2018
Annual Health Bulletin

Department of Health Services Central Province

ANNUAL HEALTH BULLETIN

2018

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Health Institutions in Central Province
N
Teaching Hospital
District General Hospital
District Base Hospital
Divisional Hospital
Primary Medical Care Unit
Kandy District
Matale District
Nuwaraeliya District
Dambulla
Galewela
Naula
Pallepola
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Rattota
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Akurana
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Yatinuwara
Gangawata Korale
Minipe
Pathahewaheta
Udunuwara
Deltota
Doluwa
Udapalatha
Udahewaheta
Gangaihala Korale
Walapane
Kotmale
Pasbage Korale
Nuwara Eliya
Ambagamuwa Korale

1. GENERAL INFORMATION

1.1 Basic Facts

Central Province is located in the central hills of Sri Lanka and consists of the three Districts Kandy, Matale and Nuwara Eliya. The land area of the Province is 5674 square kilometers which is 8.6% of the total land area of Sri Lanka. The Province lies on 6.6°- 7.7° Northern latitude and between 80.5°-80.9° Eastern longitudes. The elevation in the province ranges from 182.8 meters to over 1828.8 meters above sea level in the central hills. The Province is bordered by the North Central Province from the North the Mahaweli River and Uma Oya from the east to the south from the mountain range of Adams peak, Kirigalpottha and Thotupala and the mountain ranges Dolosbage and Galagedera from the west.

The mean temperature ranges from 16°C - 28°C in the Province where lower temperatures are recorded in hills in the Nuwara Eliya District. Temperature decreases at a steady rate of about 6.5^0 C for each 1,000 meter rise. Thus, at Kandy, which is 488 meters above mean sea level, the mean annual temperature is about 24.5^0 C and Nuwara-Eliya, where the elevation is 1895 meters, the mean annual temperature is about 15.8^0 C.

The Province is divided into three zones namely wet, dry and intermediate according to the rain fall. The south west monsoon provides most of the rainfall to the central hills where Watawala records the highest rainfall of 5024 mm annually while 80% of the Matale District shows a rainfall pattern of the dry zone gets its rainfall from the North east monsoon. The rainfall in Dambulla is reported as 1234 mm.

In the Central Province 52% of the land has been cultivated while another 6.3% has been identified as lands which can be cultivated. Of the lands cultivated more than 35% has been cultivated with tea while 14.8% has been cultivated with paddy. The percentage of lands cultivated with coconut and rubber is 4.8% and 2.3% respectively.

1.2 Administrative Divisions

For the purpose of administration the Central Province has 36 Divisional Secretary areas in the 3 Districts. The number of GN areas, villages and local government bodies under each District is given in table 1.1

Table 1.1 Administrative Divisions & Local Government Bodies

Administrative Areas (District)	Divisional Secretary Areas	Grama Niladari Divisions	Pradeshiya Saba	Villages	Local Government Bodies	
					MC	UC
Sri Lanka	**331**	**14,021**	**271**	**36,822**	**23**	**41**
Kandy	20	1,187	17	2,833	1	4
Matale	11	545	11	1,344	2	0
Nuwara Eliya	05	491	05	1,199	1	2
Central Province	**36**	**2,223**	**33**	**5,376**	**4**	**6**

Source: Department of Census & Statistics

1.3 Population

According to the census data 2012 the total population of Central Province was 2,571,557. The average annual growth rate 2013 was 1.1% for Sri Lanka and the rate for Kandy, Matale and Nuwaraeliya were 0.65%, 0.88% and 0.05% respectively. (Department of Census). The annual growth rate for Sri lanka in 2017 was 1.1%.

Table 1.2 Land area and Population by D.S. Division and sex

Divisional Secretary Division	Land area km²	Population		
		Total	Male	Female
Kandy District				
Thumpane	54	37,642	18,215	19,427
Poojapitiya	59	57,914	27,327	30,587
Akurana	31	63,397	29,940	33,457
Pathadumbara	51	88,725	41,920	46,805
Panvila	93	26,294	12,213	14,081
Udadumbara	277	22,505	11,040	11,465
Minipe	250	51,883	25,468	26,415
Medadumbara	196	61,034	28,852	32,182
Kundasale	81	127,070	60,589	66,481
Kandy Four Gravets & Gangawata Korale	59	158,561	76,284	82,277
Harispattuwa	49	88,177	41,267	46,410
Hatharaliyadda	62	29,986	14,242	15,744
Yatinuwara	72	106,027	50,921	55,106
Udunuwara	68	110,905	53,554	57,351
Doluwa	95	49,842	24,407	25,435
Pathahewaheta	84	58,188	28,030	30,158
Delthota	49	30,345	14,179	16,166
Udapalatha	94	91,716	42,716	49,000
Gangaihala Korale	94	55,254	26,539	28,715
Pasbage Korale	122	59,917	27,588	32,329
Total	**1,940**	**1,375,382**	**655,791**	**719,591**

Matale District				
Galewela	187	70,042	33,619	36,423
Dambulla	444	72,306	36,307	35,999
Naula	276	30,884	15,088	15,796
Pallepola	81	29,565	14,022	15,543
Yatawatta	63	30,242	14,496	15,746
Matale	70	74,864	35,550	39,314
Ambanganga Korale	55	15,643	7,324	8,319
Laggala-Pallegama	385	12,110	6,217	5,893
Wilgamuwa	256	29,494	14,682	14,812
Rattota	99	51,354	24,239	27,115
Ukuwela	77	68,027	32,113	35,914
Total	**1,993**	**484,531**	**233,657**	**250,874**
Nuwara Eliya District				
Ambagamuwa	489	205,723	97,448	108,275
Hanguranketha	229	88,528	42,156	46,372
Kothmale	225	101,180	48,527	52,653
Nuwara Eliya	478	212,094	102,338	109,756
Walapane	320	104,119	49,878	54,241
Total	**1,741**	**711,644**	**340,347**	**371,297**

Source: Department of Census & Statistics 2012

The Provincial administration is vested in the Central Provincial Council composed of elected representatives of the people, headed by a Governor who is appointed by His Excellency the President.

1.3.1 Estimated Population for 2017 and 2018

The estimated mid-year population is calculated based on final results of the Census of Population.

Table 1.3 Estimated population for 2017 and 2018

	2017			2018		
	Total	**Male**	**Female**	**Total**	**Male**	**Female**
Sri Lanka	21,444,000	10,382,000	11,062,000	21,670,000	10,492,000	11,178,000
Kandy	1,452,000	692,000	760,000	1,468,000	700,000	768,000
Matale	514,000	248,000	266,000	519,000	250,000	269,000
Nuwara Eliya	756,000	362,000	394,000	763,000	365,000	398,000
Central Province	**2,722,000**	**1,302,000**	**1,420,000**	**2,750,000**	**1,315,000**	**1,435,000**

Source: Department of Census & Statistics

1.3.2 Population Density

The population density for the Central Province was 483 persons per square kilometer. The density was higher than the estimated national average in the Districts of Kandy and Nuwara Eliya while in the Matale District the population density was lower than the national figure. (Table 1.4)

Table 1.4 Estimated population, population density and land area by Districts

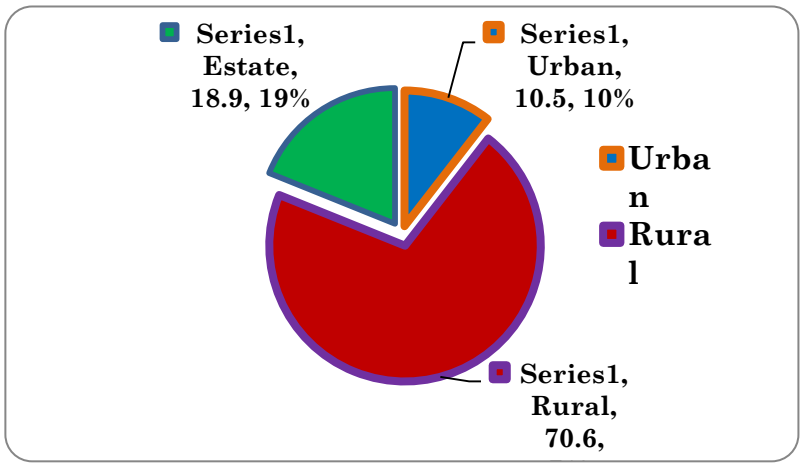
	Kandy	Matale	Nuwara Eliya	Central province	Sri Lanka
Estimated population (2018)	1,468,000	519,000	763,000	2,750,000	21,670,000
Population density (estimated) (persons per square km)	765	262	447	493	345
Land area/km²	1,917	1,977	1,706	5,575	62,705
Inland waters/km²	23	41	35	99	2,905
Total land area/ km²	1,940	1,993	1,741	5,674	65,610

Source: Department of Census & Statistics & Survey Department

1.3.3 Population distribution by sector

The total population in Sri Lanka is 20,359,439 million in 2012. According to the census data, 77.4%, 18.2% and 4.4% of the population were classified as rural, urban and estate respectively in Sri Lanka.

Fig. 1.1 Population distribution by sector in Central Province

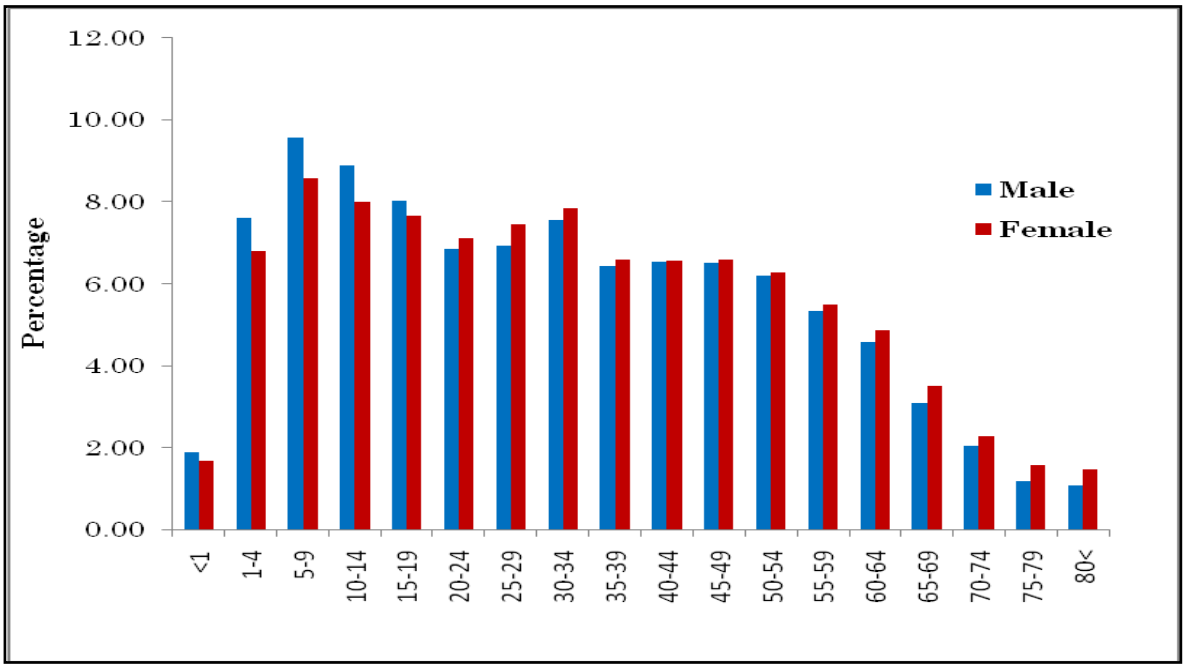


Source: Department of Census & Statistics 2012

1.3.3 Age composition

The age-sex distribution of population is given in figure 1.2.

Fig 1.2 Age- sex distribution of population in Central Province



Source: Department of Census & Statistics 2012

1.3.4 Sex ratio

Sex ratio is defined as the number of males per 100 females. Census 2015 reports that there are 94 males for every 100 females in Sri Lanka. According to the data Matale district sex ratio (93) is higher than those ratios in Kandy district (91) and Nuwara Eliya district (92).

The districts in the Central Province have significantly lower sex ratio than the national ratio.

Table 1.5 Sex Ratio by District

District	Sex ratio
Kandy	91
Matale	93
Nuwara Eliya	92

Source: Registrar General's Department 2015

1.3.5 Dependency ratio

This simply explains how many people in the working age group to support dependents in the population. Over all dependency ratio of the country in 2012 was 60.2 percent. Child (under 15 years) dependency shows how many people in the working age group (15-59 years) to support children in the population. Child dependency ratio was 40.4 percent. Old age dependency shows how many people in the working age group to support people in the old age group (60 years or more) people in the population. The old age dependency ratio was 19.8 percent.

1.3.6 Population by ethnicity and religion

The 2012 census data shows that 66% of the total population living in the Central Province was Sinhalese, while 23.8% were Tamils and 9.9% were Muslims. The detailed breakdown by District is given in table 1.6. The distribution of the population in the Central Province according to religion shows that 65.0% were Buddhist, while 21.0%, 10.3% and 2.5% were Hindu, Islam and Roman Catholic respectively.

Table 1.6 Percentage Distribution of population by Ethnic group

	Kandy	Matale	Nuwara Eliya	Central Province	Sri Lanka
Sinhalese	74.4	80.8	39.6	66.0	74.9
Tamil	11.2	9.8	57.6	23.8	15.3
Sri Lanka Moor	13.9	9.2	2.5	9.9	9.3
Others	0.4	0.2	0.2	0.3	0.5

Source: Department of Census & Statistics 2012

Table 1.7 Percentage Distribution of population by Religion

	Kandy	Matale	Nuwara Eliya	Central Province	Sri Lanka
Buddhist	73.4	79.5	39.1	65.0	70.1
Hindu	9.7	9.0	51.0	21.0	12.6
Islam	14.3	9.4	3.0	10.3	9.7
Roman Catholic	1.6	1.6	4.7	2.5	6.2
Others	1.0	0.5	2.2	1.2	1.4

Source: Department of Census & Statistics 2012

1.4 Vital Statistics

Registration of births and deaths was made compulsory in 1867 with the enactment of the civil registration laws which conferred the legal sanction for the registration of events namely live births, deaths, still births and marriages. The compilation of vital statistics has a well organized system for the flow of necessary information from registration officers to the statistical branch where compilation of vital statistics is taken place.

1.4.1 Crude Birth Rate (CBR)

The CBR is based on the usual residence for Sri Lanka was reported as 15.1 per 1000 population in 2018. The CBR for Kandy, Matale, Nuwara Eliya and Central Province was 15.7, 14.9, 14.1 and 15.1 per 1000 population respectively in 2018. (Registrar General's Department)

1.4.2 Crude Death Rate (CDR)

The CDR is based on the usual residence for Sri Lanka was 6.4 per 1000 population in 2018. In 2018, the CDR for Kandy, Matale, Nuwara Eliya and Central Province was 7.0, 6.6, 6.2 and 6.7 per 1000 population respectively. (Registrar General's Department)

Table.1.8 Live Births & Deaths Registered in 2018

	No of Live Births	No of Deaths
Kandy	26,095	11,335
Matale	8,164	3,234
Nuwara Eliya	7,779	3,993
Central Province	42,038	18,562
Sri Lanka	328,112	139,498

Source: Registrar General's Department

1.4.3 Maternal Mortality Ratio (MMR)

Maternal deaths are reported to three different reporting agencies namely Registrar General's Department, Hospital statistics and Maternal Mortality active surveillance system coordinated by the Family Health Bureau of the Ministry of Healthcare and Nutrition. The national MMR released by the Family Health Bureau for the year 2017 was 39.3 per 100,000 live births. The MMR for Kandy, Matale, Nuwara Eliya and CP in 2017 was 42.1, 62.1, 46.7 and 46.8 per 100,000 live births respectively.

1.4.4 Under Five Child Mortality Rate (CMR)

The Child Mortality Rate reported by the Family Health Bureau for Kandy, Matale, Nuwaraeliya districts and CP for the year 2018 is 11.5, 10.1, 15.7 and 12.0 per 1000 live births respectively while this value for Sri Lanka is 10.6 per 1000 live births.

1.4.5 Infant Mortality Rate (IMR) and Neo natal Mortality Rate (NNMR)

The IMR and NNMR (first 28 days after birth) has declined over the last few decades and the Sri Lankan figure of IMR reported by Family Health Bureau for the year 2018 is 9.1 per 1000 live births. The IMR in Kandy, Matale, Nuwaraeliya districts and CP for the year 2018 is 10.2, 9.8, 12.9 and 10.6 per 1000 live births respectively. The Neonatal Mortality Rate for Sri Lanka is 6.5 per 1000 live births for the year 2018 and the figure in Kandy, Matale, Nuwaraeliya districts and CP for the year 2018 is 7.4, 6.6, 9.2 and 7.6 per 1000 live births respectively.

1.4.6 Total Fertility Rate (TFR)

Fertility rate; total (births per woman) in Sri Lanka was last measured at 2.2 in 2016. TFR in Kandy, Matale and Nuwaraeliya is 2.6, 1.9 and 2.2 respectively in year 2016. Total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with current age-specific fertility rates. **(DHS 2016- Department of Census)**

1.4.7 Life Expectancy

The life expectancy at birth is 75.3 years in 2016. The rapid increase in the average life span together with widening gap between males and females longevity is due to the reduction of infant and child mortality and also the reduction of mortality of women of the child bearing age.

1.5 Socio - Economic Indicators

1.5.1 Literacy Rate

Literacy rate is a key indicator to measure the level of reading and writing ability of persons in a country. The definition of literate person is given as "If a person can both read and write a short statement with understanding is considered as literate". According to the results shown in the Table 1.9 literacy rate of the population aged 10 years and above in Central province stands at 93.9 percent. The corresponding rate for males and females are 96.1 percent and 92.0 percent respectively. **(Source - Department of Census).**

Table 1.9 Percentages of literate population (aged 10 years and above) by sex

	Both	Male	Female
Kandy	95.4	96.8	94.2
Matale	94.2	95.7	92.8
Nuwara Eliya	90.9	94.9	87.2
Central Province	93.9	96.1	92.0
Sri Lanka	95.7	96.9	94.6

1.5.2 Education

According to the data, 3.8 % of the population in Sri Lanka had not been to school and the figure for Nuwaraeliya was twice than the national figure.

Table 1.10 Percentage distribution of population by level of education and by district

	Kandy	Matale	Nuwaraeliya	Sri Lanka
No Schooling	4.2	4.5	7.6	3.8
Passed primary	22.5	26.0	33.9	23.6
Passed secondary	38.5	43.1	38.1	40.6
Passed G.C.E.(O/L)	17.4	14.4	12.7	17.0
Passed G.C.E.(A/L) & above	14.3	10.2	6.6	12.3
Degree or above	3.2	1.9	1.1	2.7

Source: Department of Census 2012

1.5.3 Computer literacy

A person is considered as a computer literate if he could use computer on his own. For example, even if a 5 year old child can play a computer game then he is considered as a computer literate person.

If a person has heard of any of the wide range of applications computers are used for, (e.g. any use ranging from playing computer games to complicated aeronautic applications) then he is considered as a person in computer awareness.

Table 1.11 Computer literacy of population in 2016

	Computer literacy rate %
Kandy	31.2
Matale	30.0
Nuwaraeliya	14.7
Central Province	26.3
Sri Lanka	27.6

Source : Department of Census & Statistics

1.5.4 Household Size

The National average for household size is 3.8 persons per household while this figure for Kandy, Matale and Nuwara Eliya is 3.8, 3.6 and 3.9 persons per household respectively. **(DHS 2016- Department of Census)**

1.5.5 Access to safe drinking water

31.4% of households in Sri Lanka use pipe born water while in Kandy this figure was 50.3%, in Matale, 29% and in Nuwara Eliya it was about 29.6 %.

Table 1.12 Availability of drinking water by District according to percentage of households

Water source	Kandy	Matale	Nuwaraeliya	Sri Lanka
Protected well within premises	14.3	20.6	5.0	31.4
Protected well outside premises	11.1	17.6	5.6	14.7
Tube well	1.9	5.8	0.6	3.4
Piped born water	50.3	29.0	29.6	31.4
Rural water supply project	11.3	17.3	21.1	9.2
Unprotected well	2.9	4.0	3.8	4.0
Other (bowser, Bottled water, River/Tank/Stream/Spring)	8.2	5.7	34.2	5.9

Source: Department of Census & Statistics 2012

1.5.6 Sanitation Facilities

3.9% of the households of Nuwaraeliya district do not have any type of facility for safe sanitation and this value is 2 times higher than the national value which is 1.7%.

Table 1.13 Availability of sanitation facilities by District

Type of Toilet	Kandy	Matale	Nuwaraeliya	Sri Lanka
Exclusive	89.9	87.0	80.0	86.7
Shared	9.1	12.3	15.0	10.9
Common	0.5	0.2	1.1	0.7
Not using a toilet	0.5	0.5	3.9	1.7

Source: Department of Census & Statistics 2012

1.5.7 Electricity

87.0% Households in Sri Lanka have electricity while this figure for Kandy, Matale and Nuwara Eliya are 92.4%, 84.0% and 88.0% respectively.

Table 1.14 Types of lighting by District

Type of lighting	Kandy	Matale	Nuwara eliya	Sri Lanka
Electricity - from National Grid	92.4	84.0	88.0	87.0
Electricity - from rural hydro power project	0.2	0.4	-	0.2
Kerosene	7.2	14.8	11.8	12.2
Solar power	0.1	0.9	0.2	0.6
Bio gas	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.1	0.1

Source: Department of Census & Statistics 2012

1.5.8 Source of cooking fuel

More than 80% of the households in all 3 districts use firewood as the main source of cooking.

Table 1.15* Main *source of cooking fuel by District

Type of cooking fuel	Kandy	Matale	Nuwara eliya	Sri Lanka
Firewood	80.8	90.9	86.5	78.4
Kerosene	1.1	0.5	1.9	2.5
Gas	17.8	8.4	11.2	18.5
Electricity	0.2	0.1	0.3	0.2
Saw dust/paddy husk	0.0	0.0	0.1	0.1
Other	0.1	0.1	0.1	0.3

1.5.9 Poverty

1.5.9.1 Poverty Headcount ratio

Percentage of population below the poverty line is defined as the Poverty Headcount ratio. According to the Household Income and Expenditure Survey (2012/13) done by Department of Census and Statistics, Poverty Headcount ratio for Sri Lanka was 6.7% and the values for Kandy, Matale and Nuwaraeliya districts were 6.2%, 7.8% and 6.6% respectively.

Table 1.16 Poverty Headcount ratio by District

	2016
Kandy	5.5
Matale	3.9
Nuwaraeliya	6.3
Sri Lanka	4.1

1.5.9.2 Household expenditure

Table 1.17 Ratio for household food & drink and non-food items by province and district - 2016

	Kandy	Matale	Nuwara Eliya	Central Province	Sri Lanka
Ratio for Food & drink	33.9	36.4	42.8	36.4	34.8
Ratio for Non-food	66.1	63.6	57.2	63.6	65.2

Source: Household Income and Expenditure Survey - 2016 - Department of Census and Statistics

2. ORGANIZATION OF HEALTH SERVICES

2.1 Introduction

Both public and private sectors provide health care to the people in Central Province. However, public sector plays the major role in providing health care for the people in the Province. The private sector and estates organizations also provide health care to a lesser extent. The Department of Health Services of Central Government and Provincial Government cover the entire range of promotive, preventive, curative and rehabilitative health care services in the Province.

The private sector provides mainly the curative care through outpatient services. This includes few private hospitals with indoor facilities, full-time general practitioners, government doctors who are engaged in part-time private practice out side their duty hours and other private facilities like laboratories and pharmacies. Recently, few of non-government organizations came forward to assist the government to strengthen preventive care services. Nearly 98% of inpatient care is provided by the government health care institutions in the province.

Western (allopathic), Ayurvedic, Unani, Siddha, and Homeopathy systems of medicine are practiced in Central Province. Of these, Western (allopathic) medicine is the main sector catering for the need of the vast majority of the people. In the Central Province, the Department of Health Services is mainly concerned about western medicine. The Department of Ayurveda also provides health care for a significant number of people in the Province.

Central Province is equipped with an extensive network of health care institutions. Primary and secondary health care institutions in the curative sector as well as preventive and rehabilitative care institutions are mainly managed by the Provincial Health Department and tertiary care health institutions are managed by the line ministry.

2.2 Provincial Health Policy

Vision: - To be the excellent Provincial Department of Health services in Sri Lanka.

Mission: -

- Developing Human Resources in the whole department with knowledge skill and attitudes.
- Improving essential infrastructure for all health services.
- Providing modern technology for all service centers.
- Strengthening a positive relationship with other government department as well as the other parties who are involved in catering health services.
- Motivation the staff in order to achieve above goals.

Goal: -

- To protect and promote the health of people in the central province.

Specific Goal: -

- To create a community which is committed to the prevention of diseases.
- To create a healthy and satisfied community through providing qualitative and proportionately adequate curative care services.
- Upliftment of areas which require special attention in the health sector such as Estate Health Sector, Rehabilitation of physically and mentally disadvantaged patients, Healthy and safe work place.
- To develop the quality of the service through a systematically planned human resource development.
- To instill the concept of " customer friendly " health services through the development of the attitudes among all health staff.

2.3 Provincial Health Administration

Previously, the entire health system of Sri Lanka functioned under a Cabinet minister of the Central Government. However, with the implementation of Provincial Council Act in 1989, the health services were devolved, resulting in the Ministry of Health at the national level and separate Ministries of Health in the nine Provinces.

The Central Ministry of Health plays a major role in development of national health policies and guidelines, training of medical and Para- medical staff, management of teaching hospitals and specialized medical institutions and bulk purchase of medical requisites. The Provincial Health Department is totally responsible for management and effective implementation of health services within the Province, development of policies and guidelines for the Province and also human resource management within the Province.

In the Central Province, the Department of Provincial Health Services is under the Ministry of Health, Indigenous Medicine, Social Welfare, Probation & Child care Services. There is a Minister and a Secretary to the Ministry.

The Provincial Director is the head of the Provincial Department of Health Services. There are 3 Regional Directors of Health Services (RDHS) for each District. Each RDHS area is geographically similar to the administrative units of District Secretariats. The Medical officers of Health (MOH) are mainly responsible for the preventive care of the respective Divisional Secretary areas and the medical officers in charge of the hospitals are responsible for provision of curative care through their institutions.

2.4. Health facilities in Central Province

2.4.1 Curative health facilities

The network of curative care institutions ranges from sophisticated Teaching Hospitals with specialized consultative services to small Primary Medical Care Units, which provide only out patient services. The distinction between hospitals is basically made on the size and the range of facilities. There are three levels of curative care institutions.

(a) Primary Care Institutions

- ❖ Divisional Hospitals (DH)

- ❖ Primary Medical Care Units (PMCU)

(b) **Secondary Care Institutions**

- ❖ District General Hospitals (DGH)
- ❖ District Base Hospitals (DBH)

(b) Tertiary Care Institutions

- ❖ Teaching Hospitals (TH)
- ❖ Provincial Hospitals (PH)

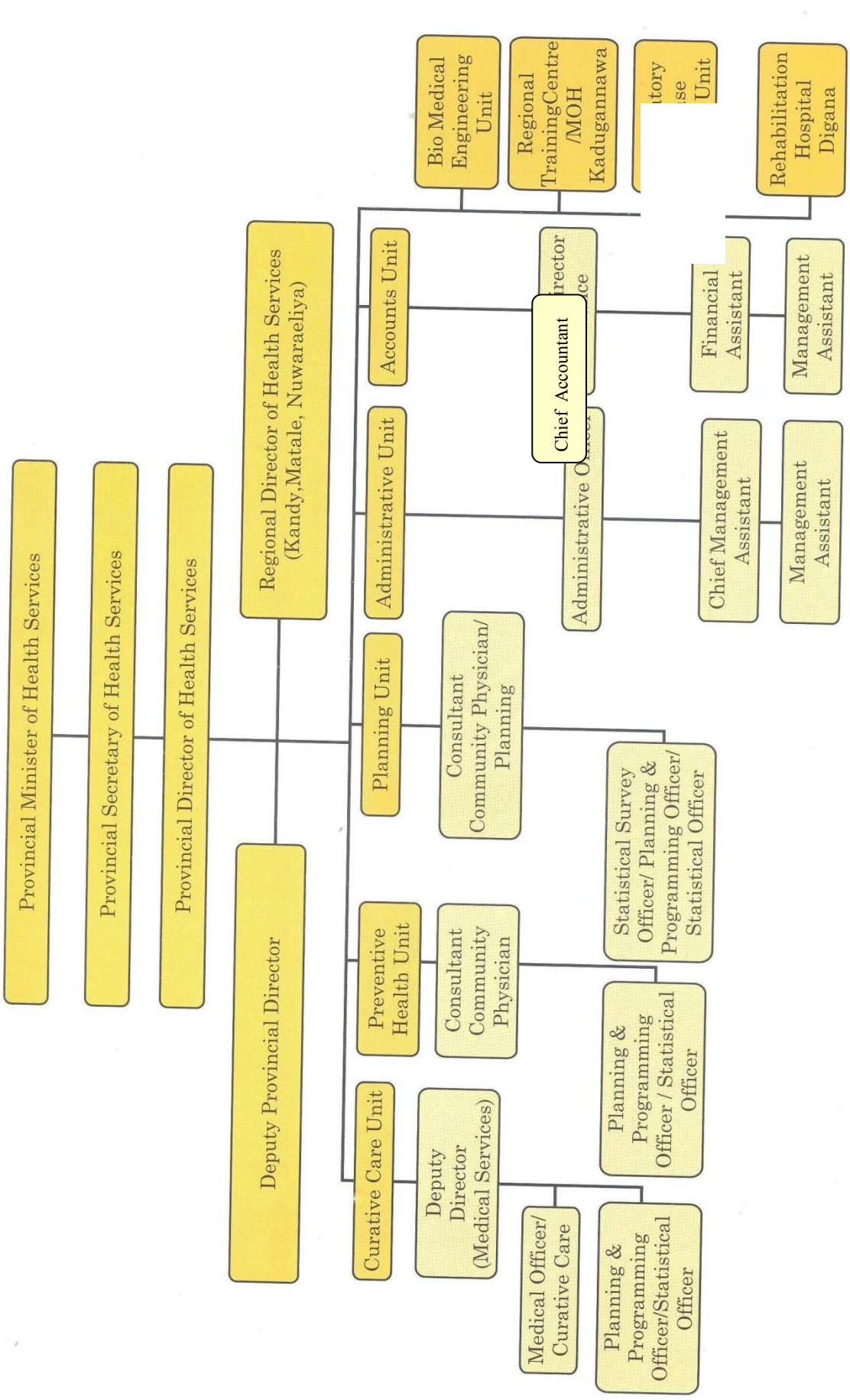


Fig 2.1 Provincial Health Organization Structure

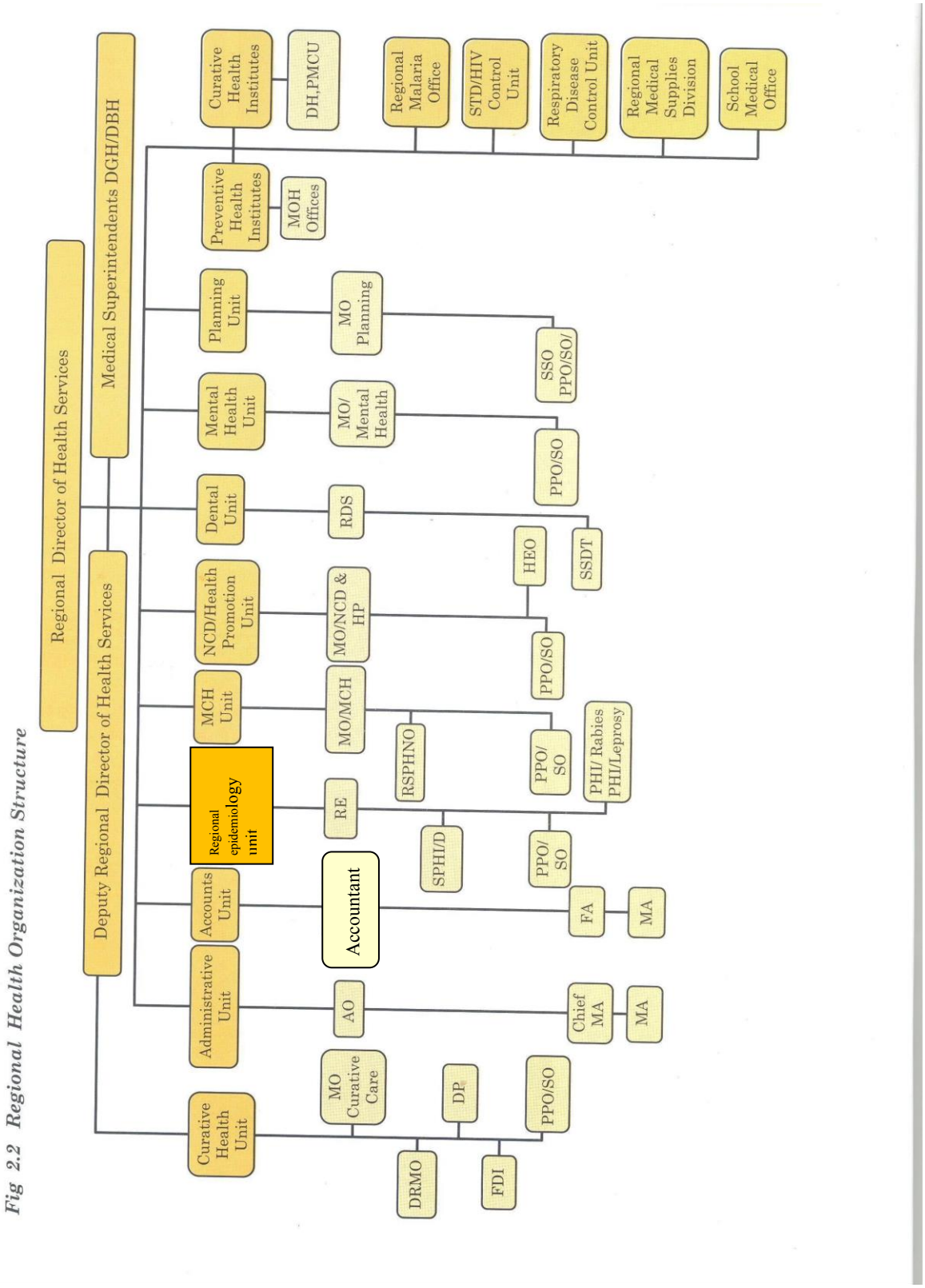


Fig 2.2 Regional Health Organization Structure

2.4.2 Preventive health facilities

Preventive care is provided through a well organized system of MOH offices as described earlier.

Summary of health care institutions and field areas in the three Districts in the Province is given in table 2.1. The details of this table and the names of the curative care institutions are given in annexure 1-4.

Table 2.1 Summary of health care institutions and field areas by District (including health institutions under line ministry)

	MOH areas *	PHI areas	PHM areas	TH	DGH and DBH	DH	PMCU	Specialized units	Administrative units
Kandy	23	72	454	03	03	47	28	13	02
Matale	13	36	157	-	02	18	15	05	01
Nuwaraeliya	13	39	316	-	03	24	21	03	01
Central province	**49**	**147**	**927**	**03**	**08**	**89**	**64**	**21**	**04**

***** Kandy, Matale, Dambulla & Nuwaraeliya Municipal MOH area are also included. Teaching hospitals Kandy, Peradeniya and Sirimawo Bandaranaike Memorial Children's hospital, DGH Nuwaraeliya and DBH Gampola come under line ministry.

Table 2.2 Availability of wards and bed strengths in institutions (DGH, DBH, DH) under Central Provincial Health Department

		No. of institutions	No of wards	No of beds
Secondary care institutions	Kandy	02	25	647
	Matale	02	34	114
	Nuwaraeliya	02	18	334
Primary care institutions	Kandy	47	180	1847
	Matale	18	62	573
	Nuwaraeliya	24	98	1092
Central province		**95**	**417**	**4607**

Table 2.3 Total number of beds and beds per 1000 population in all government health institutions by District in 2017 (including line ministry institutions)

	No of beds	No. of beds per 1,000 population
Kandy	6568	4.4
Matale	1687	3.2
Nuwaraeliya	1848	2.4
Central province	10103	3.6
Sri Lanka	**83,275 (2017)**	**3.8 (2017)**

Central Province has bed strength of 3.6 (per 1000 people) closer to the national value. However, there is lesser number of beds (per 1000 people) within Nuwaraeliya District compared to other districts and national value. These values do not include the bed strength of the hospitals managed by estates and these hospitals also play a major role in provision of health care within Nuwaraeliya District. With the effective implementation of the government programme for estate health development which includes taking over of estate hospitals to the government, these values may also reach the national values.

