1315	36159	1709
2020	843	12933	1436
Total	**3026**	**64148**	**4341**

(i) During the period from 2018 to 2020 , 3026 clinics have been held in 23 Healthy Life Style Centers belong to Kalutara District and 64,148 persons had participated therein of which 4341 persons had been diagnosed as patients.

(ii) 868 clinics in the year 2018 had increased to 1315 Healthy Life Style Clinics in the year 2019 and 15,056 participants had increased to 36159 persons. However, it was observed that as compared to the population of 1,221,948 the number of persons comes to get the service to Healthy Life Style Center had been at a minimum level.

(b) Even though the cadre approved for the supply of services of 23 Healthy Life Style Center amounts to 67, the actual cadre was 27, leaving vacancies of 40. Since the existence of in sufficient staff for duties such as medical officers, nurses etc. it will take much time for the supply of services to beneficiaries. As a result, the participants as well as the staff become inconvenience and ultimately it will be a hindrance to achieve the expected objectives of the establishment of these Healthy Life Style Center. Details are follows.

Post	**Approved cadre**	**Actual cadre**	**No of Vacancies**
Medical officer	21	08	13
Nurses	21	10	11
Health KKS	18	05	13
Public Health Office	02	01	01
Provincial Officers of Health Services	03	02	01
Attendance	02	01	01
Total	**67**	**27**	**40**

Healthy Life Style Center in 23 medical centers in Kalutara District including Base Hospital District Hospitals, Regional Hospital belong to 6 categories had not been maintained (Annex 06)

The following observations are made in this regard.

(i) Healthy Life Style Center Clinics per week in Regional Hospital 05 clinics per week in a base hospital District hospital and 2 regional hospitals and Saturdays in 05 Healthy Life Style Center had been conducted and observed as a good tendency.

(ii) The minimum requirement had been fulfilled by holding clinics only one day per week in Base Hospitals, District Hospitals, Regional Hospitals and Estates Hospitals totaling 8 hospitals and one central treatment unit and 4 officer of the Medical Officer of Health . However, holding clinics were not quantitatively improved even though over 6 years had lapsed after beginning of Healthy Life Style Centers established in terms of circular No. NCD/41/2011 of 15 August 2011 issued by the Ministry of Health.

(iii) Of the 23 Healthy Life Style Centers being operated since the year 2020 in Kalutara District, 18 Healthy Life Style Center had been commenced in the years 2012/2013 and in the years 2016 and 2018 one Healthy Life Style Centers each had been started and 3 centers were started in the year 2014. After the year 2016, expansion of Healthy Life Style Center had been at a minimum level.

(d) It was observed that the following methods had been used to make aware of public to participate in the clinics holds in Healthy Life Style Center.

- Make aware of people came to OPD
- Make aware of people who came for clinics conducted in hospitals
- Make aware of visitors who came to see patients
- Make aware of committee through the public Health Inspectors
- Make aware of people via mobile clinics conducted for the community

Since the most of them mentioned above are those who come for treatments as well as visitors who came to see their patients, a sufficient time is not available to make them aware about the functions of the Healthy Life Style Centers due to the mentality of persons came to hospitals and serve congestion in OPDs with busy staff. Therefore, in addition to that, attention had not been paid to use alternative media including mass media to make the people aware.

(e) Assessment of body mass index, blood pressure, fasting blood sugar, need to be tested in terms of guideline 3 issued by the Ministry of Health on 15 August 2011 for the establishment of Healthy Life Style Center. In addition to the above tests in Kalutara District, it was stated that breast tests, eye tests, oscular tests and waist line tests are carried out but due to lack of facilities in the Base Hospitals, Horana had stopped breast tests and oscular tests as per comments presented.

3.3.2.4 Galle District

Healthy Life Style Center are situated in base hospitals, regional hospitals, primary medical care units within 20 divisions of the Medical Officer of Health in Galle district and medical tests are carried out to diagnose Cardiac diseases, diabetes, high blood pressure, Chronic respiratory diseases. Services such as measurement of body mass index, measurement of blood pressure and the risk of cardiac diseases and giving instructions to prevent non communicable diseases are also supplied. Clinics are held one or two days a week since 8..00 am in the Medical Officer of Health divisions.

The following observations are made in respect of these Healthy Life Style Centers.

(a) According to the information obtained at the test examination carried out on Healthy Life Style Centers in Galle District, the number of clinics held in the year 2018 , 2019 and 2020, number of participants and average per day were observed as follows.

Healthy Life Style Center	2018			2019			As at 10.07.2020		
	No.of clinic days held	**Total participants**	**Average per day**	**No of clinic days held**	**Total participants**	**Average per day**	**No of clinic days held**	**Total participants**	**Average per day**
Thalapitiya Regional Hospital	47	432	9	105	768	7	29	218	8
Primary Medical Care Unit, Pilana	31	204	7	30	312	10	17	106	6
Habaraduwa Vocational Health Center	288	1079	4	288	599	2	145	41	3
Imduwa District Hospital	40	499	12	46	547	12	8	81	10
Primary Medical Care Unit , Ginthota	200	1005	5	180	515	3	30	58	2

In terms of Circular No 02-25 /2013 dated 15 January 2013 of the Ministry of Health issued on Healthy Life Style Center Clinics, the minimum participation of patients a day needs to be 20. The above test examination observed that the daily participation of patients in these Healthy Life Style Centers had been less than the minimum level of 20 and the awareness for the participation of these clinics in each center is insufficient

(b) The requirement of a sufficient staff to maintain these centers effectively by are dominated and observations in that connection are as follows.

(i) The approved cadre of nursing staff in Thalapitiya Healthy Life Style Center is 4 . but only one nurse is available now and as such it was observed that it is in sufficient when lots of patient come for treatments.

(ii) Since a data entry officer or a clerk is not available for the purpose of posting the particulars of patients in the registers come daily for Healthy Life Style Center Clinics, preparation of daily and monthly reports and send them to the Office of the District Director of Health Services, the service of the Health KKS had to be obtained and therefore it had been a hindrance to perform the normal duties of the permanent post of KKSs rightly.

(c) In addition to the cadre requirement, the requirement of other resources needed for the maintenance of such centers are very important. Observations in that connection are as follows.

(i) Even though the people have made aware for the participation of clinics it was observed in the information obtained from the Non communicable diseases division of the Office of the District Director of Health Services that out of 38 Healthy Life Style Centers in Galle District, HLC name boards were not available in 32 centers.

(ii) Under the Galle District Director of Health Services 3 base hospitals and 20 Regional Hospitals are available and 17 Healthy Life Style Center are available within these 20 regional hospitals. However, it was observed in audit that blood test laboratory facilities are not available in 14 centers out of 17 Healthy Life Style Centers.

Accordingly, the commencement of Healthy Life Style Centers all over island by the Ministry of Health is an important step having being identified the main

factors effect on diseases and health guidance to minimize the impact on the patients by non communicable diseases. However, the unawareness of the people about such centers and the supply of insufficient physical and human resources, it was observed that it had been obstructive to maintain such centers efficiently and effectively.

3.4 Patient's Care Services

3.4.1 Hospitalization and Death

(a) According to the annual health data of 2018, increasing trend of hospitalization and deaths since more than 5 years period (2011-2018) was observed as follows due to non communicable diseases like cardiac vascular diseases, chronic respiratory diseases and diabetes which come to the scope of our report.

Disease & ICD	Hospitalization per 100,000 population					Death per 100,000 population				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
- Cardiac vascular disease 120-125	524.3	532.1	540.5	546.8	630.8	3.6	29.7	28.5	31.6	34.2
- Diabetes E 10 –E 14	391.8	381.8	414.6	396.3	431.6	3.2	3.3	3.6	3.7	3.3
-Hypertensive Disease 110-115	177.7	463.6	464.3	429.8	468.6	3.1	3.4	3.1	3.0	2.9
- Asthma j 45-j 46	916.3	911.0	787.3	803.3	811.9	2.9	3.2	2.5	2.9	2.6

Source: Medical Statistics Unit – Annual Health Statistics -2018

According to the above information, of these 4 diseases, hospitalization and death rate due to cardiac diseases had taken a much growth value.

(b) The following information indicates that the main causes for deaths in Sri Lanka are non communicable diseases such as ischemic heart diseases, striking diabetes, asthma etc.

Strong causes for hospital deaths in 2018

Rank order	ICD code	Cause of deaths	No of deaths	Proportionate Mortality n	Deaths per 100,000 populatio
1	120-125	Coronary Heart diseases	7409	15.0	34.2
4	J20-J22	Respiratory system diseases	4900	9.9	22.6
	J40-J98	Cerebellum Vascular diseases	3940	8.0	18.2
5	160-169	Cerebellum Vascular diseases			
6	126-151	Pulmonary heart diseases	3886	7.9	17.9
7	J12-J18	Phumonia	3842	7.8	17.7
12	E10-E14	Diabetes	709	1.4	3.3
14	110-115	Hypertensive Diseases	637	1.3	2.9

Of these diseases, the mortality is taken high value under heart and cerebellum vascular diseases and showing a similar mortality associate with respiratory diseases is predominated.

(c) According to the survey conducted by the World Health Organization in the year 2020 on the impact caused to non communicable patients under the Covid-19 pandemic, about 70 percent of covid death happened in the world is due to such diseases, as revealed by this survey. It was also reported that it is 80 percent in the middle income countries like Sri Lanka. Accordingly, under the epidemic condition these patients are recognized high risk persons and their mortality is higher than that of the other patients

3.4.2 Heart Diseases

As stated in the annual Health Census of 2018, a coronary heart disease is the main causation for deaths in Sri Lanka. In consequence of the above diseases, the number of deaths per 100,000 populations had existed considerable gender variations and the deaths of men than the death of woman shown a high level. Moreover subject to the scope a high mortality rate exists in relation to ischemic heart diseases, cerebellum vascular diseases, pulmonary heart diseases and hypertensive. The related data appear below.

Disease and ICD code	2014		2015		2016		2017		2018	
		%		%		%		%		%
Ischemic heart diseases	1	14.8	1	14.2	1.	14.2	1	14.2	1	15
Cerebellum Vascular Diseases	5	8.4	6	8.2	6	8.2	7	7.7	5	8.0
Pulmonary heart diseases	4	8.6	5	8.3	5	83	5	8.5	6	7.9
Phumonia	7	6.6	7	7.5	7	7.5	6	8.2	7	7.8

Source: Medical Senses Unit – Annual Health Census-2018

Similarly, according to the health data 524 per 100000 population and 631 per 100 000 population in the years 2014 and 2018 had been hospitalized due to ischemic heart diseases. Whereas between 478 and 468 per 100 000 population had been hospitalized during the period from 2014 to 2018 due to high blood pressure. Statistical data appear below.

Disease and ICD Code	2014	2015	2016	2017	2018
Hypertensive Diseases 110-115	477.7	463.6	464.3	429.8	468.6
Ischemic Heart Disease 120-125	524.3	532.1	540.5	546.8	630.8

3.4.2.1 Readiness for Cardiac Vascular Diseases (CVD) Care Services

Details appear below.

(a) According to the service availability and readiness assessment survey report 2017 conducted by the Ministry of Health, it was stated that the level of service facilities for the diagnosis of heart diseases within the health system is 89 percent (WHO/ISH) forecasting level is 69 percent and the availability of heart diseases diagnosis of services is 74 percent. In considering the readiness of services for the diagnosis of heart diseases, the relevant readiness was appraised based on the trained medical staff and identified few items of equipment , including ECG machines.

(b) The above report observed that the available trained medical staff in respect of the risk assessment of heart diseases exists at a low level as 45 per cent at national level and this position exists at a minimum level in other health facility type as well. The report also observed that the availability of health facility of all items considered is limited to 14 per cent level within the health services at national level.

(c) In terms of the above report, the availability of health facility in the hyper heart diseases risk management services is 74 per cent at national level and the availability of drugs require for heart diseases management is 89 per cent at national level. Nevertheless, according to the information obtained from hospitals come under our scope, the existence of the following conditions were observed.

3.4.2.2 Observations on Hospitals

In order to evaluate the performance of the utilization of human and physical resources for heart diseases management in the western province mainly Colombo National Hospital, Gampaha District General Hospital, Colombo South Teaching Hospital, North Colombo Teaching Hospital , Kalutara General Hospital have been considered. Information on patients infected with non communicable diseases within the western province in the year 2018 appears below.