Table 2.4 Number of private hospitals and beds by District

	No. of hospitals	No. of beds
Kandy	12	361
Matale	02	23
Nuwaraeliya	03	42
Central Province	**17**	**426**

Considering the private sector, Kandy district plays a major role in provision of health care through 12 private hospitals whereas Matale and Nuwaraeliya districts have 05 private hospitals each.

2.5 Health Manpower

Table 2.5 The numbers of all Staff categories of health staff in Central provincial health department in 2018 (as at 31st December)

No	Designation	No. of staff 2018
1	Provincial Director of Health Services	01
2	Deputy Provincial Director (Medical Services)	01
3	Regional Director of Health Services	03
4	Director	02
5	Medical Superintendent	03
6	Medical Consultants	91
7	Consultant Dental surgeon	01
8	Medical officers	751
9	Dental surgeons	111
10	Regional Dental Surgeon	03
11	Bio Medical Engineer	-
12	Engineer (Civil)	01
13	Engineer (Electrical)	01
14	Registered / Assistant Medical Officers	154
15	Chief Accountant	01
16	Accountant	03
17	Administrative Officer	04
18	Programming & Planning Officer	54
19	Medical Record Officer	01
20	Statistical officer	37
21	Statistical Survey Officer	02
22	Planning & Programming Assistants	01
23	Medical Record Assistant	05
24	Development officer	139
25	Public Management Assistant	224
26	Matron	11
27	Ward Sister	69
28	Regional Supervising Public Health Nursing Officer	04

29	Tutor Nursing	02
30	Public Health Nursing Sister	32
31	Nursing officer	1371
32	Food & Drug Inspector	02
33	Health Education Officer	03
34	Supervising Public Health Inspector	21
35	Public Health Inspector	150
36	Supervising Public Health Midwife	41
37	Public Health Midwife	1076
38	Divisional Pharmacist	02
39	Pharmacist	72
40	Medical Laboratory Technologist	63
41	Public Health Laboratory Technician (PHLT)	29
42	Radiographer	17
43	E.C.G. Recordist	09
44	Ophthalmic Technologist	12
45	Physiotherapist	18
46	Occupational Therapist	06
47	Speech therapist	04
48	Dispenser	204
49	Electro Medical technician	03
50	Technical Officer (Electrical)	02
51	Technical Officer (Mechanical)	-
52	School Dental Therapist	41
53	Ward Clerk	04
54	Data Entry Operators	02
55	Driver	196
56	Telephone Operator	09
57	Hospital Diet Steward	02
58	Cooks	01
59	House Warden	02
60	Hospital Attendants	649
61	Vaccinating Field Assistant	17
62	Entomologist	03
63	Regional Malaria Officer	01
64	Health Entomological Officer	15
65	Public Health Field Officer	49
66	Spray Machine Operator	46
67	K.K.S	06
68	Hospital Overseer	01
69	Unit controller	01
70	Thakshanika sahayaka (TA)	03
71	Watcher	125
72	Saukya Karya Sahayaka (Ordinary)	740
73	Saukya Karya Sahayaka (Junior)	629
74	Lab Orderly	02
	Total	**7361**

There is considerable increase of some staff categories such as Medical officers, Nursing officers, Pharmacists and PHM during 2017.

There were 10 medical consultants, 75 medical officers and 164 nursing officers respectively serving for 100,000 people in the Province within the health institutions in Central Province (including line ministry institutions).

Table 2.6 Cadre information of institutions under line ministry

Designation	Existing Cadre				
	TH Kandy	**TH Peradeniya**	**DBH Gampola**	**DGH Nuwaraeliya**	**SBCH Peradeniya**
Medical Specialists (Consultants)	114	09	16	30	27
Medical Officers	809	208	97	92	131
Dental Surgeons	29	48	04	08	05
Nursing Officers	1945	659	198	265	248
Medical Laboratory Technologists	68	28	10	14	17
Pharmacists	66	34	14	17	14
ECG Technicians	15	07	04	05	04
Radiographers	31	16	04	06	08
Physiotherapists	33	08	03	08	06
Management Assistants	95	38	18	22	20
Hospital Midwives	43	38	16	28	
Attendants	359	47	42	76	15
Ordinary Laborers	1215	501	51	126	34

3. Curative care services

Curative care services are provided to the people in Central Province through a network of institutions. These include 3 tertiary care institutions, 8 secondary care institutions 153 primary care institutions and 18 specialized institutions. Six out of eight secondary care institutions, all primary care institutions and all specialized institutions of this network of healthcare institutions are come under the management of the Department of Health Services, Central Province. (Annexure 4)

Being a relatively large province with remarkable climatic and geographic diversity, the Central Province has a divergent population subjected to a wide spectrum of ailments requiring dynamism in the provision of healthcare services. High population density in the region has intensified this challenge with overcrowded health institutions badly demanding for improved infrastructure and efficient planning. Adding to this is the popular patient behavior pattern of bypassing the sequential process in which health care ought to be sought. This has inevitably led to a further congestion of the tertiary and secondary health care units while causing underutilization of resources at primary care level.

In year 2018, 2,836,775 people have attended for the OPD care while 703,645 people were seeking in-ward care from secondary and tertiary care hospitals. In contrast, there were 4,339,404 people having OPD care and 232,190 people having inpatient care from the 153 primary care institutes in the province.

As to fulfill the current healthcare needs, the provincial health department is utilizing the primary care institutions and primary medical care units to screening for and other controlling and prevention activities of non-communicable diseases. Elderly care services are also being delivered through some institutions. Remarkable steps on improving elderly care services including clinics and inward facilities have been put forward at Divisional Hospital Kadugannawa as the first Elderly Care unit established in Sri Lanka.

Secondary care institutions provide services mainly through the four common specialties including Medicine, Surgery, Pediatrics, Obstetrics & Gynecology and other specialties such as Orthopedic Eye, ENT and Dermatology. Essential supportive services including laboratory services and basic radiological services are also available at these institutions. The laboratory services consist of basic biochemical, hematological, bacterial and histopathological investigations.

3.1 Primary care services

Primary care services to the people in Central Province are delivered through Divisional Hospitals (DH) and Primary Medical Care Units (PMCU). In Central Province the total number of Primary care institutes stands at 153 as of 2018.

The Divisional hospitals provide both outpatient and inpatient care including the provision of basic health facilities for the treatment of minor ailments, referral to secondary and tertiary care institutions for further treatment, provision of prenatal care and follow up of patients referred from secondary or tertiary care institutions. On the other hand Primary Care Units concentrate on outpatient services.

Although these institutions are also being developed to provide quality health care for the local area population, as aforementioned, the general trend is to seek medical care from secondary or tertiary care institutions, driven by the probable misconception that the bigger the hospital the better the care.

This has seen to a significant reduction in the bed occupancy rate at primary care institutions as compared to larger hospitals in urban areas of the province, attributing to the hazardously disproportionate utilization of available facilities. It is notable that the bed occupancy rate of primary care hospitals in the province is still below 40%.

3.1.1 Quality Improvement and Patient Safety assurance Project

In order to curb the unfavorable trend of underutilizing primary care institutions, through investigating the cause and resorting to preventive measures, Provincial Health Department undertook a project which looked into issues with regard to the quality and safety of health services provided to the patients in the primary and secondary healthcare systems. The project is based on the hypothesis that 'patient satisfaction' is an outcome which is not only dependent on a pure clinical experience but also on the nonclinical aspects which instill a sense of dignity in the latter. Thus more emphasis was given to areas such as planning, management of human resources, financial & other resources, quality & safety with improvements, institutional organization and attitude development of the staff.

The initial stage of the project involved carrying out a situational analysis of 20 randomly chosen Primary Health Care Institutes in the Province. 43 areas from Divisional Hospitals and 27 areas from PMCUs covering a wide variety of aspects were assessed ranging from the general outlook of the hospital and availability of essential equipment at Emergency Treatment Units /Out Patient Departments to maintenance of Hospital Visitors' comments book.

Further, two audits were conducted separately to assess the satisfaction of the patients who attended the Out Patients Department & those who received inward care. Another was conducted to find the reason for patients to bypass the local hospital to attend a 'bigger' hospital elsewhere. Through these studies it was concluded that there was a lot of scope to improve patient and staff satisfaction through the improvement of quality of services delivered by the institutions and thereby optimize the utilization of available resources.

Hence, a plan was drawn out to formulate a guideline for the improvement of quality of Primary Health Care Institutes and implement it in Provincial Hospitals by mid-2010. Further, it was proposed that it should be implemented with an accompanying Monitoring System under the direct supervision of a Medical Officer-Medical Services and the guidance of the respective Regional Director of Health Services. A progress of the program and encouragement to those hospitals which made achievements was given as a feedback to all the hospitals under the Provincial Council via a quarterly magazine named "Suwanetha".

A parallel project focusing the improvement of quality and safety of health institutions in Sri Lanka was piloted by mid-2009, in six Central Provincial Council hospitals. It was implemented by the Ministry of Health, Government of Sri Lanka with the support of the Japan International Cooperation Agency (JICA). The pilot hospitals that were chosen comprised of DGH Matale, DGH Nawalapitiya, DBH Dambulla, DBH Dickoya, DH Galewela and PU Thiththapajjala. District GH NuwaraEliya which is under the

administration of National Ministry of Health was also included in the study. Deficiencies of services and infrastructure relevant to provision of quality care in these hospitals were identified through a situational analysis.

Further, the circular "National Quality Assurance Programme in Health" was issued in September 2009 urging every health institute to begin a Quality Management Unit. Consequently the establishment of those units in the seven pilot project hospitals was facilitated through the equipment provided by the JICA in early 2010.

Based on these studies, "National Guidelines for Improvement of Quality and Safety of Healthcare Institutions" were finalized by October 2010, and distributed among all Government Health Institutes. There are six volumes which are as follows:

1. Quality Series 1 – For Line Ministry and Provincial Hospitals
2. Quality Series 2 – For Primary Medical Care Units
3. Quality Series 3 – For Offices of Medical Officers of Health
4. Quality Series 4 – For specialized Public Health Units and Campaigns
5. Quality Series 5 – For Health Management Units
6. Quality Series 6 – For Training Institutions

These volumes are freely downloadable from the Ministry of Health website via the following link: http://www.health.gov.lk/QSHI.htm

In order to implement these guidelines and ensure its sustainability, it was proposed to establish a monitoring system by appointing a Medical Officer to the Quality Management Unit at each Regional Directors' Office. A National Health Excellence Award Mechanism was also to be implemented by early 2011 to provide a forum to recognize and share best practices and to encourage them.

Provincial Quality improvement and safety assurance program was further strengthened by extending the program in to 45 institutions of the province which included 30 curative care institutions and 15 preventive care institutions. Based on the guidelines issued by the national quality directorate, provincial level unit was established with one unit in each district to implement the project.

Primary Health Care Institutes

Services delivered by Primary Care Institutions are summarized in table 3.1. Annexure five and six provide further information.

Table 3.1 Basic information and services delivered in primary care institutions (DHs & PMCUs) by District

	Kandy		Matale		NuwaraEliya		Total	
	2017	2018	2017	2018	2017	2018	2017	2018
No. of Institutions	75	75	33	33	45	45	153	153
No.of beds	1842	1847	564	573	1125	1092	3531	3512
No.of wards	180	180	61	62	98	98	339	340
Bed occupancy rate (%)	31.7	29.4	31.8	30.9	23.5	27.9	29.1	29.2
No.of Admissions	126,296	119437	44170	41838	60401	70915	230867	232190
OPD Attendance	2674258	2586671	811373	719675	928741	1,033,058	4414372	4339404
Total inpatient days per year	213311	198673	65398	64636	96401	111370	375110	374679
No.of clinics held	7421	7916	3859	4841	3088	10106	14368	22863
Clinics Attendance	583,682	592232	197361	219659	171604	224327	952647	1036218
Total No. of Deaths	232	273	79	63	201	184	512	520

Total No. of Deaths Within 48 hours	154	177	45	55	48	59	247	291
No.of Deliveries	488	409	86	90	627	419	1201	918
No.of patients transferred out	25,387	20588	6519	5965	8639	11192	40545	37745
No. of Emergency Treatment Units (ETU)	47	47	14	14	22	22	83	83
No. of patients treated in the ETU	61,763	29521	22612	16498	19990	26455	104365	72474

Compared to the year 2017, there is a decrease in OPD attendance and increase in Bed Occupancy rate. As Base and General hospitals upgraded their services, OPD statistics of primary hospitals are decreased.

A noticeable reduction in the deliveries at Primary Care Institutes is evident with a parallel increase in the deliveries taking place in Secondary Care Institutes. Number of mothers bypassing their local hospital in preference for secondary care hospitals for planned, uncomplicated deliveries is expected to be reduced with the implementation of aforementioned quality assurance programs.

The overall bed occupancy in primary care hospitals still remain below 40%. This further highlights the need to facilitating the improvement of care given at these institutes over the coming years.

Table 3.2 Services provided by primary care institutions in Central Province in 2017 & 2018

Table 3.2 compares the OPD & Clinic attendance, Inward Care and Deliveries in the years 2017 and 2018.

		OPD attendance	Indoor admission	Clinic attendance	Deliveries
Kandy	2017	2,674,258	126,296	583,682	488
	2018	2,586,671	119,437	592,232	409
	% change	-3.2	-5.4	1.5	-16
Matale	2017	811,373	44,170	197,361	86
	2018	719,675	41,838	219,659	90
	% change	- 11.3	-5.3	11.3	4.6
Nuwaraeliya	2017	928,741	60,401	171,604	627
	2018	1,033,058	70,915	224,327	419
	% change	11.2	17.4	30.7	-33.1
Total	**2017**	**4,414,372**	**230,867**	**952,647**	**1201**
	2018	**4,339,404**	**232,190**	**1,036,218**	**918**
	% change	**-1.7**	**0.5**	**8.7**	**-23.5**

Fig.3.1 OPD Attendance in Primary Care Hospitals

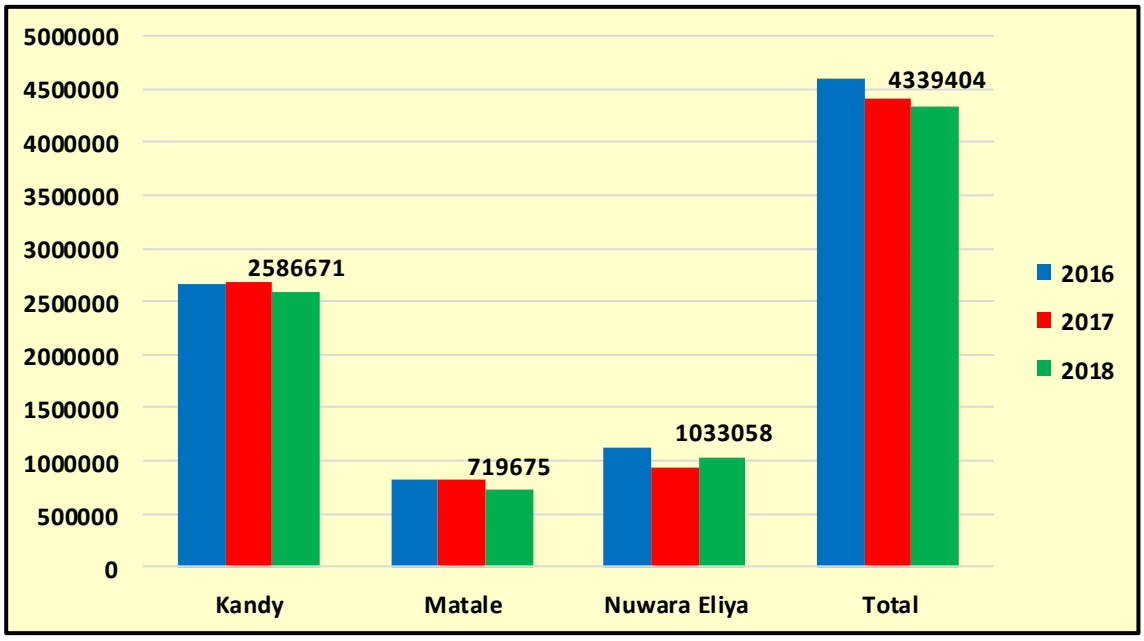
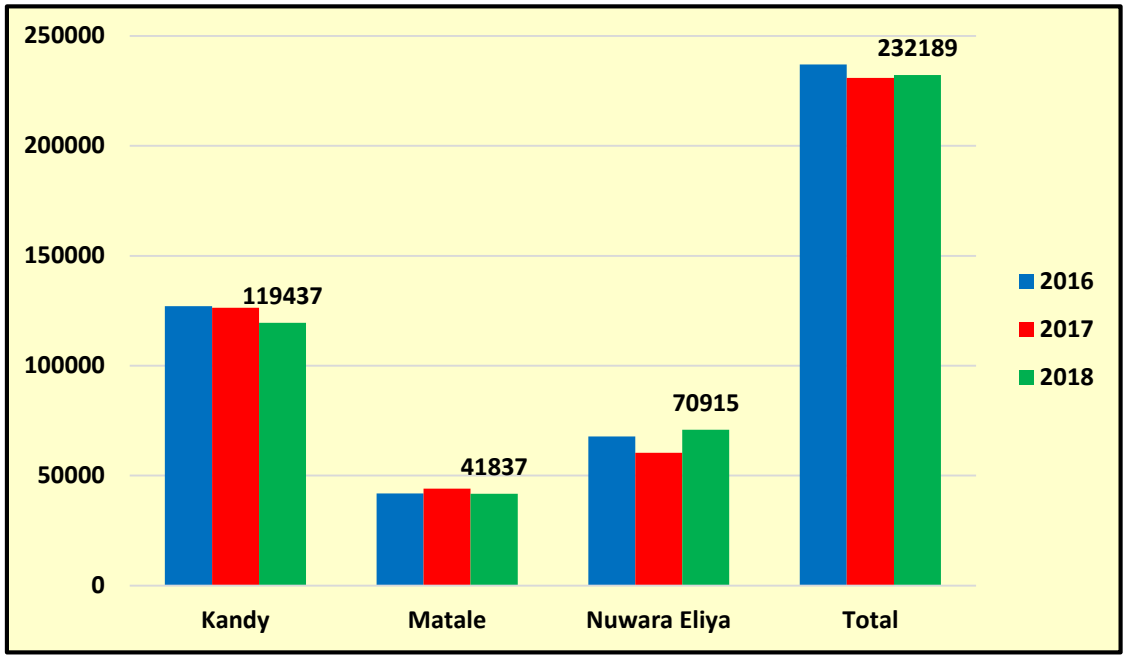
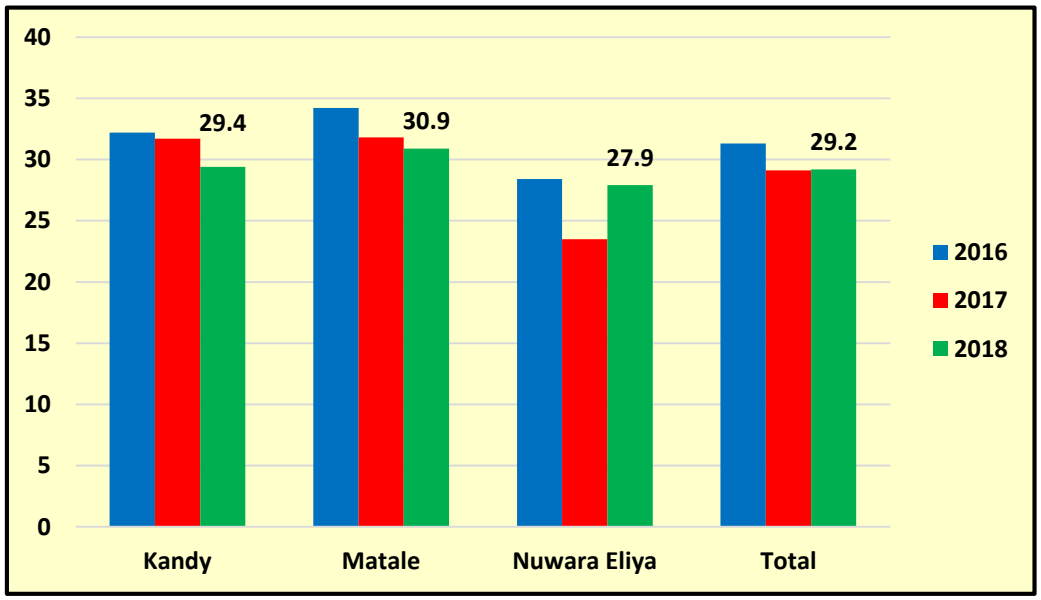


Fig.3.2 Indoor Admissions in Primary Care Hospitals



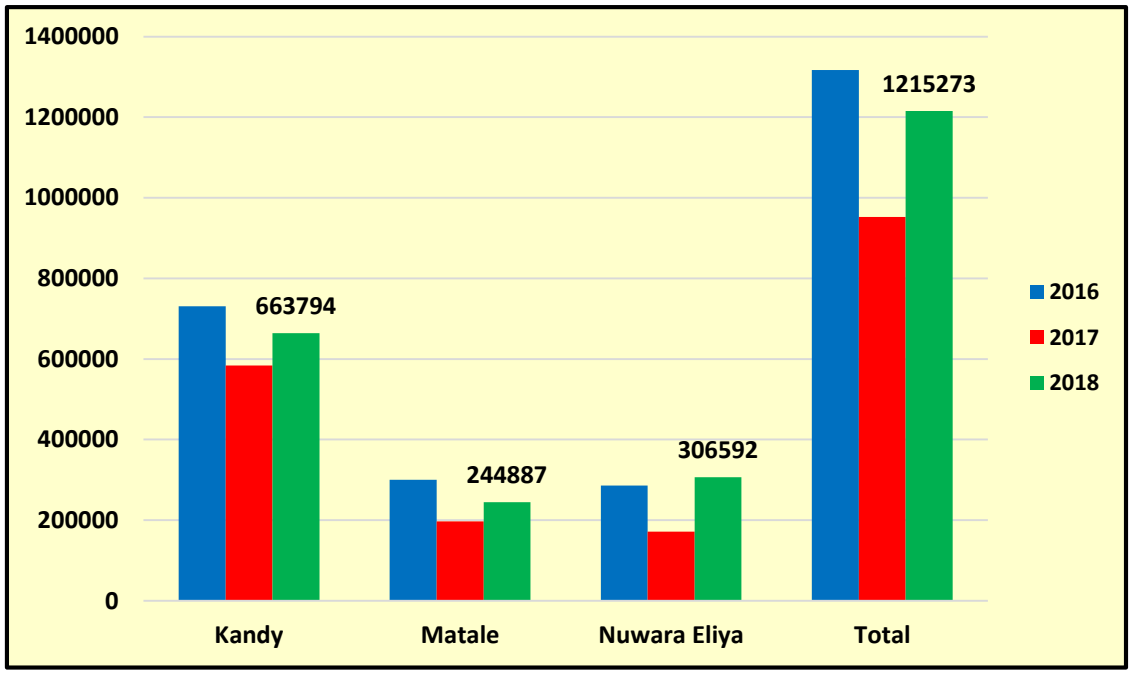
Number of inward admissions to the primary care institutions has been increased in year 2018.

Fig.3.3 Bed occupancy Rate in Primary Care Hospitals



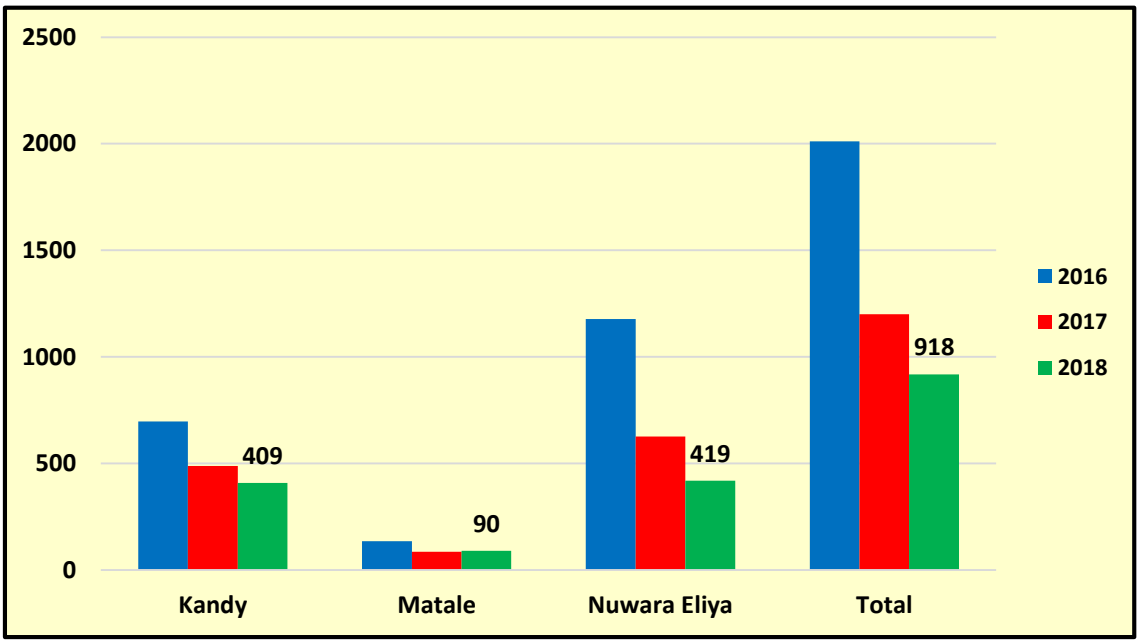
Bed Occupancy Rate in primary care institutions of the province has been increased in year 2018.

Fig.3.4 Clinics Attendance in Primary Care Hospitals



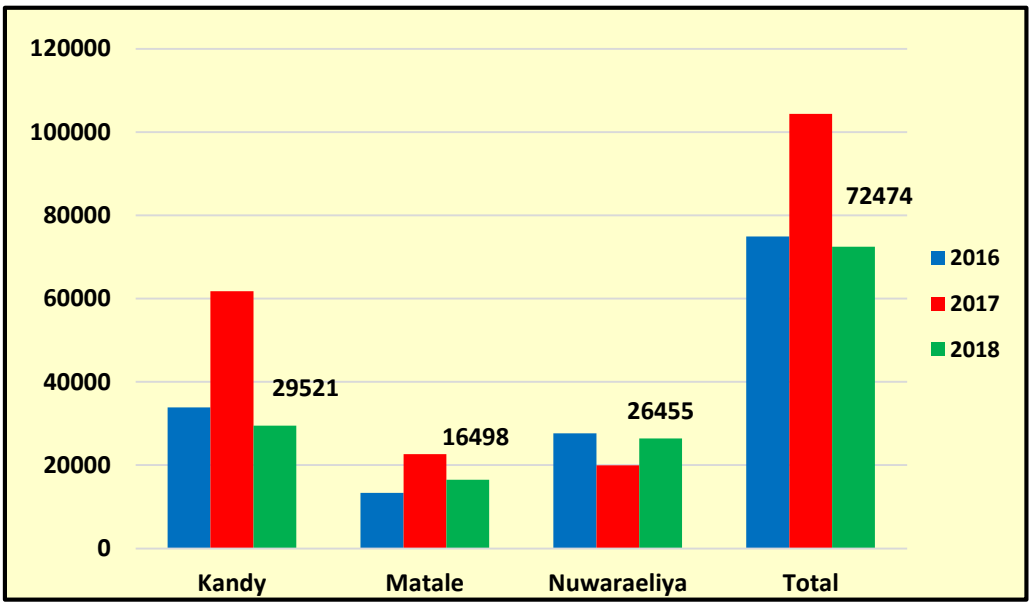
There is an increase in Clinic attendance at primary care institutions of the province in 2018.

Fig.3.5 No. of Deliveries performed in Primary Care Hospitals



There is a huge reduction of deliveries at primary care institutions over the years.

Fig.3.6 No. of Patients treated at ETU in Primary Care Hospitals



3.1.2 Emergency Treatment Units

Due to the unplanned nature of patient attendance, hospitals must provide initial treatment for a broad spectrum of illnesses and injuries, some of which may be life-threatening and require immediate attention. Depending on the urgency of the condition it is also necessary to stabilize the patient before transferring to a higher level hospital for optimal management. Further, disorganized health care at the initial point of contact has been recognized as a significant cause of hospital deaths. All above factors have reinforced the importance of establishing Emergency Treatment Units (ETU) in Primary Health Care Institutes.

By 2018, the total number of Emergency Treatment Units was 83 in the Province and many more were proposed to be built with the ultimate target of an ETU for all hospitals.

But all these existing ETUs are not according to a standard plan and order. The Department of Health Services, Central Province started standardizing the existing ETUs and while fulfilling all the basic requirements in year 2013. At the end of the year 2018 the department of health services central province was able to standardize all 83 ETUs of the province..

3.1.3 Laboratory Services

Many discussions are underway to upgrade the primary care institutions towards devising a system where the treatment of patients with minor ailments can be supplemented by basic investigations, to improve the quality and timeliness of referrals and to improve the follow-up of back referrals.

Respective catchment populations of 39 Health Institutions were being offered laboratory services by the end of year 2018. Further, it was proposed that these hospitals should be able to provide laboratory services not only to patients who attended their institutes but also to Primary Care Health Units in close proximity without lab facilities via a satellite laboratory system.

The department of health services, central province extended the laboratory services to primary care units in close proximity to the hospitals where laboratory services are available, by establishing the satellite laboratory system in year 2013. Under the satellite laboratory system, 308,570 laboratory tests have been performed in year 2017 and 236,475 tests performed in 2018.

Table 3.3 Laboratory Services –No of tests done in 2018

Hospital	2018
DH Wattegama	9373
DH Akurana	5275
DH Kaduganawa	7701
DH Galagedara	2700
DH Medamahanuwara	865
DH Ulapane	1367

DH Katugastota	9052
DH Ankumbura	4685
DH Udadumbara	6989
DH Pussallawa	203
DH Minipe	425
DH Kotaligoda	821
DH Thalathuoya	1810
DH Kahawatta	120
DH Panwilathenna	96
DH Wattappola	44
DH Pamunuwa	1060
DH Hettipola	56163
DH Rattota	15019
DH Laggala Pallegama	840
DH Galewela	22312
DH Yatawatta	9261
DH Nalanda	37534
DH Sigiriya	224
DH Hattota-amuna	1845
DH Lenadora	1628
DH Ovilikanda	1137
DH Agarapathana	5346
DH Gonaganthanna	1206
DH Maskeliya	1794
DH Hanguranketha	1109
DH Nildandahinna	83
DH Udapussallawa	1935
DH Walapane	19141
DH North medakumbura	408
DH Kothmale	1033
DH Lindula	1184
Prison hospital Bogambara	3185
Prison hospital Pallekele	1502

Provincial steering committee was established to monitor the laboratory services towards providing high quality services and taken steps to get accreditation for laboratories in district general and base hospitals.

3.2 Secondary Care Services

Eight secondary care institutions provide specialized services to the people in the Province. In fact, DGH Nuwaraeliya and DBH Gampola are under the management of the National Ministry of Health, while the rest including DGH Matale, DGH Nawalapitiya, DBH Dambulla. DBH Dickoya, DBH Rikillagaskada and DBH Theldeniya are under the administration of the Department of Health Services, Central Province.

Table 3.4 Basic information on services delivered in Secondary care institutions – 2018

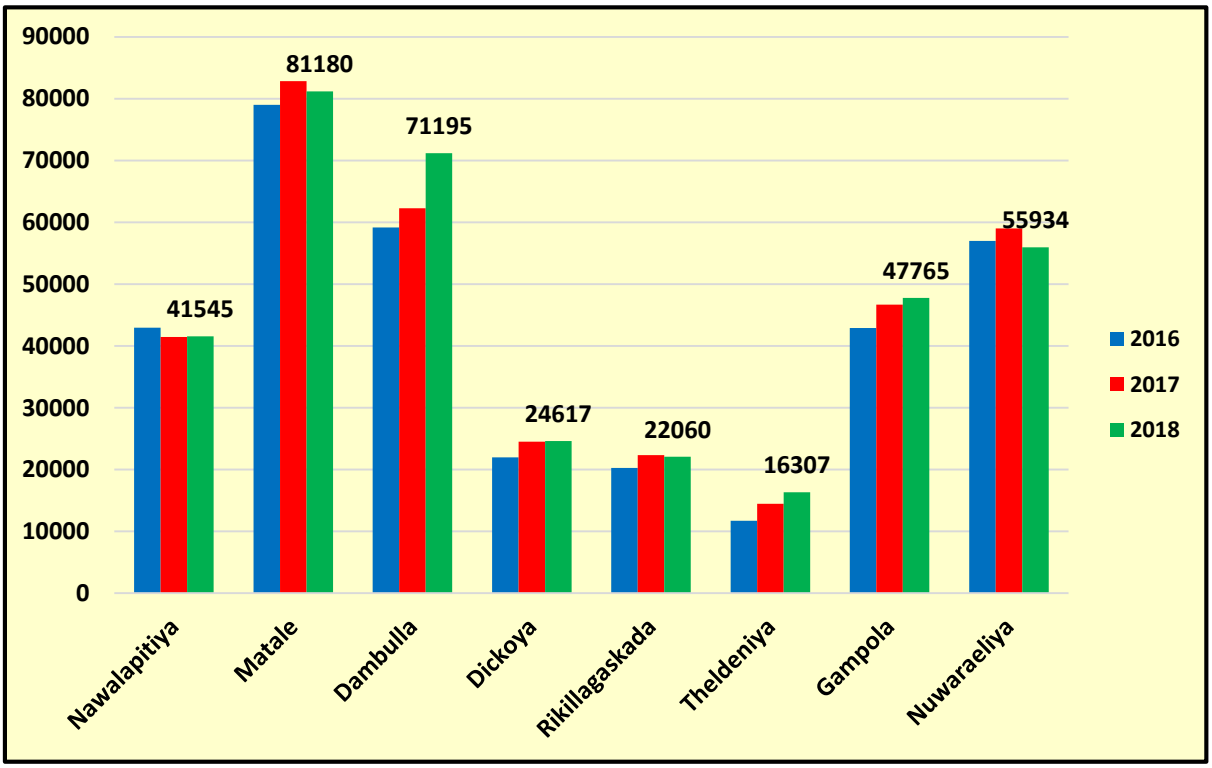
	DGH Matale	DGH Nawalapitiya	DBH Dambulla	GH Nuwaraeliya	BH Gampola	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya
No. of wards	23	18	11	16	13	06	12	07
No. of beds	809	443	305	422	371	136	198	204
OPD attendance	334094	342271	203084	215565	375352	156313	121822	119159
Admissions	81180	41545	71195	55934	47765	22060	24617	16307
Bed occupancy rate (%)	63.7	54.6	100.2	91.0	62.1	68.8	86.4	40.3
Total No.of Inpatient Days	188012	88353	111527	140119	84134	34159	62464	29985
Total No. of inpatient Deaths	681	323	468	677	426	87	271	98
Total No.of Deliveries	5067	2957	2888	4651	3192	815	2178	259
Total No of Live Births	5085	2962	2901	4651	3201	815	2174	259
Total No of Maternal Deaths	0	0	0	0	0	0	0	0
Total No of Still Births	30	26	18	48	24	03	17	-
Total No of patients Transferred out	1965	2188	1072	911	1388	2865	2153	2450
Minor operations done	9644	5025	7636	6137	4567	1375	2962	156
Major operations done	4722	2767	3953	5877	4053	743	1447	150
Total No of Clinics Held	3302	2320	1818	3165	1570	974	870	772
Total No of Clinics Attendance	271684	171508	115531	209280	163556	68061	62724	66840
No. of patients treated in the ETU	9653	6783	11932	29460	7971	13548	401	3104

In-ward care provided by secondary care institutions has undergone dramatic changes in the last decade as more and more patients seek in-ward care for non-communicable diseases like uncontrolled diabetes mellitus, hypertension which result in a prolonged

hospital stay. This accounts partly for the high bed occupancy rate in some specialized units of these institutions.