District	Ischemic Heart diseases				Cerebellum vascular diseases				Chromic pulmonary obstructive diseases			
	Live discharging	Deaths	Event mortality	Ranking	Live discharging	Deaths	Event mortality	Ranking	Live discharging	Deaths	Event mortality	Ranking
Colombo	23527	1479	5.91	2	7417	634	7.87	5	3547	178	4.78	6
Gampaha	10804	710	6.17	1	5959	346	5.49	8	2460	108	4.21	3
Kalutara	7370	529	6.7	1	3212	190	5.58	4	1971	41	2.04	3

According of the death in the hospitals within the western province in the year 2018, ranking of diseases caused to infect ischemic heart diseases came to 1 and 2 places respectively and came between 4 and 8 places out of deaths caused to infect cerebellum vascular diseases and came between 3 and 6 places out of deaths caused to infect chronic pulmonary circulation diseases. The following observations are made in respect of the operation of the cardiac diseases units in the hospitals of Colombo, Colombo North (Ragama Teaching Hospital) Gampaha and Kalutara Hospitals

(a) Colombo National Hospital

Colombo National Hospital is the main National Hospital in Sri Lanka and it provides services to the population of 2,439,000 living in the Colombo district, in addition to all other patients came for treatments. The total member of catheterization carried out in the operation theaters of the Colombo National Hospital cardiology unit during the years 2017,2018 and 2019 amounted to 57,637 and the number of catheterizations carried out in each operation theatre are as follows.

	2017	**2018**	**2019**
Catheterization Theatre I	7,627	11,530	14,749
Catheterization Theatre II	4,180	4,166	4,286
Catheterization Theatre III	4,096	3,955	3,048
Total	15,903	19,651	22,083

Angiograms stentings and related surgeries are carried out in the cardiac catheterization theater I and IV of the National Hospital and the number of stents effected in the years 2019 and 2020 by these operation theaters are as follows.

Month/year	**Jan.**	**Feb.**	**March**	**April**	**May**	**June**	**July**	**Aug.**	**Sept.**	**Oct.**	**Nov.**	**Dec.**
2019	239	223	209	207	257	215	263	242	221	239	220	266
2020	202	166	117	35	112	121	316	138	150	110	-	-

The following observations are made in respect of the cardiac vascular diseases management in the cardiology unit of the Colombo National Hospital.

(i) The number of surgeries affected by the catheterization theatre I and IV had comparatively decreased in the year 2020 and the catheterization theatre IV could not be used since the air condition system therein was caught fire on 31 July 2020. Since that theatre could not be used, the number of stent placement treatment affected since July had been considerably decreased. Even though the cardiology unit belongs 3 catheterization theatres, the burnt catheterization theatre was not in operation nearly one year period and quick action had not been taken to get it repaired. Even though a cost estimate for a sum of Rs. 17,023,000 had been made to accelerate the repair, the

waiting period of patients in the waiting list for their surgeries had been further increased.

(ii) It was observed that the number of patients in the waiting lists of each unit of the cardiology unit in National Hospital for stent placement and angiograms treatments to whom dates were given within the period from 31 December 2020 to August 2021 amounted to 7972 as per details below. According to the number of stents and angiograms affected by the Hospital in the years 2019 and 2020, the number of treatment can be effected daily is approximately 20 and as such it was observed that it is a target which cannot be reached.

	Unit 1	**Unit 2**	**Unit3**	**Unit4**	**Unit 5**	**Total**
No of patients	4230	1200	628	1520	394	7972

(iii) In the examination of resources belong to the Cardiology Unit, five units as wards Nos.60,61,69,70 and 71 with 114 beds had existed , consisting of heart patients admission units for pre tests and treatments readiness of patients referred to coronary artery bypass graft surgery and cardio thoracic unit, care taking unit of patients come after pre testing and treatments. Cardiology unit belongs 2 units namely, coronary care unit and Intensive Coronary Care Unit and it has about 16 beds. However it was observed that since the national hospital is the foremost care unit which provides services to many people as a national hospital, available beds are insufficient.

(iv) The physical verification carried out on 23 September 2020 observed that the existing accommodation and number of available beds in these units are insufficient and it was also established as per information given to audit by the cardiology unit. Under this circumstance, men and women patients come after pre cardiac intervention and stents placement tests had been detained in the same place in unit 70 for treatments. It was also observed in audit that the sanitary facilities for there are also not sufficient.

(v) The roof and walls of the ward No.71 uses for the management of patients after pretests and post treatments had infected with fungi but action had not been taken to put it into right position even by the time of audit. Accordingly it was observed in audit that patients with diseased condition get treatments in and unproductive hospital environment.

(vi) At the physical verification carried out on 23 september 2020 of wards in the cardiology unit where heart patients are treated, observed that sufficient space was not allocated for more risk heart patients for the management of patients after pre tests and post treatments and as such they become inconvenient.

Since Lack of accommodation in wards, patients sat on benches.

(vii) Information on human resources available in the cardiology unit (PCI Center) of the Colombo National Hospital is as follows.

Unit	Human Resources	Approved cadre	Actual cadre	Shortage
Cardiology Unit	Medical officers	50	48	02
	Specialist Medical Officers	05	06	-
Catheterization Theater IV	Nursing Officers	20	16	04
	Radiographer	03	02	01
	Cardiographer	02	01	01
	Junior employees	18	09	09
Catheterization Theatre I,II	Nursing Officers	10	08	02
	Radio Grapher	03	02	01
	Cardiographer	02	01	01
	Junior employee	-	12	-
Catheterization Theatre III	Nursing Officers	09	07	02
	Radio Grapher	03	02	01
	Cardiographer	02	01	01
	Junior employee	09	08	01

(viii) According to the health data of 2018 it was observed that the number of cardiology specialists in service within the western province for prophylaxis services by December 2018 amounted to 27. However, it was observed that since non availability of sufficient physical resources such as theaters, beds etc. a maximum service of them could not be obtained. In considering the other staff in connection with the cardiology unit, there was a shortage of nursing officers, radio graphers , cardiographers and junior staff.

(ix) In service training programme needs to be set for nursing staff to up date their knowledge. According to the information obtained in audit observed the requirement of training programmes for senior registers, Nursing Officers, Cardiographers, Radiographers in terms of specific catheterization producers IVUS, ROTA TAVI, FFR

(x) It was observed that stents use for heart catheterization had been unsecurely stored. It was also observed that since rain water is gathered to the stores during the rainy days, surgical materials use for medical operations become unsecured and may damage their quality.

Surgical material stored un protectively

(xi) In the management of non communicable diseases, 16 varieties of essential drugs require for heart diseases of which about 5 varieties of such drugs were continuously not available during the whole years of 2018 and 2019 within the cardiology unit of the National Hospital.

(xii) Participations of patients in the cardiac clinics maintains in the cardiology unit of the Colombo National Hospital during the years 2017, 2018, 2019 and 2020 are as follows.

Attendance	**2017**	**2018**	**2019**	**2020**
1st attendance	14,958	17,975	18,610	10,941
Subsequent attendance	158,426	166,938	177,879	136,200

According to the following observations made on holding clinics, since the patients come to the cardiology unit of the Colombo National Hospital for the participation for clinics and to get treatments from all over the Island, this area becomes a populous waiting area. By the date of physical verification carried out on 23 September 2020, the date of audit , it was observed that since the insufficient space available in the places, holding cardiac clinics, Lots of patients are waiting in the undue crowded area, awaiting treatments and their sanitary facilities are also insufficient.

(xiii) According to the data obtained from the cardiology unit, after being admitted the heart patients to the cardiology unit, it was observed that the mortality of patients, consequent to myocardial. Infarction is more than 10 percent level during the past 2 years as per details below.

	2018	**2019**
Number of deaths due to myocardial infarction (MI)	354	531
Total MI patients	2408	3856
Percentage	14.7%	13.8%

(xiv) We observed that since there is no proper appointment system to get the time allocated for treatments in several Units, the cardiac interventional procedure has to be postponed, and as such patients become inconvenient and the time for the direction of patients to treatments is extended.

(xv) Shortage of drugs like heparin, verapamil and clotinab, essential for catheterization theatres and 0.38, 0.35 guide wires (180cm, 150cm, 260cm) require for diagnostic and interventional procedures were observed.

(b) North Colombo Teaching Hospital

The North Colombo Teaching Hospital is recognized as the second huge tertiary care services institute located in the Western Province and its staff consists of 2381. It can treat 1570 patients residentially. The ward No 30. is used for residential heart patients within the hospital and it has about 25 beds. Even though specifically allocated staff for the cardiology unit is not available service of 12 medical officers including 02 specialist cardiologists in that unit is obtained. Clinics for heart patients are conducted on Monday, Wednesday, Thursday and Friday. In rooms 28 and 29 in a storied house, situated in the right side of the Hospital Entrance main road, examinations of patients come to cardiac clinics and tests including scanning are carried out. Clinics are held from 8.00 a.m to about 1.00 p.m. The following observations are made in this regard.

(i) The number of heart patient registered for clinics during the period from 2017 to 2020 had increased as 458, 625 and 735 respectively. This is observed as a continuous increase of number of heart patient.

(ii) Since the existing peace for checking patients have very limited room, the medical staff in the examination of patients as well as the patients become inconvenient. The physical verification carried out on 26 March 2021 observed that a sufficient number of seats for patients who have to remain in that place for several hours until they participate in the clinics.

(iii) Since only 2 echocardiogram machines necessarily require for the examination of heart diseases are available, an ultrasound scanner is also used for testing patients as observed at the physical verification on 26 March 2021. At the

discussion held with the cardiologist, he explained that a maximum efficiency and effectiveness could not be obtained from this machine.

(iv) Since patients daily come for the treatments of heart diseases, problems of the availability of equipment need for immediate treatments under the emergency situation of a heart patient and the activation of the existing equipment were observed as per the following information of equipment available in the cardiology unit.

Name of Equipment	Required quantity	Available quantity	shortage
Echocardiogram machine	03	02	01
Holter monitor	04	0	04
24th ABPM Monitor	04	0	04
Defibrillator	03	01	02
Exercise ECG machine	05	03	02
02 regulators	12	02	10

(v) Any holter monitors to check heard function of Heart patients are not available in the cardiology unit and it was observed in terms of information obtained from the hospital that 4 such holter monitors are required.

(vi) Heart patients in Gampaha district come to the North Colombo Teaching Hospital and emergency heart patients are directed to this hospital from rural hospitals within the Western Province. The matters were observed about the existence of a waiting list to get the facilities in the catheterization theaters in Colombo National Hospital to do emergency treatments to such patients and non availability of other facilities require for treatments to patients admitted to the hospital due to heart diseases. As a result, the considerable numbers of patients die or become inconvenient. Accordingly, giving a catheterization theater to the North Colombo Teaching Hospital is a matter of priority but attention in this regard had not been paid.

(vii) According to the data gathered by the specialist cardiologist in the North Colombo Teaching Hospital during the period 2017 to 2020 it was identified that the preparation of necessary facilities to an emergency heart patient to transfer to the National Hospital from the North Colombo Teaching Hospital

will take at least a minimum time of 45 minutes. It is practically difficult to take a patient to the National Hospital from the Teaching Hospital and to provide facilities require for the operation to be done in the National Hospital within a balance period of 45 minutes. Medicinally a heart patient needs to be operated within 90 minutes. Since such operation facilities are not available in the North Colombo Teaching Hospital it was observed that the supply of cath lab facilities to this Hospital is an essential matter.

(c) Gampaha District General Hospital

According to the Medical Statistics data of 2018, out of 9 provinces in Sri Lanka more than 28 percent of the total population inhabits in the Western Province and approximately a similar population of Colombo district inhabits in the Gamapaha district as per details bellow.

District	Population ('000)	Population distribution percentage	No.of persons live per population density of one square km
Colombo	2439	11.3	3608
Gamapaha	2409	11.1	1796
Kalutara	1281	5.9	813
Western Province	6129	28.3	695

A heart disease ward had been put up in April 2020 in the Cardiology Unit of the Gampaha District General Hospital on a private donation and the observations on this unit are given below.

(i) The existence of 7 beds in ward No 19 for the treatment of patients, the facility to supply oxygen to patients is a basis need and existence of difficulties in getting oxygen for needed patients without the wall oxygen facility etc. were observed.

(ii) Echo tests are effected on Monday, Wednesday and Friday of the week, about 40 patients are directed daily for testing and 7494 , 7299 and 5299 tests had been effected during the years 2018,2019 and 2020 respectively. Even though 2 Echo Cardiograms are required only one is available and as such it had hindered to an efficient service.

(iii) Patients between 8 to 10 are daily referred for exercise ECG tests. The exercise ECG machine available in the Cardiology unit had been purchased in the year 2017. Since it had been inoperative from time to time about 2 to 3 months the waiting list available for exercise ECG tests is extended, being distressed the patients.

Even though 2 exercise ECG machines are needed for the cardiology unit, it had only one machine by March 2020. There for an efficient service could not be provided to cardiac patients.

(iv) Even though request had been made in the year 2016 to supply the 24th Holter Monitor to check the patient heart beat rhythm throughout 24 hours and the 24th ABPM monitor machines needed for the cardiology unit they have not been supplied even up to May 2021.

(v) Since there was a shortage of following physical resources for the cardiology unit and the cardiac ward patients care services could not be efficiently carried out. It was unable to determine the time period when the shortages of all these items arisen. Details appear below.

Name of equipment	**Required quantity**	**Available quantity**	**Shortage quantity**	**Period of shortage**
Multipara Monitors	15	10	05	
24th Halter Monitors	01	0	01	2016
2D Echo machine with Trans Oesophayrel probe	01	0	01	
CPAP Machine	02	0	02	
Bi-PAD Machine	02	0	02	
Ventilators (Adults)	02	01	01	
Defibrillator	04	02	02	2016
Syringe Pump	20	10	10	
Pulse oxy meter	03	01	02	
Infusion Pump	10	05	05	
ECG Recorder	02	-	02	
Digital Recording /Unit for Halter Monitor	01	0	01	
02 Cylinders	10	04	06	2016

(vi) The Cardiac Care Unit (CCU) belongs to the cardiology unit is located in separate premises, distant from the cardiology unit and the physical verification observed that it had 7 beds. Since there is no proper secured way to bring patients to the CCU difficulties exist to bring the patients for echo tests and ambulance vehicles have to be always used to sent the patients to CCU from wards

(vii) The following table disclosed the hospitalization due to coronary diseases. Accordingly, it was observed that reporting patients between the ages of 30 to 60 years (persons contribute to the labor force of the country) during the past 4 years had ranged from 29 to 76 percent.

	2018				2019				2020			
	30-60 years	**others**	**Total**	**31-60 years (%)**	**30-60 years**	**others**	**Total**	**31-60 years (%)**	**30-60 years**	**others**	**Total**	**31-60 years (%)**
MI	414	652	1066	39	309	763	1072	29	326	788	1144	29.3
IHD	246	311	557	44	247	335	582	42.4	182	296	478	73.8
Unstable Angina	54	73	127	43	86	62	148	58	62	19	81	76.5

Accordingly, since the relevant age group is important persons join with the labour contribution of the country, their inactivity creates the background to meet varied social and economic problems.

(viii) According to the population density, it was observed that the improvement of the 'Cath Lab' facility requires for immediate treatments to patients of the above age group who provides more contributions to the work force in this district with high population is very essential. Angiogram tests and stenting replacement need to be done for further treatments on complications caused due to myocardial infarction, ischemic heart diseases and unstable angina diseases condition of people live in Gampaha District. Since such facilities are not available in the Hospital those patients have to be transferred to the cardiology unit of the Colombo National Hospital. It can also be done only there is room in that unit, as disclosed at the discussions held with medical officers.. Under these circumstances, it was observed that lives of patients will make uncertain.

(ix) A patient admitted to the cardiology ward of the hospital on 20 September due to a heart attack had to be waited in the waiting list in the Colombo National Hospital, awaiting angiogram tests, since the non-availability of cath lab facilities in the Gampaha District Hospital. The medical reports observed that he had been attacked unstable angina again on 14 September 2020. If the hospital had the ability to treat at the first attack itself the patient could be able to spent more life time with good health, as stated by the specialists at the discussions held with them.

(x) Putting up a Cardiac Catheterization Theatre

A separate unit made with a specific standard for the installation of a cath lab machine within the hospital premises existed since 2000 and the physical verification observed that the radiant protection, air condition and electric circuits had been made as specified. Even though requests in 2 instances had been made for a cath lab machine as revealed in terms of information received to audit, action had not been taken to full fill the requirement even up to 26 March 2021, the date of audit.

Furthermore, a cardiology specialist is in the service of the cardiology unit for a period of a about 12 years but the purchase and installation a cath lab machine for angiogram tests and to provide stent placement facilities and 2 D Echo machine had not been effected even by the date of audit.

(xi) According by it was observed that by providing catheterization theater facilities in this hospital situated in a district with much population density many patients can be able to get the opportunity incline quick treatments without waiting for a long period in the waiting lists. According to the availability critical patients require such treatments had to be transported to the Colombo National Hospital. Transfer of heart patients is not suitable under the heavy traffic congestion and other causes and such facilities in the Colombo National Hospital are also at a minimum level and therefore it can not be accepted that transferring patients as such is not the best alternative cause of action.

(xii) Information made available to state that cardiac clinics are conducted 2 days a week (Monday and Wednesday) since April 2020 and before that clinics were conducted only once a week particulars of participation for clinics are as follows.

year	**No.of heart disease clinics conducted**	**No.of patients participated**
2017	48	10,094
2018	50	13,288
2019	48	17,380
2020(Jan - June)	36	5,093

As stated above, even though a large number of patients participate in the clinics, nursing staff and minor staff and minor staff to maintain clinics separated and for only clinics themself are not available. Therefore the staff serve in the cardiac ward are used clinics as well and as such according to the information made available to audit the care services of the cardiac disease ward were obstructed.

(d) Kalutara General Hospital

The Kalutara District General Hospital which is a tertiary care center established in Kalutara District consists of a cardiac care unit (CCU) within the cardiology unit of the Kalutara District hospital, 2 cardiac wards a cardiac clinic and a recovery Unit. Two cardiology Specialists and 13 medical officers for the cardiology unit serve in the hospital and cardiac patients clinics are conducted in every Monday , Tuesday, Wednesday and Thursday in the week. About 50 to 100 patients are examined daily

and the following observations are made in respect of conducting clinics and treatment to patients.

(i) Since sufficient space in not available for conducting clinics about 6 medical officers examine the patients come for clinics in the echo room. It was also observed at the physical examination carried out on 05 April 2021 that sufficient waiting areas to retain the patients participated in the clinics.

(ii) Since stress echo and TOE tests are not effected within the cardiology unit, it was observed that 8,10 and 15 patients had to be directed to the Colombo National Hospital in the years 2018, 2019 and 2020 respectively for such tests. As matters discussed above it was observed that such transfers are impracticable.

(iii) According to the annual health statistics of 2018 in terms of Districts in Sri Lanka Kalutara District takes the 3rd place with highest population density of deaths within the hospitals exist in Kalutara District it was observed that ischemic heard disease stands at first place. It was observed that since the facilities are not available in the hospital to establish angiogram tests and stenting as medical treatments require to maintain normal living conditions of patients attacked by IHD and myocardial infaraction diseases, lives of such patients become critical.

(iv) Since the cath lab facilities for angiogram tests and for the location of stents in the blood tubes are not available even by the date of audit, it was revealed at the discussion held with officers that if room is available in the cardiology units of Colombo National Hospital and Karapitiya Teaching Hospital patients are transferred. .Data of such tranfers during the past few years are as follows.

Hospital to which patients were transferred	**2018**	**2019**	**2020**
No of patients transferred to Colombo National Hospital	15	20	175
No.of patients transferred to Karapitiya Teaching Hospital	12	12	03

(v) It was observed that the heart patients who do not get the opportunity to refer them to the Colombo National Hospital and the Karapitiya Teaching Hospital have to be directed to the cardiac clinics again after the treatments in the heart patients wards and as such the life of the patients is vulnerable, at a high level.. Accordingly it is observed that cath lab facilities for the Kalutara General Hospital for treatments are rigidly required.

(vi) At the physical observation carried out on 05 April 2021 observed that the construction works of infrastructure facilities for the establishment of proposed Cath labs within the Kalutra General Hospital had been completed. Evan though the equipment for the heart catheterization theater had been ordered by the Ministry of Health such equipment was not received even up to 05th April 2021 the date of audit. Therefore, even the specialist medical staff and the infrastructure facilities are completed, critical patients had continuously to be waited in the angiogram and stent placement waiting lists. Information received to audit observed that 251 patients have been registered for angiogram and stent placements as at 31 March 2021.

(e) Colombo South Teaching Hospital

The Colombo South Teaching Hospital is the second biggest Hospital among the government Hospital in Sri Lanka. It provides services to about 150,000 indoor patients and about 75,000 outdoor patients. Many patients come to this Hospital for getting treatments. Out of them, persons come in expecting treatments for health diseases are specific persons. The following observations are made on the cardiology unit of the Colombo North Teaching Hospital.

(i) During the period of 2018-2020 statistical data on patients admitted to the cardiology unit of the Hospital due to heart attack and admissions of patients from internal wards to cardiology wards appear below of these patients, it is the opinion of the medicine in accorded with the data relevant to the patients left the hospital after being treated for diseases such as ST Elevation Myocardial infarction Non – ST Elevation unstable angina that they have heart catheterization requirement.

Description	2020		2019		2018	
	M	F	M	F	M	F
Patients admitted to the cardiac ward	160	121	283	231	271	196
Transfers from other medical wards	523	208	518	174	544	216
Transferred to other Hospital	21	17	17	07	13	08
S T E M I	242	53	218	38	208	39
N S T E M I	175	90	166	57	176	94
U A	35	17	33	30	59	35

(ii) In the consideration of reporting patients in terms of hospital data during the last 3 years it observed that as hospitalization of men due to heart attack had been comparatively at a high level. Since males give much contributions in the Labor force, more attention needs to be paid on them.

(iii) Even though the above patients are required to be directed to angiogram tests and stent placements, the Cath Lab facilities are not available in hospital therefore and as such patients leave the hospital after medicinal treatment and hospitalize again and again when they are diseased again and direction to clinics. Since the inability of doing angiogram tests and stent placement to such diseased persons require to improve their quality of life it was revealed at the discussions held with heart specialist that life of such patients may be vulnerable.

(iv) In order to establish a Cath lab machine for the provision of facilities require for angiogram tests and stenting to cardiac patients and related operations a catheterization theatre had been established in the 5th floor of the primary health conservation unit in the specialists wards and para medicine building still being constructed. The Ministry of Health operates the construction of this building. Among the observations made in this connection, the physical examination observed that due to sluggishness of the project, the achievement of construction objective is delayed and the construction works of the floor where Catheterization Theater is put up is still not completed.

Heart Catheterization Theater being put up over a period of 10 years.

(v) According to the information made available to audit the construction work of this building had been commenced on 14th August 2006 and to be completed by 19th May 2008 but the contract period had been extended 12 occasions. Since the constructor had delayed the construction work this contract had been terminated and the tender for the balance works had been awarded to the state engineering corporation in March 2014 and the completion date of contract was 18th June 2018. Constriction period had been extended on 27 May 2019 and 20 April 2021 but the physical verification observed that construction of the project had not been completed even by 01 April 2021.

(vi) Even though infrastructure facilities are being build for the establishment of catheterization theatre facilities in the hospital premises, it was observed as per the letter No. HP/DDP/01/2021 of June 2021 that provision for the purchase of a Cath lab machine is not available in the procurement unit of the ministry of health. Accordingly, it can be observed that the priority in obtaining the plant and equipment requires for a catheterization theatre to the hospital had not been identified in accordance with the significance of the treatment.

(vii) Since the cardiac catheterization facility is not available in the hospital, before transferring the patients to the cardiology unit of the Colombo National Hospital for angiogram tests and stenting treatment, the patients have to be left out of the hospital that became stable position from medication treatments.

(viii) Although a medical staff to incline the angiogram tests and stenting treatments is attached to the cardiology unit and the accommodation to install the Cath lab machine is available in the hospital it was observed that attention needs to be drawn to establish the other infrastructure facilities for the above Cath lab plant to treat patients who need specialized medical services.

(e) Karapitiya Teaching Hospital

The population density of the southern Province 485 persons in the year 2017 and 490 persons in the year 2018 per one square Kilometers and a lot of patients take treatment annually from this hospital as compared with other Districts.

diseases	Attendance in the year 2019		
	No of Clinics	First Coming	Subsequent Coming
Cardiac diseases clinic	95	4,620	20,953
Cardio Thoracic Clinic	149	1,242	9,161
Cardiac Electro Physiology Clinic	136	1,070	3,690

The following observations are made in this regard

(i) Only two wards separated for heart patients are available in the Karapitiya Teachings Hospital and a separate unit thereon had not been established.