There was an increase in the attendance at special clinics in secondary health care institutions, probably due to increase awareness and early detection of diseases.

Fig. 3.7 Indoor admission in Secondary Care Hospital



District General Hospital Matale is the largest secondary care hospital in the province, providing inpatient care for the highest number of patients. The highest number of patients had been transferred out from the DBH Rikillagaskada during 2018 as it is still being developed and some of the major specialties are yet to be staffed.

Fig. 3.8 Total No. of Deliveries in Secondary Care Hospital

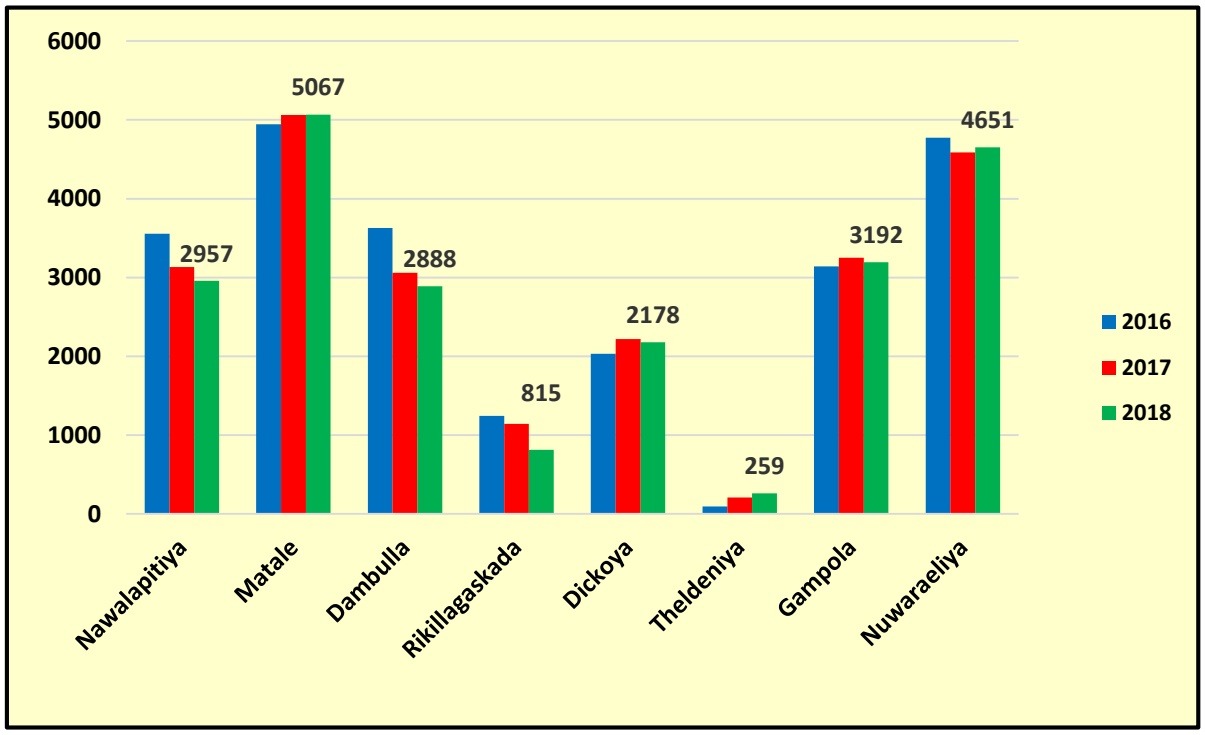


Fig. 3.9 Clinic Attendance in Secondary Care Hospital

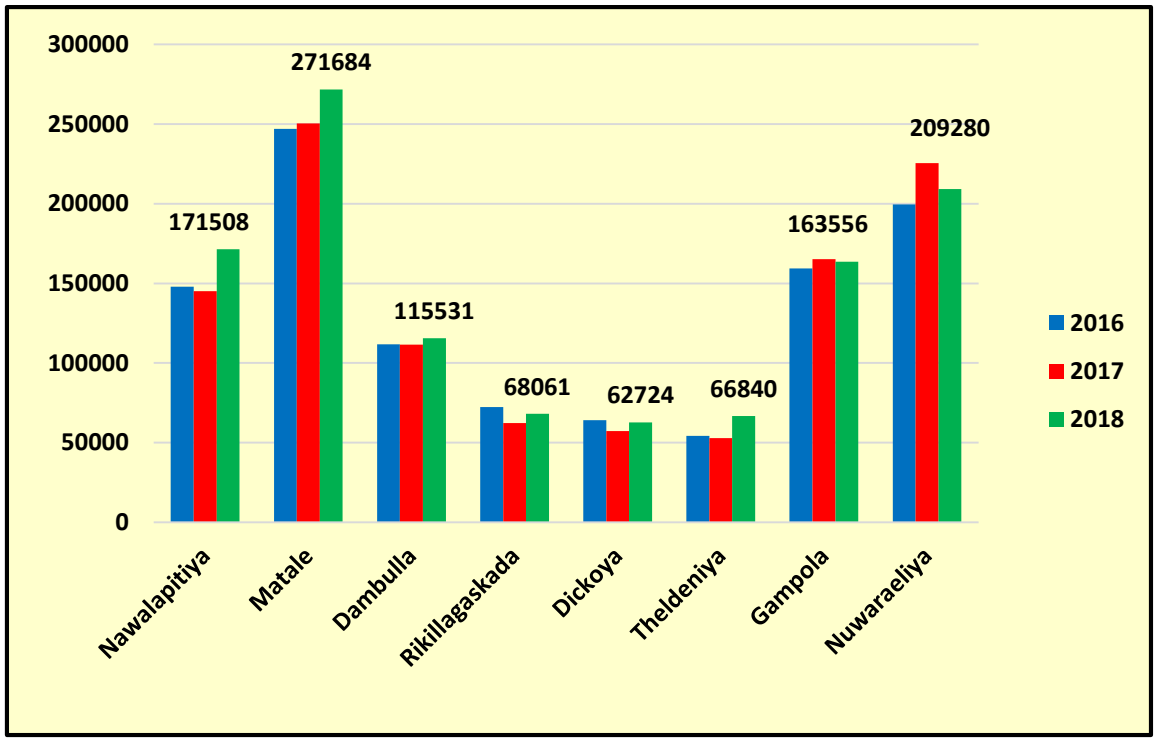
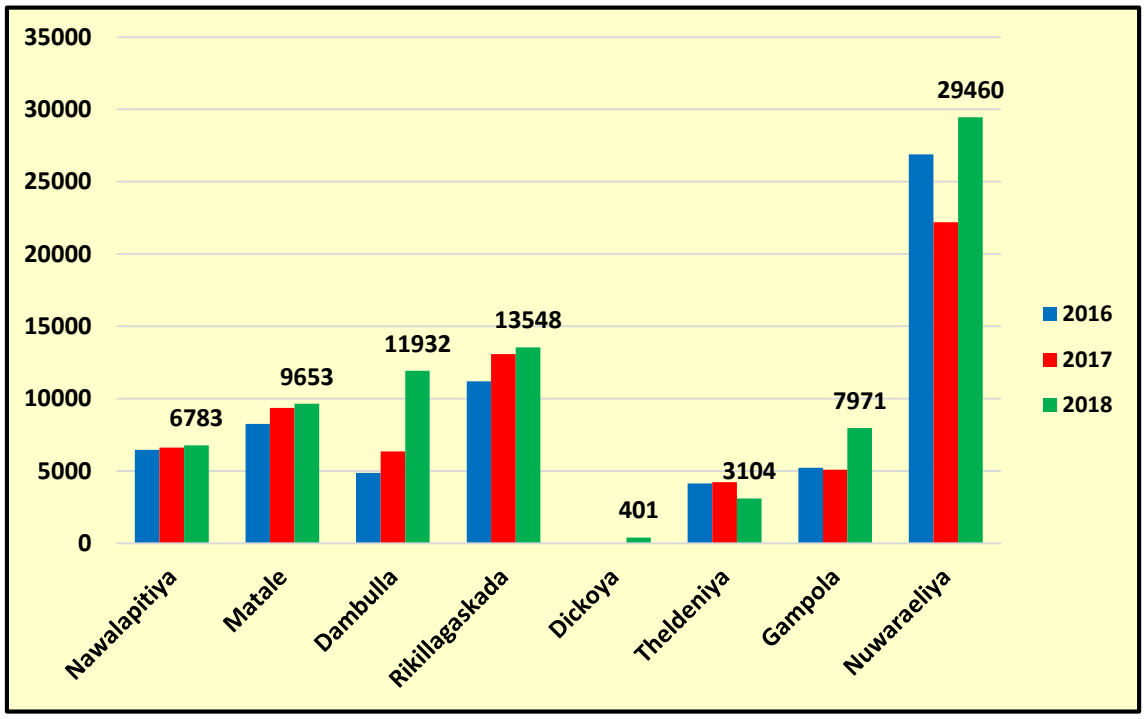


Fig. 3.10 No. Patients treated at ETUs in Secondary care Hospital



Compared to the Primary Healthcare settings, there is a huge difference in service provision from the secondary Healthcare institutions in terms of Clinic attendance, Inward admissions, Deliveries, and ETU admissions. This further indicates the need of strengthening the health care services at primary level. Generally there is an increasing trend of ETU admissions in all institutions.

Maternal and child health care services at secondary health care institutions showed a remarkable improvement over the last few years especially in terms of quality of service expecting a reduction in maternal and perinatal morbidity and mortality in the province.

Table 3.5 Maternal and new born Care Statistics of secondary care institutions under Central Provincial Health Department and National Ministry of Health

Type of Indicator	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya	BH Gampola	GH NuwaraEliya
No. of admissions to the Obstetric unit	4659	6735	4030	1753	2749	858	4818	7060
Daily average of maternal admissions	13	18	11	05	07	02	13	235

Total no. of deliveries	2957	5067	2888	815	2178	259	3192	4651
Single delivery	2926	5019	2859	812	2165		3160	4605
Twin delivery	31	48	27	03	13		31	44
Triplet delivery			02		-		01	02
Mode of delivery								
Spontaneous delivery	1616	2684	1946	459	1658	259	1384	2955
Forceps delivery	91	12	21	15	30		06	23
Breech delivery	03	08	10	-	26		-	11
Vacuum extractions	01	01	05	03	-		-	97
LSCS	1246	2362	906	338	464		1802	1565
Caesarean section rate %	42.14	46.6	31.3	41.4	21.3		56.4	33.6
Total no. of live births	2962	5085	2901	815	2174	259	3201	4651
Total no. of still births	26	30	18	03	17		24	48
Still birth rate (per 1000 LB)	8.7	5.9	6.2	3.7	7.8		7.5	10.3
Total live Births by birth weight								
<2500g	571	764	432	99	1626		595	1366
>2500g	2391	4321	2469	716	548		2606	3285
Percentage of low birth weight babies	19.3%	15.0%	14.9%	12.1%	25.2%		18.5%	29.3%
Early neonatal deaths*	12	11	07	-	06		05	-
Early neonatal death rate (per 1000 Live Births)	4.05	2.16	2.41	-	2.75		1.56	-
Maternal Deaths	0	0	0	0	0		0	0
Maternal death rate (Per 100,000 Live Births)	0	0	0	0	0		0	0

* Also refer table 3.13

Note:

- The **perinatal mortality rate** is the sum of early neonatal deaths and fetal deaths (stillbirths) per 1000 births.

In addition to curative care services, secondary healthcare institutes provide special preventive care activities such as rabies and tetanus vaccination.

Supportive services for curative care in secondary care institutions

3.2.1 Laboratory Investigations

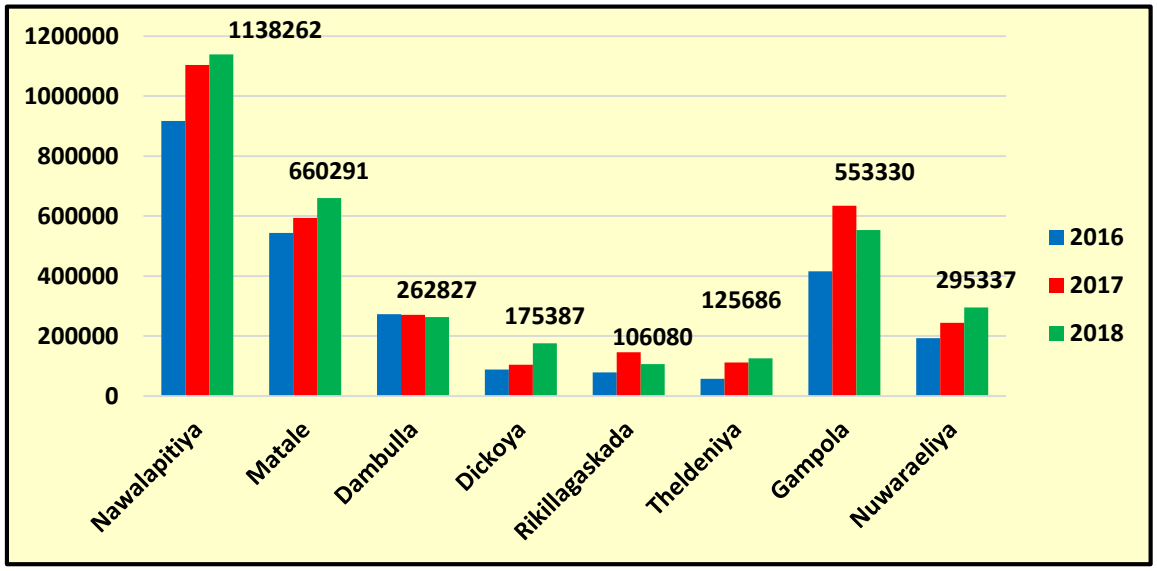
The facilities required to perform investigations ranging from basic investigations including urine sugar, blood sugar to the more sophisticated investigations including renal function tests are available at secondary care institutions in CP.

In 2018the Provincial Secondary Care Hospitals had performed approximately 3,317,200 laboratory tests in total.

Table 3.6 Summary of Laboratory Investigations done in secondary care institutions under Central Provincial Health Department and National Ministry of Health

Test category	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya	BH Gampola	GH NuwaraEliya
Biochemistry	291174	377649	109953	39733	44607	41997	348101	225243
Bacteriology	21673	12920	31122	30990	10327	-	49219	7369
Haematology	409688	118293	119987	35357	120453	78147	156010	62725
Histopathology	-	10196	1765	-	-	-	-	-
Other	415727	141233	-	-	-	5542	-	-
Total	1138262	660291	262827	106080	175387	125686	553330	295337
Total No of MLTs	11	16	8	03	03	03	10	14
No of tests per MLT per year	103478	41268	32853	35360	58462	41895	55333	21095

Fig. 3.11 Laboratory investigations handled by the secondary care hospitals



3.2.2 Radiology Investigations

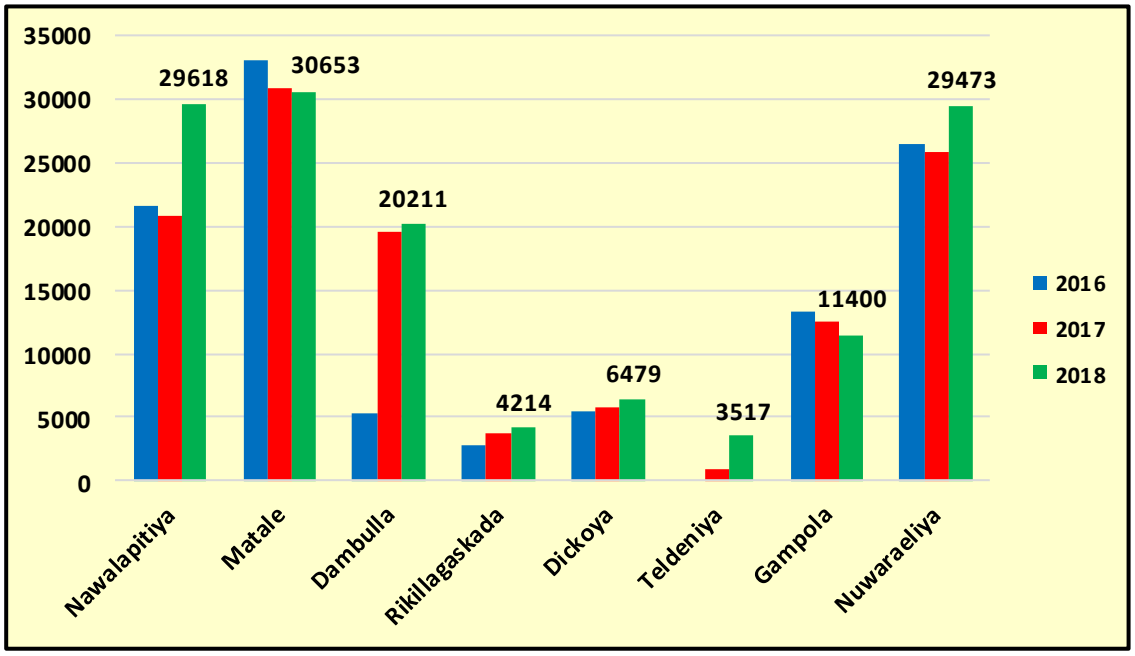
Radiological investigations play a major role in curative care and are available from secondary care hospitals onwards. Five secondary healthcare institutions under the Provincial Council geared to provide basic radiological investigations including plain X-rays, Barium studies and special procedures like Micturition Cysto-Urethrograms (MCUGs). Further, these hospitals provide ultrasound scanning facilities as well. Existing radiology facilities will also be improved further with modern equipment (eg. X-ray machines with fluoroscopy facilities and CT scans) in the near future.

Table 3.7 Radiological investigations done in secondary care institutions

	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya	BH Gampola	GH Nuwaraeliya
No of OPD & clinic cases	29618	6687	4774	1953	756	770	1748	11996
No of Ward cases	-	23966	15437	2261	5723	2747	9652	17477
Total of patients	29618	30653	20211	4214	6479	3517	11400	29473
No of other institute patients	-	-	-	-	-	297	-	-
Ultra sound scans	7839	14626	8234	2045	3857	2597	6652	-
Total No. Films	23206	45712	29352	7089	8898	4271	18446	-
No. Radiographers	04	05	03	01	01	02	04	06
No. tests per Radiographer per year	7404	6130	6737	4214	6479	1758	2850	4912

The department has been providing modern ultra sound scanning machines, modern X-ray machines, and other necessary investigation facilities for the secondary healthcare institutions.

Fig. 3.12 Radiology Investigations handled by secondary care Hospital



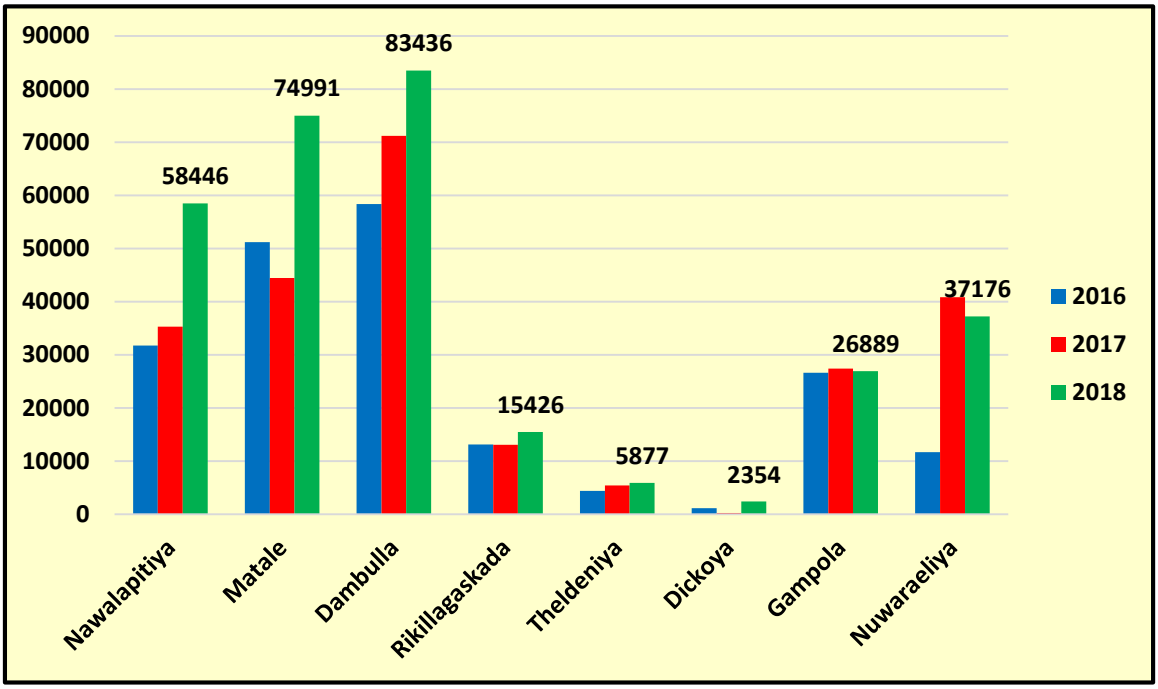
3.2.3 Electrocardiography services

Electrocardiography (ECG) being an informative investigation for the management of many life threatening conditions ranging from ischemic heart disease to certain types of poisoning. This facility is a vital requirement for secondary care institutions and widely being used.

Table 3.8 ECG recordings done in secondary care institutions under Central Provincial Health Department and National Ministry of Health

	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Theldeniya	DBH Dickoya	BH Gampola	GH Nuwaraeliya
OPD	5854	12345	16251	8420	2116	1411	8298	4073
Clinics	4451	5549	7160	434	763	943	1456	
Wards	48141	57097	60025	6542	2998		17135	33103
Total	58446	74991	83436	15426	5877	2354	26889	37176
No. of ECG recordists	02	02	2	-	01	-	04	05
No. of ECGs per recordist per year	29223	18747	41718	-	5877	-	6722	7435

Fig. 3.13 ECG Investigation done in Secondary Care Hospital



3.2.4 Blood bank services

Well-established blood bank is a mandatory requirement in any institution providing comprehensive maternal care services. Currently there are blood banks administered by the National Blood Transfusion Service, at all provincial secondary care institutions.

Table 3.9 Blood bank statistics of secondary care institutions under Central Provincial Health Department and National Ministry of Health

	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya	BH Gampola	GH Nuwaraeliya
No. of donors	2844	3415	1187	382	-	-	2454	3080
No. of blood pints taken from other Blood banks	835	775	205	260	1153	148	546	399
No. of blood pints issued	3346	3053	828	436	1482	68	2188	2629
No. of blood pints discarded	346	328	180	61	55	-	541	-

3.2.5 Physiotherapy Services

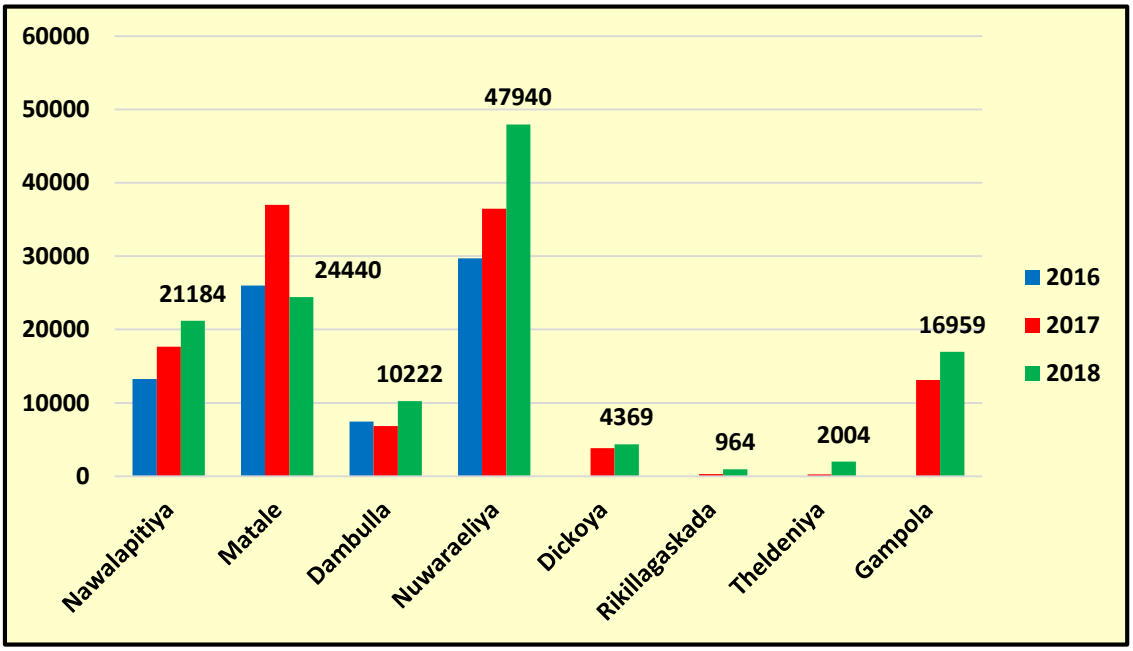
The Physiotherapy units at the DGH Nawalapitiya, DGH Matale and DBH Dambulla provide outpatient as well as inpatient services. These units have well trained physiotherapists supported by other required staff and are equipped to provide the appropriate therapy depending on the needs of the patients.

Details of the services provided are given in the table below.

Table 3.10 Physiotherapy services at secondary care institutions under Central Provincial Health Department and National Ministry of Health

	DGH Nawalapitiya	DGH Matale	DBH Dambulla	GH Nuwaraeliya	DBH Dickoya	DBH Rikillagaskada	DBH Theldeniya	BH Gampola
Total No of patients treated	21184	24440	10222	47940	4369	964	2004	16959
No. of Physiotherapists	03	04	01	08	01	01	02	03
Patients per Physiotherapist per year	7061	6110	10222	5992	4369	964	1002	5653

Fig. 3.14 Physiotherapy provided in Secondary Care Hospitals



3.2.6 Surgeries

Table 3.11 Surgeries conducted in secondary care institutions under Central Provincial Health Department

Specialty	DGH Nawalapitiya		DGH Matale		DBH Dambulla		DBH Dickoya		DBH Rikillagaskada		BH Gampola		GH Nuwara eliya		DBH Theldeniya	
	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major
General Surgery	3531	551	5575	292	6484	1549	2351	375	1122	311	3398	837	2936	639		84
Obstetrics	-	1260	-	2424	-	909	-	504	-	290	-	1770	790	2123		66
Gynecology	441	200	990	412	637	277	566	179	253	142	572	433	-	-		
EYE	49	493	311	720	515	1218	45	389			275	852	943	2150		
Dental and Maxillofacial	-	-	1554	150	-	-	-	-			-	-	644	111		
E.N.T.	228	77	452	339	-	-	-	-			322	161	270	85		
Other	776	186	762	385	-	-	-	-			-	-	554	769		
Total	**5025**	**2767**	**9644**	**4722**	**7636**	**3953**	**2962**	**1447**	**1375**	**743**	**4567**	**4053**	**6139**	**5877**		**150**

3.2.7 Special clinics

Some secondary care institutions were unable to provide some specialized care due to shortage of specialists in their stations.

Details of the specialized clinics conducted by various specialties are as follows.

3.12 Specialized clinics conducted in secondary care institutions 2018

Specialty	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Teldeniya	BH Gampola	GH Nuwaraeliya
Medical	103	156	140	93	54	54	241	97
Surgical	99	97	98	84	50	46	96	99
Gynecology & Obstetric	190	101	189	50	94	48	98	48
ANC	96	92	-	48	48		95	101
E.N.T	161	94	47	10	19	-	94	95
Eye	148	234	109	04	146	-	144	193
Pediatric	189	96	97	98	48	48	98	99
Psychiatric	246	218	286	94	90	48	145	135
Dental and Maxillofacial (OMF)	313	538	286	311	-	300	293	602
Chest	17	294	24	24	24	-	24	315
Diabetic	104	64	129	47	51	24	-	146
Dermatology	208	143	237	61	42	48	194	204
Orthopedic	-	64	-	-	-	-	-	-
Cardiology	-	388	47	-	-	-	-	116
STD	-	310	-	-	04	-	-	258
Immunization	-	95	-	50	49	-	-	-
Neurology	-	29	-	-	-	-	-	-
CKD			24		-			-
Other	446	289	105		151	84	48	618

3.2.8 Premature Baby Unit (PBU)

Maternal and child care is always in top priorities of the healthcare sector as the origin of a healthy nation begins from the healthy mother and a baby. The department of health service central province has given its special attention to improve the quality of infant care in the province.

DGH Nawalapitiya, Matale and DBH Dambulla have well equipped premature baby units and other secondary care institutions also will possess the high quality facilities to provide these services in near future.

Table 3.13 Premature Baby Care in secondary care institutions under Central Provincial Health Department and National Ministry of Health

		DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Dickoya	BH 'Gampola	GH Nuwaraeliya
1	**Admissions**	501	525	689	81	596	425
2	**Maturity**						
	< 28 weeks	10	13	06	02	09	16
	28-36 weeks	125	137	86	27	133	177
	> 36 weeks	366	375	597	46	454	232
3	**Weight**						
	< 1000g	13	22	04	03	08	24
	1000 – 1490g	34	30	23	11	34	83
	1500 – 2490g	170	175	160	29	217	179
	>2500g	283	298	502	37	337	139
4	**Reason for admission**						
	Birth Asphyxia	20	07	02	03	07	11
	Meconium Aspiration	17	19	24	04	20	04
	Preterm	58	97	50	24	83	139
	IUGR	-	15	19	10	12	22
	Grunting	56	55	49	18	66	57
	Poor Sucking/lethargy	37	38	23	03	58	37
	Gestational DM	-	0	05	01	30	01
	Congenital abnormality	07	15	07	02	27	16
	Septicemia	-	12	-	-	293	-
	Jaundice	-	50	-	-		-
	Fever	-	21	-	-		-
	Other	301	196	496	17		138
5	**Total Number of NND***	15	35	10	04	05	28
	Number of early NND*(Deaths within the first 7 days of life)	11	18	07	04	05	12
6	**Cause of Death**						
	Prematurity	09	17	06	02	02	03
	Birth Asphyxia + Septicemia	01	03	-	01	01	05
	Congenital abnormality	01	07	03	01	02	12
	Other		08	01	-	-	
7	**Number Discharged**	467		651	29	126	380
8	**Number Transferred out**	20	11	13	41	41	16

*** Includes Deaths of Transferred out babies**
Also refer table 3.5
Mortality during the neonatal period accounts for a large proportion of child deaths, and is considered to be a useful indicator to evaluate the quality and adequacy of maternal and neonatal healthcare.

3.2.9 Intensive Care Unit

DGH Nawalapitiya, DGH Matale, and DBH Dambulla have intensive care facilities and DBH Dickoya, DBH Theldeniya will start intensive care facilities when new building complexes start fully functioning soon. Having HDU facilities attached to the wards in secondary care hospitals reduces the demand for intensive care facilities, and thereby reduces the high cost of care. Hence the HDU facilities at secondary care hospitals will further be improved.

Table 3.14 ICU statistics in secondary care institutions under the Department of Health Services Central Province and National Ministry of Health

	DGH Matale	DGH Nawalapitiya	BH Dambulla	DBH Dickoya	BH Gampola	GH Nuwaraeliya
No. of ICU beds	05	04	03	06	03	05
ICU admissions	399	317	203	134	187	323
ICU deaths	88	83	64	17	57	78
ICU death rate	22.06	26.2	31.5	12.6	30.48	24.14

3.2.10 Hospital deaths

The numbers of hospital deaths which took place at all eight secondary care institution are given below.

Table 3.15 Hospital deaths which occurred in secondary care institutions under Central Provincial Health Department and National Ministry of Health

	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya	BH Gampola	GH Nuwaraeliya
No of Deaths on admission (OPD Deaths)	91	118	112	20	98	58	206	174
Inpatients deaths	323	681	468	87	271	98	426	677
Deaths within 48 hours of admission	37	383	277	66	164	57	265	-
Deaths after 48 hours of admission	286	298	191	21	107	41	161	-
Still births	26	28	18	03	17	-	24	48
Maternal deaths	-	-	-	-	-	-	-	0

It is clearly evident that approximately 50% - 75% of the hospital deaths in these institutions occurred within 48 hours of admission which emphasizes the importance of improving emergency care in these hospitals as well as in other primary care hospitals from where they get transferred. Increasing number of on admission deaths at secondary care institutions also strongly suggest improving emergency care facilities at peripheries of the province.

3.3 Regulation of Private Health Services

Private Medical Institutions (Registration) Act was drafted in 2006, identifying the necessity and interest of providing a safe and efficient medical service for the people, to set out a National Policy in relation to the provision of medical services through private medical institutions, so as to regularize the manner in which such services are provided. Private medical Institutions registration was made a requirement by law and all Provincial Directors of Health Services are expected by law to facilitate registration of these institutions with the Private Health Services Regulatory Council and council members. Notice to this effect was given by Gazette notification No.1489/18 of 22nd March 2007 issued by the Minister of Healthcare & Nutrition.
The law specifically outlines that the Private Health Services Regulatory Council shall provide registration to the institutions or premises to which the relevant application satisfies the criteria prescribed by the regulatory Council.

Consequently, there were 20 private hospitals based in the urban areas of the province receiving registration in 2014 under the Act. Additionally six medical specialists, 55 general practitioners and 11 dental surgeons providing full time care in the private sector while relatively a larger proportion of the Government employed medical

specialists, medical officers and dental surgeons are also practicing in the private sector on part time basis. Complementing these services are 31 medical Centers and 71private medical laboratories within the province. There are 31 medical centers and 71 private medical laboratories providing part time private medical services.
The central province health department plays a vital role in strengthening the private health care service to people as to get registered all the private health care facilities from private hospital to other supportive care services such as private laboratories while ensuring the quality of the services.

3.4 Tertiary care services

All tertiary care institutions in the province are operated under the National ministry of Health Colombo, and institutions under the provincial health department are working in close collaboration with the tertiary care hospitals including Teaching Hospital Kandy, TH Peradeniya, and Sirimavo Bandaranayke Children hospital Peradeniya. Following tables summarize the information on available services and facilities in these Institutions.

Table 3.16 The bed strength and the services provided by tertiary care institutions in Central Province

	TH Kandy	**TH Peradeniya**	**SBCH Peradeniya**
No. of wards	78	20	10
No. of beds	2405	957	341
OPD attendance	394530	330452	244133
Admissions	232598	83592	26852
Bed occupancy rate	79%	80%	52.5%
Total No.of Inpatient days	689946	279586	65316
Total No. of inpatient Deaths	2905	947	122
Total No of patient Transferred out	739	3161	586
Minor operation done	43403	6906	1794
Major operation done	22827	10839	2021
Total No of Clinics Held	12739	4287	3256
Total No of Clinics Attendance	1068442	364916	155181

Being the second largest hospital in Sri Lanka, Teaching Hospital Kandy handles the largest number of patients from the Province.

3.4.1 Maternity Statistics

Table 3.17 Maternity Statistics

Service/ Indicators	TH Kandy	TH Peradeniya
No.of admissions to Obstetric unit	12090	19127
Daily average of maternal admissions	33	52
Total no.of deliveries	9195	8022
Single delivery	9093	7935
Twin delivery	98	81
Triplet delivery	04	06
Other (4 babies)	-	-
Mode of delivery		
Spontaneous delivery	5177	3972
Forceps delivery	130	07
Breech delivery	49	-
Vacuum extractions/others	31	31
LSCS	3808	4012
Total no.of live births	9211	8054
Total no.of still births	90	61
Still birth rate (per 1000 live births)	9.7	7.5
Total live Births by birth weight		
>2500g	7521	6783
<2500g	1690	1271
Percentage of low birth weight babies	18.3%	15.8%
Early neonatal deaths*	63	40
Early neonatal death rate (per 1000 LB)	6.84	4.9
Maternal Deaths	09	02
Maternal death rate (per 100,000 LB)	97	
Manual removal of placenta	77	-
Postpartum hemorrhage	34	-

3.4.2 Laboratory Investigations

Table 3.18 Laboratory Investigations

Test category	TH Kandy	TH Peradeniya	SBCH Peradeniya
Biochemistry	980416	72171	162190
Microbiology	208937	67910	51566
Hematology	284076	236661	118856
Other	-	-	46569
Total	1473429	376742	379181
Total No of MLT	68	28	17
No of test per MLT per year	21668	13455	22304

3.4.3 Radiology Investigations

The total number of radiological investigations performed is significantly higher in the tertiary care units compared to the secondary care units.