(ii) Only 05 beds in the ward 8 beds in the ICU, 5 beds in the intermediary ICU are available. A cardiologist and only 2 cardiothoracic surgeons are attached to the cardiology unit and it was observed that since sufficient room is not available in the hospital, men and women wards are not separated and there for all patients have to be admitted to only one ward.

(iii) Daily patients' admission to the ward is approximately 120. Since only one catheterization theater is available in the Karapitiya Hospital which is the main Teaching Hospital in the Southern Province in addition to the Southern Province, patients in Kalutara District Uwe province and Sabaragamuwa used to come to this hospital even though proposals for the cardiac catheterization theatres are submitted to the ministry of health since 2018 it had delayed up to now. As a result, it was observed that about 3996 patients are in the waiting list and it would take about 2 years to get the opportunity for operation, after being registered.

(iv) In the examination of shortage of medical equipment even though the medical equipment valued at Rs.250.07 million for cardiology unit and the medical equipment valued at Rs.29 million for cardiothoracic unit had been requested they were not supplied even up to the date of audit. Annex 07

3.4.3 Diabetes

3.4.3.1 Hospitalizations and Deaths

(a) According to the annual health report of 2018 (A H B 2018) data on live discharges and deaths caused by this disease after being hospitalized due to diabetes relating to the years 2017 and 2018 is as follows.

2017		2018	
Live Discharges	**Deaths**	**Live Discharges**	**Deaths**
84,181	803	92,818	709

(b) As stated in the annual Health report of 2018 the number of patients hospitalized due to diabetes and the number of death caused by this disease during the period from 2011 to 2018 are given below.

Hospitalization

Year	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Hospitalizations Per 100,000 population	345.9	388.1	411.4	391.8	381.8	414.6	396.3	431.6

The above data observed an increasing trend with variations

Year	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Deaths Per 100,000 population	3.6	3.3	3.1	3.2	3.3	3.6	3.7	3.3

Except (Mullathivu District)

(c) According to the information of the Sri Lanka institute of policy studies out of causes of deaths in the world during the year 2015 diabetes become the 8th place and it is expected to increase this postion up to 5th place by the year 2030. According to the statistical data of the International Diabetes Federation (I D F) the prevalence of diabetes among adults is 8.5 percent. That is one person from 12 adults suffer from diabetes.

3.4.3.2 Readiness of Relevant Services for the Treatment of Diabetes

According to the services availability and readiness assessment survey report of 2017 carried out by the ministry of health, the availability of relevant services to identity and diagnose diabetes condition in 95 percent at national level and 97% in respect of Healthy Life Style Centers.

The followings further observations are made in terms of this report

(a) In testing blood for diabetes condition capillary blood testing method is mostly used and this method is available in every health facility of the country. However, the most reliable and correct method to measure the glucose level of blood is the venous blood test and the availability of this facility in the national level hospital is 58% according to the service availability readiness assessment report 2017(SARA) the available of this facility is 100% in the tertiary care hospital and it is only 39 percent in the regional level hospital.

(b) In the evaluation on the ready ness of supply of services in respect of diabetes by the Ministry Of Health 4 items had been based, comprising, the availability of guideline for diagnosis of diseases, identification of diabetes condition and the existence of a trained medical staff for diagnosis, blood sugar testing and the chemical analysis for the evaluation of venous blood glucose. According to the analysis report the completeness of all these items in respect of tertiary care services hospitals is 44 percent and the completeness of all these items in respect of secondary care services is only 27percent

3.4.3.3 Readiness of Services for the Management of Diabetes

In terms of the survey carried out by the ministry Of Health on service availability readiness assessment, 2017 in the Sri Lanka health system in respect of diagnosis of disease, readiness of feature such as treatments and management, guidelines on diabetes management, trammed staff, equipment diagnostics, drugs and commodities are considered.

The readiness of aspects considered there in is identified as follows.

(a) Diabetes management guidelines and training are 32 percent at national level and in the primary care units it is 60 percent

(b) The availability of chemical analyzers for venous blood glucose testing to diagnose diseases is 40 percent and the availability of protein tests and the urine dipstick is 35 percent, as stated in the information. This had caused the overall readiness of this position at national level had to be reduced up to 57 percent

(c) It was stated that the availability of drugs required for disease management had been at a high level 91 percent at national level and metformin and glibenclamide drugs are available almost all the hospitals. Accordingly, the availability of guidelines on the management of diabetes training and equipment needs for the diagnosis of disease had to be further improved as observed in audit.

3.4.3.4 Activities in the Multisectoral Action plan

Details are as follows

(a) Under activity No. 3.1.1 j in the multisectoral action plan, development of determinants is expected to conduct H b A I C tests in medical clinics under the increase of service facilities on management of diabetes, but according to the information obtained from the non-communicable diseases unit in respect of the progress of multisectoral plan such determinants had not been developed.

(b) In addition, guidance on diabetes management needs to be developed the relevant guidelines had been set only for the primary care health staff. According to the information obtained in audit from the non-communicable diseases unit it was observed that such guidelines had not been established for the tertiary level and above.

3.4.3.5 Holding Clinics

According to the annual health census data the number of turns of the diabetes patients participated in medical clinics in the year 2018 amounted to 29,844,925 of these participants the total number of turn's participated in diabetes clinics Colombo National Hospital Kalutara, Gampaha and Galle District hospital amounted 327,272. The particulars of patients participated in diabetes clinics in Colombo

National Hospital, Gampaha, Kalutara district hospital and Karapitiya Teaching Hospital, subjected to audit examination during the past few years are as follows.

Name of Hospital	2017		2018		2019	
	First registration	Total participant	First registration	Total participant	First registration	Total participant
National hospital	2226	71093	2971	77307	3505	77584
Gampaha district general hospital	161	7698	56	7877	31	6726
Kalutara district general hospital	207	3660	1040	7333	639	1170
Karapitaya teaching hospital					1113	15622

As mentioned above, it was observed in audit that even though a large number of patients participate in the clinics, under the following circumstances provision of efficient and effective service had been obstructed.

(a) Space In the Clinics

It was revealed that approximately 250 patients participate in the diabetes clinics in Colombo National Hospital daily and approximately 150 patients participate in the diabetes clinics hold in Gampaha and Kalutara General Hospitals daily this amount in the Karapitiya Teaching Hospital is nearly 100.However it was observed that the

space in the areas available at every clinic in these hospitals to be waited until their turn comes is insufficient. In remedying diabetes patients. medical researches recognized that through the patient education management function of the diseased condition can reach fair better results. Therefore, it is an essential matter in educating patients about diabetes. Nevertheless, it is observed that since there is no separate place to conduct presentations patients in Kalutara General Hospital it was very difficult to make each and every patient knowledge separately. This will abstract to maintain the functions of the diabetes clinic.

(b) Testing Equipment

Existence of relevant medical equipment in a clinic is essential to carry out patients tests efficiently and effectively but shortages of equipment in diabetes clinics in the hospitals subjected to audit examination were observed as follows.

Name of Hospital	**Name of Equipment**	**Purpose**	**Deficit as on 31.12.2020**
Colombo National Hospital	Weighing Scale	To measure to get BMI	01
	Stadiometers	To measure the height for BMI	01
	Biothesiometer	BMI	01
	Mini Doppler Machine	Foot test	01
	Silt Lamp	Eye test	01
	Snellen Chart	Eye visual test	01
	Ishihara Chart	Colour optical test	01
	Retinal Camera	Eye tests(Retinal)	01
	Refrigerator	Insulin storing	
Gampaha District General Hospital	Glucometer weighing scale	Blood sugar testing Measuring Weight	Information not given
Kalutara District General Hospital	Digital blood pressure meter	Measurement of Blood pressure	04

These are not the instruments require large amount of financial provisions but it was observed that the significant of then is not correctly identified.

(c) Testing Facilities

(i) Special attention needs to be paid in respect of the protection of two feet to prevent infection. Medicinally Recognized that rising blood sugar level of a person suffering from diabetes may cause to damage nerves of feet resulting that it may arise peripheral neuropathy condition and it feeble circulation infected feet it weakens the recovery opportunity and also it will cause to alienate the sense of feet of the patient. Therefore, it is very important factor to check the feet of diabetes patients. However, it was observed in terms of information obtained in audit that there is no place in the Kalutara District General Hospital to check the feet of diabetes patients participate in the clinics. This had been established even when we discussed with the relevant officers.

(ii) Since the unavailability of facilities to carry out Lapid Profile and U M A (urine micro albumin) tests effected to diabetes patients participate in the diabetes clinic, it was observed the patients had to get these tests done through a private sector being spending an additional cost

(d) Human Resource

Physical resources as well as human resources are similarly important to effect patients tests efficiently and effectively. However out of the hospitals subjected to audit existence of a shortage in human resources in the diabetes clinic of certain hospitals observed, as per details below.

Kalutara General Hospital

Cadre	Approved Cadre as at 31.12.2020	Actual Cadre as at 31.12.2020	No. of vacancies
Specialists	01	01	0
Medical officers	06	03	03
Nursing staff	02	01	01
Assisted staff	04	03	01
Karapitiya Teaching hospital			
Nursing staff	03	02	01

Are the testing of patients affected efficiently by retaining period of patient can be minimized, However it was observed in audit that the existence of shortages of equipment as mentioned above death. Health staff had caused to increase the waiting period of a patient until his turn comes.

(e) Availability of Drugs for Diabetes Clinics

In terms of information obtained in audit relating to the diabetes clinics in the Colombo National Hospital Gampaha District General Hospital, Kalutara Teaching Hospital subjected to audit attention the shortages of the following drugs in the clinics, during the stated periods are observed.

Name of Hospital		Name Drug	Shortage Period	Shortage Days	Shortage Quantity
National Hospital Colombo		Tablet gliclazide 80mg	01.06.2019 01.07.2019 (out of stock at MSD)	24 days	178,000 tablets
		Tablet gliclazide 40mg	01.07.2019 13.07.2019	13 days	740,000 tablets
			29.10.2019 04.11.2019	07 days	
		Inj. isophane Insulin	24.07.2019 06.12.2019	More than 4 months	535 vials
		Inj. soluble Insulin	21.10.2019 06.12.2019	5 weeks	1020 vials
Gampaha General Hospital		Sitagliptin	Not stated	One month (2019)	
		Gliclazide	Not stated	One month (2019)	
Kalutara General Hospital		Sitagliptin	From August 2020 to February 2021	About 6 months	15,000
Karapitiya Teaching Hospital		Lantus Insulin (For type of diabetic children)			

3.4.4 Respiratory Disease

3.4.4.1 Patients and Deaths

As stated in the advisory guidelines on chronic respiratory disease management, bronchial asthma, COPD (interstitial) bronchiectasis malignancies and occupational lung disease come under the chronic respiratory diseases of the chronic respiratory diseases asthma and pulmonary impediment disease are globally high risky diseases as stated in the estimates of global burden of disease in 2015. Due to asthma 348 million were diseased and due to pulmonary impediment disease 174 million were diseased.

According to the annual health statistical data in 2018 in Sri Lanka, out of the patients admitted to government hospitals during the year 2018, 175,365 patients and 43,287 patients admitted due to asthma and pulmonary impediment disease respectively had lively left the hospital and 1327 patients and 572 patients had died of asthma and pulmonary impediment disease respectively as reported.

An improvement of morbidity and mortality in respect of respiratory diseases was observed in the past 9 years

Information on morbidity and mortality cause by diseases in respiratory system during the period from 2010 to 2018 is as follows

year	Morbidity Per100000 population	Mortality Per100000 population
2010	2873.7	24.1
2011	2709.7	23.1
2012	2892.7	25.2
2013	2939.3	28.1
2014	2847	30.1
2015	3028.4	35.3
2016	2513.2	30.0
2017	2935.2	39.6
2018	2939	40.6

Source : Medical Census Unit – Annual Health Census -2018

Death of patients and become handicapped chronic respiratory diseases influence the good mentality and physical existence of the patient as well as his family and it may create huge economic and social burden. Therefore, health facilities availability on non-communicable chronic respiratory disease management is very important.

3.4.4.2 Multisectoral Action Plan for the Prevention and Control of Non-Communicable Diseases 2016 -2020

In the national multisectoral action plan for the prevention and control of non-communicable diseases, asthma, lungs diseases, respiratory allergy infected with lungs diseases due to vocational causation and lungs high blood pressure come under the chronic respiratory diseases in the national policy are included. The following observations are made in respect of management of screening, diagnosis and chronic respiratory diseases in the multisectoral action plan (2016-2020).