Table 3.19 Radiology Investigations

	TH Kandy	TH Peradeniya	SBCH Peradeniya
No of OPD & clinic cases	28628	15695	
No of Ward Cases	142205	3622	
Total	170833	19317	23733
No. of other institution patients	-	-	-
X rays	112227	24214	9264
Total films	176737	31550	-
Ultra Sound Scans	25771	13071	7354
CT Scans	27484	8027	5589
Imaging Magnetic Resonance	11830	-	1526
No of Radiographers	31	16	08
No. of tests per Radiographer per year	5510	1207	2966

3.4.4 E.C.G. services

Table 3.20 E.C.G. services

	TH Kandy	TH Peradeniya	SBCH Peradeniya
OPD	29762	15798	308
Clinics		6319	1936
Wards	88560	91364	865
other	-	-	421
Total	**118322**	**113481**	**3530**
No. of ECG recordists	15	07	04
No. of ECG per recordist per year	7888	16211	882

3.4.5 Blood bank services

Table 3.21 Blood bank services

	TH Kandy
Blood Balance at the beginning of the year	838
Total No.of Blood taken from Donors	27408
No. of blood pints taken from other Blood banks	153
No. of blood pints issued	26383
No. of blood pints discarded	160
Blood balance at the end of the year	1350

3.4.6 Physiotherapy services

Table 3.22 Physiotherapy services

	TH Kandy	TH Peradeniya	SBCH Peradeniya
No of OPD Patients	45850	8928	-
No of Clinics Patients		24323	4801
No.of Wards Patients	77372	51561	4991
No of ICU Patients			6139
Total No of patients treated	**123222**	**84812**	**15931**
No. of Physiotherapists	33	08	06
Patients per Physiotherapist per year	3734	10601	2655

3.4.7 Special clinics Held

Table 3.23 Special clinics held

	TH Kandy	TH Peradeniya	SBCH Peradeniya
Medical	787	570	179
Surgical	288	495	243
Antenatal	142	265	-
Gynecology and Family Planning	502	684	-
E.N.T	585	-	289
Eye	1163	-	229
Pediatric	237	539	-

Psychiatric	215	458	-
Dental and Maxillofacial (OMF)	457	283	-
Neonatal Clinic	-	180	227
Post-natal	-	259	-
Child Guidance Clinic	-	-	248
Cardiology	604	-	242
Chest	147	-	-
Orthopedic	-	190	87
Orthodontic	-	-	289
Endocrinology	-	-	209
Immunization	-	-	48
Nephrology	-	-	120
Neurology	-	-	244
Diabetic	396	53	-
Dermatology	339	-	136
Other	6877	311	466
Total No.of Clinics held	12739	4287	3256

3.4.8 Surgeries

Table 3.24 Surgeries

Specialty	TH Kandy		TH Peradeniya		SBCH Peradeniya	
	Major	Minor	Major	Minor	Major	Minor
General Surgery	927	16272	2773	2761	1368	1309
Obstetric Gynecology	5644	2480	5917	1522	-	-
EYE	8173	2900	-	-	206	74
Dental and Maxillofacial	142	3294	755	562	-	-
E.N.T.	538	6140			433	404
Orthopedic	2256	5214			14	07
Urology	1507	3540				
Neurology	1385	578				
Onco surgery	408	170				
Pediatric surgery	509	1058				
Cardiothoracic	634	-				
Plastic surgery	169	255				
Gastrointestinal	241	157				

Nephrology	156	182				
Vascular surgery	137	1163				
Liver transplant	01	-				
Other			1394	2061		
Total	**22827**	**43403**	**10839**	**6906**	**2021**	**1794**

3.4.9 Premature Baby Unit (PBU)

Table 3.25 Premature Baby Unit (PBU)

		TH Kandy	**TH Peradeniya**	**SBCH Peradeniya**
1	Admissions	967	1182	647
2	Maturity < 28 weeks 28-36 weeks > 36 weeks	 10 336 621		
3	Weight < 1000g 1000 - 1490 g 1500 – 2490 g >2500g	 22 96 365 484		
4	Reason for admission Birth Asphyxia Meconium Aspiration Pre Term IUGR Grunting Poor sucking/lethargy Gestational DM Congen. Abnormality Other	 30 119 303 51 166 01 297	 - 196	 - 01 33
5	*Total Number of NND	56		47
6	*Number of early NND (Deaths within the first 7 days of life)	32	40	22
7	Cause of Death Prematurity Birth Asphyxia +Septicemia Congen. Abnormality Other	 26 08 04 18	 11 04	 06 04
8	Number Discharged	475	1133	623
9	Number Transferred out	26	51	23

Includes Deaths of Transferred out babies

3.4.10 ICU care

Table 3.26 ICU statistics

	TH Kandy	TH Peradeniya	SBCH Peradeniya
ICU admissions	63	572	542
ICU deaths	696	193	107
ICU death rate %	10.8	34	19.8

3.4.11 Hospital deaths

Table 3.27 Hospital deaths

	TH Kandy	TH Peradeniya	SBCH Peradeniya
No of Deaths on admission (OPD Deaths)	114	112	06
Inpatients deaths	2905		122
Deaths within 48 hours of admission	1183	387	32
Deaths after 48 hours of admission	1722	560	90
Still births	90	61	-
Maternal deaths	09	02	-

3.4.12. Emergency Treatment Unit

Table 3.28 Emergency Treatment Unit

	TH Kandy	TH Peradeniya	SBCH Peradeniya
No.of Patients treated in the ETU	36592	26025	6507
No. of Transfers	29141	2074	26
Total No.of ETU Deaths (Within 24 hours)	272	82	08

4. MORBIDITY AND MORTALITY

Even though Sri Lanka has a good field surveillance system for communicable diseases, there is no proper field data collection method for other diseases, especially the non-communicable diseases. However, morbidity and mortality data on inpatient care at the government hospitals are available from different sources. . Data on outpatient care are not routinely collected except for the special surveys. Apart from these, data on both inpatient and outpatient care at the private institutions are also not available. In the government health system, indoor morbidity and mortality register (IMMR) has become the major source of information on these aspects.

4.1 Inpatient mortality and morbidity

Inpatient morbidity and mortality data are collected by individual hospitals through quarterly returns which are sent to the medical statistical unit, Colombo for further analysis. The timeliness of sending these data and quality of the available data are still not up to the expected standards. Curative care institutions of the Central Province have started e-IMMR parallel to the national programme, to overcome these issues.

The summary of Provincial and District data on leading causes of hospitalizations and hospital deaths (including line ministry institutions) for the year 2016 are shown in tables 4.1 and 4.2. As described earlier these data are analyzed by the Medical statistics unit, Colombo and the data are available only for the year 2017 at the moment.

Table 4.1 shows that persons encountering health services for Traumatic Injuries ranked top in hospital morbidity in all three districts. This clear evidence of a large number of patients with injuries admitting to the hospitals suggests the researchers and policy makers to think of new research studies and alternative solutions.

Ischemic heart disease has ranked in the top list of the hospital mortality in the Province, which may be compatible with the national figures.

Neoplasms ranked as number 2 in hospital mortality.

Table 4.1 Leading causes of hospitalization in Central Province - 2018

Central Province			Kandy		
Disease and ICD Code	**No.**	**Rank**	**Disease and ICD Code**	**No.**	**Rank**
Traumatic injuries (S00-T19, W54)	125,860	1	Traumatic injuries (S00-T19, W54)	65,134	1
Signs, symptoms and abnormal clinical findings (R00-R99)	76,281	2	Signs, symptoms and abnormal clinical findings (R00-R99)	43,321	2
Viral diseases (A80-B34)	60,704	3	Viral diseases (A80-B34)	42,109	3
Diseases of the resp. system exclu... (J20-J22, J40-J98)	57,107	4	Diseases of the resp. system exclu... (J20-J22, J40-J98)	32,592	4
Diseases of the gastrointestinal tract (K20-K92)	40,657	5	Diseases of the gastrointestinal tract (K20-K92)	24,065	5
Other obstetric conditions	33,277	6	Diseases of the urinary system (N00-N39)	21,539	6
Diseases of the urinary system (N00-N39)	32,278	7	Other obstetric conditions	18,478	7
Diseases of the eye and adnexa (H00-H59)	29,889	8	Diseases of the eye and adnexa (H00-H59)	14,717	8
Diseases of skin ad subcutaneous tissue (L00-L08,L10-L98)	23,676	9	Disorders of the musculoskeletal system (M00-M99)	13,957	9
Disorders of the musculoskeletal system (M00-M99)	22,673	10	Diseases of skin ad subcutaneous tissue (L00-L08,L10-L98)	13,649	10
Other dise. of the upper respir. tract (J00-J06,J30-J39)	18,628	11	Neoplasms (C00-D48)	13,137	11
Intestinal infectious diseases (A00-A09)	15,827	12	Other dise. of the upper respir. tract (J00-J06,J30-J39)	11,429	12
Neoplasms (C00-D48)	14,782	13	Intestinal infectious diseases (A00-A09)	9,276	13
Hypertensive diseases (I10-I15)	14,502	14	Ischaemic heart disease (I20-I25)	8,382	14
Ischaemic heart disease (I20-I25)	14,268	15	Hypertensive diseases (I10-I15)	7,740	15

Source – Medical statistical unit, Colombo

Matale			Nuwara Eliya		
Disease and ICD Code	**No.**	**Rank**	**Disease and ICD Code**	**No.**	**Rank**
Traumatic injuries (S00-T19, W54)	33,514	1	Traumatic injuries (S00-T19, W54)	27,212	1
Signs, symptoms and abnormal clinical findings (R00-R99)	20,839	2	Signs, symptoms and abnormal clinical findings (R00-R99)	12,121	2
Viral diseases (A80-B34)	12,726	3	Diseases of the resp. system exclu... (J20-J22, J40-J98)	12,079	3
Diseases of the resp. system exclu... (J20-J22, J40-J98)	12,436	4	Diseases of the gastrointestinal tract (K20-K92)	7,934	4
Diseases of the eye and adnexa (H00-H59)	11,512	5	Viral diseases (A80-B34)	5,869	5
Other obstetric conditions	8,985	6	Other obstetric conditions	5,814	6
Diseases of the gastrointestinal tract (K20-K92)	8,658	7	Disorders of the musculoskeletal system (M00-M99)	4,352	7
Diseases of the urinary system (N00-N39)	7,168	8	Hypertensive diseases (I10-I15)	3,948	8
Diseases of skin ad subcutaneous tissue (L00-L08,L10-L98)	6,256	9	Other dise. of the upper respir. tract (J00-J06,J30-J39)	3,836	9
Disorders of the musculoskeletal system (M00-M99)	4,364	10	Diseases of skin ad subcutaneous tissue (L00-L08,L10-L98)	3,771	10
Other dise. of the upper respir. tract (J00-J06,J30-J39)	3,363	11	Diseases of the eye and adnexa (H00-H59)	3,660	11
Intestinal infectious diseases (A00-A09)	3,127	12	Diseases of the urinary system (N00-N39)	3,571	12
Hypertensive diseases (I10-I15)	2,814	13	Intestinal infectious diseases (A00-A09)	3,424	13
Dis. Of the ear …(H60- h61,H65-H74, H80-H83, H90-H95)	2,767	14	Ischaemic heart disease (I20-I25)	3,185	14
Ischaemic heart disease (I20-I25)	2,701	15	Diabetes mellitus (E10-E14)	2,985	15

Source – Medical statistical unit, Colombo

Table 4.2 Leading causes of hospital deaths in Central Province - 2018

Central Province			Kandy		
Disease and ICD Code	**No.**	**Rank**	**Disease and ICD Code**	**No.**	**Rank**
Ischaemic heart disease (I20-I25)	752	1	Neoplasms (C00-D48)	586	1
Neoplasms (C00-D48)	681	2	Other bacterial diseases (A20-A49)	463	2
Other bacterial diseases (A20-A49)	645	3	Ischaemic heart disease (I20-I25)	430	3
Cerebrovascular disease (I60-I69)	611	4	Diseases of the resp. system exclu... (J20-J22, J40-J98)	407	4
Diseases of the resp. system exclu... (J20-J22, J40-J98)	600	5	Cerebrovascular disease (I60-I69)	407	4
Other heart diseases (I26-I51)	545	6	Other heart diseases (I26-I51)	282	6
Pneumonia (J12-J18)	430	7	Pneumonia (J12-J18)	225	7
Diseases of the urinary system (N00-N39)	310	8	Diseases of the urinary system (N00-N39)	221	8
Diseases of the gastrointestinal tract (K20-K92)	241	9	Diseases of the gastrointestinal tract (K20-K92)	169	9
Traumatic injuries (S00-T19, W54)	228	10	Traumatic injuries (S00-T19, W54)	153	10
Diabetes mellitus (E10-E14)	122	11	Diseases of the nervous system (G00-G98)	93	11
Diseases of the nervous system (G00-G98)	114	12	Diabetes mellitus (E10-E14)	89	12
Hypertensive diseases (I10-I15)	112	13	Hypertensive diseases (I10-I15)	80	13
Slow fetal growth, fetal malnutrition and... (P05-P07)	90	14	Congenital malformations deformations... (Q00-Q99)	68	14
Congenital malformations deformations... (Q00-Q99)	73	15	Slow fetal growth, fetal malnutrition and... (P05-P07)	54	15

Source – Medical statistical unit, Colombo

Matale			Nuwara Eliya		
Disease and ICD Code	**No.**	**Rank**	**Disease and ICD Code**	**No.**	**Rank**
Ischaemic heart disease (I20-I25)	206	1	Other heart diseases (I26-I51)	146	1
Pneumonia (J12-J18)	144	2	Cerebrovascular disease (I60-I69)	119	2
Other bacterial diseases (A20-A49)	133	3	Ischaemic heart disease (I20-I25)	116	3
Other heart diseases (I26-I51)	117	4	Diseases of the resp. system exclu... (J20-J22, J40-J98)	88	4
Diseases of the resp. system exclu... (J20-J22, J40-J98)	105	5	Pneumonia (J12-J18)	61	5
Cerebroavascular disease (I60-I69)	85	6	Neoplasms (C00-D48)	50	6
Traumatic injuries (S00-T19, W54)	67	7	Other bacterial diseases (A20-A49)	49	7
Diseases of the urinary system (N00-N39)	62	8	Diseases of the urinary system (N00-N39)	27	8
Neoplasms (C00-D48)	45	9	Diseases of the gastrointestinal tract (K20-K92)	27	9
Diseases of the gastrointestinal tract (K20-K92)	45	10	Signs, symptoms and abnormal clinical findings (R00-R99)	24	10
Slow fetal growth, fetal malnutrition and... (P05-P07)	34	11	Hypertensive diseases (I10-I15)	16	11
Diabetes mellitus (E10-E14)	24	12	Toxic effects of pesticides (T60.0,T60.1-T60.9)	14	12
Toxic effects of pesticides (T60.0,T60.1-T60.9)	22	13	Toxic effects of ot. sub. oth. tha... (T36-T59,T61-T62,T63.1-T65)	13	13
Other conditions originating in the perinatal period (P00-P04, P08-P96)	20	14	Tuberculosis (A15-A18)	13	14
Signs, symptoms and abnormal clinical findings (R00-R99)	18	15	Diabetes mellitus (E10-E14)	9	15

Source – Medical statistical unit, Colombo

5. PREVENTIVE HEALTH SERVICES

Preventive health services are provided through a well-established network of Medical Officer of Health unit, which has the same geographical boundaries as the Divisional Secretary area. The Divisional Secretary areas with extreme large populations of over 100,000 have been divided to ensure that equitable manageable populations are covered within each MOH area. The structure and system ensures that all people receive the services required to minimize them getting any disease. The department has prepared a new cadre proposal according to national norms to meet the challenges ahead such as NCDs and issues pertaining to elderly.

This chapter includes information of activities on Maternal and Child health, School Health, Family Planning, Well Women Services, Epidemiological Services, Environment Health, Expanded Programme on Immunization (EPI), Health Promotion, Cosmetics drugs and devices and supportive supervision.

5.1. Maternal and Child Health

This chapter includes information on family health activities conducted by public health staff in the field and at clinics. (Clinics in the field and divisional hospitals)

Table 5.1 The population statistics, types of clinics done in 2017- 2018

	Kandy		Matale		Nuwara-Eliya		Total	
	2017	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**
Estimated Population*	1,451,909	1,399,277	514,666	520,180	756,662	763,884	2,723,237	2,683,341
Estimated eligible families	268,603	272,046	95213	96,233	134262	141318	498,078	509,597
Estimated number of births	25,503	24,464	8914	8,808	13291	13636	47,708	46,908
ANC	16	17	2	4	37	39	55	60
CWC	14	25	9	7	12	11	35	43
FPC	12	12	1	2	6	5	19	19
ANC/CWC	172	164	9	8	39	23	220	195
ANC/FPC	30	10	1	1	40	32	71	43
Number poly clinic	314	311	225	216	206	264	745	791
Number field weighing posts	2,065	2,065	995	995	1259	1097	4,319	4,157

* Department of Census and Statistics

Maternal and child health services had been provided through 122 Single Clinics, 238 Combined Clinics and 791 Poly Clinics at the end of the year 2018.

Table 5.2 Ante natal care services provided in the Central Province

Indicator	2017		2018	
	No.	%	No.	%
Eligible families under care	484673	96.20	494378	99.60
Pregnant mothers registered by PHMM	46141	89.50	45,444	94.20
Pregnant mothers registered before 8 weeks POA	34653	75.10	34,398	75.69
Pregnant mothers registered before 12 weeks POA	42721	92.58	42156	92.76
Primi registered	14256	30.89	13,890	30.57
Pregnant mothers tested for VDRL at delivery	37449	97.90	37,653	98.50
Pregnant mothers blood grouping done at delivery	37785	98.80	37,921	99.20
Pregnant mothers protected with Rubella	45002	97.50	44420	97.70
Teenage pregnancies registered	1893	4.10	1752	3.90
Pregnant mothers with BMI < 18.5 kg/m²	6758	17.50	6,370	16.70
Pregnant mothers with BMI > 25.0 kg/m²	9549	24.70	10,117	26.50

The reported data in year 2018 indicate that 99.6% of the eligible families were under care of the Public Health Midwives out of estimated eligible families. Public Health Midwives have registered 45,444 pregnant mothers during year 2018 which is 94.2% of the estimated figure. Pregnant mothers registered before 8 weeks of gestations is improved in year 2018.

The registration of a higher percentage of pregnant mothers before 8 weeks shows that the both Public Health Midwives and families are aware on the importance of early registration. Out of all registered pregnant mothers, 3.6 % were teenage mothers. Service indicators such as VDRL coverage, Blood Grouping & Rh, Rubella were reported over 97%.

Table 5.3.Results of natal Care provided in the Central Province

Indicator	2017		2018	
	Number	%	Number	%
Deliveries reported by PHM	38,256	81.7	38,231	85.5
Home deliveries	49	0.13	50	0.13
Home deliveries receiving untrained assistance	36	73.7	39	78
Live births reported	36,842	77.2	36,677	78.2
Multiple births	623	1.69	615	1.67
Still Births reported *	254	6.89	302	8.23
Abortions reported	3856	8.73	3,988	8.77
Low birth weight	4895	13.5	4951	13.7

*** Per 1000 LB**

PHMM reported a total number of 38,231 deliveries during 2018 which was 85.5% of estimated deliveries. The rate of home deliveries was not changed during past years. Hence, Further efforts should be taken to discourage all home deliveries while investigating the causes to take preventive measures. Of the single live births, 13.7% were low birth weight (LBW, birth weight less than 2500gr). 3988 abortions were reported in the year of 2018.

Table 5.4 Post partum care provided by the Public health midwives

Indicator	2017		2018	
	Number	%	Number	%
At least 1 visit during first 10 days (of reported deliveries)	35572	92.95	36,063	94.33
At least 1 visit during first 10 days (of estimated deliveries)	35572	75.90	36,063	80.50
Post natal care around 42 day	28270	73.88	29,516	77.21

In 2018 the number of post partum visits during the first 10 days was 80.5% of the estimated deliveries. The post partum visits reported by PHM around the 42nd days was 77.2% in 2018.

Table 5.5 Post partum maternal morbidities reported in the Central Province

Indicator	2017		2018	
	Number	%	Number	%
Post Partum Depression	33	0.09	34	0.09
Haemorrage	215	0.56	188	0.49
UTI	174	0.45	131	0.34
Infected Episiotomy	565	1.5	597	1.6
Separated Episiotomy	429	1.1	434	1.1
Foreign material in vagina	42	0.11	33	0.09
Infected caesarian section	880	2.3	922	2.4
Deep vein thrombosis	13	0.03	14	0.04
Postpartum psychosis	84	0.22	101	0.26
Engorged Breast	703	1.8	719	1.9
Breast abscess	53	0.14	45	0.13
Cracked nipple	379	0.99	318	0.83
Heart failure	13	0.03	8	0.02
Other	1837		1893	
Total	**4443**	**11.8**	**4400**	**11.3**

Infected Caesarian section, Infected/ Separated Episiotomy, Engorged breasts were the most common postpartum complications reported by the public health midwives in 2018. Engorged breast is a preventable public health problem which needs improvement in awareness and support through MOH level.

Table 5.6 Infant care provided by Public Health Midwives

Indicator	2017		2018	
	Number	%	Number	%
Infants registered by PHMM	40728	87.0	40,260	89.8
Infant deaths reported by PHMM *	333	9.0	397	10.8
Infant deaths investigated by PH staff	238	71.47	336	84.63
Neonatal Deaths reported	242	72.6	283	71.2
Post neonatal deaths reported	91	27.4	114	28.8
Perinatal deaths reported *	441	11.7	446	13.5
Child deaths (1 -4 years) reported	81		53	

*** per 1000 LB**

Infant and Neo-natal death reporting have been improved in 2018. Out of the deaths reported, 84.63% has been investigated by the PH staff.

Table 5.7 Growth Monitoring of children under 5 years by Public Heath Midwives

Indicator	2017		2018	
	Number	%	Number	%
Average number of infants weighed monthly	35865	85.8	35233	86.2
Infants weighing below – 2Sd	2375	6.6	2409	6.8
Infants weighed below – 3Sd (severe underweight)	602	1.7	613	1.7
Infants weighed over + 2Sd (over weight)	79	0.22	93	0.22
monthly average children weighed 1-2 yrs	39594	87.4	34894	81.1
Number of Children 1-2 yrs weighing below -2Sd (moderate underweight)	4589	11.6	4334	12.4
Number of Children 1-2 yrs weighing below -3Sd (severe underweight)	1039	2.6	936	2.7
Number of Children 1-2 yrs weighing over + 2Sd (over weight)	86	0.22	77	0.22
Quarterly average of children 2-5 yrs weighed	120277	88.0	123331	82.7
Number of children 2-5 yrs weighing below – 2Sd (underweight)	14997	18.2	14446	18.0
Number of children 2-5 yrs who weighed below – 3Sd (severe underweight)	3130	3.8	2876	3.6
Number of children 2-5 yrs weighed who were above + 2 Sd (over weight)	199	0.24	178	0.22

The new WHO growth charts for girls and boys are included in the new Child Health Development Record (CHDR) which made it possible to identify children with moderately underweight (below – 2SD), severe under weight (below -3Sd) and also with the children over weight. 86.2% of the infants weighed monthly in 2018 which improved and is necessary to take timely action to prevent growth faltering.

Out of the children 1-2yrs weighed 12.4% were moderately under weight (<-2Sd) while 2.7% were classified as severely under weight (< - 3SD).

Data on Children 2-5yrs weighed, should be interpreted with caution as the reporting system gets only the number of times children are weighed monthly, hence the calculation is based on an assumption that children are weighed only once in three months. The percentage of children 2-5yrs under weighed was 82.7%.With the present health information system it is not possible to identify the percentage of infants who are weighed at least 9 times during their first years nor able to identify the percentage of children who are not weighed regularly. The moderate and severe underweight reported in the Nuwaraeliya District is much higher than the other two Districts, which is in line with all national surveys including the recent DHS 2006.

5.1.1 Maternal Deaths

Pregnancy and childbirth are special events in women's life and in the lives of their families. Although pregnancy is not a disease but a normal physiological process, it is not free of risk to the health and survival of the mother as well as the unborn child. Any maternal death is a tragedy and also a social injustice for individual women, their families and their communities. Most maternal deaths are avoidable, and are therefore unacceptable. It has also been estimated that for every woman who dies, 30 – 40 women suffer from lifelong disability causing them to suffer for the rest of their lives.

Sri Lanka is unique among countries in the South Asia region in that the maternal mortality has been reduced to a low level of around 39 per 100,000 live births. Despite the low national MMR figure a wide district variation exists. With such low figures of MMR all efforts need to be taken to prevent every single death.

The national MMR calculated for SL in 2017 was 39 per 100,000 LB.

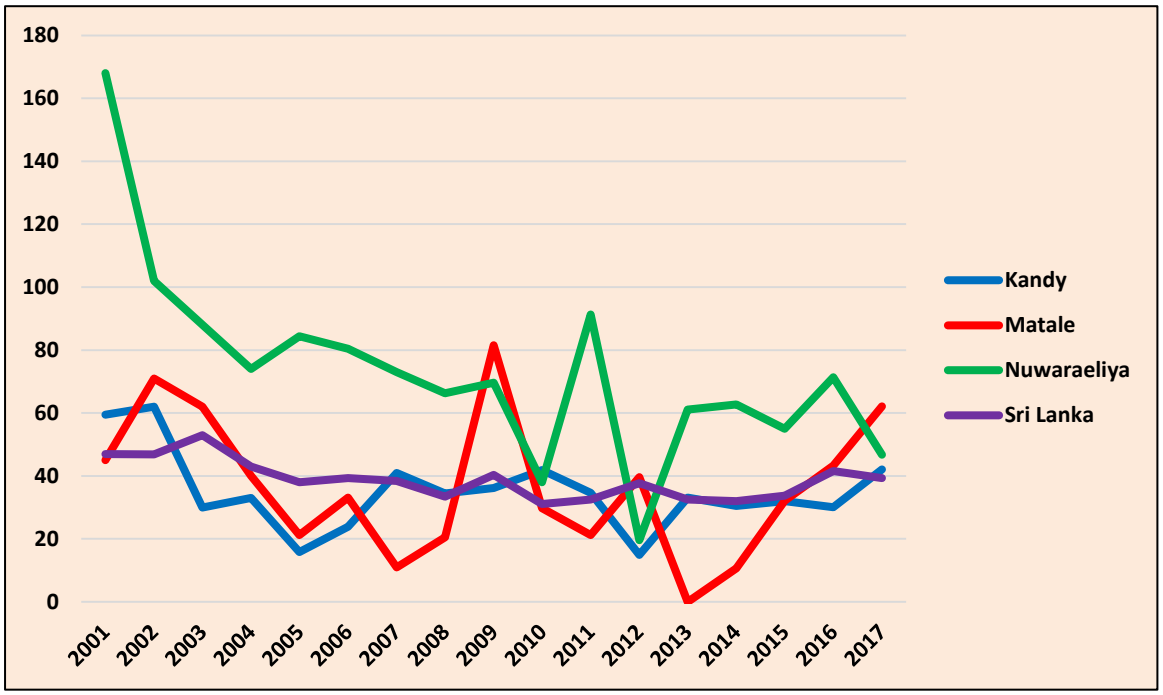
Informative case summaries of MMR has been compiled at national level, NMMR discussion format has been changed to facilitate productive outcome, Cause of death has been categorized based on new WHO Classification, These attempt resulted in wider and timely dissemination of outcomes of NMMR and lead to translate lessons learnt into practice.

Table 5.8 Maternal Deaths according to classification in 2017

	Kandy	**Matale**	**NuwaraEliya**	**CP**
Direct Maternal Deaths	04	01	00	05
Indirect Maternal Deaths	07	04	04	15
Inconclusive	00	00	00	00
No of Live births *	26152	8051	8560	42763
Maternal related Deaths notified	**15**	09	06	**30**
Estimated Number Births*	**25408**	8,955	**12484**	
MMR (100,000 LB) **	**42.1**	**62.1**	**46.7**	

source – * Department of census and statistics
***** FHB***

Fig 5.1 Trends of Maternal Mortality Ratio by District of Central Province 2001-2017



Source – FHB

Nuwaraeliya district shows a decrease of MMR in year 2017. Hence, Matale and Kandy figure showed increase in year 2017

5.2 School Health

The concept of "Kandurata Suwa Kekulu" the Health promoting school programme continues to be advocated in the province and is done in partnership with the Ministry of Education. At present nearly half of schools in the Central Province are adhered to health promoting school concept at different levels. Provincial Health and Education departments work together to strengthen this programme. A national circular from the Ministry of Education was circulated in October 2007 giving national guidelines on Health Promoting schools. School Health Provincial Steering committee is formed in April 2016. The identification of a marking scheme under 23 thematic areas has been circulated and an award scheme as Gold, Silver and Bronze certificates has been identified.

School Health includes the areas of healthy school environment, school medical inspection and follows up, prevention of communicable diseases, nutritional services, first aid and emergency care, mental health, dental health, eye health, health promotion and use of school health records.

School medical services include medical inspection of children, detection and correction of health problems, provision of immunization, worm treatment, and micronutrients to needy children and advice on health issues. The public health inspectors conduct an annual sanitation survey in the schools in their respective areas. In 2018 sanitation survey has been completed in 1580 (97.17%). The SMI coverage in the Central Province

in year 2018 was 97.6%. This high coverage was achieved through the close collaboration and coordination with Ministry of Education.

Table. 5.9 School Health Activities in the Central Province

Indicator	2017		2018	
	Number	%	Number	%
Total Number of schools	1581		1,626	
Total number of schools sanitation survey completed	1551	98.10	1,580	97.17
Total number of schools with adequate drinking water facilities	1075	67.99	1,060	65.19
Total number of schools with adequate sanitation facilities	1185	74.95	1,465	90.10
Total number of schools SMI completed	1540	97.41	1,588	97.66
Number of children enrolled in year 1,4,7,10	133966		150,143	
Number of children examined in year 1,4,7,10	119011	88.84	138,512	92.25
Stunted	7138	6.00	11,042	7.35
Wasted	35800	30.08	20,683	13.78
Over weight	5795	4.87	5,675	3.78
Total number of defects identified during SMI	55930		30,119	
No. school health clubs functioning	274	17.33	274	47.65
Number of Health promoting schools	544	34.41	418	25.70

5.3 Well Women Clinic Services

The concept of well women clinics was introduced in 1996 to screen women for reproductive organ malignancies as part of the reproductive health programme. Ten years after initiation not only in the Central Province but also at national level the progress of programme has been extremely slow. The Family Health Bureau has changed the strategy to target at least the women reaching 35 yrs of age (cohort of 35yrs) during the past few years. The performance reported at WWCs in 2017 and 2018 is given in the table below.

Table 5.10 Performance in Well Women Clinics in the Central Province

	2017		2018	
	Number	**%**	**Number**	**%**
Total clinic sessions held	1866		2345	
First visits to clinic age 35 yrs	15259	56.0	21075	78.5
First visits to clinic age 45 yrs			2624	
No. of women subjected to breast examination	21644		29657	
Breast abnormalities detected	271		465	
Number Pap smear taken	19246		28096	
Number reports received	12433		16992	
ASCUS	21		38	
LSIL	25		58	
HSIL	0		9	
Diabetes mellitus detected	457		555	
Hypertension detected	617		909	

Year 2018 is one of the best performing year in Well Women Clinic aspect. The Well Women clinic services are improved and reached national target coverage of 80% of the 35 year cohort. The First visit to clinic age at 35 years cohort is 78.5%. Nuwara Eliya District achieved the first place award in National level. Matale district also achieved Merit Award.

5.4 Family Planning

The distribution pattern of new acceptors is given in the table below. During 2018 a total of 35,886 new acceptors were recruited. It is higher than the new acceptors recorded in 2017. All kind of new Acceptors have been increased.

Table 5.11 Family Planning new acceptors

	New acceptors for IUCD	**New acceptors for injectable**	**New acceptors for oral pills**	**New acceptors for Tubectomy**	**New acceptors for Implant**	**Total New acceptors**
2005	4,825	16,873	5,754	184	Nil	27,636
2006	5,169	15,973	5,634	697	Nil	27,473
2007	7,774	13,647	5,841	702	Nil	27,964
2008	7,322	14,777	6,057	2,370	3,112	33,638
2009	5,988	14,692	5,445	2,401	2,608	31,134

2010	5,812	14,940	6,858	4,906	1,006	33,522
2011	5,787	16,780	6,786	2,399	2,319	34,071
2012	5,390	7,413	10,216	3,855	1,745	28,619
2013	6,470	7,481	7,558	3,531	5,143	30,183
2014	2,776	2,650	4,005	1,926	2,893	14,250
2015	5,945	6,718	7,046	4,081	7,244	31,034
2016	5,580	7,732	6,275	4,356	6,207	30,150
2017	4,425	7041	4,774	3,666	6,362	26,268
2018	4,978	10,740	7,308	5,055	7,805	35,886

Total number of new acceptors for modern methods markedly increased in 2018 compared to 2017.

5.5 Disease Surveillance

Surveillance of notifiable diseases is a major routine activity carried out in the Public Health system, where all Medical Officers of Health (MOH) sent the Weekly Return of Communicable Diseases (WRCD) to epidemiology unit with a copy to Regional Epidemiologist. Web based system of WRCD was started in 2015 and all 49 MOH divisions of the province enter the data regularly to the system by the end of the year. Provincial and district CCPs give technical guidance and supervise the system to make sure the quality of data by ensuring coverage, completeness and timeliness. MOHs are supposed to visit each of the hospitals in the area and all General Practitioners to assist in increasing notification. The number of cases notified in 2016, 2017and 2018 for the selected Notifiable Diseases in the Central Province is given below. Out of the notifications, majority of the cases reported were Dengue Fever and food and Water Borne Diseases. Increased incidence of typhus and leptospirosis has been identified during 2018.

Table 5.12 No of cases notified during 2016-2018

	2016		**2017**		**2018**	
	Number	**Incidence per 100,000 population**	**Number**	**Incidence per 100,000 population**	**Number**	**Incidence per 100,000 population**
Dengue Fever	5380	200.0	17588	646.1	4536	164.9
Dysentery	347	12.9	178	6.5	174	6.3
Encephalitis	23	0.9	12	0.4	7	0.3
Enteric Fever	97	3.6	31	1.1	21	0.8
Food Poisoning	83	3.1	53	1.9	191	6.9
Leptospirosis	271	10.1	136	5.0	241	8.8
Typhus Fever	218	8.1	226	8.3	212	7.7
Viral Hepatitis	126	4.7	37	1.4	53	1.9

Source: WER

5.5.1 Surveillance of Leptospirosis

Table 5.13 Leptospirosis cases in the Central Province from 2008-2018

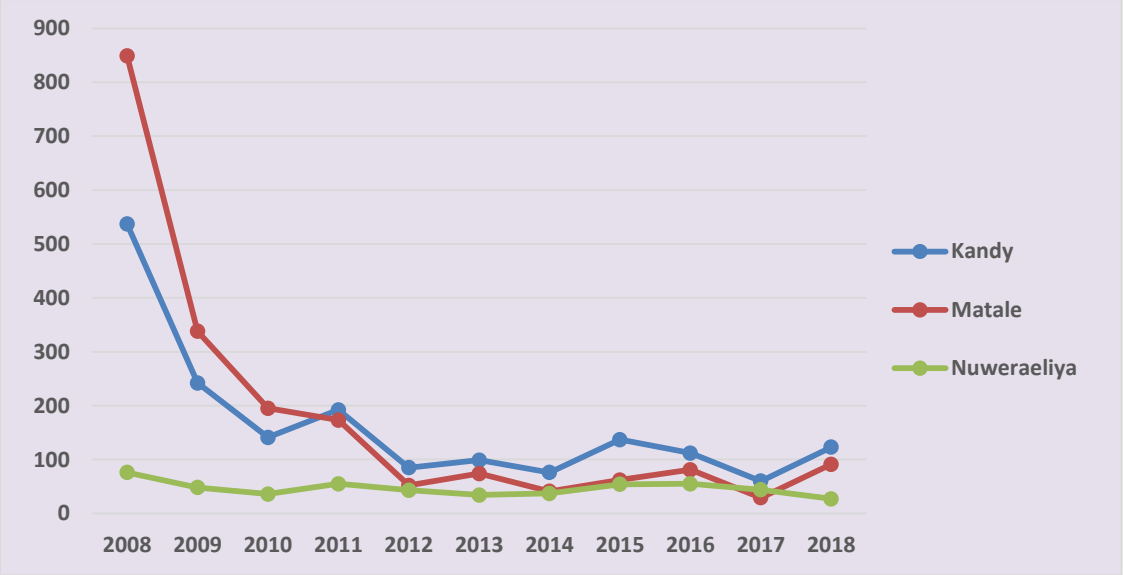
Year	Kandy	Matale	Nuweraeliya
2008	537	849	76
2009	242	338	48
2010	141	195	36
2011	192	173	55
2012	85	52	43
2013	99	74	34
2014	76	41	37
2015	137	62	54
2016	112	81	55
2017	60	29	44
2018	123	91	27

Table 5.14 shows the number of Leptospirosis cases in Kandy, Matale and Nuwaraeliya districts from 2008-2018. The number of leptospirosis cases notified in all three districts show fluctuations with highest number in 2008. The cases reported have been decreased with slight deviations in some years in all three districts during past few years up to 2014. Though there was a significant case reduction in 2017 in all thre districts, there was a marked increase of number of leptospirosis cases in Kandy and Matale during the 2018. Nuweraeliya district shows the continuous reduction even in the yaer 2018.
There has been a significant decrease in the number of leptospirosis cases reported in Central Province (CP) during the past few years. This is a result of implementing a multi sectoral plan prepared for high risk MOH areas in the CP to prevent the spread of the disease. Further action is required to maintain this trend and minimize the risk in future.