(a) Screening and Management of Asthma Chronic Pulmonary Impediment Diseases.

In order to improve the services training of teachers and students have been planned in the years 2016 and 2017 require for screening school students and employees in their service places for chronic respiratory diseases and management and diagnosis of asthma within the school. However, attention of the non-communicable disease's unit and the NPTCCD was not drawn on the performance there in even by 15.08.2020 the date of audit. According to the information made available to audit, patients inclined to chest clinics were made aware as day activity.

(b) Improvement of Services for the Management of Chronic Respiratory Diseases.

(i) Introduction of self-managements plans for CRD had been planned in the year 2016 and it was stated that certain specialist medical officer in the medical clinics and chest clinics are given for the self-management plan for chronic respiratory diseases patients. Accordingly, it was observed in audit that there is no formal methodology to introduce self-management plans for CRD.

(ii) Even though it was proposed to improve the knowledge of using inhaler by asthma patients a specific program had not been prepared therefor. According to the reply sent by the unit tuberculosis and chest diseases national program it was informed that patients participate in the normal medical clinics and respiratory diseases clinics are made aware about the inhaler techniques. In terms of the SARA repot of 2017,the training ability of using inhaler in the health institutions in Sri Lanka had been at a low level as 25%.

(c) Improvement of Availability of Existing Equipment for the Diagnosis and Evaluation of Respiratory Disease

In the multisectoral plan it was anticipated to improve the availability of peak flow meters, pulse oximeters and spirometers during the year 2016 and according to the service availability and readiness assessment of Sri Lanka (SARA)report issued by the Ministry of Health in the year 2017 the following matters were observed in respect of overall readiness score of trained staff on guidelines for the supply of services to chronic pulmonary in pediment disease, equipment drugs and commodities.

(i) The overall readiness score of the provision of above services in the secondary care hospital is 83% and this score in the tertiary care hospitals stood as high as 91%. According to the information made available to audit need of a new computer was observed old pulmonary furcation test machine, negative pressure air filtering system, and anti-bacterial filters for lungs function tests in the Welisara National Hospital for respiratory diseases.

(ii) Under the national program anti-tuberculosis and chest diseases, Gampaha and Colombo chest clinics are administered. According to the information made available to audit it was stated that the following items f equipment are insufficient in the Colombo chest clinic to check the lungs functions of the respiratory patients

- Peak flow meters
- Pulse oximeter
- D L C O gas cylinders
- Ink bottles
- Bacterial viral filters
- C O S M E D PFT machines turbine
- Exhaled breath nitro-oxide assessment

Even according to the SARA report in 2017 it was stated that under the general clinics, the readiness score within the TB clinics for peak flow meters is 44% and the availability of spirometers, peak meters and spacer devices had been comparatively at a low level.

(iii) Conduction community based outpatient pulmonary rehabilitation program had been recognized as management principles and therapeutic options as stated in the guidelines on chronic respiratory diseases management for primary health service since sufficient equipment and staff are not available in the hospital to conduct rehabilitation programs for respiratory patients, the ability to conduct physiotherapy exercises for patients had existed at a low level. According to the information made available to audit observer that non availability of equipment to conduct pulmonary rehabilitation programs in the Kalutara General Hospital and the following items of equipment included in the annual procurements of the Welisara National Hospital for respiratory diseases are required.

Item of Equipment	**Required Quantity**	**Available Quantity**
Multifunction Electrical Postural Drainage beds	03	00
Multipara Monitor	03	00
Treadmill	01	00

3.4.4.3 Availability and Distribution of Drugs for the Management of Respiratory Diseases

Details are as follows

(a) According to the SARA report of 2017 the readiness score for commodities existed at high level as 88%, it was stated that inhalers like salmeterol, fluticasone, budesonide/ formetrol etc. Were available in few Health Institutions According to the information called for by audit in February 2021, even in the tertiary health care hospital shortage of certain drags had been identified. The following varieties of inhalers in the Welisara National Hospital for respiratory disease were cooking during the period 2017 to 2019 as shown in the under mentioned table.

Kind of Drugs	Period of shortage	Action taken on shortage
Budesonide Respiratory solution	June - December 2017	Locally purchased
Ipratropium Respiratory solution 15ml	March – April 2018	Used substitute drugs
Ipratropium Respiratory solution 15ml	June - November 2018	Locally purchased
Salbutamol Respiratory solution	November – December 2019	On the medical recommendation instead of
Budesonide ipratropium Respiratory solution	November 2019	This medicine, sucking capsule of the same medicine are given to patients. Instructions are given
Beclomethasone MDI-250mg	November 2019	to patients who can not use sucking capsule to purchase the drugs out side
Fluticasone salmeterol MDI -125mg	February -2019	
Desloratidine Tablets	April – May 2019	Use substituted drugs
Montelukeast Tablets	January o March 2019 September 2019	Instructed to purchase this medicine outside

(b) It was observed that short expired medicine and inhalers and excesses of non-moving drugs were a available in the Kalutara General Hospital (Annex - 08)

The Medical supplies Division were made aware on 25th January 2021 to take action to distribute such medicine and inhalers again among other medical institutions on their requirement. Despite, the position s such shortage of the following kinds of inhaler in the Kalutara chest clinic, controlled by the Western Provincial council during the period from June 2020 to August 2020 existed and medicinal capsules had been issued to the patients instead. The audit observed that an appropriate methodology is needed to exchange shortage excess of drugs among the health Institution hearing being formally communicated.

Kind of drug	Shortage Period	Action taken for shortage
Salmeterol Fluticasone M.D.I -250mcg	From 12 June 2020 to 10 August 2020	Issue of medicinal capsules
Salbutamol (M.D.I)100mcg	July 2020 to 11 August 2020	Issue of medicinal capsules

(c) Even though patient participations had been reported as depicted in the following table for respiratory clinics in the Covid- 19 pandemic medicine had been issued to patients registered in the clinics during the months of April May and November by post or other methods for 469 patients.

Year	2017	2018	2019
First attendance	601	526	489
Second attendance	8636	7555	7034

(d) Information made available to audit observed that in the chest clinic maintains within the Kalutara General Hospital controlled by the Western Provincial Council the following medicine had remained in excess during the period of one year and issued to patients slowly.

Name of drug	Period in excess
Clindamycin(300mg)	About 01 year
Ofloxacin (200mg)	About 01 year
Beclomethasone Nasal Spray	Issued Slowly
Fluticasone Nasal Spray	Issued Slowly
Beclomethasone MDI (250mg)	Issued Slowly

(e) Shortages of medicaments and inhaler in the Colombo chest clinic during the period 2017 to 2019 are shown in the following table. As a result it was observed that there are obstructions to provide an officiate service in treating the patients.

Name of medicament	Shortage
MDI- ipratropium	2017
Co-trimoxazole	
voriconazole	
Pirfenidone	2018
Voriconazole	
Mycophenolate Mofetil (MMF)	
Pirfenidone	
Alendronate	
Tranaxemic acid	
Voriconazole	
MMF	
Desloratadine	2019
Pirfenidone	
MDI fluzal	
MDI beclamethazone	
Ciprofloxacillin	
Caco3	
Alendronate	
Lactulose	
INAH 300mg	
Tiotropium bromide	

(f) Even though the professional colleges had proposed to make methodology for pheeeumococcal and influenza vaccination for patients with chronic pulmonary impediment disease and to direct such patients for treatments in the year 2017 within the multisectoral plan a sufficient attention in this regard had not been paid. Even in the guidelines on management of chronic respiratory disease stated that pneumococcal influenza and immunoprophy lactic had to be given to continually aggravated neutral and serious diseased persons. Audit observed that through the analysis of advantages of vaccination, risks and cost, the efficiency economy to that vaccination programs and through the identification of impact on the health expenses attention needs to be drawn to incline the vaccination programs.

3.4.4.4 Palliative Care Services

For the establishment of community bused pain relies care services for the patients in the final stage of chronic pulmonary circulation diseases in Sri Lanka, haring being stated the responsibility to the professional college's activities had been proposed but the community based pain relief care service had not been established even as at 31 December 2020, the date of audit. According to the information mode available to audit it was stated that the hospital-based pain relief care service Clinic is conducted by the Colombo Central Chest Clinic once a week and the management, Breath Lessens management prescribing home oxygen from out readiness report of 2017 of the Ministry of Health the Pulmonary rehabilitation services are provided. It was also stated the requirement a pain relief care unit consisting of relevant staff and equipment in order to provide a maximum service to patients.

3.4.4.5Training of Health Staff Related to Chronic Respiratory Diseases

(a) It was planned to design training modules subject to the responsibility of the National program on unit tuberculosis and chest diseases and the professional colleges to conduct training programs for health staff related to chronic training programs for health staff related to chronic respiratory diseases. However, according to the information made available to audit, such training modules had not been prepared for chronic respiratory diseases.

(b) Even according to the service availability and readiness score for guidelines and trained staff in the national level hospital for the pulmonary circulation's disease management is at a low level as 25 percent and the readiness score for guidelines and trained staff in the tertiary care hospital, secondary care hospital and the primary care units had been at low level as 67 percent, 32 percent and 15 percent respectively

3.4.4.6 Availability of Data on Respiratory Diseases

For the purpose of improving the availability of data on chronic respiratory diseases the responsibility for the establishment of a standard data filing system or respiratory patients and to improve the data gathering system is assigned to the NPTCCD and the non-communicable diseases Unit in the years 2017 and 2018. However it was

revealed that sufficient data on chronic respiration diseases were not available at national level.

It was stated that a formal data system for the registration of respiratory patients, investigation of diseases and analysis of date to be introduced even though the HIMS system is available for the registration of patients in the Welisara National Hospital for respiratory diseases and the Colombo Central chest clinic.

According to the information made available to audit observed that a data system, including the particulars of registered patients for respiratory disease is not available even in the Kalutara General Hospital.

3.4.4.7 Participations in the Respiratory Disease's Clinics

Details appear below

Year	Kalutara General Hospital		Colombo central chest clinic		Welisara National Hospital for respiratory Diseases Specialist Medical Clinic		Asthma clinic	
	First	Second	First	Second	First	Second	First	Second
2017	601	8,636	35,507	Information Not furnished	4,992	31,192	963	14,310
2018	526	7,555	40,787		4,706	31,169	448	15,888
2019	489	7,034	43,119		3,883	29,055	283	18,708

According to the information made available to audit on the participations in the respiratory diseases clinics a formal appointment system had not been introduced to prevent the severe congestion available in the clinics of the Kalutara General Hospital and the National Hospital for respiratory diseases but one period of time had been allocated to one group of patients for clinics being conducted under the specialist medical officers.

3.4.4.8 Awareness Programs

Holding awareness programs are essential on exterior and domestic air pollution which is a risk factor for chronic respiratory diseases within the Western Province including Colombo district which effects more air pollution Nevertheless, such awareness programs have not been Conducted in the years 2017, 2018 and 2019 in the Welisara National Hospital respiratory diseases Colombo Central chest clinic

Kalutara chest clinic situated within the western province and anti-tuberculosis and the national program on chest diseases.

3.4.4.9 Respiratory Diseases Unit of the Karapitiya Teaching Hospital

Matter revealed at the discussion held with the medical staff of the respiratory disease's unit of the Karapitiya Teaching Hospital. The respiratory diseases unit of the Karapitiya Teaching Hospital is controlled by two specialist medical officers and 36 adult's clinics and 111 children's clinics had been held during the year 2019.It was observed that the first attendance of 13,226 patients and the subsequent attendance of 2141 patients had been examined as per details below.

Adult's clinics	**Male**	**Female**	**Total**
First attendant	644	800	1,444
Subsequent attendance	4,277	7,505	11,782
Total	4,921	8,305	13,226
Children Clinics			
First attendant	257	149	406
Subsequent attendance	864	871	1,735
Total	1,121	1,020	2,141

The following tests of 5844 patients had been carried out in the year 2019 in the respiratory Diseases unit.

Test Item	**Number of patients**
Sputum AFB TB Suspect Pts	2,089
MantruxTest	1,123
Diagnosed Treatment	0
Direct observation treatment	23
Idiopathy Lungs disease clinic	256
Lungs functions test -Adults	1,565
- Child	521
D L C O test	257
Total	**5,844**

According to the information made available by the medical staff of the respiratory diseases unit at the physical examination carried at 31 August 2020, the following matters were observed.

(i) Since there was permanent building, it was operated in a closed building pre pared for the laundry.