The number of reported cases does not reflect the actual incidence of leptospirosis as patients with mild form of disease do not seek treatment at all or they are treated at OPDs or by private health care providers and these cases are generally not notified. Paddy cultivation takes place in most of the high risk areas and the peak incidence is observed during paddy sowing and harvesting seasons. Increase in rodent population in and around paddy fields during these periods contributing to this rise. This seasonal trend is important to be highlighted as it helps in planning preventive activities including provision of chemoprophylaxis to high risk groups.

The decline in the number of deaths due to Leptospirosis in the province during past few years indicates the public awareness on importance of seeking early healthcare, which lead to early diagnosis and appropriate management by the healthcare providers.

Fig. 5.3 No of reported cases of Leptospirosis from 2008-2018



Further strengthening of prevention and control activities with the support of epidemiology unit at national level and other relevant sectors focusing more on environmental measures, improved disease surveillance, public awareness, inter-sectoral coordination, improved clinical management including laboratory surveillance and chemoprophylaxis needs to be further strengthened to reduce the disease burden in CP.

5.5.2 Surveillance of Enteric Fever

Table 5.14 Enteric Fever cases in the Central Province from 2017-2018

Year	Kandy	Matale	Nuwaraeliya	Central Province
2017	9	14	22	45
2018	6	05	10	21

Source: WER

Total of 21 cases were notified in year 2018 which is a marked reduction than previous year.

5.5.3 Surveillence of Viral Hepatitis

Table 5.15 Viral Hepatitis cases in the Central Province from 2017-2018

Year	Kandy	Matale	Nuwaraeliya	Central Province
2017	15	09	11	35
2018	24	07	22	53

Source:WER

Total number of Viral Hepatitis cases reported in 2017 and 2018 was 35 and 53 respectively. The number of cases reported in 2018 were higher than the privious year in two districts except NE. No epidemics reported in the provinc in 2017and 2018.

5.5.4 Surveillence of Dysentry

Table 5.16 Dysentery cases in the Central Province from 2008-2018

Year	Kandy	Matale	Nuweraeliya	Central Province
2008	320	240	321	881
2009	365	169	423	957
2010	350	316	358	1024
2011	401	215	330	946
2012	136	131	186	453
2013	122	124	120	366
2014	104	81	256	441
2015	187	46	301	534
2016	156	23	88	267
2017	75	22	26	123
2018	117	15	42	174

Relatively higher number of cases of Dysentry were reported from Kandy district when compared with other districts in most of the years during past . A slight increse in the incidence of cases reported in 2018in the province than previous year deviating the trend of decrese the number.

5.6 Prevention and Control of Non communicable Diseases (NCD)

Sri Lanka has come a long way in control of communicable diseases, in improving maternal and child health, and virtually eliminating vaccine preventable diseases. During the past few decades chronic non-communicable diseases (NCDs) has been identified as the major health problem with the leading causes of mortality, morbidity, and disability in Sri Lanka as in many other countries. Aging of the population, urbanization and lifestyle changes are the key factors behind this epidemiological transition. A National NCD policy has been developed and the island wide NCD prevention and control program started in 2009.The major chronic NCDs causing a big burden in Sri Lanka are cardiovascular diseases (including coronary heart diseases

[CHD], cerebrovascular diseases [CeVD], hypertension, diabetes mellitus, chronic respiratory diseases, chronic renal disease and cancers.

NCDs, currently pose a major threat to health and development worldwide. Each year, 15 million people between the ages of 30 and 69 years die from NCDs; over 80% of these premature deaths occur in developing countries such as Sri Lanka. NCDs rank among the top 10 causes of premature death in Sri Lanka. In Sri Lanka, although people are living longer, they live more years suffering from disease and disability, mainly from NCDs; life expectancy at birth in Sri Lanka is 74.9 years but healthy life expectancy at birth is only 67.0 years. Few risk factors drive NCDs and death and disability due to them. They include tobacco use, harmful use of alcohol, overweight due to unhealthy diet and physical inactivity, air pollution and poverty. The key drivers of the NCD burden are population ageing, effects of globalization on marketing and trade and rapid urbanization. According to the most recent population based risk factor survey, among 18-69 year old Sri Lankans, prevalence of current smoking is 29% in males. About one forth have hypertension or raised blood cholesterol, one third are overweight or obese and 7.4% have raised blood glucose. Available data indicate that both indoor air pollution and ambient air pollution contribute to the rising NCD burden.

Policy Objective

To reduce premature mortality (less than 65 years) due to chronic NCDs by 2% annually over the next 10 years through expansion of evidence-based health care services, and individual and community-wide health promotion measures for reduction of risk factors.

Key Strategies

The following strategic areas were identified and prioritized

I) Support prevention of chronic NCDs by strengthening policy, regulatory mechanism and service delivery measures for reducing level of risk factors of NCDs in the population
II) Implement a cost-effective NCD screening program at community level with special emphasis on cardiovascular diseases
III) Facilitate provision of optimal NCD care by strengthening the health system to provide integrated and appropriate curative, preventive, rehabilitative and palliative services at each service level
IV) Empower the community for promotion of healthy lifestyle for NCD prevention and control
V) Enhance human resource development to facilitate NCD prevention and care
VI) Strengthen national health information system including disease and risk factor surveillance
VII) Promote research and utilization of its findings for prevention and control of NCDs
VIII) Ensure sustainable financing mechanisms that support cost-effective health interventions at both preventive and curative sectors

IX) Raise priority and integrate prevention and control of NCDs into policies across all government ministries, and private sector organizations

The Provincial Department of Health has identified the need of strengthening the NCD prevention program as a priority and have established NCD units in each District in 2009/10. The NCD program unlike the more established program such as MCH, EPI, school health etc.., is just being established and programs are still being developed. The Ministry has identified the importance of having life style modification facilities in all out patients departments to facilitate screening of adults during hospital visits. It was decided at national level to have at least two Healthy Lifestyle Clinics (HLC) in each MOH area by 2018. HLCs are established at Hospitals and a referral hospital also identified for each HLC. Target population for NCD screening were people above 40 years old and they were invited to HLCs by using different strategies.

In addition to screening of target population at HLCs, health promotion and primary prevention activities also carried out at provincial, district and divisional levels. Rehabilitation services as a tertiary prevention also established and strengthened gradually in the province. Relevant funds for trainings and other development has been spent from provincial sector development grant.

Table 5.17 NCD Activities in 2017 and 2018

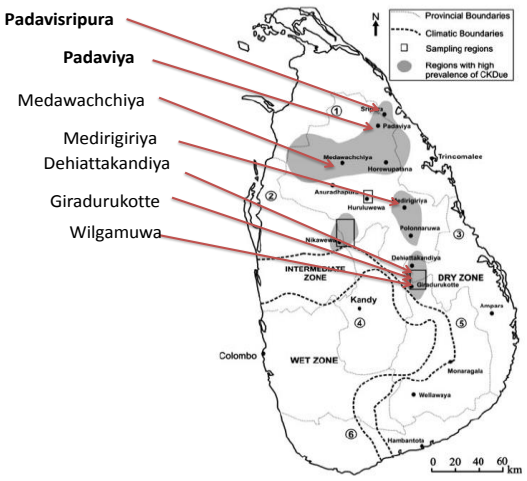
Activity	Kandy		Matale		Nuwaraeliya		Total	
	2017	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**
Number of HLCs	32	41	27	27	44	46	103	114
Number of people screened at hospital HLCs	*6*	*9*	4592	8892	17724	16959	28840	35420
Number screened at MOH HLCs	*2*	*1*	414	445	6409	10296	30234	25241
Number screened at work place	*1*	*2*	4420	7176	2838	2460	8972	11948
Tobacco users (Beetle)	*1*	*1*	985	1015	8508	10319	10764	12910
BMI<18 Kg/m²	*4*	*2*	566	2750	3678	4030	8924	8920
Blood pressure 120/80-	*1*	*3*	1659	3124	6850	8497	22238	14984

139/89 Hg								
Fasting Blood glucose 90.0-109mg/dl	*6*	*3*	584	5304	4991	4739	12231	13267
Number of people referred to the primary health care institutions	*9*	*1*	2519	1295	3039	3805	6487	6644
Number visited for follow up care	*3*	*4*	3219	1668	24609	18483	31388	24261
Awareness program	*5*	*9*	63	45	55	51	169	193

5.6.1 Chronic Kidney Disease of uncertain origin (CKDu) in the Central Province

The problem of Chronic Kidney Disease of uncertain origin has been plaguing the country and drawing much attention of the Government, media and the public alike in the recent times. Due to its central location, Renal Unit of Kandy Teaching Hospital has being receiving a large proportion of these patients from all 5 adjacent provinces with recognized pockets for this disease. Within the Central Province, the main identified pockets for CKD are Hettipola-Wilgamuwa, Handungamuwa, and Maraka from where a significant number of patients have been identified.

CKDu High prevalent areas



CKD prevention program in Central Province

Screening Program

Wilgamuwa MOH division, bordered to Girandurukotte, was identified as CKD prevalent area since 2009 and with reporting of cases a special CKD clinic was started at DH Hettipola with the support from Consultant Nephrologist, T.H.Kandy. Community screening programs were conducted in a planned manner during past few years in Wilgamuwa area and all the cases were referred to CKD clinic at DH Hettipola for follow up. There were about 711 CKD cases followed up at the clinic by the end of 2017 and around 75 cases out of them were on regular dialysis treatments. Consultant Nephrologists of TH Kandy attends the clinic once a month to attend referrals.

With the reports received from hospitals and media, it was decided to continue CKD screening program in Galewela, Dambulla, Naula and Laggala Pallegama MOH division in 2018 according to a plan to cover whole population of those areas above 10 years of age.

A CKD clinic was established at BH Damulla in December 2015 and all the cases identified at those screening clinics were referred to BH Dambulla. There were about 143 CKD cases followed up at the clinic by the end of 2016. Consultant Nephrologists of TH Kandy attends the clinic once a month to see referrals.

There were CKD cases reported to TH Kandy and BH Mahiyanganaya from Minipe MOH division and, it was decided to conduct CKD screening program in Minipe the MOH division in 2016 and continued in 2017 and 2018, according to a plan to cover whole population of those areas above 10 years of age. The program was conducted with the financial assistance from line ministry.
Technical assistant was provided by Provincial and District CCPs.

Table 5.18 CKD/CKDu Screening Programme Matale District in 2018 - Number of people screened according to the target population and number positive

DS /MOH Division	Target Population	No of persons Screened	% of Screened persons	No Positive		No of CKD Patients
				Urine Albumin +ve	Serum Creatinine +ve	
Dambulla	8978	1998	22.3	-	34	64
Dambulla MC	4409	863	19.6	-	06	08
Galewela	12968	5238	40.4	-	168	92
Naula	5717	4030	70.5	-	81	43

Vilgamuwa	6923	0	0.0	-	0	108
Laggala Pallegama	2241	1588	70.9	-	58	20
Total	**41236**	**13717**	**33.3**	**-**	**347**	**335**

Development of health care facilities for CKD treatment

With the increase of number of CKD cases in Matale district, a clinic, a laboratory and dialysis facilities in a new building were established at BH Dambulla with the financial assistance from line ministry in 2018. Dialysis services were further expanded in 2018 at the unit.

Community awareness and training on CKD

Community awareness and training programs were conducted continuously targeting health staff, community leaders, school children and community members in 2018. All the other sectors were also involved in community awareness programs including AGA and staff, water board, agrarian services, education and NGOs working in Wilgamuwa area. Risk factor reduction and health promotion were aimed at the community programs.

Community Based Rehabilitation

Community based rehabilitation program was started in Wilgamuwa area with support from AGA and team and community leaders of the area in targeting to improve welfare of affected patients and their family members.

All these programs were of guide by the ministry of health and provided with technical and financial support.

5.7 Food and Drugs activity

Table 5.19 Activities on Cosmetics and Drugs

Activities related to cosmetics devices and drugs-annual report 2017 & 2018						
	2017			**2018**		
	Kandy	**Matale**	**Nuwara eliya**	**Kandy**	**Matale**	**Nuwara eliya**
No of Pharmacies	205	64	53	203	67	56
No registered	192	62	50	185	65	53

No Unregistered	13	02	03	18	02	03
Drugs						
Sampling						
Samples sent for analysis-Formal	07	04	03	09	05	03
Samples sent for analysis-Informal	-	-	00	-	-	-
No Found unsatisfactory	-	-	00	-	-	03
No of items withdrawn/withhold	21	-	02	16	-	-
Quantity withdrawn/withhold(tab/cap)	1036	-	00	984	-	-
Quality failure Drugs Report by the D.R.A.						
No of circulars Received	06	06	02	04	06	07
No of items withdrawn/withhold	04	03	06	03	08	14
No of batches withdrawn/withhold	03	02	00	03	08	02
Quantity withdrawn/withhold(tab/cap)	24	318	00	190	278	18000
No of Flying Squad Activities	04	03	00	03	03	04
Unregistered	-	-	00	-	-	-
Prohibited Item - sample	-	-	00	88/18370	-	-
Storing under the Insanitary condition Item	-	-	750	-	24	270
Expired Item	32	04	750	16/397	02	06
Spoil & Damaged Item	04	-	00	-	-	03
With State Logo Item	-	-	21	-	02	03
Storing Without a License Item	-	14	00	-	-	03
Activities related to cosmetics devices and drugs-annual report 2017 & 2018						
	2017			**2018**		
	Kandy	**Matale**	**Nuwara eliya**	**Kandy**	**Matale**	**Nuwara eliya**

No of Prosecutions	10	02	04	02	05	02
No Convicted	10	02	00	02	04	-
No Pending	-	-	02	-	01	02
Fines Imposed (Rs)	215,000.00	20,000,00	18,000.00	253,000.00	45,000.00	-
Cosmetics						
No of Manufacturing establishment	01	01	-	-	-	01
Smuggled	02	-	-	-	-	02
Expired	03	10	-	07	-	03
Spoil & Damaged	04	03	-	03	-	04
No of Manufacturing establishment	01	-	-	-	-	01
Seizures under the C.D.D.Act						
Unregistered	-	-	00	-	-	-
Expired	-	04	00	397	04	-
Spoil & Damaged	-	-	00	-		-
Educational Programms						
Pharmacy Owners/Assistance	02	02	01	02	02	02
Schools	-	05	02	-	08	04
Others	04	04	01	32	10	06
Public Complains						
No of Complains Received	02	02	04	02	03	13
No of Complains Investigated	02	02	04	02	03	13

The F&D Inspector play a key role to ensure that regular inspection of premises where cosmetics, drugs and devices are manufactured , stored and sold by taking samples , seizing and detaining any article which is in violation of the act and encourage proper licensing and also create awareness on responsible pharmacy management.

6. SPECIAL ACHIEVEMENTS

6.1 District Base Hospital- Theldeniya

Introduction & History

Theldeniya hospital was established as a District hospital in 1954 and was shifted to present location in 1986 with Mahaweli Development Project. It was upgraded to a District Base Hospital in 2004, and development activities were started in 2013 with JICA aids.

Hospital services have been extended with the establishment of new building complex and arriving of new consultants. DBH Theldeniya has 227 beds in seven wards, eight specialized clinics, Medical Imagine Department, 03 operation theatres; six bedded intensive care unit, PBU, JMO complex, ETU and OPD.

Quality Improvements & Waste Management

DBH Theldeniya has been improving its customer friendly environment, high quality safe patient care services and other facilities for the patients during the last few years. These quality improvements have been affected by the establishment of hospital quality management unit with 12 work improvement teams.(WIT).

During 2018 Kaizen and lean concepts have been implemented to the hospitals to minimize waiting time and waste with process improvement.

Hospital waste management system was reorganized with the establishment of new incinerator which also contributed to manage waste in other hospitals.

Vision of DBH Theldeniya

"Healthier Dumbara community with sustainable healthcare service."

Main objectives

1. Establishment & regular functioning of the QMU and WIT
2. Implementation of 5S and productivity concepts.
3. Ensuring the delivery of high-quality, safe patient-care services.
4. Improving service quality by applying "Kaizen," "Lean," "TQM" & error reporting system
5. Green productivity
6. Digitalization of the hospital patient management system
7. Staff training & welfare

Achievements in 2018

- Provincial productivity award - central Province 2018
  1st place – Curative care institution category
- National Productivity Award – 2018
  2nd place – Inter departments category
- Healthy Life Style Clinic – The best Clinic in the Kandy district (1st Place)
- Emergency Treatment Unit – The best ETU in Kandy district (1st Place)
- Obtaining Environmental Protection License (EPL)

Provincial productivity award - central Province 20181st place – Curative care institution category

National Productivity award -2018 2nd Place

ICU

OT

Lab

JMO Complex

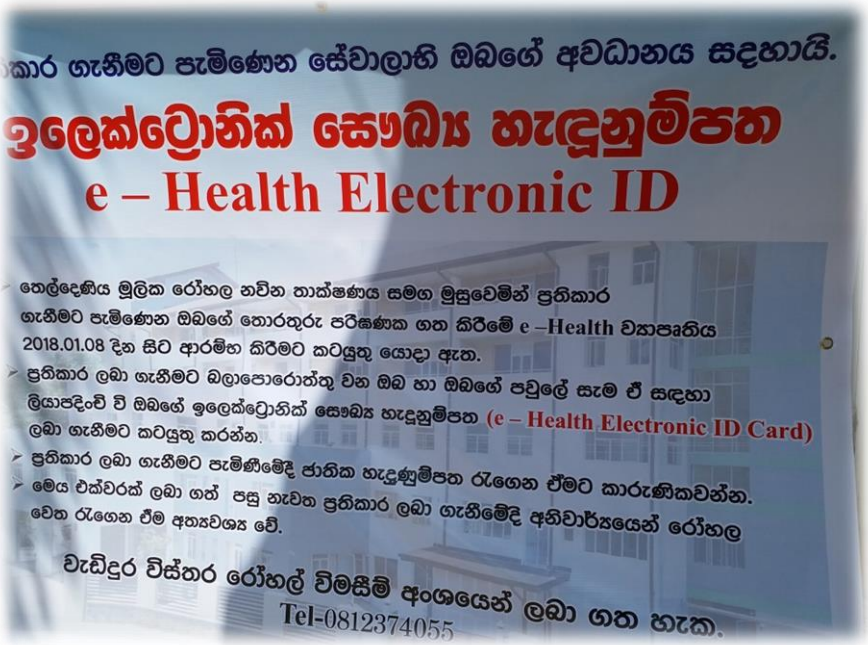
Conference facilities

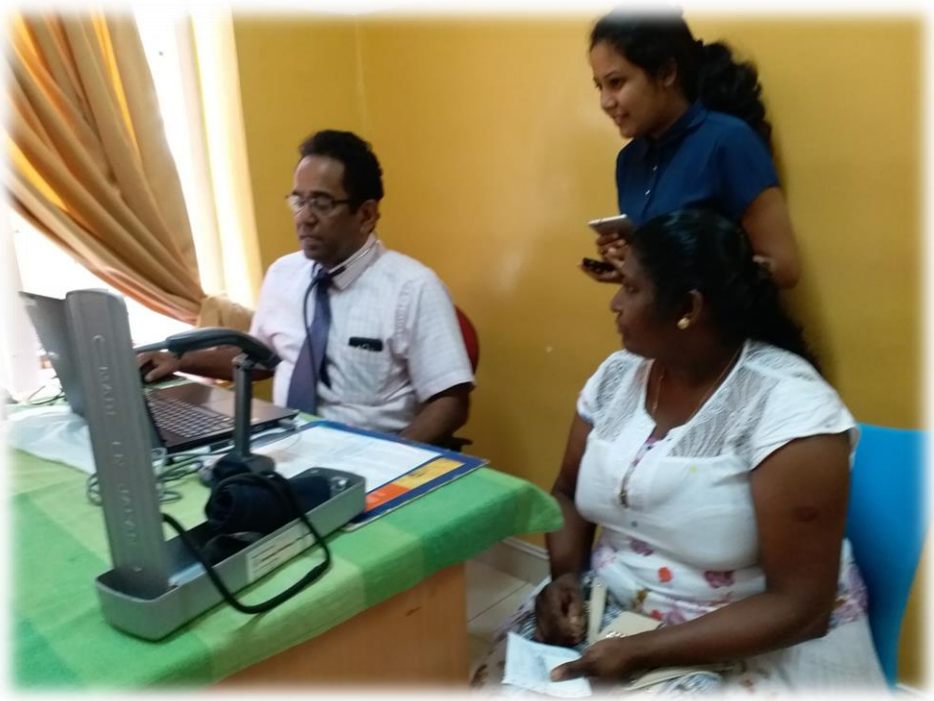
Sewerage treatment plant

Incinerator

Adopting to the Latest Technology

District Base Hospital Theldeniya introduced e Health project with the help of Ministry of Health & ICTA. Main objective of this project was to create a digital health record for all individuals in Dumbara region. During 2018 nearly 60000 people were registered.





Welfare

6.2 Special events in 2018

01. "Suwa Abhimani" - 2018

Ceremony of Appreciation on Public health services in Central Province Department of Health services

In 2018, this event was ceremonially held by the Department of Health services, CP to evaluate the public health staff. This event is carried out under two supervision process.

01. First stage – District level
02. Second stage – Provincial level

Accordingly, this evaluation is done in 49 MOH offices covering all public health services. In district level, 9 MOH divisions are selected which obtained higher marks. Among them first three places are selected at provincial level. These MOH offices are;

01. Medical officer of Health division Naula - Matale District
02. Medical officer of Health division Mathurata – Nuwaraeliya District
03. Medical officer of Health division Lindula - Nuwaraeliya District

Six MOH offices obtained appreciation certificates to provide optimum public health services to the community.

01. MOH division Pallepola
02. MOH division Kundasale
03. MOH division Kothmale
04. MOH division Galewela
05. MOH division Udunuwara
06. MOH division Gangawatakorale

This festival was held on 31st of July 2018 at 8.30 am at the Auditorium of Provincial council complex Pallekele. The Chief guest, Hon. Governor of Central Province, Chief

Minister of Central Province , Secretary of Ministry of Health,CP, special guests and health staff participated in this event.

This ceremony is planned to be held annually in the CP.

First Place - MOH Division Naula

Second Place MOH Division Mathurata

Third Place MOH Division Lindula

Central Provincial Poster competition on Dengue prevention - 2018

This competition was organized by Dengue control unit of Ministry of Health with the collaboration of Ministry of education for improving knowledge and making attitudinal change of school children on Dengue.

Organizing of competition-
This was held by three rounds. Preliminary round is held on MOH level and first three places were selected. Second round was held by district level and third round was organized by provincial level for island wide competition.
Winners of District level completion are mentioned below.

Place	Name of school
First	St. Sylvester college, Kandy
Second	Rangiri Dambulla national School, Dambulla
Third	Mahabodi Secondary school, Pallepola

The winners of 1st, 2nd and 3rd place got cash rewards of Rs. 15,000.00, Rs. 12,500.00 and Rs. 10,000.00 respectively. Winning posters were sent to Dengue control programme for national level.

7. SPECIAL CAMPAIGN

7.1 Malaria control programme in Central Province (CP)

Sri Lanka was certified as malaria free country by 2016. Since then,there is no locally infected malaria cases in Sri Lanka. However, imported malaria cases are still being reported in the country and province. During the year 2017, there were 02 cases reported for the province and that was from Kandy. In 2018, 03 cases were reported from Kandy while 02 cases were reported from Matale. The sources of infection of the majority of these cases were from India and Africa. As a whole, Central Province shows a declining trend of malaria cases over the past few years.

This is a great achievement of the malaria elimination programme in the years 207 and 2018. Some of the very important contributory factors for this success were:

(1) Early diagnosis, prompt and appropriate treatment of cases, investigation and follow up of malaria cases to ensure complete cure including 14 days primaquine therapy for *P. vivax* and *P. ovale* cases,

(2) Making available of rapid diagnostic test kits (RDTs) for malaria diagnosis at key government and private hospitals, private laboratories and GPs with necessary training and guidelines.

(3) Timely application of remedial measures in receptive and vulnerable areas and around reported malaria cases that includes mobile malaria clinics and focal spraying,

(4) Institution of evidence based malaria control activities,

(5) Support given by the provincial and Central government authorities,

(6) Implementation of global malaria control strategies (GFATM Round 8),

(7) Institution of integrated vector control measures using long lasting insecticide treated bed nets (LLIN), chemical larviciding (abate) and biological agents (larvivorous fish) for larval control and source reduction wherever applicable,

(8) Conducting mobile clinics at remote areas targeting migratory populations such as traders, security camps, gem mining areas, development project sites and chena cultivation areas, for early detection and prompt treatment of malaria cases in order to eliminate the parasite reservoir in the human population.

In April 2008, the malaria control programme in the country embarked on pre elimination phase of malaria. Within this concept, the CP was placed as an area to maintain zero level indigenous transmission of malaria and mortality

attributed to malaria. Thus, the objectives of the malaria elimination programme in the province are

1. To maintain zero level mortality attributed to malaria and

2. To prevent resumption of indigenous transmission of malaria in CP.

Occurrence of the major vector of malaria, *Anopheles culicifacies*, in previously malarious areas and project sites, and parasite reservoir among national and international migrant populations, make the province still remain highly receptive and vulnerable for malaria transmission.

Epidemiology of malaria in the Central Province

The number of malaria cases reported from 2001 – 2018 in CP are shown in Table 7.1.

Table 7.1 Number of malaria cases reported by districts from 2001-2018

Year	Kandy	NuwaraEliya	Matale	Central Province
2001	248	84	390	722
2002	150	19	228	397
2003	73	2	63	138
2004	14	1	75	90
2005	15	0	19	34
2006	5	0	07	12
2007	0 (4)	0	00	0(04)
2008	0 (17)	0 (4)	0(26)	0(47)
2009	0 (21)	0 (2)	0(27)	0(50)
2010	0 (33)	0 (0)	1(16)	0(49)
2011	0 (04)	0(00)	0(08)	0(12)
2012	0 (04)	0(00)	0(00)	0(04)

2013	0(04)	0(01)	0(01)	0(06)
2014	0(01)	0(01)	0(01)	0(03)
2015	0(01)	0(01)	0(00)	0(02)
2016	0(02)	0(02)	0(01)	0(05)
2017	02	0(00)	0(00)	02(00)
2018	03	0	02	05

**** No. of imported cases are shown within brackets**

In Kandy district, 53831 and 66571 blood smears were examined in the years 2017 and 2018 respectively. Of these blood smears, 03 were positive for ***P. vivax*** and 02 were positive from ***P. falciparum*** in 2017 and in 2018**.** In NuwaraEliya district 4605 and 12409 blood smears were examined in 2017 and 2018 respectively there was no cases positive from NuwaraEliya district in 2018. In Matale district, 34367 and 36060 blood smears were collected in 2017 and 2018 respectively and there were 02 cases positive from Matale district in 2018 but all were *P. vivax* case. (Table 7.2).

Table 7.2 Number of blood films, malaria cases and annual parasite incidence (API) by district in 2017 and 2018

District	Year	No. of blood smears	No. of positives	*P. vivax*	P. Falcifarum	Mix	API
Kandy	2017	53831	02	02			
	2018	66571	03	01	02	00	
N Eliya	2017	4605					
	2018	12409	00	00	00	00	
Matale	2017	34367	00	00	00	00	
	2018	36060	02	02			

Entomological surveillance

In Kandy district, *An. culicifacies*, the principal vector of malaria was found in cattle baited net trap collection, cattle baited hut collection, human bait night collection (both indoors and outdoors) and in larval surveys.

An. subpictus, a secondary vector of malaria in Sri Lanka was not encountered in both years 2017 and 2018 in all three districts.

The density of *An. culicifacies* and *An. subpictus* in the CP are shown in Table 7.3.

Table 7.3 Entomological surveillance of Malaria by districts in the CP

District	Method	Indicator	2017		2018	
			An. culicifacies	*An. subpictus*	*An. culicifacies*	*An. subpictus*
Kandy	INRC	No/hour	0	0	0	0
	PSC	No/room	0	0	0	0
	CBT	No/Trap	0.05	0	0	0
	CBH	No/Hut	0.27	0	0	0
	WTC	No/Trap	0	0	0	0
	LS	No/Dip	5.08	0	0.37	0
	HBNC (in) (out)	No/bait/hour	0.02	0	In-0 Out-0.03	0
	ODC	No/man hour	0.05	0	0	0
NuwaraEliya	INRC	No/hour	0	0	0	0
	PSC	No/room	0	0	0	0
	CBT	No/Trap	0.09	0	0.32	0
	CBH	No/Hut	0.02	0	0	0
	WTC	No/Trap	0	0	0	0
	LS	No/Dip			1.56	0
	HBNC (***in***)	No/bait/hour	0.01 1.92	0	In-0 Out-0.03	0
	ODC	No/man hour	0	0	0	0
	LS	Per Dip	6.37	0		
Matale	PSC	No/room	00	0	0	0
	INRC	Per house	00	0	0	0
	CBTC	Per trap	0.07	0	0	0
	CB HC	Per hut	2.88	0	0.80	0
	WTC	Per trap	00	0	0	0
	HLNC (in)	Per man hour	0.01	0	0.008	0
	HLNC (out)	Per man hour	0.12	0	0.077	0

	ODC	Number Per man hour	00	0		0
	LS	Per dip	0.032	0	2.57	0

7.4 Indoor residual insecticide spraying

District	No of houses residual insecticide spraying was carried out	
	2017	2018
Kandy	-	-
Nuwaraeliya	-	-
Matale	11	-

Indoor residual insecticide spraying has not been done in 2018 except in Matale district.

7.5 Distribution of long lasting insecticide treated bed nets (LLIN)

District	No of LLIN distributed	
	2017	2018
Kandy	1065	1307
Nuwaraeliya	250	250
Matale	284	1872

In Kandy and NuwaraEliya districts 1065 and 250 LLINs were distributed in the year 2017 and 1307 and 250 in year 2018 respectively. In Matale district, 284 LLINs were distributed in 2016 and 1872 were distributed in 2018.

Application of larvivorous fish

Table 7.6 Application of larvivorous fish, P.reticulata by district

District	Year	No. of permanent breeding sites	No. of fish introduced
Kandy	2017	-	-
	2018	338	1075
NuwaraEliya	2017	-	-
	2018	-	-
Matale	2017	448	19412
	2018	127	11826

Health education and community awareness programmes

Health education and community awareness programmes conducted in the years 2017 and 2018 are shown in table 7.6 and 7.7

Table 7.7 Health education and community awareness programmes conducted in Kandy and Nuwaraeliya districts

District	Year	Target group	No. of programmes	No. of participants
	2017	*School Children*	04	462
		Leaders (Intersectoral)	01 01	30
		Consultant Doctors + MOO	01 01	80
		GP	02	49
		EA	01 01	10
		PHI	01 01	37
		PHLT	07 08	20
		PHFO	04 01	15
		SMO/SKS	01 01	15
		Traveling agents		17
		Army & Police Officers		380
		High risk groups		192
		Public Health Staff		108

		Community awareness *NO/ Pharmacist* *MLT in private sector*		225 18 20
	2018	*GP* *Clinicians* *Advocacy programme* *NO/ pharmacist* *Intersect oral working groups* *SPHI* *PHLT* *EO*	01 01 01 01 01 01 01 02 01 02 02 01 09	30 41 35 25 30 18 12 10
NuwaraEliya	2017	*EA* *PHLT* *PHFO*	In Kandy01 programmes	01 01 02
	2018	*GP* *Risk communities*	01 01	35 20

Table 7.8 Health education and community awareness programmes conducted in Matale distric

Target group	2017		2018	
	No. of Programmes	**No. of Participants**	**No. of Programmes**	**No. of Participants**
Community	68	1655	71	1877
Student	14	471	17	580
Institute Staff	-	-	-	-
Army Soldiers & police	03	71	-	-
Government Institution	16	441	-	-
Volunteers	-	-	-	-
Field staff	02	40	-	-
Private Institution	03	94	04	112
Other	-	-	05	223
Tourist hotel	-	-		
Total	106	2772	97	2792

In addition to malaria control, the anti-malaria campaign carries out dengue vector surveillance and chemical vector control including space spraying.

At present, the malaria control program focuses on maintaining of malaria elimination status in Sri Lanka. Thus, case detection and prompt appropriate treatment of imported malaria cases is of utmost importance where blood filming of fever cases is a key element. It is frequently observed that the malaria cases are not suspected and diagnosed at the first visit of the patient to a medical institution both at public and private hospitals, private laboratories and at GPs.

It is extremely necessary to make the clinicians aware about the prevalence of malaria among migrants and to suspect malaria in such people and to inform them as early as possible to the respective Regional officers/ Medical Officers of the Anti-Malaria Campaign Kandy and Matale and to the respective MOH immediately after detection/ suspected of such cases for institution of necessary remedial actions.

7.2 Surveillance of Dengue Fever/Dengue Haemorrhagic fever

Dengue fever is endemic in Sri Lanka as well as in Central Province (CP) and epidemics have been occurring with increased magnitudes periodically. The early action taken in Central Province lead to reduce morbidity and mortality levels during past few years. His Excellency the president established a presidential task force in May 2010 to combat the Dengue epidemic in Sri Lanka. The Provincial task force also was established in CP in parallel to national program. This further strengthened the District, Divisional and village level activities as the members of the police, armed forces and civil defense force were all mobilized to support the combat of the deadly epidemic. This was the first time that the police and armed forces were mobilized to combat a health emergency.

The dengue control activities conducted at Divisional level such as weekly monitoring of dengue breeding places in homes and institutions using a household card, local shramdana programmes, special cleaning up campaigns to reduce plastics in the environment were monitored at village and Divisional level. While all activities were monitored at Provincial level.

In addition to the routine notification, web based notification system was established by the NDCU in 2014 from sentinel hospitals and provincial, district and divisional level officers had the access to surveillance data. This daily notification of suspected dengue cases from TH Kandy, TH Peradeniya, BH Gampola, GH Nawalapitiya and GH Matale helped to take early action to prevent the spread of the disease. Hospital staff was trained on clinical guidelines on the management of dengue patients to strengthen the clinical management and reduce the case fatality rate.

Key strategies adopted in the province for Dengue control

1. Vector Surveillance and Integrated Vector Management
2. Disease Surveillance
3. Case Management
4. Social Mobilization
5. Outbreak Response

Dengue control activities were carried out in all three districts according to an annual plan with the financial support from National Dengue Control Unit in 2018.