(ii) Since there was no place to wait, he patients they are using the corrido and in take samples are also taken in the corrido.

(iii) No place is available to check patients it has done in the place where medical offices are working (Main room) as observed.

(iv) IT was observed that it was unable to give practical instructions to patients in a small room about have to use inhalers.

(v) It was observed that no sanitary facilities were available to medical staff as well as patients.

(vi) Since there is no places to nebulize patients it was observed that it is done in the corridor it self

(vii) There is no place or lecture hall for trainee medical student's facilities to examine patients.

(viii) Since there was no cough are patients do it out doors and as such it will be an obstruction to health protection.

(ix) There was luck of space to park the vehicles of medical staff and others and other common space

(x) Walls of this building were cracked and erupted and as such it was an unsafely place.

(xi) Since non availability of drugs counter for the respiratory unit patients have to wait in long queues for a long time in the main dispensary of the hospital.

(xii) Since the bed cards are daily referred to the clinic of the respiratory unit for specialists' advice of respiratory patients in all hospital wards, specialists and medical officers have to go to such wards daily to check the patients and ass such unnecessary time and labor has to be spent and delayed the meeting of clinical patients.

(xiii) Since facilities to carry out certain tests are not available, patients had to be sent to the welisara chest Hospital. accordingly in providing treatment services for cordial diseases. diabetes and respiratory diseases on which attention was paid in our audit, the medical officers and other health staff had attempted to provide the maximum service having being utilized the existing resources but it is observed that the available resources to maintain such services efficiently and effectively had become an obstructive factor.

3.5 General Observations

3.5.1 Supply Medicaments

Particulars of estimated expenditure and actual expenditure surgical medicine and laboratory material require for non-communicable diseases in the years 2019 and 2018 upper below.

Year	Estimated expenditure Rs. Mn	Actual expenditure Rs. Mn
2017	2,002	1,991
2018	2,142	2,209

(a) Medical Supplies Division

Audit test check revealed that few medicines stated in the essential medicament register for non-communicable diseases and purchased during the period 2016 to 2020, quality failures of 09 kinds of medicines were revealed during the period from 2016 to 2019.

Name of medicine	Year	Circular No
Adrenaline Tartrate 0.1/injection	2016	P - 01/03/2016
	2016	P – 16(A/24(A)2016)
Gliclazide Tablet 80mg	2016	P – 16/24/2016
Adrenaline Tartrate 0.1/injection	2018	P – 50/73/2018
		P – 18/30/2018
Atorvastatin Tablet 10mg	2018	P – 13/23/2018
		P – 02/02/2018
Hydrochlorothiazide Tablet 25mg	2018	P – 26/40/2018

		P – 26/40/2018
Hydrocortisone Hemi Succinate injection 100mg	2018	P – 57/83/2018 P –16/27/2018
Gliclazide tablet 80 mg	2018	P – 46/66/2018
Frusemide injection 20mg/2ml	2019	P – 24/35/2019 P – 12/21/2019 P – 08/16/2019
Metformin tablet 500mg	2019	MSD/Q/P/2019/40
Hydrocortisone Hemi Succinate injection100 mg	2019	P – 49/69/2017 P – 13/20/2017 P – 08/13/2017

Attention of the officers responsible had not been drawn in this connection.

(b) Galle Regional Medical Supplies Division

According to the stock record of the Galle regional medical clinic division as at 20th August 2020 the quantities of medicine available for non-communicable diseases are as follows. the following observation are made in the regard.

Code No	Item	Qty an hand
501502	Adrenaline bitartrate injection 1mg/1ml	2,378
205404	Aspirin enteric coated tablet 75mg	1140
201001	Atenolol tablet 50mg	5000
206501	Atorvastatin tablet 10mg	1,130,000
501301	Chlorpheniramine maleate tablet 4mg	2,677,000
202601	Enalapril maleate tablet 5mg	935,000
200302	Furosemide (furosemide)injection 20mg/2ml	13,231
200301	Furosemide (furosemide)tablet 40mg	127,000
203001	Glyceryl trinitrate tablet 0.5mg	108,600
200201	Hydrochlorothiazide tablet 25mg	88,000
701503	Hydrocortisone Hemi Succinate injection 100mg	315
700401	Metformin tablet 500mg	685,000
303501	Nifedipine table 20mg S.R	25,000
500109	Salbutamol resp. sda 0.5% 15mg	241
500101	Salbutamol tablet	1,818,000
500501	Theophylline SR 1ml,5ml	574,000

(i) 200,000 quantity of enalapril maleate tablet 5 mg as at 31.01.2017(Code No.202 601) 600,000 quantity of metformin tablet 500mg as at 30.11.2018 (Code No 700401)were observed as expired.

(ii) Even though the Galle regional medicals supplies division had requested from the Colombo medical supplies division during the period from 01 January 2020 to 14th August 2020 any quantity whatsoever of 9882 bottles of salbutamol respiratory solution 0.5 percent in 10ml bottles were not received.

3.5.2 Researches

The secretary to the ministry of sports had explained the vice chancellors of all university by his letter dated 29.07.2020 that the avoidance of physical activities mainly causes non communicable diseases, Since the physical activities are important to prevent non communicable diseases and health promotion strategies in the society physical exercises can provide precious contribution to the prevention of non-communicable diseases.

However, the ministry of sports had requested from all universities by its letter dated 24.07.2020 in order to ensure that the risk of infecting non communicable diseases to a person who engages in physical activities is less than that of a person who does not involve in physical activities take part in researches. Nevertheless, relevant researches had not been carried out.

3.6 Monitoring of Non-Communicable Diseases Control Process

Regulation and evaluation functions are necessarily required to ensure whether any programmer is executed in an anticipated manner and if there are any deviations. What steps need to be taken to remedy such deviations. The followings observations are made on the monitoring process of the prevention and control of non-communicable diseases programmer.

3.6.1 National Council for Non-Communicable Diseases.

Details appear below.

(a) In view of the supply of required facilities for the implementation of multi sectorial Action Plan on non-communicable diseases, holding progress review meetings cessions holding permanent meetings for the co-ordination and supervisory. The National Council for non-communicable diseases has been established.

This council performs a prominent task for the implementation of Multi sectorial Action Plan effective by within the period of 05 years (2016-2020) and to review its progress had been established and its first meeting was held on 21 November 2017, after a lapse of nearly 02 years from the period of Action Plan. It was observed in audit that this position is bally effected for the effective implementation of the plan for the prevention and control of non-communicable diseases.

(b) There are more than 60 parties connected with the multi sectorial action plan for the non-communicable diseases and entrusted the responsibility of its functions. The Ministry of Health and units operated under the ministry, provincial Director of Health Service District Director of Health Service Ministry of Education, ministry of sports, National Authority on Tobacco and Alcohol, ministry of local Government are identified as institutions entrusted more responsibilities in the action plan. In the Examination of council meeting reports. It was observed that certain institutions, identified above which should perform main functions in respect of the prevention and control of non-communicable diseases had not participated in these committee meetings.it was observed that it will be an obstacle to get the effective decision making process and in order to get an understanding the progress of tasks to be performed by each unit and if any task shows a back ward progress, it will be an obstacle to get in to the correct track haring being taken remedial action.

(c) Even though one meeting in the year 2017 and two meetings in the year 2018 of the National Council for non-communicable diseases had been held, it was not observed that the Health Promotion Bureau, Family Health Bureau, NPTCCD divisions coming under the ministry of Health and the Provincial and District Directors of Health Services had not participated in these meetings. Even though these parties had participated in the council meetings since 2019 in order to conquer the objectives of

the prevention and control of non-communicable diseases it should be implemented under a collective endeavor. In the implementation of Multi sectorial Action Plan for the prevention and control of specially non-communicable diseases as provincial and regional wise the responsibility had been entrusted to the provincial and District Health non-communicable chronic diseases units, the participation of these parties had not received at the beginning itself had caused to implement the plan as expected, as observed in audit.

(d) According to the sufficient and strategic plan (2010) in the national policy on the prevention and control of non-communicable diseases, lack of sufficient physical exercises had recognized as a main risk factor for non-communicable diseases. In order to eliminate this risk factor, the national action plan on the prevention and control of non-communicable diseases had identified the promotion of physical activities and a main function in this regard had been instructed to the ministry of Local Government. However, the participation of this ministry in the meetings held during the years 2017 and 2018 was not observed and it was observed in audit such situations are obstructed to reach the objectives which should have been achieved with collective coordination between related institutions.

3.6.2 Steering Community on Non-Communicable Chronic Diseases. (NCD)

The steering committee on non-communicable diseases acts as the monitoring unit in the implementation of national policy on the prevention and control of non-communicable diseases. Its chairmanship bears the secretary to the ministry of Health and according to the policy statement, its membership consists of secretaries of the Ministries of Finance, Agriculture, City planning, Education, Justice, poverty alleviation and social services and other relevant Ministry secretaries, provincial secretary of Health, provincial Director of Health Services, relevant Deputy Director Generals Directors, representatives of professional bodies and community Health specialists attached to the non-communicable diseases unit.

According to the policy statement this committee needs to be met once in 04 months and the secretory to the ministry of Health is accountable for the implementation of the policy. This committee needs to perform the following functions.

(i) Supply of money for the implementation of the National Policy on non-communicable chronic diseases.
(ii) Approval of inter sectorial functions for the prevention and control of non-communicable chronic diseases as necessary and assisting them.
(iii) Evaluation of the effect on policy matter and giving instructions revise the national policy non-communicable chronic diseases as required.
(iv) Monitoring of the implementation of national policy on non-communicable chronic diseases through variant sectors and submission annual reports to parliament and the provincial councils.

The following observations are made in this connection

(a) Even though this committee is to meet at once in4 months for the discussion of the functions to be performed by the committee, only two meetings per year had been held in the years 2017, 2018 and 2019.

(b) In order to achieve the objectives stated in the national policy and connected strategic plan on the prevention and control of non-communicable diseases the contribution of all connected parties are similarly important.

As recognized above even though there are more than 20 public institutions bearing the membership of steering committee on non-communicable diseases and institution which should take action on the prevention and control of non-communicable diseases, except the various units of the ministry of Health Contribution for the meetings held and on 28 and 19 March 2019had giving only by the following institutions

Date of Meetings	Other institutions participated
05.01.2017	- Department of National Budget - Sports Medical Institute
28.04.2017	- Ministry of Justices - Ministry of Industries & Commerce - Sports Medical Institute
2018.02.12	Ministry of Education (Schell, health & nutrition)
2019.03.19	Ministry of Industries & commerce

Accordingly it was observed that the institutional representation expected by this committee in respect of monitoring process on the prevention and control of nan-communicable diseases was not adequately made.

(c) Similarly it was not observed that except the representatives of various unit s under the Ministry of Health any representative whatsoever in any of the public institutions had not participated in the meetings held on 12 October 2018and 08 August 2019.

(d) Building the platform to meet the ministry of Health and units under the ministry and other parties for the prevention and control of non-communicable diseases process, which an objective to be collectively succeeded with the participation of many parties in this steering committee and the national council for non-communicable diseases. nevertheless since the parties need to be participated in these meetings had not participated in those 02 occasions (specially in 2017 and 2018) and as such it is observed audit that this will cause an obstruction to the relevant purposes.

3.6.3 Multisectoral Plan for Non-Communicable Diseases

Among the anticipated targets to be reached in accordant with the multi sectorial action plan (2016-2020) the prevention and control of non-communicable diseases it was stated that premature deaths caused due to cerebellum vascular diseases, diabetes, cancer and chronic respiratory diseases need to be reduced by 25 percent by the year 2025. And according to the base data 2016 goals had been set to reduce the premature death rate of 17.6 percent due to non-communicable diseases (WHO 2012 estimate) by 10 percent by the year 2020.

However, according to the health data since the information was not arranged in the information system for the analysis of deaths caused non-communicable diseases in terms of age, there was no methodology to calculate a premature death rate.

3.6.4 Data System

The medical statistical Division of the ministry of Health takes the responsibility for the collection and supply of health data, and the following observations are made in inspect of the collection of such statistical data.

(a) In terms of annual health data even though there were 641 government Hospitals the year 2018 indoor morbidity and mortality return data could be obtained only from about 500 hospitals through the electronic data system (e/MMR) since non availability of computer and internet facilities, the relevant data of these hospitals could not be taken through the e/MMR and as such it was observed that attention needs to be paid in taking decisions on the completeness and accuracy of these data.