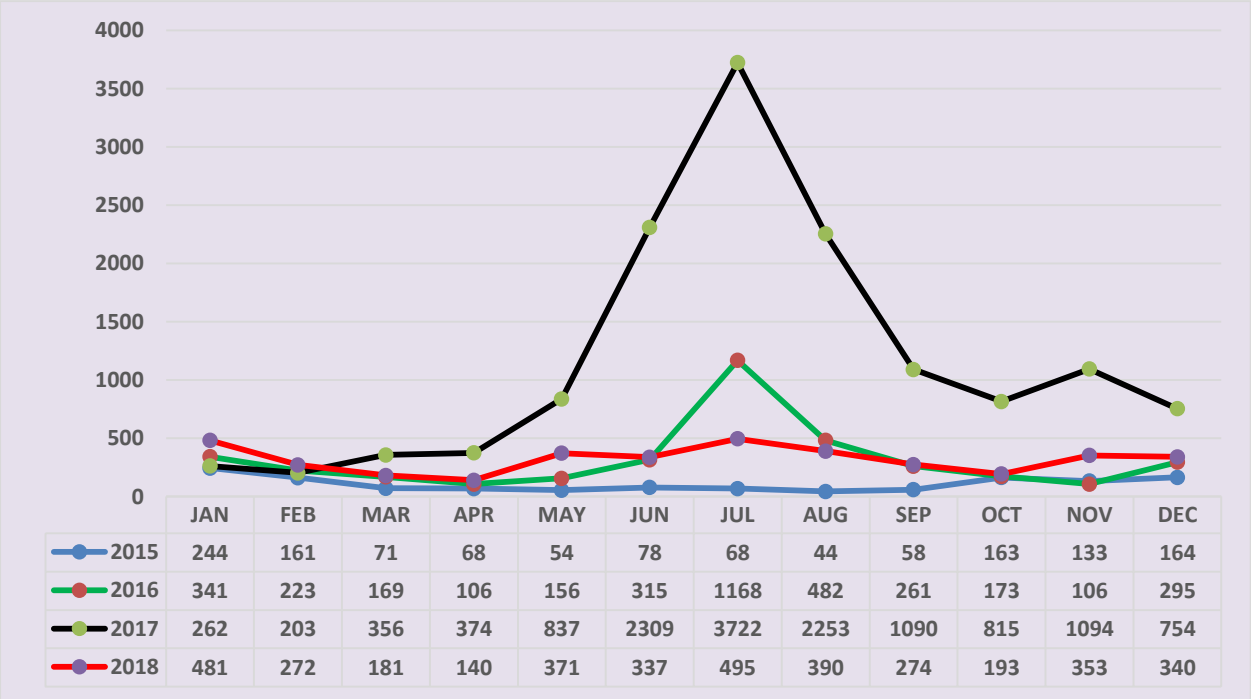
Following were the key areas focused in carrying out dengue control activities.

- Reduction of the incidence of Dengue
- Management of patients in preliminary care units, both private and Government, General Practitioners' OPDs emergency wards/HDUs etc as per guidelines

- Reduction of complication and mortality
- Capacity building / Training
- Inter-sectoral coordination and collaboration between stake holders
- Establishment of institutional dengue prevention committees
- Community mobilization and participation
- Health promotion programmes aiming at sustainable behavioral changes targeting at the individual, household, and institutional levels
- Monitoring and evaluation of control activities
- Timely detection and reporting of all suspected dengue cases

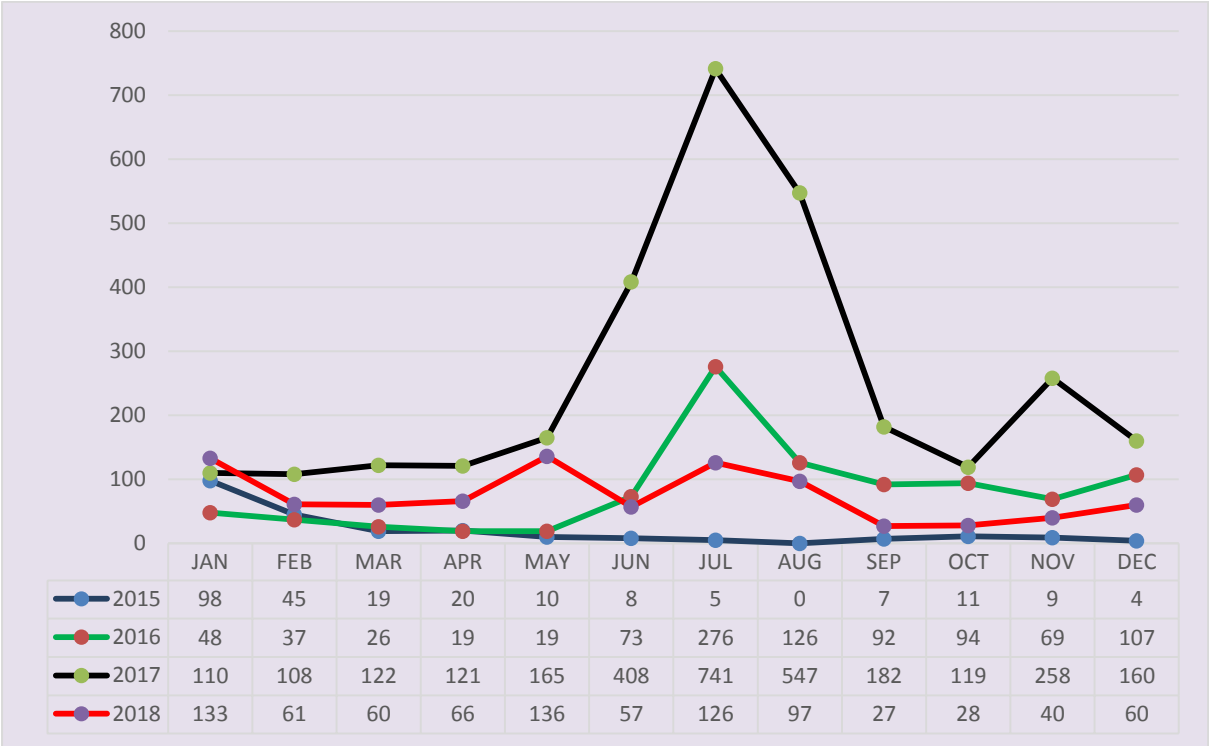
Reported Dengue cases in each district from 2015 to 2018 are given in following graphs. Seasonal pattern was observed in all three districts as in other districts in the country according to rain fall.

Fig 7.1 Reported Dengue Cases in Kandy district in 2015 -2018



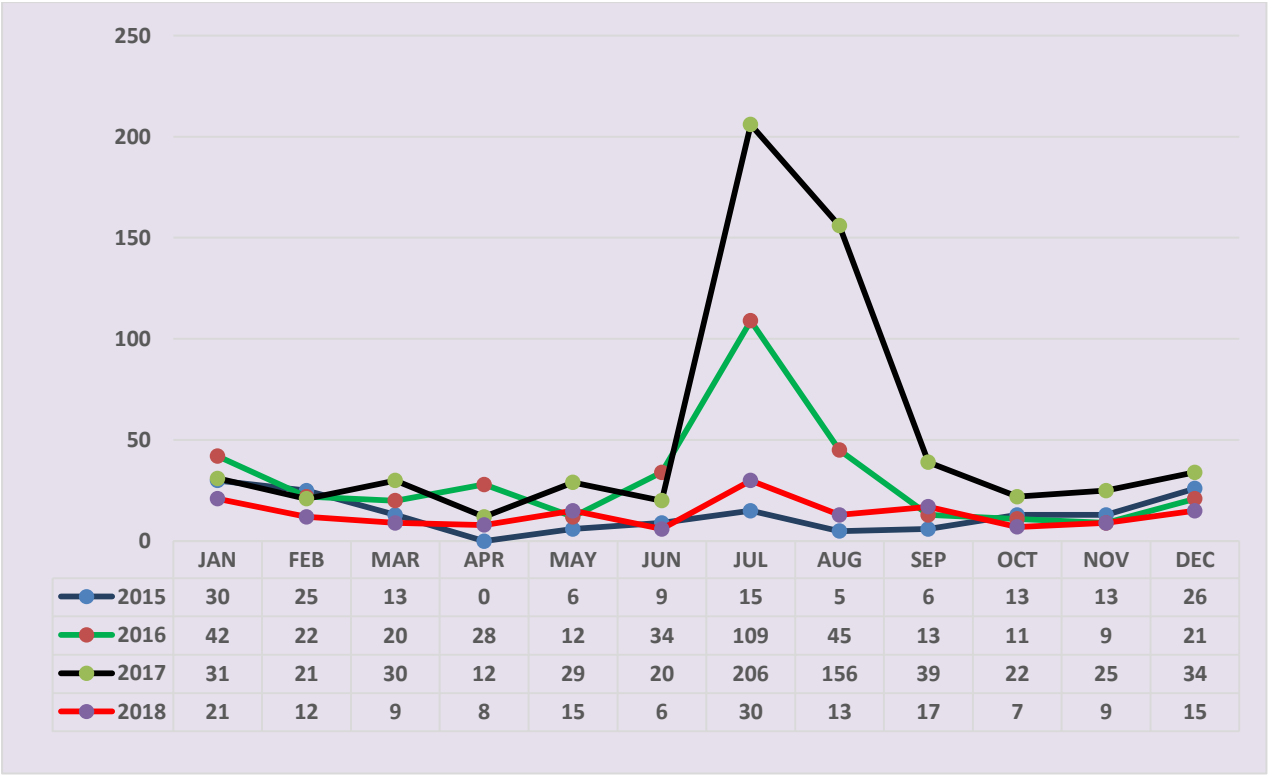
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2015	244	161	71	68	54	78	68	44	58	163	133	164
2016	341	223	169	106	156	315	1168	482	261	173	106	295
2017	262	203	356	374	837	2309	3722	2253	1090	815	1094	754
2018	481	272	181	140	371	337	495	390	274	193	353	340

Fig 7.2 Reported Dengue Cases in Matale district in 2015 -2018



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2015	98	45	19	20	10	8	5	0	7	11	9	4
2016	48	37	26	19	19	73	276	126	92	94	69	107
2017	110	108	122	121	165	408	741	547	182	119	258	160
2018	133	61	60	66	136	57	126	97	27	28	40	60

Fig 7.3 Reported Dengue Cases in Nuwaraeliya district in 2015 -2018



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2015	30	25	13	0	6	9	15	5	6	13	13	26
2016	42	22	20	28	12	34	109	45	13	11	9	21
2017	31	21	30	12	29	20	206	156	39	22	25	34
2018	21	12	9	8	15	6	30	13	17	7	9	15

Table 7.9 Number and percentage of houses positive for Ae. aegypti/ Ae. albopictus in different MOH areas in the Kandy and NuwaraEliya districts

District	MOH area	2017			2018		
		No. of houses surveyed	No. (%) houses positive for *Ae. aegypti* and *Ae. albopictus*		No. of houses surveyed	No. (%) houses positive for *Ae. aegypti* and *Ae. albopictus*	
			No	%		No	%
	Akurana	3312	272	8.21	2960	247	8.344595
	Bambaradeniya	456	16	3.51	678	43	6.342183
	Doluwa	346	22	6.36	470	39	8.297872
	Hataraliyadda	207	20	9.66	636	45	7.075472
	Hasalaka	128	1	0.78	0	0	
	MC Kandy	253	84	33.20	1152	43	3.732639
	Kundasale	2140	128	5.98	2251	168	7.463350
	Udunuwara	1458	38	2.61	23315	47	0.201587
	Poojapitiya	700	51	7.29	510	52	10.196078
	Talatuoya	517	53	10.25	561	64	11.408200
	Galagedera	1146	2	0.17	1620	138	8.518519
	Gangawatakorale	1146	55	4.80	2576	275	10.675466
	Kurunduwatta	123	15	12.20	416	30	7.211538
	Menikhinna	972	100	10.29	2183	186	8.520385
	Yatinuwara	2328	33	1.42	4646	117	2.518295
	Gampola	4154	233	5.61	4927	287	5.825046
	Nawalapitiya	994	30	3.02	1023	56	5.474096
	Wattegama	3580	263	7.35	3443	236	6.854487
	Werallagama	2289	192	8.39	4124	360	8.729389
	Panwila	0	0	-	122	02	1.639344
	Udadumbara	102	11	10.78	0	0	
	Galaha	115	8	6.96	147	06	4.081633
	Medadumbara	575	47	8.17	753	65	8.632138
NuwaraEliya	Kotmale	0	0	-			
	Lindula	0	0	-			
	Nawatispane	103	0	0.00			
	Rikillagaskada	419	36	8.59			
	Walapane	0	0	-			
	Ambagamuwa	0	0	-			
	Nuwara-Eliya	0	0	-			
	Kotagala	0	0	-			
	Bogawantalawa	0	0	-			
	Maturata	0	0	-			

Table 7.10 Number of actual breeding sites of Ae. aegypti and Ae. albopictus in different MOH areas in Kandy and NuwaraEliya districts

District	MOH area	2017			2018		
		No. of houses surveyed	No. of containers		No. of houses surveye	No. of containers	
			Examined	Positive for *Ae. aegypti* and *Ae. albopictus*		Examined	Positive for *Ae. aegypti* and *Ae. Albopictus*
Kandy	Akurana	3312	2618	331	2960	2409	302
	Bambaradeniya	456	478	14	678	778	48
	Doluwa	346	475	24	470	584	47
	Hataraliyadda	207	224	23	636	678	53
	Hasalaka	128	241	1	0	0	0
	MC Kandy	253	4538	89	1152	915	46
	Kundasale	2140	3945	134	2251	2693	170
	Udunuwara	1458	1203	37	23315	1227	51
	Poojapitiya	700	1349	53	510	686	57
	Talatuoya	517	1228	64	561	811	68
	Galagedera	1146	1932	92	1620	1809	141
	Gangawatakorale	1146	1974	58	2576	3126	361
	Kurunduwatta	123	419	15	416	615	35
	Menikhinna	972	1779	131	2183	2624	192
	Yatinuwara	2328	2039	40	4646	2612	11
	Gampola	4154	6648	290	4927	5271	350
	Nawalapitiya	994	1603	32	1023	1167	62
	Wattegama	3580	2937	303	3443	2312	295
	Werallagama	2289	3748	201	4124	4185	386
	Panwila	0	0	0	122	105	03
	Udadumbara-	102	242	12	0	0	0
	Galaha	115	276	8	147	129	06
	Medadumbara	575	1087	82	753	973	74
Nuwara Eliya	Kotmale	0	0	0			
	Lindula	0	0	0			
	Nawatispane	103	164	0			
	Rikillagaskada	419	619	48			
	Walapane	0	0	0			
	Ambagamuwa	0	0	0			

	Nuwara-Eliya	0	0	0			
	Kotagala	0	0	0			
	Bogawantalawa	0	0	0			
	Maturata	0	0	0			

Table 7.11 Number and percentage of potential breeding sites per 100 houses in the Kandy and NuwaraEliya districts

District	MOH area	2017			2018		
		No. of houses surveyed	No. of containers		No. of houses surveyed	No. of containers	
			Examined	potential breeding sites per 100 houses		Examined	potential breeding sites per 100 houses
Kandy	Akurana	3312	2618	79.05	2960	2409	81.39
	Bambaradeniya	456	478	104.82	678	778	114.75
	Doluwa	346	475	137.28	470	584	124.26
	Hataraliyadda	207	224	108.21	636	678	106.60
	Hasalaka	128	241	188.28	0	0	0.00
	MC Kandy	253	4538	1793.68	1152	915	79.43
	Kundasale	2140	3945	184.35	2251	2693	119.64
	Udunuwara	1458	1203	82.51	23315	1227	5.26
	Poojapitiya	700	1349	192.71	510	686	134.51
	Talatuoya	517	1228	237.52	561	811	144.56
	Galagedera	1146	1932	168.59	1620	1809	111.67
	Gangawatakorale	1146	1974	172.25	2576	3126	121.35
	Kurunduwatta	123	419	340.65	416	615	147.84
	Menikhinna	972	1779	183.02	2183	2624	120.20
	Yatinuwara	2328	2039	87.59	4646	2612	56.22
	Gampola	4154	6648	160.04	4927	5271	106.98
	Nawalapitiya	994	1603	161.27	1023	1167	114.08
	Wattegama	3580	2937	82.04	3443	2312	67.15
	Werallagama	2289	3748	163.74	4124	4185	101.48
	Panwila	0	0	-	122	105	86.07
	Udadumbara	102	242	237.25	0	0	0.00
	Galaha	115	276	240.00	147	129	87.76
	Medadumbara	575	1087	189.04	753	973	129.22
Nuwara eliya	Kotmale	0	0	-			
	Lindula	0	0	-			
	Nawatispane	103	164	159.22			
	Rikillagaskada	419	619	147.73			
	Walapane	0	0	-			
	Ambagamuwa	0	0	-			
	Nuwara-Eliya	0	0	-			

	Kotagala	0	0	-			
	Bogawantalawa	0	0	-			
	Maturata	0	0	-			

Container types

Water storage containers (Tanks and barrels), discarded containers, roof gutters and household appliances constitute the major proportion of Ae. aegypti and Ae. albopictus breeding sites. InNuwaraEliya district, the proportion of roof gutters is higher than that of the Kandy district. However, discarded containers are a major threat for dengue control in the province.

BI was varied from 0.24 to 14.01 in Kandy district in 2018. This shows the risk of spreading the disease in both districts during the given years.

Table 7.12 CI, HI and BI in different MOH areas in the Kandy and NuwaraEliya districts

District	MOH area	2017			2018		
		CI	HI	BI	CI	HI	BI
Kandy	Akurana	13.40	8.21	9.99	12.54	8.34	10.20
	Bambaradeniya	6.25	3.51	3.07	6.17	6.34	7.08
	Doluwa	7.16	6.36	6.94	8.05	8.30	10.00
	Hataraliyadda	10.27	9.66	11.11	7.82	7.08	8.33
	Hasalaka	1.85	0.78	0.78	0	0	0
	MC Kandy	3.91	33.20	35.18	5.03	3.73	3.99
	Kundasale	6.34	5.98	6.26	6.31	7.46	7.55
	Udunuwara	5.28	2.61	2.54	4.16	2.03	2.20
	Poojapitiya	6.97	7.29	7.57	8.31	10.20	11.18
	Talatuoya	9.97	10.25	12.38	8.38	11.41	12.12
	Galagedera	7.98	0.17	8.03	7.79	8.52	8.70
	Gangawatakorale	5.61	4.80	5.06	11.55	10.68	14.01
	Kurunduwatta	10.34	12.20	12.20	5.69	7.21	8.41
	Menikhinna	11.68	10.29	13.48	7.32	8.52	8.80
	Yatinuwara	3.72	1.42	1.72	0.42	2.52	0.24
	Gampola	7.13	5.61	6.98	6.26	5.83	6.70

	Nawalapitiya	4.41	3.02	3.22	5.31	5.47	6.06
	Wattegama	11.66	7.35	8.46	12.76	6.85	8.57
	Werallagama	8.94	8.39	8.78	9.22	8.73	9.36
	Panwila	-	-	-	2.86	1.64	2.46
	Udadumbara	7.41	10.78	11.76	0	0	0
	Galaha	4.71	6.96	6.96	4.65	4.08	4.08
	Medadumbara	13.95	8.17	14.26	7.61	8.63	9.83
NuwaraEliya	Kotmale	-	-	-			
	Lindula	-	-	-			
	Nawatispane	0.00	0.00	0.00			
	Rikillagaskada	8.41	8.59	11.46			
	Ambagamuwa	-	-	-			
	Maturata	-	-	-			
	Nuwara-Eliya	-	-	-			
	Walapane	-	-	-			
	Kotagala	-	-	-			
	Bogawantalawa	-	-	-			

Dengue control programme- Vector surveillance Matale districts

Table 7.13 No of houses positive for Ae.aegypti and Ae.albopictu and No of containers positive for Ae.aegypti and Ae.albopictus in Matale district

MOH area	No of Houses surveyed		No of Houses positive for Ae.aegypti and Ae.albopictus		No of containers Examined		No of containers positive for Ae.aegypti and Ae.albopictus	
	2017	2018	2017	2018	2017	2018	2017	2018
MC -Matale	1721	1371	73	28	2299	1364	77	48
Matale	817	204	52	75	1237	2345	71	99
Yatawatta	200	300	13	43	110	618	13	45
Ambanganga/ Rattota	1079	1223	70	72	1637	1684	94	101

Ukuwela	3410	3468	160	134	4632	3711	192	142
Pallepola	402	754	38	49	503	862	44	58
Wilgamuwa	-		-	473	-	34	-	34
Dambulla	1081	800	36	58	1759	1087	52	71
Galewela	2037	712	98	56	2541	826	140	58
Naula	300	100	19	18	239	167	21	21
L/Pallegama	104	200	02	12	230	260	04	17
Institutions	66	100	86	86	1204	1073	86	56
Total	**11217**	**9232**	**647**	**1104**	**16391**	**14031**	**794**	**750**

Table 7.14 Dengue vector surveillance, Matale District - Other Premises 2017-2018

Institution	**No. examined**	**No. examined**	**No. positive for positive for Ae.aegypti and Ae.albopictus**		**% of institutions positive for Ae.aegypti and Ae.albopictus**	
	2017	**2018**	**2017**	**2018**	**2017**	**2018**
Government Offices / Institution	25	60	14	21	20	38
Schools	07	27	04	13	06	23
CTB Depot	01	-	01	-	01	02
Hospitals	07	02	06	01	09	02
Building site	313	-	06	-	09	-
Commercial site	1343	-	14	-	20	-
Religious place	15	09	06	04	09	08
Dump yard	65	-	12	-	18	-
Army Camps	02	-	02	-	03	-
Open Areas	-	-	-	-	-	-
Private	08	-	03	15	05	27

Table7.15 Percentage of different containers types positive for Ae.aegypti & Ae.albopictus in Matale District 2016 and 2017

Container Type	2017	2018
Water storage	26	24
Discarded containers	35	36
Polythene	12	10
Natural	04	02
Tyre	08	09
Refrigerator	06	06
slab	03	01
Gutter	02	03
Ornament	03	06
Other	01	03

Fig 7.4 Percentage of Container Types among the Breeding Places - 2017

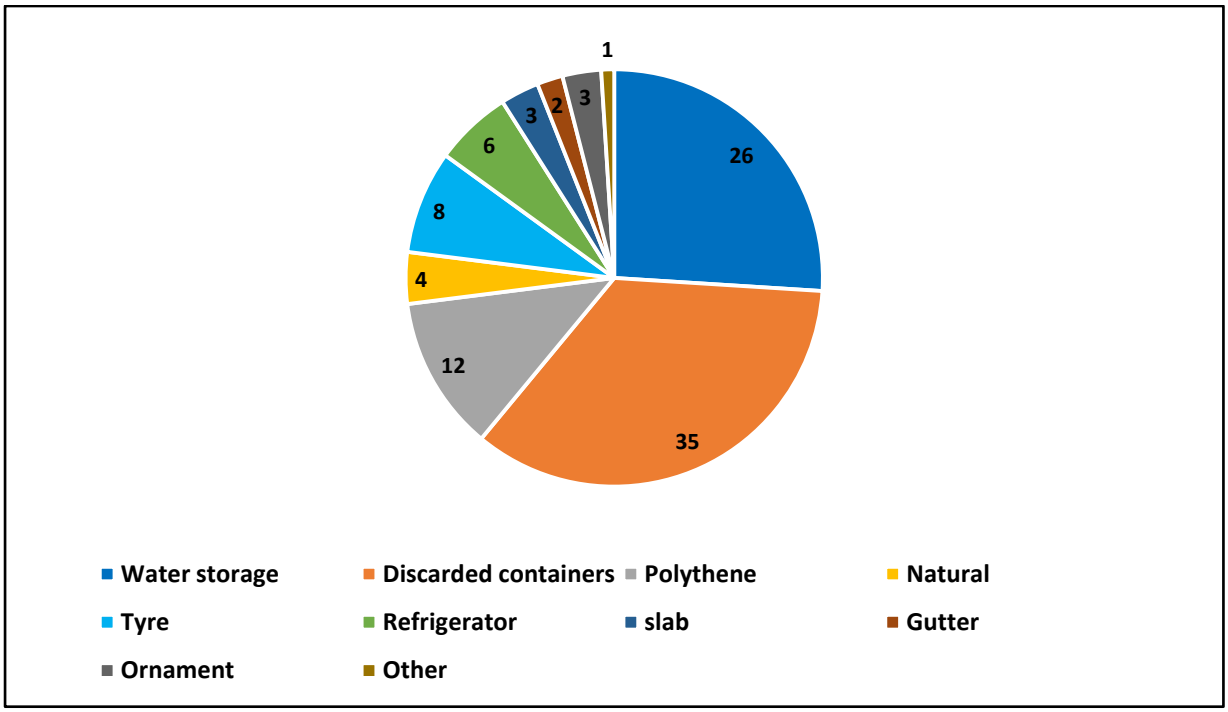


Fig 7.5 Percentage of Container Types among the Breeding Places – 2018

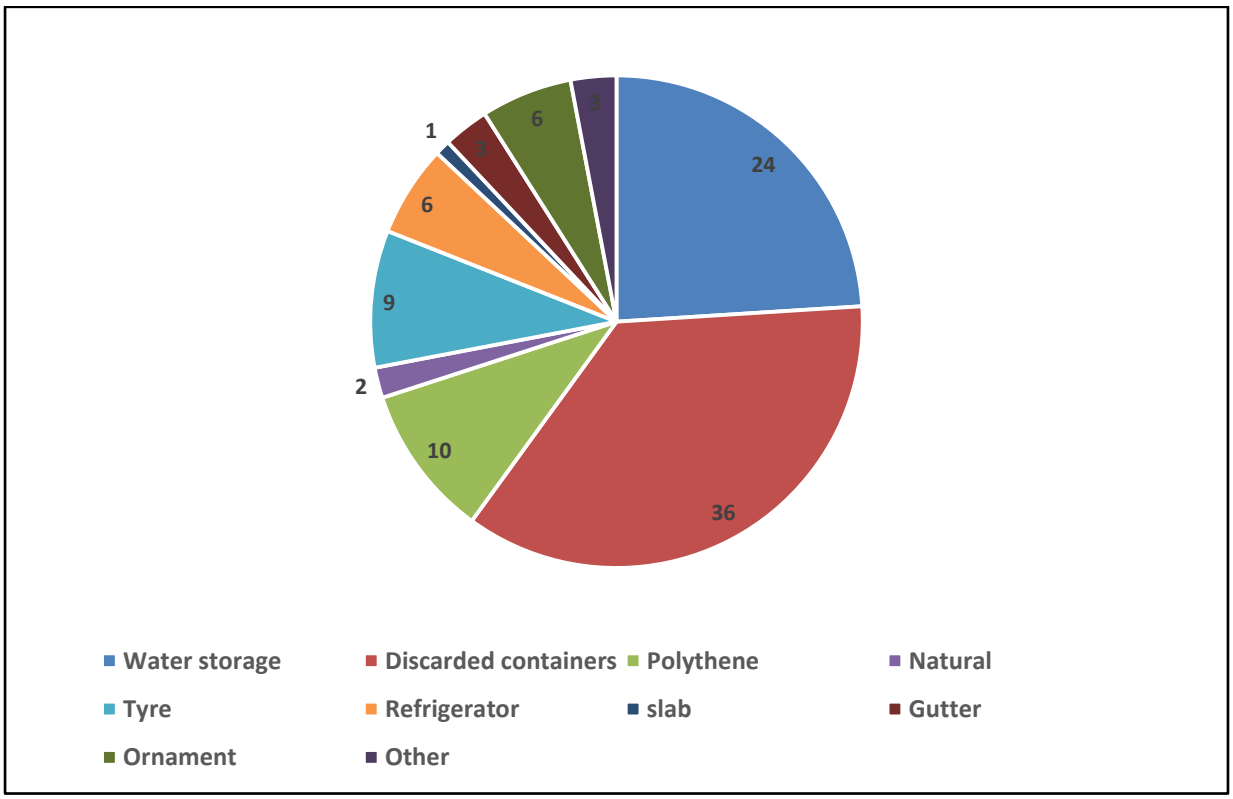


Table 7.16 Application of larvivorous fish in water storage containers by MOH areas 2017 & 2018 in Matale district

MOH Area	No of permanent breeding sites		No of fish introduced	
	2017	2018	2017	2018
Matale	20	166	455	1630
MC Matale	0		0	
Ukuwela	38	20	1070	
Rattota	43	125	3260	770
Galewela	49	80	3847	590
Dambulla	104	198	3429	1740
L/Pallegama	0		0	
Pallepola	06	140	750	1755
Yatawatta	73	196	1824	1565
Naula	115	165	4777	1170
Total	**448**	**1090**	**19412**	**9220**

9220 Larvivorous fish,***Poecilia reticulata*** were introduced for water storage tanks in Matale district in 2018. The MOH areas and the number of fish applied given in the table above.

Number of Rounds of space spraying in the MOH areas

Spraying was carried out according to national guidelines as a method to control the adult vector density. The number of rounds of space spraying in each MOH areas in Matale district is given below.

Table 7.17 Number of Rounds of space spraying in the MOH areas in Matale District

MOH area	No. of patients covered		No. of rounds		Amount of Insecticide used (Lit)					
					Deltacide		Pestguard		Technical Malathion	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Dambulla -MC	02		09		0		1.0		12	1.85
Galwela	01		02		0		0.25		0	
01M25atale	01		05		0		0.62		0	0.25
MC Matale	05	02	20	02	0		2.75		0	1.69
Naula	01		02		0		0.25		0	
Pallepola	02		08		0		1.0		0	
Rattota	03		10		0		1.25		0	
Wilgamuwa	01		05		0		0.62		0	
Ukuwela	12	02	28	02	0		2.375		07	0.655
Yatawatta	02	03	05	02	0		0.5		01	0.5
Laggala	00		00		0		00		0	0.5
Total	**30**	**07**	**94**	**06**	**0**		**10.05**		**20**	188.595

7.3 STD, HIV/AIDS Control Programme

Situation of HIV/AIDS and other STIs in the Central Province

Table 7.18 Clinic attendance and no. of newly diagnosed cases by District in Central Province 2017 and 2018

	Kandy		Matale		Nuwaraeliya	
	2017	**2018**	**2017**	**2018**	**2017**	**2018**
Total Clinic Attendance	11029	13862	707	2767	1843	2233
Syphilis	28	37	08	11	15	08
NGU/NGC	98	128	46	64	15	18
Genital Herpes	157	171	56	76	33	16
Candidiasis	150	92	57	106	44	39
HIV	17	19	04	09	04	08
Gonnorrhoea	06	03	08	00	02	02
Other STIs	18	75	42	61	03	03

Total number of clinic attendance in all three districts has increased in year 2018 compared to 2017. NGU, Genital Herpes, candidaias and Syphilis were the major STIs in all three districts. In 2018, 19 cases of HIV positives were reported from Kandy District and also there were 9 and 8 cases reported from Matale and NuwaraEliya respectively.

Table 7.19 Serology test for Syphilis in Kandy District

	2017		2018	
	Total VDRL	**VDRL +ve**	**Total VDRL**	**VDRL +ve**
STI Clinic attendance	2261	89	2857	84
Ante-natal mothers	21444	61	21376	19
Pre – employment	2706	02	3508	02
Other	3813	42	1889	13
Total	**30224**	**194**	**29630**	**118**

The total number of VDRL tests carried out in Kandy district in 2018 was 29630 and 118 among them were positive. Number of VDRL tests carried out and test

positives among antenatal mothers in Kandy district has decreased in year 2018 than 2017. Among them there were 19 VDRL positive antenatal mothers in Kandy district in 2018.

Table 7.20 Serology test for Syphilis in Matale District

	2017		2018	
	Total VDRL	**VDRL +ve**	**Total VDRL**	**VDRL +ve**
STI Clinic attendance	360	07	528	07
Ante-natal mothers	8513	00	9022	00
Pre – employment	1055	00	1061	00
Other	216	01	225	07
Total	**10144**	**08**	**10836**	**14**

Total Number of VDRL tests carried out in Matale district in 2018 were 10836 and 14 were positive for the test. Tests carried out for antenatal mothers were 9022, which is higher than previous year and none was positive for the test.

Table 7.21 Serology test for Syphilis in Nuwaraeliya district

	2017		2018	
	Total VDRL	**VDRL +ve**	**Total VDRL**	**VDRL +ve**
STD Clinic Attendance	405	16	436	08
Antenatal Mothers	10451	06	11159	
Pre-	938	00	895	
Others	200	00	993	
Total	**11994**	**22**	**13483**	**08**

Number of VDRL tests carried out among Antenatal mothers in Nuwaraeliya district have increased in year 2018 compared to 2017. In 2018, 08 of the pregnant mothers was VDRL positive whereas in 2017, this figure was 22.

Table 7.22 Serology test for HIV in Matale District

	2017		2018	
	No tested	**HIV Positive**	**No tested**	**HIV Positive**
STI Clinic Attendance	373	02	589	08
Ante natal mothers	8492	01	9033	01
Survey samples	825	00		
Others	352	01		
Total	**10042**	**04**	**9622**	**19**

There were 9622 serological tests carried out for HIV in 2018 and 04 cases were positive.

Table 7.23 Serology test for HIV in Kandy District

	2017		2018	
	No tested	**HIV Positive**	**No tested**	**HIV Positive**
STI Clinic Attendance	2099	14	2984	16
Ante natal mothers	22647	01	21575	0
Survey samples	-	-		-
Others	6641	02	3574	02
Total	**31387**	**17**	**28133**	**18**

There were 32387 serological tests carried out for HIV in Kandy district in 2018 and 18 of them were positive.

Table 7.24 Serology test for HIV in Nuwaraeliya District

	2017		2018	
	No tested	**HIV Positive**	**No tested**	**HIV Positive**
STI Clinic Attendance	405	02	475	08
Ante natal mothers	10451	02	11160	
Survey samples	00	00	00	

Others	632	00	1583	
Total	**11488**	**04**	**13218**	**08**

There were 13218 serology test carried out for HIV in Nuwaraeliya district and 08 were positive.

7.4 Rabies Control activities

Rabies control program was launched in Sri Lanka in 1975 and were decentralized to the provinces in the early nineteen nineties. The Central Province initiated the rabies control activities through the mass dog vaccination and elimination of stray dogs. In 2006 Ministry of Health, Nutrition, and Indigenous Medicine revised the strategy to be more humane towards dogs by promoting dog sterilization instead of dog elimination. The CP has already implemented this strategy.

Goal

Elimination of rabies by 2020

Objectives

- To ensure protection for those who exposed to suspected rabies infection
- To establish herd immunity in animal reservoirs with special emphasis on dogs
- To control the animal reservoirs with special emphasis on dogs through appropriate methods

Strategies

- Provide appropriate post exposure treatments
- Provide pre exposure prophylaxis for those who have higher risk of exposure to rabies infections
- Immunize all dogs through mass vaccination programs to achieve 75% coverage
- Sterilize female dogs through appropriate surgical method
- Strengthen rabies surveillance

- Community awareness to reduce animal bites

Table 7.25Human Rabies Deaths

	2011	2012	2013	2014	2015	2016	2017	2018
Kandy	00	00	00	01	00	00	03	02
Mathale	00	02	00	00	00	01	01	01
NuwaraEliya	01	00	]00	00	00	00	00	00
Central Province	01	02	00	01	00	01	04	03

Table 7.26 Post Exposure prophylaxis used in the central province 2009-2018

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Human ARV Doses	41231	37625	25477	127223	36445	44414	23342	27067	22689	
Human ARS Doses	18959	17942	11502	19857	8031	5496	5870	5860	13922	

Table 7.27 The usage of Human ARV & ARS by Hospital in the Central Province 2017-2018

Institutions	2017		2018	
	Human ARV	Human ARS	Human ARV	Human ARS
	No of Vials	No of Vials	No of Vials	No of Vials
TH Kandy	5330	1589		
TH Peradeniya	384	5526		
BH Gampola	1746	580	2740	580
DGH Matale	3780	617	5277	435
DBH Dambulla	2555	939	5800	1020
DGH Nawalapitiya	109	2908		
DGH NuwaraEliya	3056	221	00	186
BH Rikillagaskada	1416	00		

BH Dickoya	1104	00	4094	00
DH Maskeliya	451	00		
DH Walapane	457	00		
DH Watawala	120	00	286	00
DH Udupussellawa	140	00		
DH Bogawanthalawa	40	00		
DH Lindula	110	00		
CD Nildandahina	170	00		
DH Madulla	85	00		
DH Hanguranketh e	00	00		
DH Mathurata	60	00		
DH Galewela	374	00		
DH Wilgamuwa	315	00	999	00
DH Dayagama	43	00		
DH Luxapana	240	00		
DBH Theldeniya	00	883	1030	00
DH Delthota	00	582		
DH Marassana	00	77		
DH Hasalaka	152	00	512	00
DH Madulkele	452	00	720	00
Total	**22689**	**13922**		

7.5 Respiratory diseases Control Unit

Tuberculosis (TB) continues to be a public health problem in the world despite the availability of extremely effective treatment regimens. Moreover, multi drug resistant TB and HIV are emerging threats for tuberculosis control. Sri Lanka continues to make a considerable contribution to the global efforts towards the elimination of TB.