(b) Likewise, persons mobility data is available only in respect of residential patients and it was observed that such patients are also limited to those who were treated in the government Hospitals which provide western medical treatments. according information on mobility of ant patients is not included in the data and as such it was observed that it would be encumbered to get complete information on mobility and to take correct decision on the control of non-communicable diseases.

(c) Moreover, according to the information data available to audit by the medical statistical Division, in mobility data system one patient is repeatedly, hospitalized for a same diseases, and transferring patients, such patient is recorded as a new patient under this e/MMR system therefore the medical statistical data need to be interpreted by paying attention on this Limited factor.

(d) The indoor mobility and mortality return report includes mobility data out of the hospitalized patients in the government hospital. System but mobility data among the community without being hospitalized are not included in this data system. Since the non-inclusion of the details of ages of persons died in the hospital system in the data system non-updating the information according to the morbidity register of the Registrar office 80% of the Registrars of deaths in Sri Lanka are not in the medical profession and the reason for the death is determined by non-medical persons, the premature mortality rate as stated by the World Health Organization had not been determined, since are problems on the accuracy and quality in the system.

Accordingly since non-availability of sufficient intimation to identify the tendency in respect of premature mortality caused to non-communicable diseases, the progress of using financial provisions on primary, secondary and tertiary care services for non-communicable diseases in Sri Lanka, analysis of the successfulness of prevention of community from diseases and the review of the quality of making diseases by policy makers are not in a practical situation.

(e) According to the medical Health Data information about the case fatality rate, that is morbidity rate per 100 chases in the years 2014 to 2018 on diseases subject to the scope is as follows.

Disease	2016			2017			2018		
	Cases	**deaths**	**Case fatality rate**	**cases**	**deaths**	**Case fatality rate**	**cases**	**deaths**	**Case facility rate**
High blood pressure	98,437	649	0.7	92,163	643	0.7	101,536	637	0.6
Ischemic Heart diseases	114,609	6,041	5.3	117,250	6,649	5.7	136,685	7,409	5.4
pneumonia	22,116	2,738	12.4	25,777	3,856	15.0	26,681	3,842	14.4
asthma	166,935	529	0.3	172,262	630	0.4	175,937	572	0.3

According to the data for 3 years case fatality rate due to ischemic heart diseases had risen from 5.3 to 5.4 and due to pneumonia case fatality rate risen from 12.4 to 14.4. according to the age analysis since information on deaths is not used for the computation of case facility rate. Statistical data on deaths between the ages of 50 to 65 years could not be taken from the existing data system in the health service.

3.6.5 Clinical Audit

Carrying out a clinical audit was expected in the multi sectorial Action Plan in respect of the evaluation of the intervention of health system in the purpose of operation and evaluation. It was planned to carry out these clinical audit during the period from 2018-2020 and it was intended to examine the compliance with guidelines. However, in terms of information obtained from the non-communicable diseases unit in respect of its progress, it was stated that standards are being prepared for clinical audit in medical clinics and Suwaduri Centers, based on these standards action will be taken to carry out clinical audit. According it was observed in audit that a sufficient attention on clinical audit which is a very important task had not been drown.

4. Recommendations

4.1 Secretary – Ministry of Health

4.1.1 NCD Unit

(a) Being reviewed the national policy on the prevention and control of non-communicable diseases and the strategic plan, making required improvements.

(b) Joint all the parties for the progress review meetings in respect of the activation of the multi sectorial action plan and strengthen the coordination between responsible parties.

(c) Evaluation of the activation of instructions on colour cording system introduced for sugar, salt and fat.

(d) Take action to make aware of the people about the food guidelines.

4.1.2 Deputy Director General (Medical Services) Division – 01

Recommendations to improve the quality of services provided by the catheterization laboratories within the National Hospital.

(a) Supply of permanent echo machines for Cath Lab, ACT machines and sealer machines to required hospitals.

(b) Improvement of beds and other infrastructure facilities to patients participate in the catheterization surgeries.

(c) Establishment of ethylene oxide sterilization.

(d) Supply of sufficient number of stents generally used.

(e) Organization of Training Programs on specific catheterization procedures for senior registrars, nursing staff, heart beat testing machine operators and radiologists in respect of standard operating procedure for the use of main surgical instruments.

(f) Minimization of congestion of main hospitals, haring being improved clinical facilities in rural hospitals. Specialist medical service, medicaments and laboratory facilities by changing the attitude of community.

(g) Since the majority of the whole population in Sri Lanka is localized within the western province, priority needs to be given to complete the shortfalls exist in the cardiology units of the Colombo National Hospital, Kalutara General Hospital, Gampaha General Hospital, Ragama Teaching Hospital and Kalubowila Hospital. In order to reduce the severe congestion available in the cardiac clinics and, cardiac diseases units within the Colombo National Hospital and to provide care services to patients efficiently supply of physical facilities and other trained staff to other government hospitals in which socialist cardiologists hare been employed.

(h) Making a formal appointment system to improve the quality of services provide by Cath Labs.

4.1.3. Chest Hospital - Welisara

(a) Supply of required equipment, drugs and staff to the National Respiratory Hospital.

(b) Setting a formal data system for the collection of data analysis and to make decisions.

4.1.4 Environmental and Occupational Health Unit

(a) Taking steps to ban publicity of health in favorable foodstuffs and to prevent the school lagging children to use advertisements of unfavorable foodstuffs.

(b) Amendment to the regulations relating to the labeling propaganda to exhibited and executed.

(c) Setting a regulatory mechanism for complaints against advertisement of food and beverages.

4.1.5 Nutrition Division

Since the most efficient and strong medical to communicate massages to the people by present is the social media and the mass media improve to get the contribution of social media and mass media, in the people's awareness purposes about the disadvantage of non-healthy food.

4.1.6 Mental Health Unit

Conducting the alcohol prevalence survey within the specific period.

4.1.7 Healthy Life Style Centers (Non-Communicable Diseases Unit/Provincial Director of Health Services / Regional Director of Health Service.)

(a) Since there is no staff separated for Healthy Life Style Centers themselves other patients come for treatments from primary medical care units during the period of holding Healthy Life Style Centers become inconvenient. Therefore, action needs to be taken to allocate staff in the days holding Healthy Life Style Centers.

(b) Since the non-availability of strips require for cholesterol checking and glucometer strips for, testing blood sugar level continuous supply of required facilities and materials to prevent the stoppage of testing cholesterol and blood sugar level from time to time.

(c) In order to maintain the functions of the primary medical care units efficiently fraying of specific staff, and to fill all the vacancies of pharmacists. Public Health nursing officers, Laborers including other permanent staff.

(d) Since the non-availability of suitable area for physical exercises to take action to provide a suitable area for doing physical exercise and a specific time period for participants in Healthy Life Style Centers

(e) Since lesser awareness of the people about the Healthy Life Style Centers. Attendance to Healthy Life Style Centers is at a very unsatisfactory level and as such arrange a formal mythology to make aware of the functions carry out by Healthy Life Style Centers, to identify the risk of diseases early and the contributions of such centers.

(f) When persons come to Healthy Life Style Centers to obtain services are not diagnosed as patients the attendance very weak level and therefore, a mechanism for follow up them needs to be set.

(g) In order to communicable the data of Healthy Life Style Centers, a trained officer has to be appointed for the provision of normal telephone facilities and internet facilities, entering data relating to the PSS project

(h) Since many Healthy Life Style centers hold Healthy Life Style Centers only one day per week, that date is fixed during the period from Monday to Friday in the week and it is the time paralleled to the office time therefore the persons engage in employment are unable to participate in the clinics and as such necessary action needs to be taken hold clinics even in weekends.

(i) Having being prevented the shortage of medicaments in the primary care treatment units and central pharmacies where Healthy Life Style Centers are conducted in certain periods, continuous supply of medicine. Enabling the patient's medicine who come for clinics.

4.2 Chairman – National Authority on Tobacco Alcohol

(a) Establishment of atlases one acute in patient unit for each district, rehabilitation center in connection with Alcohol and active public and fitness unit at offices of the medical officer of Health level.

(b) Since the National Authority on Tobacco and Alcohol Act No 27 of 2006 does not lover social media and cross boarder advertising having being revised the Act,

necessary legal action needs to be taken to prevent publicity effected through such media.

(c) Being amended the manufacturing (special provision) Act relating to the administration functions to be formally vested to the Director General of Customs, further strengthen to mak raids on illegal tobacco product and keeping records thereon.

(d) Take step to ban the marketing of a " single cigarette" which is the most popular method of selling cigarettes.

(e) Formulation of a national policy on tobacco and implement it.

(f) Continuers implementation of awareness programs for all school students for the prevention of addicting for using tobacco alcohol by new users.

(g) Conducting community awareness programs about outturn of using tobacco and alcohol.

4.3. Secretary – Ministry of Agriculture

(a) Creating opportunities to get high quality carbonic fertilizer which can be used more easily for the promotion of the use of carbonic fertilizer for agricultural purposes.

(b) Strengthening the monitoring process required for the standard and use of pesticide on the recommendations in using chemical fertilizer and pesticide.

(c) Carrying ant cutaneous researches on the use and retribution to be used in agricultural purpose make awareness of research findings and to make background for the inclination on carbonic fertilizer.

(d) Make the people aware on good Agricultural practices (GAP) via media motivate thereon and provision of facilities to raise agriculture based on GAP.

(e) Foundation of a mechanism for the creation of a suitable market to sell their harvest receives from GAP program.

4.4. Secretary – Ministry of Finance

(a) Formulation of a tax recovery method for the recovery of tobacco tax.

(b) Impose taxes for the discourage of unhealthy foods in order to promote healthy foods, find the possibility of taking policy such as giving subsidies to encourage the consumption of vegetable and fruits.

(c) Design a performance evaluation methodology in making provisions to supply requirements identified in terms of priority.

(d) Since the prevention and control of non-communicable diseases is socially and economically very important, in the process of development of country, find the ability to make sufficient provisions in allocating required provisions.

4.5 Secretary – Ministry of Environment

Air Pollution

Passive samplers are used for testing air pollutants only in few cities in Sri Lanka and attention to be drown on the recommendation made in the Health impact assessment project report stating that passive sample network has to be broadened.

(a) Preparation of indoor air quality guidelines and make the people aware.

(b) Make aware of people about the adverse effect on air pollutions.

4.6 Secretary – Ministry of Education

(a) Strictly supervise to get the circular instructions implemented by school principals, issued in the engagement of school children in physical activate.

(b) Prohibition of sale of unhealthy foods in school canteens and the promotion of sale of healthy foods.

(c) In order to prevent school children from non-communicable diseases, inform through the circulars to get the awareness programs conducted along with the school education.

Sgd./W.P.C. Wickramaratne
Auditor General

W.P.C.Wickramarathne
Auditor General
27 April 2022

Annexures 01

Excise duty on cigarettes levied by the Sri Lanka Customs Department

	Name of Produsts	Length	The taxable price of a cigarette and the amount of tax levied as a percentage of the price													
			2016		2016.10.04		2016.11.01		2017		2018.08.01 සිට		2019.03.06 සිට		2020	
			Price	Tax %	Price	Tax %	Price	Tax %	Price	Tax %	Price	Tax%	Price	Tax%	Price	Tax %
1	Capston 20	Less than 60	11	7	20	10	20	10	20	10	20	10	25	12	25	12
2	Capston LEPP 20	Less than 60	11	7	20	10	20	10	20	10	20	10	25	12	25	12
3	Three Rose	Less than 60	11	7												
4	Bristol calssic	60-67													45	18
5	Bristol Gold	67-72	22	13	35	17	35	20	35	20	40	17	55	27	55	27
6	B&11 20	72-84	40	19	47	17	55	23	55	23	60	25	70	30	70	30
7	Dunhil 111	72-84	40	19	47	17	55	23	55	23	60	25	70	30	70	30
8	Dunhil 1	72-84	40	19	47	17	55	23	55	23	60	25	70	30	70	30
9	Dunhil swi20	72-84	40	19	47	17	55	23	55	23	60	25	70	30	70	30
10	Dunhil U L	72-84	40	19	47	17	55	23	55	23	60	25	70	30	70	30
11	DUNHILL SP	72-84	40	19	47	17	55	23	55	23	60	25	70	30	70	30
12	DUNHILL FP	72-84	40	19	47	17	55	23	55	23	60	25	70	30	70	30
13	John Player Gold Leaf 67	60-67													45	18
14	John Player Gold Leaf 12	72-84	35	19	42	17	50	23	50	23	55	25	65	30	65	30
15	John Player Gold Leaf 20 REGULAR	72-84	35	19	42	17	50	23	50	23	55	25	65	30	65	30
16	John Player Gold Leaf 20 CLICK	72-84	35	19	42	17	50	23	50	23	55	25	65	30	65	30
17	John Player Navy Cut20	67-72													55	30
18	John Player Navy Cut 5	67-72													55	30
19	SE 555 20	72-84													70	30
20	Shuang xi 20	72-84													70	30

Annexure 02

Issuing of distilleries and manufacturing licenses from the year 2016 up to 30.06.2020																				
District	Number of spirits licenses					Number of arrack factory licenses					Licenses of foreign breweries made locally					Total				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Colombo	1	1	1	1	1	6	6	6	6	6	2	2	2	2	2	9	9	9	9	9
Gampaha	1	2	2	2	2	5	7	7	7	7	2	4	4	5	5	8	13	13	14	14
Kalutara	4	4	4	4	3	4	5	5	5	5	1	3	3	5	5	9	12	12	14	13
Kandy			1				3	3	3	3	1	1	1	2	2	1	4	5	5	5
Matale																				
Nuwara Eliya																				
Galle																				
Matara													2					2		
Hambantota																				
Jaffna	2	2	3	3	2	2	2	3	3	2						4	4	6	6	4
Mannar																				
Vavuniya																				
Kilinochchi																				
Batticaloa																				
Ampara		1	1	1	1												1	1	1	1
Trinco																				
Kurunegala	1	1	1	1	1		1	1	1	1				1	1	1	2	2	3	3
Puttalam	1	1	1	1	1			1	1	1						1	1	2	2	2
Anuradhapura																				
Polonnaruwa																				
Badulla						2	2	2	2	2				1	1	2	2	2	3	3
Monaragala	2	2	2	2	2											2	2	2	2	2
Rathnapura																				
Kegalle																				
Mullativu																				
Total	12	14	16	15	13	19	26	28	28	27	6	10	12	16	16	37	50	56	59	56

Annexure 03 - I

Details of Conducting Clinics in the Year 2018 in the Healthy Life Style Centers in the Colombo District.

	Name of the Healthy Life Style Center	No.of Clinic held	No.of Participants	Number of patients identified
(1)	Rukmalgama Central Dispensary	120	1143	163
(2)	Nugegoda Central Dispensary	24	72	02
(3)	Mirihana Primary Medical Unit	85	439	96
(4)	Madiwela Primary Medical Unit	48	207	-
(5)	Thummodara Primary Medical Unit	77	135	76
(6)	Kaduwela Central Dispensary	40	833	
(7)	Brahmanagama Central Dispensary	242	448	173
(8)	Delkanda Central Dispensary	52	173	27
(9)	Waga Central Dispensary	50	255	170
(10)	Meegoda Central Dispensary	96	620	88
(11)	Dedigamuwa Primary Medical Care Unit.	60	661	63
	Total	**894**	**4986**	**858**

Annexure 03 – II

Details of Conducting Clinics in the Year 2019 in the Wellness Centers in the Colombo District.

	Name of the Healthy Life Style Center	No.of Clinic held	No.of Participants	Number of patients identified
(1)	Rukmalgama Central Dispensary	120	814	91
(2)	Nugegoda Central Dispensary	24	57	03
(3)	Mirihana Primary Medical Unit	67	325	83
(4)	Madiwela Primary Medical Unit	48	434	-
(5)	Thummodara Primary Medical Unit	78	101	77
(6)	Kaduwela Central Dispensary	40	397	-
(7)	Brahmanagama Central Dispensary	236	282	122
(8)	Delkanda Central Dispensary	51	193	18
(9)	Waga Central Dispensary	52	200	145
(10)	Meegoda Central Dispensary	48	441	33
(11)	Dedigamuwa Primary Medical Care Unit.	62	517	124
	Total	**826**	**3,761**	**696**

Annexure 03 – III

Details of Conducting Clinics in the Year 2020 in the Wellness Centers in the Colombo District.

	Name of the Healthy Life Style Center	No.of Clinic held	No.of Participants	Number of patients identified
(1)	Rukmalgama Central Dispensary	40	300	42
(2)	Nugegoda Central Dispensary	10	19	01
(3)	Mirihana Primary Medical Unit	15	36	11
(4)	Madiwela Primary Medical Unit	10	62	-
(5)	Thummodara Primary Medical Unit	15	22	22
(6)	Kaduwela Central Dispensary	40	Not received	Not received
(7)	Brahmanagama Central Dispensary	52	-	-
(8)	Delkanda Central Dispensary	11	52	8
(9)	Waga Central Dispensary	41	100	75
(10)	Meegoda Central Dispensary	28	110	11
(11)	Dedigamuwa Primary Medical Care Unit.	27	205	48
	එකතුව	289	906	218

Annexure 04

Gender ꝑarticipation in the Gampaha District Healthy Life Style Center

	Name of the Healthy Life Style Center	Percentage of people who participated (%)			
		2018		2019	
		Female	Male	Female	Male
01.	Pamunugama	73	27	73	27
02.	Central Treatment Unit (Halpe-Katana)	77	23	65	35
03.	Base Hospital - Meerigama	71	29	75	25
04.	Investment Promotion Zone -Katunayake	64	36	74	26
05.	Regional Hospital (Bokalagama)	58	42	64	36
06.	Central Dispensary -Maligathenna , Veyangoda	82	18	75	25
07.	Primary Care Unit - Sinharamull	-	-	79	21
08.	Central Dispensary -Pasyala	72	28	78	20
09.	Primary Medical Care Unit - Uswetakeyyawa	70	28	63	33
10.	Central Dispensary -Ganemulla	80	20	60	40
11.	Central Dispensary - Korasa	85	15	77	23
12.	Healthy Life Style Center - Muddaragama	81	19	72	28
13.	Healthy Life Style Center -Anuragoda, Pepiliyawela	66	33	68	32
14.	Healthy Life Style Center -Kalagedihena	79	21	80	20
15.	Healthy Life Style Center -Wewaldeniya	89	11	85	15
16.	Primary Care Unit - Andiambalama	83	17	78	22
17.	Central Dispensary - Madawala	74	26	76	18
18.	Primary Medical Care Unit - Malwana	72	28	69	31

Annexure 05

Particulars of conducting clinics participants theater and no.of patients diagnosed in the years 2018, 2019 and 2020 within 23 Healthy Life Style Center of Kalutara District are as follows

Year 2018

Type of Hospital	No.of Hospitals	No.of clinic conducted	Total Participants	No of patients directed for treatments	Average No of patients came for a clinics
Base hospitals	03	170	3,423	197	20
District Hospitals	05	262	4,168	436	15
Regional Hospitals	07	301	5,503	381	18
Estate Hospitals	01	07	11	01	02
Offices of the Medical Officer of health	06	88	1,459	142	16
Central Treatment Unit	01	40	492	39	12
Total	23	868	15,056	1,196	

Year 2019

Type of Hospital	No.of Hospitals	No.of clinic conducted	Total Participants	No of patients directed for treatments	Average No of patients came for a clinics
Base hospitals	03	165	4,714	561	28
District Hospitals	05	367	6,595	414	17
Regional Hospitals	07	653	22,797	505	34
Estate Hospitals	01	12	103	37	08
Offices of the Medical Officer of health	06	82	1,460	142	17
Central Treatment Unit	01	36	490	50	13
Total	23	1,315	36,159	1,709	

Year 2020

Type of Hospital	No.of Hospitals	No.of clinic conducted	Total Participants	No of patients directed for treatments	Average No of patients came for a clinics
Base hospitals	03	69	1,878	356	27
District Hospitals	05	266	4,108	524	15
Regional Hospitals	07	449	5,387	414	11
Estate Hospitals	01	06	10	06	02
Offices of the Medical Officer of health	06	33	1,023	80	31
Central Treatment Unit	01	20	527	56	26
Total	23	843	12,933	1,436	

Annexure 06

Maintenance Healthy Life Style Center in the Hospitals of Kalutara District

Type of Hospitals	Name of Hospitals	No of Hospitals	Clinic Days	Clinic beginning time
Base Hospital	Panadura	01	Five days of the week	7.30 a.m
	Horana	02	Thursday Saturday	7.45 a.m
	Pimbura			7.30 a.m
District Hospitals	Bandaragama	01	06 days per week	8.00 a.m
	Mathugama	01	05 days per week	
	Ingiriya	03	01 days per week	8.00 a.m
	Iththepana			
	Meegahathenna			
Regional Hospitals	Dodangoda	01	06 days per week	8.00 a.m
	Halthota	02	05 days per week	8.00 a.m
	Gonaduwa			
	Katugahahena	01	02 days per week	8.00 a.m
	Baduraliya		01 days per week	7.30 a.m
	Galpatha			8.00 a.m
	Bulathsinhala			
Estate Hospitals	New Chattal	01	01 days per week	8.00 a.m
Central Treatment Unit	Wadduwa	01	01 days per week	8.00 a.m
Offices of the Medical Offices of Health	Bulathsinhala	04	01 days per week	8.00 a.m
	Dodangoda			
	Palindanuwara			
	Ingiriya			
	Horana	01	02 days per month	
	Agalawatta	01	01 Mobile Clinics	

Annexure 07

Medical Equipment for the Cardiology Unit and Cardiothoracic Unit in Teaching Hospital Karapitiya – Year 2021

Cardiology Unit

CCU Ward

No	Name of the Item	Quantity	Unit Price Million	Total Price Million	
1	C-PAP Machine	2	0.75	1.5	Needed
2	Defibrilators	2	0.8	1.6	Needed
3	Multi para monitor wards	3	0.06	0.18	Needed
4	Portable Echo Machine	1	11	11	Requested
5	Pulse Oximeter	1	0.14	0.14	Needed
6	Infusion Pumps	5	0.13	0.65	Needed
7	3-D Echo machine	1	15.0	15	Needed
8	Co-Oximeter	1	1	1	Requested
	Total			31.07	

Cath Lab

9	Cath Lab Machine (Urgently needed)	1	150	150	Requested
10	Cardia Electro Physiology Mapping and ablation system with 3-D mapping facility	1	45	45	Needed
	Total			195	

Ex. ECG Unit

0.8	ABP System with 04 Recorders	1	1.00	1	Requested
12	Holter Analyser System with 04 Recorderrs	2	4.00	8	01 Requested
	Total			9	

Paediatri Cardiology Unit

Urgently needed

13	Paediatri Echo Cardigraphy Machine	1	15	15	Requested
	Total			15	

CCU Ward	31.07
Cath Lab	195.00
Ex.ECG Unit	9.00
Paeditric Cardiology Unit	15.00
Total	250.07

Cardiothoracic Unit – Teaching Hospital Karapitiya

CTU/ICU

No.	**Name of the Item**	**Quantity**	**Unit Price Million**	**Total Price Million**	
1	Ultrasound Scanner Machine	1	12.5	12.50	Requested
2	ICU BEDS	8	0.5	4.00	Requested

OT/CTU

3	Ultrasound Scanner Machine	1	12.5	12.50	Requested

Annexure 08

Existance of excess related to respiratory diseases in Kalutara General Hospital

SR NUMBER	Name of the item	Quantity	Period in excess	Action on excesses
00501302	Sy. Chlorpheniramine 2mg/5ml 60ml	3750 bottels	From the beginning of the expansion of COVID 19 pandemic to March 2020	Being Listed Short expiry dated and slow moving drugs they referred to the specialist medical officers of our hospital as well as to other hospitals for making awareness
00500111	Sy.Salbutamol 2mg/5ml 60 ml	2320 bottles		
00500401	Dp Cap Ipratropium 40mcg	31000		
00500704	Beclamethasone inhaler 50mcg/200d MDI	660		
00500705	Beclamethasone inhaler 100mcg/200d MDI	250		
00500204	Fluticasone Salmeterol inhaler 125/25md	170		
00500801	Budesonide Res.suspension 0.5mg/2ml	200		
00500403	Ipratropium Br.Res.0.25/1ml 15m	7050		
00500402	Ipratropium Br.Res.0.25/1ml 2ml	3000		
00500405	Ipratropium Br.Res.0.25/1ml 20ml	1200		
00500104	Inj.Salbutamol 5mg/5ml	16		
00500501	Tab.Theophyllin SR 125mg	100000		
00108203	Cap Oseltamivir 75mg	400		
00500107	Salbutamol inhalation 100mcg..md200 doses	3000		
00500101	Tab.Salbutamol 2mg	390000		
00303302	SY.Paracetamol 125mg/5ml/60ml	6504		