Objectives of TB control Program in Sri Lanka

- To ensure that every TB patient has access to effective diagnosis, treatment and cure
- To interrupt the transmission of TB
- To prevent the emergence of drug resistance
- To reduce the social and economic toll caused by TB

Table 7.28 Incidence of Tuberculosis cases by type in Nuwaraeliya District 2017 & 2018

Type	2017	2018
PTB smear +ve	102	105
PTB smear -ve	70	47
EPTB	119	93
Total	291	245

Note: EPTB – Extra Pulmonary Tuberculosis

Table 7.29 Incidence of Tuberculosis cases by type in Kandy District 2017 & 2018

Type	2017	2018
PTB smear +ve	191	244
PTB smear -ve	133	140
EPTB	141	194
Total	465	578

Note: EPTB – Extra Pulmonary Tuberculosis

Table 7.30 Incidence of Tuberculosis cases by type in Matale District 2017& 2018

Type	2017	2018
PTB smear +ve	72	70
PTB smear -ve	29	40
EPTB	51	67
Total	152	177

Note EPTB –Extra Pulmonary Tuberculosis

Table 7.31 Percentage Distribution of new smear positive cases by sex 2017 & 2018

District	2017		2018	
	Male	Female	Male	Female
Kandy	64	36	66	34
Matale	80	20	70	30
Nuwaraeliya	59	41	57	43
Central Province	66	34	64	36

Male have higher infection rates in all three districts in the province in both years.

Table 7.32 Distribution of TB cases by District

	2017	2018
Kandy	465	578
Matale	152	177
Nuwaraeliya	291	245
Central Province	**908**	**1000**

Number of Tuberculosis cases diagnosed in CP was increased in 2018 when compared to 2017.

Table 7.33 Clinic Attendance in CP

Category	2017		2018	
	Number	%	Number	%
Referral	9792	31	8467	27
Self referral	14422	45	15010	48
Contacts	1472	5	1967	6
Medicals	6303	20	5887	19
Total	**31989**	**100**	**31331**	**100**

Majority of the clinic attendees were self-referrals for both years in all three districts.

Table 7.34 No of Investigations Carried out and Results in CP

	2017	2018
No of Smears Examined	37456	21072
No of Smears Positive Slides	1036	536
No of Smears Negative Slides	36420	16666
No of X rays Carried Out	18165	18117
No of Films Used	18384	18122

Table 7.35 Treatment success according to districts in 2017 and 2018

District	2017			2018		
	Kandy	Matale	N eliya	Kandy	Matale	N eliya
DOTS implementation coverage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Treatment success rate	88.6%	60.52%	86.3%	98.9%	76.21%	80.4%
Default rate	0.8%	1.3%	2.6%	9.6%	0.6%	3.1%
The mortality rate	8.3%	10.52%	3.4%	5.4%	4.8%	3.5%

DOTS coverage in Kandy and Matale was nearly 100% in both years and Kandy and NuwaraEliya districts have better treatment outcome than previous years.

7.6 Leprosy control programme

The history of leprosy in Sri Lanka goes back to Dutch colonial times when segregation of patients started in the leprosy asylum at Hendala in 1708. For nearly 3 centuries, segregation of patients in the two hospitals, one at Hendala and the other at Mantivu Island, Batticaola was the main mode of control of leprosy.

Of all the diseases that occurred among human, leprosy has the most notorious history as a cause of deformity, disability, loathing and fear. From ancient times until the recent past, the disease was considered both highly contagious and impossible to cure. Victims were universally shunned; their physical suffering compounded by the misery of being treated as social outcasts. Even at the medical level the sole option for control was the isolation of patients in colonies or leprosaria.

During the last three decades, Sri Lanka has made much progress in eliminating leprosy. Invention and subsequent expansion of Multi Drug Therapy (MDT) by World Health Organisation (WHO) in 1981, was a dawn of new era in the path towards elimination of Leprosy. Well tolerance, effectiveness and high acceptance of MDT by patients led the way to the rapid cure of patients and interruption of further transmission of the disease. This invariably was the stepping-stone to the WHO resolution to eliminate leprosy as a public health problem by the year 2000. With the MDT and highly successful Social Marketing Campaign (SMC) which was launched in 1990, Sri Lanka reached the elimination target at national level in 1995, well ahead of the targeted year set by WHO. Just prior to dawn of the new millennium, Sri Lanka embarked upon integration of leprosy services into General Health Services, the final push towards the elimination of leprosy

Since 2001, Leprosy services have been completely integrated with the General Health Service to reach the final objective of achieving the elimination target in remaining few areas of Medical Officer of Health –MOH- (sub-national level) and to sustain the achievements gained so far.

7.6.1 Landmarks in the history of Leprosy in Sri Lanka

The landmarks in the history of leprosy in Sri Lanka can be grouped under four headings.

- Strict segregation (1708-1930)
- Evolution of field activities (1930-1970)

- Strengthening of field activities and introduction of Multi drug Therapy (1970- 1990)
- Community involvement and elimination as public health problem (Since 1990)

1. Strict segregation (1708- 1930)

1708 First leprosy asylum at Hendala in the Western Province

1868 Civil Medical Department took over the leprosy asylum from British Military Administration

1901 Lepers Ordinance, which provided segregation of all leprosy patients Compulsory was passed

1920 Second leprosy asylum was started in the island of Mantivu in the Eastern Province

2. Evolution of field activities (1930 - 1970)

1930 Two medical officers underwent training on leprosy control activities in Chingleput, India

1932 First leprosy survey

1933 First visit of Dr. Cochrane, The Medical Secretary to the Empire Leprosy And Relief Association to Ceylon (Sri Lanka) to review the leprosy situation and make recommendations to the Government

1951 Introduction of Dapsone mono-therapy and special clinics for non-Infective patients

1954 Appointment of Dr. B. L. Malhothra as a WHO consultant to the country.

Anti Leprosy Campaign (ALC), a vertical organisation under the Ministry of Health was started to co-ordinate leprosy control activities in the country.

1970 Appointment of trained, paramedical workers- Public Health Inspectors (PHIs) – to implement field activities

3 Strengthening of the field activities and introduction of Multi drug therapy (1970 – 1990)

1970 PHIs actively involved in field activities – clinics, Village surveys,

Defaulter retrieval, Contact surveys, Educational programmes

1977 Compulsory admission to two hospitals stopped

1983 Leprosy Relief Work Emmaus (ALES), Switzerland joined ALC with

Financial and material support for the field programme. Multi Drug Therapy (MDT) introduced. Sri Lanka achieved 100% coverage with MDT in the same year.

1987 Dr. Christian, WHO consultant arrived and National Leprosy Register was updated under his guidance and supervision. Names of the patients who were on Dapsone mono-therapy for many years released from treatment

i. Community involvement and elimination of leprosy at national level (1990 – 2000)

1989 Ciba-Geigy Leprosy Fund (now Novartis Foundation for Sustainable

Development -NFSD) joined Leprosy Relief Work Emmaus in supporting leprosy elimination activities

1990 NFSD funded, Social Marketing Campaign for Leprosy launched; blister packs introduced; number of field clinics increased from 76 to 210

1991 Case detection increased by 150%; Self reporting increased form 9% in 1989 to 50% in 1991

1992 Field based deformity care programme was started under the guidance of DrAtul Shah, a NFSD consultant

1995 Sri Lanka reached elimination target of leprosy at national level (Second country in South East Asia region to achieve – the first – Thailand)

2000 Goal Oriented Project Plan for integration of leprosy services into General

Health Service was presented to Hon Minster of Health, Health Administrators and other key stakeholders

2001 Leprosy Elimination activities in Sri Lanka which hitherto implemented through vertical component –Anti Leprosy Campaign- was integrated into Genral Health Service

2002 MDT distribution completely integrated with General Health Services

2003 Accelerated community awareness programmes launched in hitherto inaccessible areas in Northern province

2006 Exit of Novartis Foundation for Sustainable Development, Switzerland- one of the partners. Plan of action for sustaining the elimination and integration with Lepra.ch

Vision of the program

To reduce the Leprosy and Related Distress **by reducing the reservoir of leprosy sustainable and by improving the quality of life of people affected by leprosy.**

General objective

To reach elimination target at sub-national level (in remaining endemic MOH areas) with the integration of elimination activities into the General Health Services.

Specific objectives

1. To re-orientate curative medical officers of the GHS in the diagnosis and management of leprosy.
2. To train Regional Epidemiologists (RE), Medical Officers of Health - MOH) and the staff attached to those offices in the epidemiological assessment of leprosy at local level
3. To develop simplified records and registers and software on Leprosy Management Information System (LMIS) to facilitate the monitoring leprosy situation and maintaining the surveillance both at local and central levels.
4. To conduct awareness programme for general public to reduce the stigma and to inform the availability of drugs in all health units.
5. To make leprosy drugs (MDT blister packs) available in all health units.
6. To provide rehabilitative care for 'cured' patients with disabilities

- New Case Detection Rate (New cases detected per 100,000 inhabitants)
- Disease burden in the population (Prevalence – cases per 10,000 inhabitants)
- Proportion of children among new cases (Child rate)
- New cases detected with disabilities (Deformity rate)

Table 7.36 Incidence of leprosy by District in the CP from 2012 – 2018

	2012		2013		2014		2015		2016		2017		2018	
	PB	MB	PB	MB	PB	MB	PB	MB	PB	MB	PB	MB	PB	MB
Kandy	00	00	20	16	15	23	19	25	08	17	09	27	11	21
Matale	14	13	12	24	09	07	16	08	12	13	05	13	13	22
Nuwara eliya	04	06	05	05	05	07	06	06	04	04	04	04	00	09
Total CP	**18**	**19**	**37**	**45**	29	37	**41**	**39**	**22**	**34**	**18**	**44**	**24**	**52**

- Source- sentinel Leprosy Register

When compare to the year 2017, in 2018 both PB leprosy and MB casesincreased in the province.

Table 7.37 Proportion Child patients and Deformities reported 2016 – 2017

	2017		**2018**	
	Number	**%**	**Number**	**%**
Child patients reported (< 15 yrs)				
Kandy	02	5.56	02	5.56
Matale	01	5.5	03	8.57
NuwaraEliya	0	0	01	0.1
Total CP	03		06	
Deformity patients reported				
Kandy	07	19.44	06	19.00
Matale	01	5.5	01	2.85
NuwaraEliya	0	0	0	0
Total CP				

- Source- sentinel Leprosy Register

Table 7.38 Treatment and rehabilitation status

	2017			2018		
	Kandy	**Matale**	**N Eliya**	**Kandy**	**Matale**	**N Eliya**
Number cured	32	15	04	30	22	04
Number defaulted treatment	04	-	02	02	04	01
Cumulative deformity patients	07	-	-	06	05	02
Number patients received foot wear	22	03	00	25	08	00
Number of patients received foot splints	-	-	00	-	00	00
Finger splints	-	-	00	01	00	00
Ulcer care kit	05	-	00	06	00	00
Large plastic basin	-	-	00	-	00	00
MC for social relief allowance	14	02	00	14	04	00

The incidence of leprosy was decreased in the province in 2018 than 2017.

8. SPECIAL UNITS

8.1 Patient Rehabilitation Services

Rehabilitation Hospital –Digana

The rehabilitation of physically disabled patients is an aspect that fails to draw adequate attention in the general health services due to lack of facilities and trained staff. When patients needing medium and long term rehabilitation get discharged without a proper plan they end up as wheel chair or bed bound patients. This has been highlighted by data from previous years.
In 2001 with government and other well-wishers' donations, the Department of Health Services Central Province decided to develop a Rehabilitation Hospital in the underutilized rural hospital at Digana (about 15 km away from Kandy town).

The available services are

- **Inward facilities**

  By 2018 the total number of beds at the hospital were 68 and the total inpatient days been recorded was 17,773 for the year. Bed occupancy rate was 70.85%.

- **Medical Management**

  A main challenge faced when dealing with these patients is being sensitive to the sudden transformation they have undergone from being healthy, independent individuals to those who are physically, mentally and personally disadvantaged. Thus, the management of these patients by the hospital staff extends well beyond boundaries of straight forward medical treatment.

  Rheumatology Services

  These services are provided for

- Inward patients
- Out patients
- Follow up services

Community Pediatric Services

This pilot project involves the early identification of disabled children and education of field officers by the community Pediatrician in order to enable early referral of these patients to a rehabilitation centre. The areas that covered with this project are Ududumbara, Wattegama and Galagedara.

Pediatric Services

In addition to inward treatment following clinic services and follow up services are also provided through this department.

- Development screening clinic
- General Pediatric clinic
- Learning disability clinic
- Pediatric Neurology (Joined clinic)
- Autism & child guidance clinic

Special Ward Rounds

The ward round is carried out with the participation of a multidisciplinary team consisting of a consultant Rheumatologist, Medical Officers, Physiotherapists, Occupational Therapists, Speech Therapists, Planning officer, Social services officer and Nursing officers. During the ward round, ideas and suggestions from each category are shared in order to individualize and optimize patient care services.

❖ **Physiotherapy**

Physiotherapy department is well established unit with adequate facilities and equipment. Eight qualified physiotherapists are working in this department and consist of specially designed area for pediatric patients.

Physiotherapists in the hospital are responsible in restoring functions and independence of the individuals who have disabilities or problems caused by physical psychological and other disorders; promote the health and wellbeing of the whole person to an optimal level of function and independence.

This professionals individually assess the patient and plan their treatment protocols according to evidence based studies and deliver treatment using physical agents, force, gravity, bouncy, sound and manual techniques. As well as patient and their families are educated by physiotherapists.

They always work collaboratively with multidisciplinary team in order to achieve an effective outcome.

Physiotherapy department provides treatment for inward adult and pediatric patients as well as adult and pediatric out patients who need physiotherapy interventions to overcome their disease and disorders.

Aims of physiotherapy

- ❖ Evaluate physical problems
- ❖ Increase and maintain muscles strength and endurance
- ❖ Restore and increase range of motion in joints

- Increase coordination
- Decrease pain
- Decrease muscle spasm and spasticity
- Decrease swelling / inflammation of joints
- Promote healing of soft tissue lesions
- Prevent contractures and deformities of limbs
- Alleviate walling problems
- Educate patients and families about their care
- Decrease stress
- Reline a number of respiratory problems including asthma

"PHYSIOTHERAPISTS HELP PROMOTE POSITIVE ATTITUDES TOWARDS HEALTH AND FITNESS"

❖ **Occupational Therapy**

Occupational therapy is one of health profession in western medicine with using therapeutic activities for physical and mental conditions.

Occupational therapy department well established with various facilities and therapeutic equipment.
Four qualified occupational therapist are working in this department.

They work collaboratively in adult occupational therapy unit and pediatric occupational therapy unit separately.

Occupational therapists work with physically and mentally disabilities. Such as neurological, Rheumatologic, Orthopedic, burns, Pediatrics, cut and crush injuries of the hand geriatrics and many other conditions.

Occupational therapists can assess and provide various facilities in hand injury management, physical improvement for function, activity of daily living, psychological support, Wheel chair assessment, work school, home and community reintegration.

Specific activities are treatment media of occupational therapy following area list of such activities.

- Provision of special attention and care to stroke patients to improve their mental status.
- Identification and training of specific movements needed by an individual to carry activities of daily living.
- Patients with paralyzed upper limbs are trained to explore the ability to reuse them by using adaptive devices and splints.
- Assessing the suitability to use a wheel chair and the provision of wheel chair training.
- Guiding to improve the movements of the joints, the strengthening of muscles, coordination, balancing when sitting and when changing positions to maintain their activity of daily living.
- Dressing adaptive devices and providing training to use them.
- Assessing the ability to engage in the previous job or a new job in order to make the person financially independent.

"OCCUPATIONAL THERAPY IS SKILLS FOR ART OF LIVING"

- **Speech & Language therapy**

New Speech therapy unit was established at the end of the year 2015.
The department focuses on clients in all age ranges, who are expecting the treatments for speech, language, communication, voice, fluency and swallowing related problems due to different genetic, acquired, anatomical, physiological, neurological and psychological conditions. As well as it investigates an alternative communication methods and referral process within multi disciplinary team.
The clinic is running by the 03 qualified Speech and Language Therapists to the inward and out ward patients in regular basis. The clients are receiving intensive/ non intensive, direct and indirect therapy; individually or as a group, in order to improve their quality of life with effective & precious services in the holistic view point.
The clinic distributes leaflets/reading materials to the clients in order to raise the community awareness, treatment provision and reduce the misconceptions, discriminations, labeling and social stigmatizations of the speech, language and communication related difficulties and disabilities.
Clients have been directing to the department through the Medical officers and Consultants. In the therapy process SLTs consider about the appropriate assessment procedure, other referral processes, choice of therapy approach, intervention & management plans, probability of the possible outcomes as well as the needs of the client & the care giver. If the client is eligible to receive the therapy the intervention procedure will be plan according to the severity of the condition, age, (EBP) evidence

based practice; considering the client's communication need, care giver support and the distance to the hospital.

Discharge criteria for the clients have been deciding again on the needs of the client & caregiver, and according to the plan of the block of therapy, results of the reassessment and the progress of the client. Clients were not giving direct discharge criteria and they will receive therapy non-intensively, if there was a possible outcome from the therapy. If the clients maintain positive outcomes, they receive therapy break and review sessions will be decided after a team discussion (MDT).

- **Nursing Care**

The nursing care plays a vital part in rehabilitating disable patients. With respect to patients with spinal cord injury, bowel, bladder and skin care are the main areas of nursing care. Majority of our nursing staff were specially trained on management of spinal cord injury.

- Spinal Injury wards
- Rheumatology and Medical ward
- Pediatric wards
- Clinics – medical/Spinal/Orthopedic/Dental/Pediatric neurology/ Dental/Autism
- Health Education and Counseling
- Education for special needs children
- Awareness program for patients, Guardians of special needs children

Main areas of nursing care

Spinal cord Injury

- Skin Care – Objective is to prevent Pressure sores and maintain healthy skin
- Wound care – most of the patients are transferred with pressure sores
- Bowel care – As there is no proper bowel function , Nursing Officers have to teach how to empty the bowel
- Nutritional support – on admission most of the patients are with

nutritional defects

- Psychological support – Due to the sudden illness many of them are with depression or any other psychological problem
- Health Education(for patients, care givers and family)
- Training some procedures .eg:-Self Intermittent Catheterization, Skin care

- **Social Services**

  An officer from the Central Province Social Services Department was appointed as a "Social Service Officer" to obtain aids and supply services to the needy patients. The government aids are very useful to the program of Community Resettlement and the Social Services Officer gets the main role in this program. The Rehabilitation Centre provides support by coordinating and assisting.

- **Vocational Training**

  Most of the patients are unable to engage in the original occupation following the disability. The idea behind vocational training is to enable these patients to lead a productive and independent life in the society while contributing for the development of the country. The patients are given the facility to identify, train and engage in occupations that suite their general condition and liking.
  e.g. making candles, cards, mats, envelopes, paper bags, pharmacy covers brooms, soaps, incense sticks and fabric painting etc.

  The necessary physical and technical resources for this are provided by the Central Province Social Services Department and the Kandy Women's Development Centre. The Rehabilitation Centre also provides support by coordinating assistance from various well wishers.

- **Supplies of disable appliances Majority are free of charge and sometimes at a cost by a NGO.**

- **Counseling services by professional counselors**

  The importance of addressing the psychological aspect of a patient who is physically disabled cannot be overemphasized. The patients are provided with the appropriate mental health services and counseling which empower them with the inner strength to face the challenge of living with the handicap. The family of the patient will also be counseled to help create an atmosphere where the individual is capable of living an active and dignified life

- **Special education unit**
  This unit is provided education for special need children by a well trained teacher.

❖ **Leisure activities**

New provisions have been made for leisure activities of the patients including Basket Ball, Badminton and Carom facilities.

❖ **Training of relatives in the care of the disabled**

By family meeting, family visits, allowing a bystander to be with patient and less activities need to be continued.

❖ **Before and after assessments of Community Resettlement through field visits**

Community resettlement is a crucial factor in the rehabilitation of the disabled and is yet to be addressed even at National level. However it is already underway at Digana Rehabilitation Hospital with more than 840 resettlement activities been carried out by the end of 2018.
The main objective of this programme is creating a suitable environment for the patient who gets discharged from the ward. E.g. adjusting the doors to enable travelling via wheel chair by self, replacing staircases with ramps, providing easy access to toilets, installing bars to aid walking on patient's own. To this end, when a patient reaches the final stages of the hospital stay, an assessment is made of the patient's home environment.
Resettlement programme also involves identifying a suitable self employment for the patient and conducting discussions with Grama Niladhari, Samurdhi officer, Social service officer and Medical officer of health to establish the patient in his home environment.
Many follow up visits were conducted in 2018 to assess the success of the resettlement programme. During these visits, patients were given further instructions on how to adapt to the home environment. Readmission to the hospital and follow up clinic services were arranged as and when deemed necessary.

❖ Self Care Training Centre

This centre which includes a toilet and bathroom complex enables the patients to provide themselves with self care. Thus patients, including paraplegics and wheel chair bound patients can bathe, wash cloths or shave etc. independently using the utensils attached to the modified seats.

While catering to the specific needs of rehabilitation, the hospital still maintains its Out Patient Department & clinic services (including dental clinic services) for the general population of Digana.

Additionally, the patients are transferred to Kandy and Peradeniya General Hospitals for clinic services and investigation procedures of specialized nature.

Table 8.1 Summary of basic information and services delivered at Physical Rehabilitation Center Digana

No	Activity and Description	2014	2015	2016	2017	2018
01	Total No. of Admission	623	718	927	956	855
02	Discharge with total recovery	563	741	905	965	840
03	Total No. of Deaths	1	0	0	1	03
04	Total No. of Vocational Training given	51	20	29	38	15
05	Total No. appliances given free of charge ◊ Wheelchairs ◊ Crutches ◊ Walking aides ◊ Others – commode chairs, water mattress	12 02 03 04	06 02 06	16 04 18	17 16 0	39 03 02 02
06	No. of Patients Counseled	44	386	780	943	983
07	No. of Home Visits	10	12	11	16	13
08	General OPD average Per month	7701	7545	7298	7563	6719

The number of patients who were discharged with total recovery has increased in 2018 when compared to the previous years.

Table 8.2 Details of Clinics held in 2018

Clinic	Total Number of Clinics held	First Visits	Subsequent Visits	Total Visits	Average attendance per day	Designation of Officer conducting the clinic
Medical clinic	51	437	12213	12650	34.65	MO
Diabetic clinic	52	334	10627	10961	30.03	MO
Dental clinic	204	6247		6247	17.11	DS
Rheumatology clinic	137	1225	10062	11287	30.92	Rheumatologist MO
Pediatric clinic	47	149	650	799	2.18	Pediatrician MO
Psychiatry clinic	12	41	541	582	1.59	MO Psychiatry
Pediatric Neurology clinic						Consultant Pediatric Neurologist
NCD clinic	29	60		60	0.16	MOIC
OPD	80,628			80628	220.89	MO/RMO

Table 8.3 Physiotherapy, Occupational therapy & Speech therapy statistic in 2018

Unit	No of Patients	
	2018	
	No of patients	No of therapy units
Physiotherapy	26,554	601,240
Occupational therapy	11508	391,380
Speech therapy	1215	2699

The following activities were undertaken in 2018 to improve the services at Digana Rehabilitation Hospital.

- **Contribution from well wishers**

Table 8.4 Contribution from well wishers

◊ Partition of speech therapy unit

Item Name	Quantity
Lap top	02
Wheel Chairs	21
Wheel walker	05
Tab	01
Refrigerator	01
Voice Recorder	01

8.2 Regional Health Training Center (RHTC) – Kadugannawa

Location

Regional Health Training Center (RHTC) is located by the main Kandy-Colombo trunk route at Henawala, Kadugannawa.

Introduction and History

Regional Health Training Center (RHTC)

Office of the Medical Officer of Health(MOH) Yatinuwara was established in 1936 to carry out preventive health activities in the area. It has been identified as a center for field training of Public Health staff since 1968. Part II training of Public Health Midwives and community nursing students were the main basic trainings conducted at the center when it was established.

The Training Center was upgraded as Regional Health Training Center (RHTC) in 1990 and expanded its services as a training center to cater the needs of the provincial health department of Central Province and Ministry of health, in human resource development. Basic training of auxiliary categories and in-services trainings are carried out at RHTC at present.

Medical Officer of Health (MOH) area Yatinuwara serves as the field practices area. It is located by the main Kandy-Colombo trunk route at Henawala, Kadugannawa. RHTC Comes under the Provincial Director of Health Services (PDHS), Central Province.

Vision

“Excellency through Training “

Mission

"To assist in accelerating and supporting Provincial Health Department and Ministry of health where necessary in establishing and extending an integrated primary health care delivery system to serve the population in the region and to mobilize community participation in this effort"

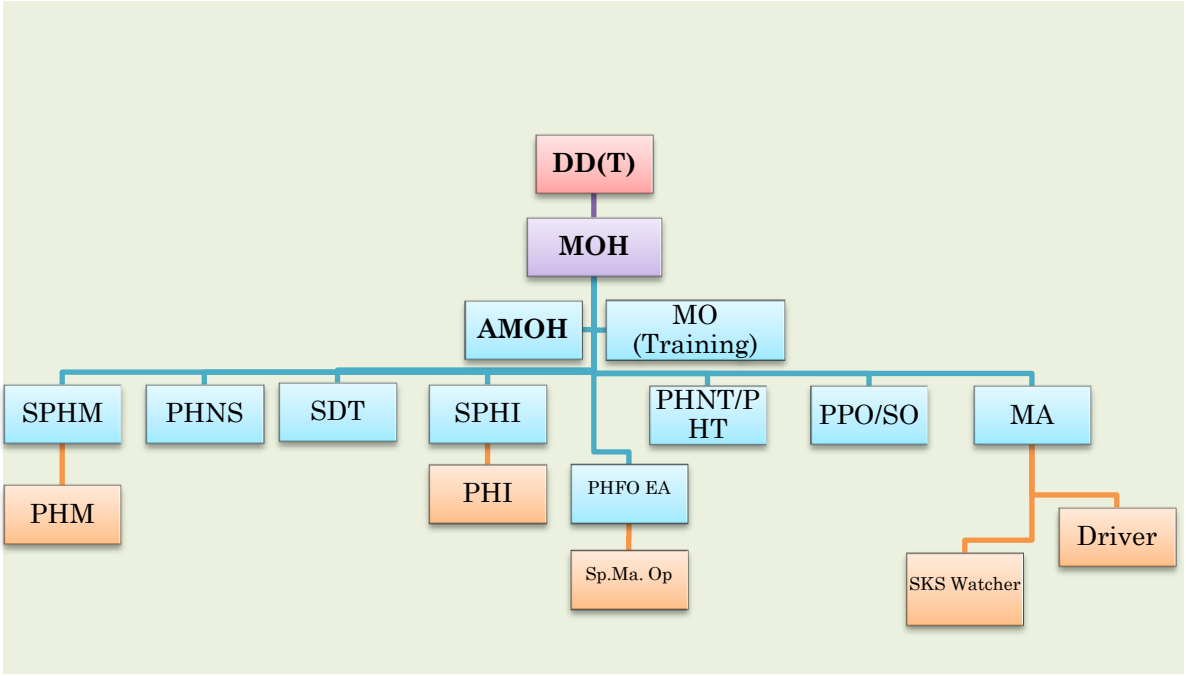
Overall objective

To provide comprehensive intergraded quality health care services for people in Central Province.

Specific objectives

1. To address all aspects of health manpower development requirements in the region and to advice the Provincial health ministry in its policy relating to health manpower development.
2. To Initiate and undertake training programs for members of the primary health care (PHC) team according to national and provincial requirement
3. To Initiate and undertake continuing education of the PHC team.
4. To conduct research related to health services and manpower development
5. To improve and maintain the quality of care at health care institutions in the Central Province.
6. To establish proper managerial functions stewardship & health information system.
7. To establish and improve standard on knowledge and skills in private sector manpower.

Organization Structure RHTC/MOH –Yatinuwara



Abbreviations

DD(T) - Deputy Director (Training)
MOH - Medical Officer Of Health
AMOH - Additional Medical Officer Of Health
MO Training - Medical Officer Training
PHNT- Public health Nursing Tutor
PHT-Public health Tutor
PPO - Planning & Programming Officer
SO - Statistical Officer
DO- Development Officer
PHFO - Public Health Field Officer
PHNS - Public Health Nursing Sister
SPHM - Supervising Public Health Midwif
SPHI - Supervising Public Health Inspector
SDT - School Dental Therapist
MA - Management Assistant
PHI - Public Health Inspector
PHM - Public Health Midwife
SKS - Saukya Karya Sahayaka
EA - Entomological Assistant
Sp. Ma. Op - Spry Machine Operator

Resource Personal

As a prestigious Government Institute we always bound to maintain our standard in high level in academic and non-academic areas. Therefore, always our training sections are rich with well-qualified resource Personal with Postgraduate qualifications. Most of our resource persons are coming from universities and they are professionals. Examples for senior level managers in government and non-government sector and technical staff.

- Professors
- Consultants
- Medical Doctors
- Medical Practitioners
- Senior Lectures
- Researchers
- Charted Accountants
- SLAS officers
- Technical officers
- Engineers

Human Resources

Our main strength is well-trained, experienced and knowledgeable staff**.** The team consists with qualified university graduates and Diploma holders.Their main discipline in related to education and staff training. They positioned in the institute as Medical Officer Of health, Medical Officer Training, Public health Nursing Tutor, Public health Tutor, Planning & Programming Officer, Statistical Officer,Development Officer, Entomological Assistant, Public Health Field Officer, Public health Nursing Sister, Supervising Public Health Midwife, Supervising Public Health Inspector, School Dental Therapist, Management Assistant, Public Health Inspector and Public Health Midwife.

Kindhearted supportive staff is another strong arm in the institute. They consist of drivers and SKS.

Facilities

❖ **Lecture Halls**

- Auditorium 01 – Seating facilities for 100 Persons with Air Condition, Multimedia and Other Audio Visual Equipment.
- Lecture Hall 2- Seating facilities for 60 Persons with Air Condition.
- Lecture Hall 3- Seating facilities for 50 Persons.
- Lecture Hall 4- Seating facilities for 75 Persons.
- Tutorial room - Seating facilities for 30 Persons.

❖ **Dining rooms**

Dining rooms 1 – Accommodate 60 Persons

Dining rooms 1 – Accommodate 100 Persons

❖ **Hostel Facilities**

Accommodate facilities for 25 Persons.

❖ **Library Facilities**

Accommodate facilities for 25 Readers

❖ **Toilet and washing facilities**

Good condition. Clean Toilets

Toilets with washing Facilities are available for males and females separately

❖ Information Technology Facilities

Computer lab for 15 Persons with Internet facilities including Wi-Fi network facilities.

❖ Vehicles

Two vans and one bus for 25 passengers with air condition available for training needs

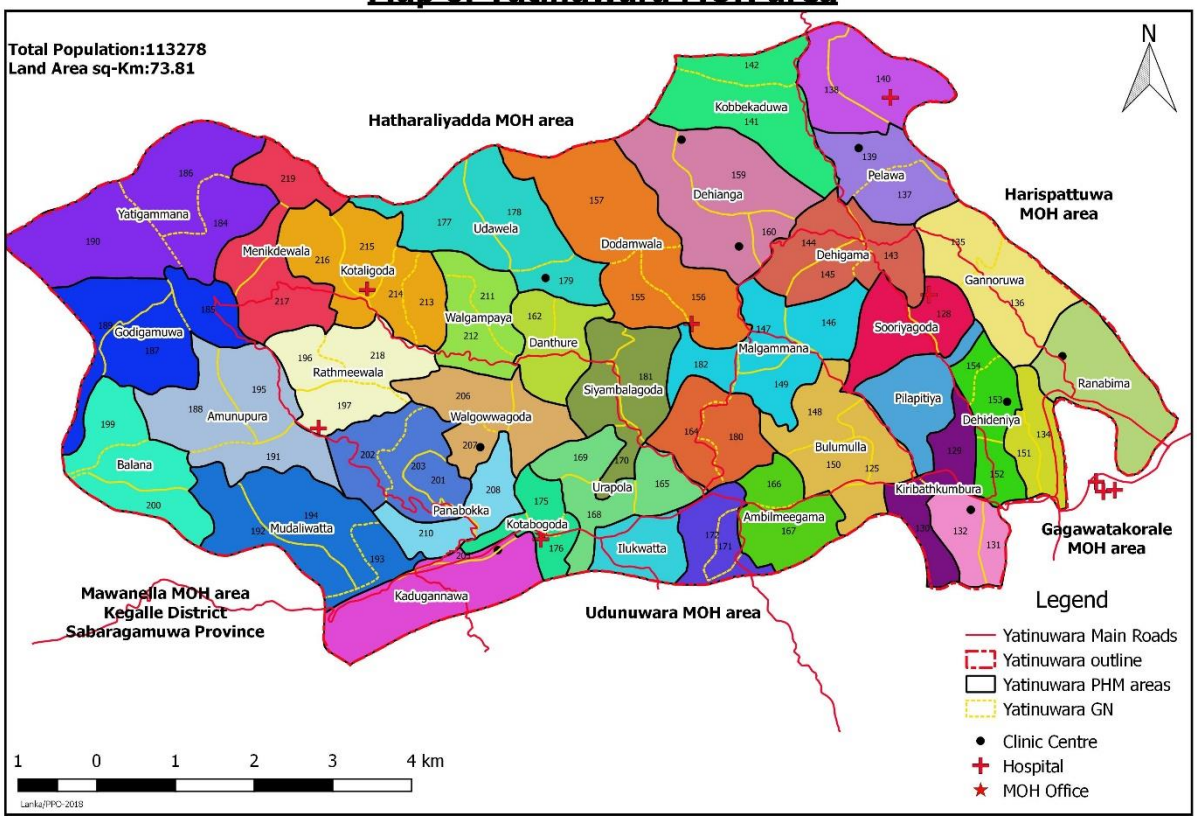
❖ Other Facilities

Intercom telephone system,printing facilities , Laminating & book binding

Field Practice area

Yatinuwara MOH area is equal to Divisional Secretariat area as an administrative unit. It spreads around 70 square kilo meters along the Kandy Colombo road starting 6 kilo meters away from Kandy City. There are 161 villages and 95 GramaNiladari divisions in the MOH area. Both Yatinuwara Pradeshiya Sabha (Local government) and Kadugannawa Urban council are within the Yatinuwara MOH area.

Map of Yatinuwara MOH area



General Information of the Area

- Total Population : 113,278
- Population density (Per Sq Kilometers) : 1,575
- Number of GramaNiladari Divisions : 95
- Number of villages : 161
- Number of Public Health Midwives (PHM) Areas : 38
- Number of Public Health Inspectors (PHI) Areas : 6
- Number of house holdes : 26,980

14 Field Services provided by the Medical Officer of Health and his team

- Antenatal care,
- Immunization,
- Nutrition,
- Family Planning,
- Well women services,
- Communicable Diseases Controlling,
- Occupational Health,
- Food Sanitation,
- Water sanitation
- School /Per-school inspections,
- Health education,
- Public awareness on healthy life style,
- NCD Screening,
- Adolescent health,
- Oral Health,
- Drugs Inspection,
- Mental Health,
- Business registrations, Rehabilitation

Table 8.5 Programmes conducted in 2018 at RHTC Kadugannawa

	Name of Training/Workshop	Target Group	No of Programmes	No of Participant	Expenditure RS.
1	Programme on Neonatal Advance Life Support	MO, NO	3	78	77,895.00
2	Programme on Presentation Skills	MOO, MOHH, PHNS, SPHI, SPHM, PHI, PHM	1	72	29,818.50
3	Short Course in Geographic Information System (GIS) Applications in Public Health	MOO, MOHH, PHNS, SPHI, SPHM, PHI, PHM	3	83	142,040.00
4	Community Health Nursing Training Programme	nursing officers	1	123	5,556.00
5	Preplacement Training programme for newly Recruited nursing officers	Newly Recruited nursing officers	1	45	46,185.00
6	Programme on Supportive Supervision	RE, MOMCH, PHNS, SPHM	1	55	33,210.00
7	Programme on Emergency Medical Care-Basic Life Support	PHNS, NOO, SPHI, PHI, SPHM,	1	57	12,657.00
8	Preplacement Trainingprogramme for newly Recruited PHMM	PHMM	1	82	83,855.00

9	Programme on Professionalism, professional ethics, Quality and safety services	MOO, PHNS, PHM	1	33	9,818.00
10	Programme on Food Safety	MOO, MOHH, SPHI	1	46	42,000.00
11	Programme on Basic Life Support Training-Kandy	SNT, SPHI, SPHM, PHI, PHM	1	59	29,750.00
12	Programme on Research Methodology	SPHI, SPHM, PHI,PHM	3	38/	56,895.00
13	Programme on Life Style Related Disease	MO,MOH,NO,PHNS,SPHI	1	59	89,540
14	Preplacement Training programme for newly Recruited Management Assistant	MA	1	14	8,035.50
15	Induration programme for PHM Trainees Batch 2018	PHM Trainee	1	67	9480.00
16	Awareness programme on Tobacco prevention for Preschool teachers and mother supportive groups	Preschool teachers and mother supportive groups	1	63	19,660.00
17	Awareness programme on Tobacco prevention for elders	Elders	1	75	23,967.00
18	Injury Prevention and Basic First aid programme for public heath staff	public heath staff	1	64	44,907.50
19	Injury Prevention and Basic First aid programme for Preschool teachers	Preschool teachers	1	33	24,100.00
20	Promotion programme on Tobacco preventionvillages	Community	1	26	10020.00
21	NCD Prevention programme for Preschool teachers	Preschool teachers	1	34	15907.50
	Total				815297.00

Table 8.6 Basic Training Programmes conducted in 2017 / 2018 at RHTC Kadugannawa

S.No	Training Programme	Time Period	No of Students
01	PHIBasic Training 2017/2019	18 months	42
05	PHMBasic Training	6 months	67
06	Community Health Nursing BasicTraining (2018)	2 months	123

Table 8.7 Selected Performance indicators in maternal and child health in the MOH area:

Indicator	2016	2017	2018
% of Pregnant mothers registered	75	77	82
% of Pregnant mothers registered < 8 weeks	73	69	72
% of Teenage pregnant mothers registered		3.7	3
% of mothers tested for VDRL at the time of delivery	95	92	98
% of Mothers Protect red for TT at the Time of delivery	99	97	99
% of total deliveries reported	73	72	77
% of Home deliveries	0	0	2
% of infants registered	68	74	74
% of eligible Families Registration	83	91	93
% of newly married couples clinic attended	13	8	19
% of mothers registered after 12 weeks	9	7.5	8
% of mothers tested for VDRL befor 12 weeks	82	85	88
% of pregnant mothers protected for rubella	99	98	99
% mothers of pregnancy outcome reported	73	97	73
No of maternal death reported	1	1	0
% of 35-year pap smear coverage	38	28	73

8.3 Bio-Medical Engineering Services Unit

Repairing of all medical equipment was carried out by the Bio- medical Engineering Services Unit in Colombo (BES)prior to the year 2002. However, as there were 224 health institutions under the Central Provincial Health Department, it was impracticable for the BES to take care of repairs and maintenance of all the equipment in these hospitals resulting in a large number of serviceable medical equipment getting stocked in hospitals that were rendered unusable due to minor repair needs. Medical equipment requiring major repairs in secondary care hospitals were covered by the BME Unit on urgent requests. The Province did not have proper procedures for purchasing, maintenance,and condemning of medical equipment. The Central Province Bio - Medical Engineering Services unit was established in November 2002 with the aim of providing better coordinated support services within the Province to do equipment purchasing, maintenance and attends from minor repairs to major repairs of medical equipment and to maximize the equipment usage time.

Major Functions of BME Unit- Central Province

1. Repair of medical, surgical and other equipment in the provincial health institutions.

2. Services of medical, surgical and other equipment in the provincial health institutions.

3. Provision of reports on equipment and other items to be condemned.4. Provision of technical guidance on purchasing of new equipment to health institutions.

5. Provision of quality reports on newly purchased medical equipment.

6. Distribution of newly purchased equipment to health institutions.

7. Keeping inventory of medical equipment available at institutions.

8. Training health staff on maintenance of medical equipment.

The services provided by the BME Unit have gradually been improved over the years with the efforts of the dedicated team of workers being instrumental in saving millions of rupees for the healthcare system in the Central Province.

The BME unit also addresses the following with regard to purchase of new equipment for the health institutes within the province.

1 Identifying the necessary equipment and their quantity

2 Providing specifications for the required equipment

3 Provision of technical assessments

- Provision of recommendations by comparing the goods with the pertinent specifications
- Distribution of the new equipment according to the hospital requirement and guiding the staff to handle them efficiently
- Carrying out maintenance of equipment

The BME unit has established a system of quick repair and delivery of impaired medical equipment without a back log. Documentation of equipment received and delivered is being maintained up to date. The BME unit has also taken the challenge regularly checking and servicing of major equipment and also attending to urgent repairs. Equipment which had been deemed beyond repair has been successfully repaired by the team at the Bio-Medical Engineering unit.

The BME unit continues to hold regular awareness programs on the usage and maintenance of medical equipment for hospital staff at no extra cost. This impacted improving the skills and changing the attitudes of the staff using these equipment.

During hospital visits the BME team inspects all the medical equipment used and condemned by that institute. The discarded equipment are brought back to the unit, repaired and re-distributed to other hospitals demanding them. A sticker with the information including hospital name, type of equipment and inventory number is pasted on the equipment, in order to prevent any harm to the equipment by using plasters or other sticky things, and also enables systematic identification of the items.

Establishing the BME unit with different expertise areas to handle electronic equipment, high pressure apparatus, generators, dental equipment etc. has paved an organized and efficient way of rendering services. The unit has expanded its services to handle repairing the generators and air conditioning units and also attended for the faults in electrical circuit systems to restore the power supplies.

8.4 Oral health care services in Central Province

Oral health care services in the Central Province are mainly provided by the government health institutions in the three districts Kandy, Matale and Nuwaraeliya. In addition to this private sector is also playing a contributory role to minimize oral disease burden in Central Province. Oral health care team of the Central Province consisted of OMF surgeons, Orthodontists, Restorative consultants, Regional Dental Surgeons, Dental surgeons and School Dental Therapists.

Government health institutions provide curative as well as preventive oral health care services through hospital dental clinics, Community Dental Clinics established at certain MOH offices and School Dental clinics located in major

schools in relevant districts. There are three mobile dental units one in each district to cater the oral health care need mainly of the rural and estate sector population.

Hospital dental clinics are established at Divisional, District base, General and teaching hospitals.Dental hospital Peradeniya,Teaching hospital Kandy,General hospital Nuwaraeliya, District General hospital Matale and District Base hospital Dambullaare the major government hospitals provide oral health care services to the general public. District General hospital Matale and District Base hospital Dambulla comes under the administrative control of Regional Director of Health Services, Matale.

Dental hospital Peradeniya provides many disciplines of oral health care services to the patients who are living in the province and island wide. Teaching hospital Kandy is also providing specialized care in the disciplines of Oro-Maxillo-Facial (OMF) surgery, Orthodontics and Restorative Dentistry to the patient living in those areas. Specialised clinics established at SirimavoBandaranayake memorial Children's hospital, Peradeniya also provide orthodontic services to the children under 14 years of age. General hospital Nuwaraeliyaand District General hospital Mataleare also equipped with a well established Oro-maxillo –facial units rendering the services to the public.

Preventive oral health programme are mainly conducted through Regional dental surgeons in relevant districts. Theseprogrammesinclude oral cancer prevention programmes, preschool and school teacher training programmes, school children education sessions, maternal and child oral health promotions and oral health promotion for government officers. Most ofthese programmes are supported by the field health care staff Public health Midwives and Public Health Inspectors under the supervision of Regional Dental surgeon and with the help of Community Dental surgeons.

Oral cancer prevalence is high among estate workers and rural population of the Central province due to the habit of betel quid chewing and smoking. Hence special emphasis was paid for the oral cancer prevention programmes and health education programmes for estate health workers, mobile oral cancer screening programmes at estate levels and display of health education materials were carried out.

It has been identified that prevention of oral diseases should be done through life cycle approach starting from pre pregnancy period. Therefore oral health promotion for pregnant mothers was well incorporated into the preventive programmes specially at the MOH level. At the same time most of the preschool children screened and preventive and curative measures were taken while educating and encouraging the parents and preschool teachers to maintain tooth friendly environment at preschools and home. Preschool teacher training programmes were organized at MOH level and "health promotion preschool concept" was introduced to them. The prevalence of dental caries is high among school children hence special national preventive programmes such as "Save

molar program" were conducted in the central province to prevent dental caries among school children.

Though there is declining trend in oral disease burden in the Central province due to the comprehensive curative, preventive and promotive oral health care provision network, still the oral disease burden in the rural and estate population is escalating. Dental caries and periodontal diseases are common problem among young children. Oral cancer is a major health problem in the province specially among the estate sector. Therefore it is essential to strengthen the oral health promotive programmes while upgrading the curative dental care services to cater the needy people.

8.4.1 Mobile Dental Service

The mobile dental service was established in 2002 to provide satisfactory curative and preventive dental care for the people living in rural and estate areas where accessibility to dental clinic is minimal. These areas recognized as very difficult areas due to difficult geographical terrain. Poor infrastructure facilities and low socioeconomic and education levels have led to high incidence of dental caries and periodontal diseases among this underserved people. Mobile units were established to address these issues and these units offer the services of oral disease screening, diagnosing, referring and providing simple treatment procedures to the needy in the province.

Table 8.8 Dental services in Central Province 2018

	Kandy	Matale	Nuwaraeliya	Total
Hospital Dental Clinics	45	14	23	**82**
Community Dental Clinics	03	01	0	**04**
Adolescent Dental Clinics	04	02	01	**07**
School Dental Clinics	32	12	10	**54**
School dental clinics functioning	31	08	08	**47**
Mobile Dental Unit	01	01	02	**04**

Table 8.9 Performance of Dental Surgeons in 2018

	Kandy	Matale	Nuwaraeliya	Total
Emergency Care				
Extractions	45540	32254	30242	**108036**
Oro - facial pain relief	24492	10440	15070	**50002**
Dento - alveolar trauma		449	193	**642**
Soft tissue injuries		448	192	**640**
Post Op infections / bleeding	416	1596	170	**2182**
Routine Care				
TF	28621	19454	10659	**58734**
Amalgam		2856	1016	**3872**
GIC	41326	12598	18231	**72155**
Composite	7807	3103	2285	**13195**
RCT (Dressings)		1529	908	**2437**
RCT (Completions)		995	436	**1431**
Pulp Therapy	3504	2901	1367	**7772**
Scaling	10855	5480	5208	**21543**
Fluoride applications		898	577	**1475**
Fissure Sealants		480	538	**1018**
OPMD	173	195	354	**722**
Minor Oral Surgery		825	1293	**2118**
HE Sessions	4299	1589	2796	**8684**
Referrals	3520	3419	1794	**8733**
Others	16460	6123	9449	**32032**
Total attendance	**187013**	65219	**72243**	**324475**
Pregnant Mothers	10469	8222	7457	**26148**
Age under 3	1477	2462	2089	**6028**
Adolescents (13 - 19)	13566	6956	6789	**27311**
Inward patients		626	454	**1080**

Table 8.10 Performance of School Dental Therapists in 2018

	Matale	Nuwaraeliya
Permanent filling : Deciduous	14629	17526
: Permanent	1973	2498
Dressing : Deciduous + Permanent	3269	4389
Complete Scaling	2762	3390
Miscellaneous	2628	3619
Referrals	1810	352
Casual	9490	3275
Total attendances	35758	**47223**
Health education : No of Children	24641	38785
: No of Adults	4081	11666
: No of Teachers	868	2775
: No of Sessions	862	151
No of outreach programme	311	34943

Table 8.11 Mobile dental unit performances in 2018

	Kandy	Matale	Nuwaraeliya
No of patients screened	5562	5600	21736
No of patients treated	5562	4300	12780

8.5 Mental Health Services in the Central Province

Mental Health Services in the Central Province include:

1. Mental Health Promotion and Prevention in the Community

2. Mental Health care coordinated at District and Provincial levels

The services being implemented in the Central Province have been identified as a model for Mental Health for other Provinces in Sri Lanka.

This was mainly achieved by Central province Mental Health management teams. This team consists of Provincial Director of Health Services, Consultant Psychiatrists, Consultant Community Physician, , Regional Directors, Medical officers from District mental Health Resource centers, Medical officers in the special mental health units, Social service department officers & Probation Officers.

Community mental health activities supported through the MOMH

Strength of the central province's Mental Health programme lies on the already established primary health care structure where the MOMH is the key person. MOMHs in the province were trained in the annual 4 day Mental Health Training programme held for Medical Officers.

PHM's role is crucial in improving the quality of community care of psychiatric patients. Their motivation is to be increased by enlisting the support of the field staff of the AGA office of the relevant MOH area. This is being coordinated by the Community Mental Health Resource Centre of the district, supported by the district and provincial management levels.

The well established system of collection of statistics based on the regular sending of mental health returns by (PHM and PHNS) MOH and peripheral clinics to the relevant Focal point of the district is vital for evaluating the progress of the Community Mental Health Programme.

Psychiatry care services in tertiary care institutions in Central Province

Teaching hospital Kandy

The Psychiatric Department at TH Kandy has 60 beds and two consultant units. Generally, bed occupancy in wards is more than 100% at any given time with a high turnover of patients throughout the year. The average stay of a patient ranges from 1 to 2 weeks.

At Kandy, there is a day center, where day care is provided for patients six days a week. Every Friday a part time counselor from the National Youth Council provides counseling service while every Wednesday a voluntary counseling

service is provided by final year psychology special degree students from University of Peradeniya. Hospital base counselor of women in need (WIN) is available in Kandy mental health unit. Psychiatric social work is provided by 02 PSWs. They do home visits, help patients to sort out social problems and also organize annual Sinhala/Tamil New Year celebrations and consumer society. The unit liaises with the Social Service Department to obtain self employment allowance, housing allowance etc. for patients. Family meetings and music therapy programs are also organized by PSWs once a month. School children in the Kandy area, in rotation take part in these music programs in the psychiatric wards.

The Department at Kandy holds a Sinhala/ Tamil New Year celebrations annually in a ground outside the hospital. While being a popular annual event amongst patients, their family members and the staff, it has also being subjected to wide media coverage.

Another specialized service provided by this Department is forensic Psychiatric service with a large number of persons being referred from the courts for forensic psychiatric reports.

Psychiatric Department Kandy and Peradeniya are accredited units for postgraduate training in MD Psychiatry, Diploma in psychiatry and Kandy Hospital under takes Psychiatric Training for general MD, Diploma in Family Medicine & MSc in Clinical Psychology.

TH Kandy Consultant psychiatrist from teaching hospital Kandy regularly visits both DeltotaSisila Rehabilitation Centre and DH Walapane Rehabilitation centre .

Teaching hospital Peradeniya

Teaching Hospital, Peradeniya (THP) has a male unit (32 beds), a female unit (35 beds) and a Neuro Psychiatry Unit (10 beds). The head of the Department of Psychiatry, Faculty of Medicine, University of Peradeniya also heads the Peradeniya Hospital Psychiatry Unit. They have five Consultant Psychiatrist.

THP also has an active 6 days a week Day Centre where two Occupational Therapists are based. One Social Worker is supported by two Mental Development Officers who are trained in social work. There are Day Centre based social skills training programmes, alcohol anonymous type Saturday morning Alcohol Programme and The Nursing Officer in Charge of the Clinic has a special interest in the area of slow learners and runs a very successful parental group with the advocacy of the Psychiatrist running the Clinic. The respective clinic also trains the members of the NGO 'Women's Development Centre'.

The Unit works in coordination with the Social Services Department, National Child Protection Authority and some other Governmental and Non Governmental Organizations in Mental Health. (e.g. Nivahana, Provincial Ministry of Health, Central Province)

Teaching Hospital, Peradeniya, too is participating in District Meetings, Central Province Management Meetings, System Group Meetings with regard to the administrative issues in Mental Health.

THP gives supervision and support to Mampitiya Alcohol Rehabilitation Centre. Together with Teaching Hospital, Kandy, THP also provides support to Deltota Rehabilitation Centre.

SirimawoBandaranayake Specialist hospital Peradeniya

A child psychiatry clinic conducted by consultant psychiatrist from teaching hospital Kandy is recently established at SBSCH Peradeniya. It is conducted on every Friday and has seen over 1700 per year.

Being the only specialist children hospital having a child psychiatry clinic is and immense service to the area.

Table 8.12 Mental health staff – Kandy / Matale / Nuweraeliya districts

	Kandy	Matale	Nuwaraeliya
Health staff	18	13	13
School teachers	12	12	09
School children	19	00	16
Volunteers	01	00	00
World Mental Health day	01	00	00
Autism Day	01	00	00
World Mental Health day	05	00	02
Work places	06	00	15
Youth Camp	00	00	16
Army Camp	00	00	01
Preschool teachers	00	09	00
Special School	02	00	00
Elderly Program	06	00	00
Consumers and care takers group		08	07
Other Staff (AG Office Police)	12	00	00
Meetings	05	00	00
Total	76	42	79

Mental Health Care Service Centers in Central Province

Community mental health resource centre -Katugastota

This Centre is situated in DH Katugastota and serves to educate Government &Non Government Organizations, the community at large and identified special personnel on Mental Health. The Centre has conducted Educational programmes

There is an improvement in the number of training programmes conducted by the Centre when compared to the previous year.Additionally, the World Mental Health Day celebrated by organizing a exhibition and educational programme to mark the day.

District General hospital Nawalapitiya

The Mental health unit of the DGH/Nawalapitiya has been functioning since the year 2000. It provides psychiatry clinic care and day centre facilities for the population of the Nawalapitiya area as well as for some areas of the surrounding NuwaraEliya district. The mental health unit was headed by a Consultant Psychiatrist. The facilities included a male and female ward, clinic room and a day Centre room.

Teaching hospitalGampola

Gampola mental health services are headed by consultant psychiatrist. It has daily clinic services ,daycentre facilities and out reach clinics .Namely DH Pussellawa, DH Panvilatenna and DH Kurunduwatta.

Sisila rehabilitation hospital Deltota

Sisila Rehabilitation Hospital was established in 1995 at Deltota. Here Rehabilitation based around structured day involving everyday activities such as sweeping and cooking religious activities personal care activities out door work such as agriculture or caring for the cow and indoor works such as making rugs or pharmacy bags.

Alcohol rehabilitaioncentreMampitiya

Alcohol Rehabilitation Unit at Mampitiya was the first government institute, which provided rehabilitation facilities for alchoholic patients. It is administered under direct supervision of the Psychiatry Unit of the Peradeniya Teaching Hospital. Though located in the Central Province, it provided services for persons from any region of the country.

Medical Officers in psychiatry are conducting clinics in following institution under the supervision of Consultant Psychiatrist .DGH Nawalapitiya, TH Gampola, DBH Theldeniya, DH Galagedara, Mampitiya Rehabilitation Hospital, DH Katugastota. In addition to community awareness programmes

they are conducting out reachclincs in following hospitals namely DH Ududumbara ,Digana Rehabilitation Hospital, DH Akurana, DH Wattegama, MOH Office Hatharaliyadda, DH Kurunduwatta, DH Pussellawa and DH Panvilatenna.

Functioning Mental Health Clinics in Kandy District

1. Teaching Hospital Kandy
2. Teaching Hospital Peradeniya
3. SirimawoBandaranayeke Specialist Children Hospital Peradeniya
4. DGH Nawalapitiya
5. DBH Theldeniya
6. DH Akurana
7. DH Bokkawala
8. Rehabilitation Centre Delthota
9. DH Galadedrea
10. DH Panvilatenna
11. DH Pussellewa
12. DH Thalatuoya
13. DH Ududumbara
14. DH Wattegama
15. DH Yakgahapitiya
16. DH Sangarajapura
17. DH Kuruduwatta
18. Rehabilitation Centre Mampitiya
19. DH Muruthalawa
20. DH Madolkele

21. TGH Gampola
22. DH Katugastota
23. DH Kadugannawa
24. Rehabilitation Hospital Digana

Functioning Mental Health Clinics in NuweraEliyaDistrict

1. Bace Hospital N eliya
2. DBH Rikillagaskada
3. DBH Dikoya
4. DH Walapane – Rehabilitation Centre
5. DH Maldeniya - Rehabilitation Centre
6. DH Kothmale
7. DH UdaPussallawa
8. DH Kotagala
9. DH Agarapatana
10. DH Lindula
11. DH Maskeliya
12. DH Bagawantalawa
13. DH Ginigathhena
14. DH Watawela
15. DH Madulla
16. DH Teripaha

Functioning Mental Health Clinics in Matale District

DGH Matale

DBH Dambulla

DH Laliambe – Rehabilitation Centre

DH Muwamdeniya

DHNalanda

DH Sigiriya

DH Rattota

DH Yatawatta

DH Galewela

DH Kongahawela

DH Wilgamuw

8.13 Diagnosed new cases by type of disease in 2018

ICD 10 Code		Kandy	Matale	Nuwaraeliya
F00- 03	Dementia	158	83	44
F05	Delirium	15	05	05
F06	Other mental health disorders due to brain damage	17	06	16
F10	Substance Abuse	403	225	125
F20	Schizophrenia	247	529	222
F22	Delusional Disorder	85	25	54
F23	Acute and Transient Psychotic disorders	43	107	32
F25	Schizoaffective Disorder	26	23	15
F31	Bipolar affective Disorder	388	437	182
F32,F33	Depressive disorder	2084	827	827
F40,F41	Anxiety Disorders	154	143	120
F42	Obsessive Compulsive Disorder	106	15	05
F43F9A	Adjustment disorders and Bereavement	102	32	26
F44	Dissociative Disorder	63	04	00
F45	Somatoform Disorders	26	05	11
F50	Eating disorders	05	07	00
F52	Sexual Disorder	35	12	04
F71-73	Mental Retardation	146	140	80
F80	Speech and language disorder	76	03	03
F84	Autisms and other PDD	76	00	11
F90	ADHD	246	35	42
F91	Conduct Disorder	45	04	09
F93	Emotional disorders with onset specific to childhood	51	01	04
F95	Tic disorder	00	03	00
	Epilepsy	138	60	50
	Deliberate self harm		365	293
	Other (specify)	274	61	152
	Total	5844	3157	2332

Table 8.14 Human Resource Development in 2018

		Kandy	**Matale**	**Nuwaraeliya**
01	Consultant Psychiatrists	11	02	03
02	MO Psychiatry	02	00	00
03	MO MH	01	05	04
04	Community Psychiatry Nurse	04	00	09
05	OT	04	01	01
06	PSW	07	00	01
07	Development Assistant-Mental Health	05	00	00

9. Estate Health Development

Estate population is generally identified as the vulnerable population in the country with poor health indices. Central Province has 18.9% of estate population. Governments' several policy decisions, has changed this scenario. Presently most of the indicators have marked improvement such as the Infant Mortality Rate, Maternal Mortality Rate etc,. Nutrition indicators in the estate sector are also improving based on the 2016/17 DHS survey.

A cabinet decision was taken in 2007 to provide equitable preventive health services to the estate sector similar to the rural and urban sectors under the Provincial health authority. This decision made the Medical officer of Health responsible for the health of the total population including the estate sector. As most of the Public Health Midwives in the estate sector were absorbed to the Government sector, MOH gain the ability to conduct all field ante-natal clinics in the estate sector. Outreach well women clinics services were extended to all MOH areas by the public health staff. Special outreach clinics have been conducted by the VOG from DGH Nuwaraeliya and DBH Dickoya selected hospitals in the Nuwaraeliya district. District Base hospital Dickoya has been developed with the financial support (1200Mn) of the Indian government. Currently the new hospital complex is providing a wide area of services to a vast majority of the estate population in the Nuwaraeliya district.

Table 9.1 Statistics of Estate population in the Central Province

Districts	**Male**	**Female**	**Total**	**%**
Kandy	40467	45150	85617	17.6
Matale	8970	10109	19079	3.9
Nuwaraeliya	182318	198262	380580	78.4
Total	**2,31,755**	**7,53,521**	**4,85,276**	**18.9**

A cabinet approval was given in the year 2009 to take over the estate hospitals to the Provincial Health authority also given path to integrate the curative services in the estate sector with the State health system. Under this eight hospitals in the Nuwaraeliya district, two hospitals in Kandy district and one hospital from Matale district were taken over and developed under the Estate Health Development project of Ministry of Health.

Table 9.2 List of Estate hospitals taken over to State Health system

Districts	**Name of hospital**
Nuwaraeliya	DH Gonapitiya
	DH Diagama
	DH Agrapathana
	DH Highforest
	DH North Medakumbura
	DH Mulloya
	PMCU Ragala
	PMCU Frotof
Kandy	DH Westhall
	DH Madulkelle
Matale	DH Bandarapola

According to recent proposal of the Estate and Urban Health unit of the Ministry of Health, plans have been submitted for the rest of the health institutions currently under the management of plantation companies for the nationalization of the Estate Health and awaiting cabinet approval.

Asian Development Bank (ADB) has also extended its support to the Province for the upliftment of the vulnerable population, especially the plantation sector through a health system enhancement project. This is a 5 year project commencing from 23rd October 2018. For this 45 primary health care hospitals and 3 secondary hospitals were identified for development. Since these hospitals were chosen based on vulnerability index most of these hospitals are adjoining to some estate areas.

Health department is working closely with the estate management and with the PHDT and other International and local NGOs to improve the health of the estate population. Ministry of Health has collaborated with the Save the Children International in the 'Good nutrition in the tea estates' project (2015 to2018) to improve the nutritional status of the estate population, where the Central Provincial health department is extending its support through the team of the Medical Officer of Health in the selected estates under their Regional Director of Health services' guidance.

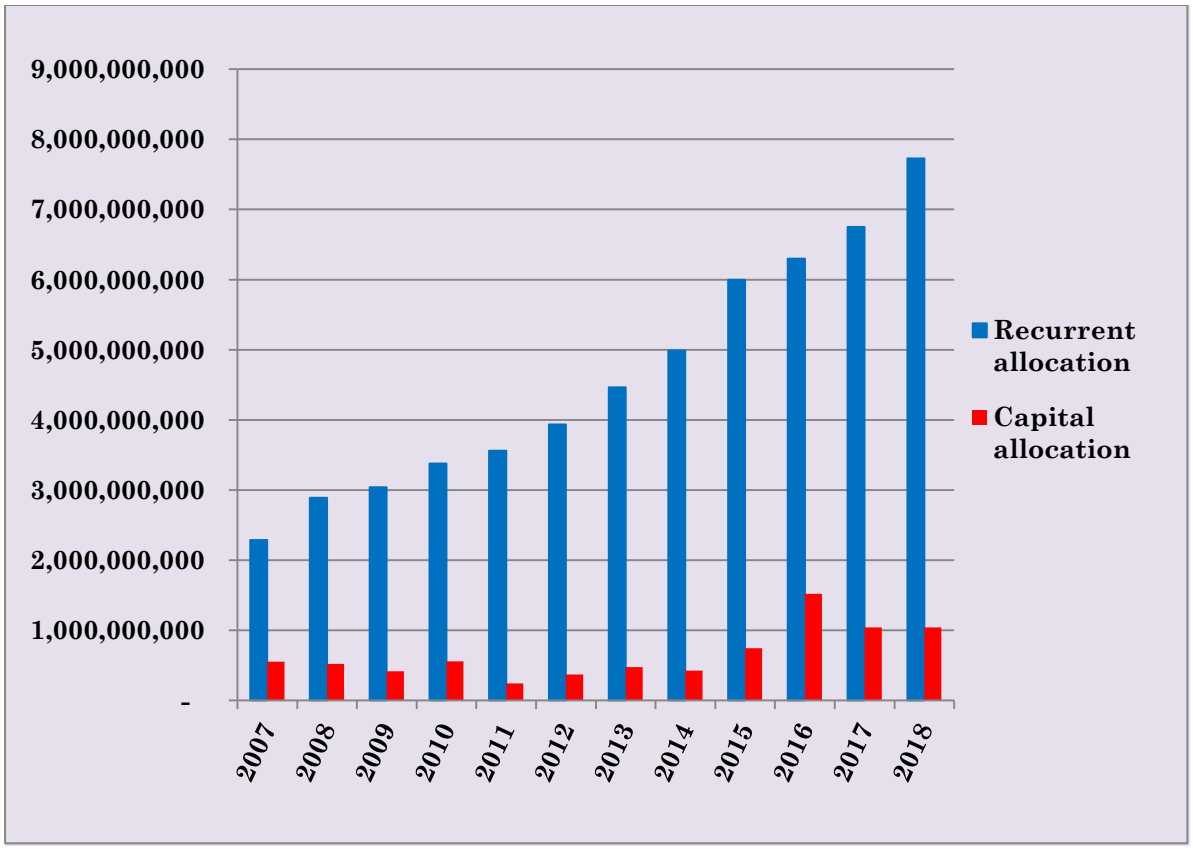
10. Financial Management system

Financial Management system mainly comprised of two categories as recurrent and capital. Recurrent management system mainly involves in maintaining the existing health system and capital financial management involves in activities related to development of the health system. Total allocation (both capital and recurrent) for the province is indicated below.

Table 10.1 Total financial allocation to the central province

	2017	2018
Recurrent allocation	6,752,370,250.00	7,727,743,928.00
Capital allocation	1,042,053,919.00	1,041,960,593.00

Fig 10.1 Total allocation (both capital and recurrent) for the Province 2007-2018



10.1 Recurrent Expenditure Summary - 2018

10.1.1 General Administration & Establishment Services

Table 10.2 General administration in 2018 (561-1-4-0)

Object	Title	Total Estimate	Total Expenditure	Balance Rs.
1001	salaries and wages	134,088,468	134,088,468.00	-
1002	overtime and holiday pay	49,029,052	49,029,052.00	-
1003	other allowances	73,076,529	73,076,529.00	-
1101	traveling expenses domestic	14,812,718	14,812,718.00	-
1201	stationery and office requisites	8,992,021	8,992,021.00	-
1202	fuel and lubricants	22,462,155	22,462,155.00	-
1203	diet and uniforms	166,603	166,602.00	1.00
1205	other supplies	3,202,598	3,202,598.00	-
1301	vehicles	25,214,554	25,214,554.00	-
1302	plant machinery and equipment	1,372,827.00	1,372,827.00	-
1303	building and structures	1,724,271	1,724,271.00	-
1402	postal and telecommunication	5,259,563.00	5,259,563.00	-
1403	electricity and water	3,156,854	3,156,854.00	-
1404	rent rates and local taxes	1,731,802	1,731,802.00	-
1409	other	7,356,377	7,356,377.00	-
1506	property loan interest	1,797,831	1,797,830.00	1.00
1702	contingency services (if applicable)	3,640,763	3,640,763.00	-
1703	implementation of the official language policy (if applicable)	602,567	602,567.00	-
	Total	**357,687,553**	**357,687,551.00**	**2.00**

10.1.2 Patient Care Services (Curative care services)

Table 10.3 Patient Care Services in 2018 (561-71-5-0)

Object	Title	Total Estimate	Total Expenditure	Balance Rs.
1001	Salaries and wages	2,146,492,466	2,146,492,465	1.24
1002	Overtime and holiday pay	1,926,000,000	1,926,000,000	-
1003	Other allowances	1,262,439,121	1,262,439,121	0.17
1101	Traveling expenses domestic	25,541,964	25,541,964	(0.03)
1201	Stationery and office requisites	10,441,469	10,441,469	0.32
1202	Fuel and lubricants	44,189,718	44,189,719	(0.53)
1203	Diet and uniforms	88,471,470	88,471,470	0.43
1204	Medical supplies	28,559,839	28,559,839	(0.37)
1205	Other supplies	28,600,026	28,600,026	0.30
1301	Vehicles	30,150,449	30,150,449	(0.39)
1302	Plant machinery and equipment	7,504,757	7,504,757	(0.16)
1303	Building and structures	9,933,631	9,933,631	0.31
1401	Transport	223,165	223,165	-
1402	Postal and telecommunication	19,292,193	19,292,193	0.23
1403	Electricity and water	118,288,189	118,288,189	(0.22)
1404	Rent rates and local taxes	4,543,438	4,543,438	0.38
1409	Other	145,628,758	145,628,759	(0.53)
1506	Property loan interest	30,461,350	30,461,349	0.79
1702	Contingency services (if applicable)	1,957,509	1,957,509	0.47
1703	Implementation of the official language policy (if applicable)	1,005,284	1,005,284	0.25
		5,929,724,796	**5,929,724,793**	**2.66**

10.1.3 Community Health Services (Preventive Care Services)

Table 10.4* Community Health Services *in 2018 (561-72-6-0)

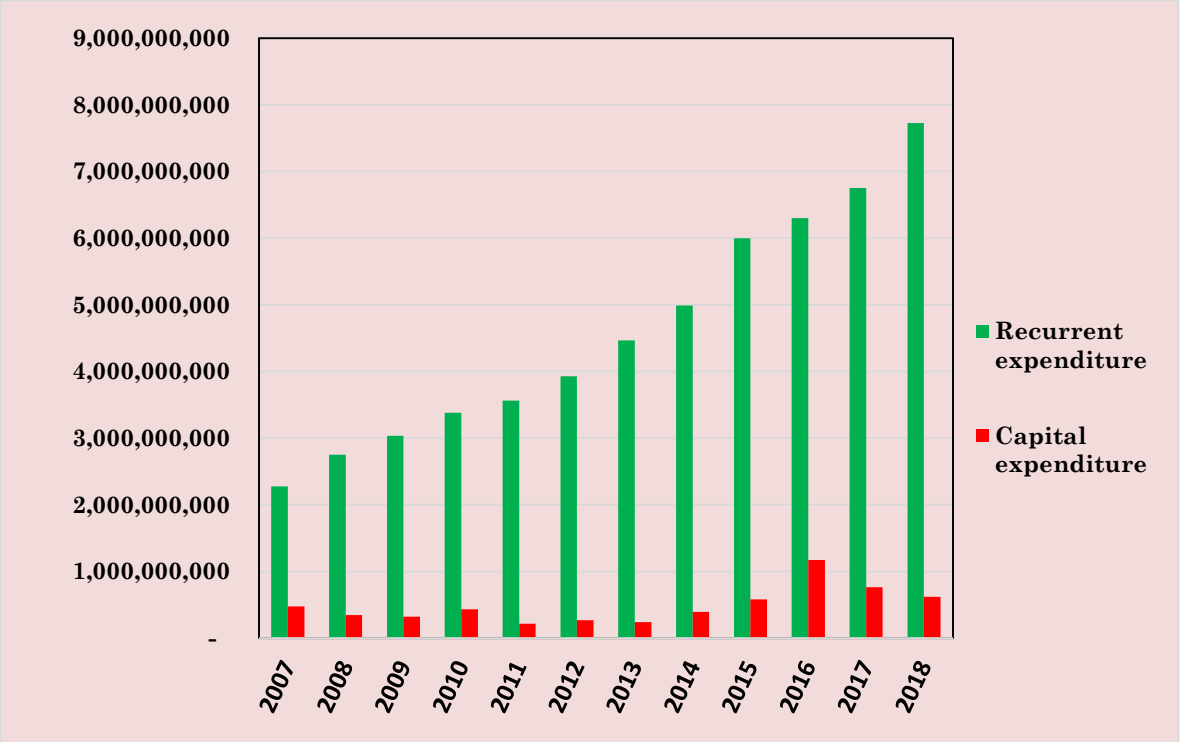
Object	Title	Total Estimate	Total Expenditure	Balance Rs.
1001	Salaries and wages	702,433,315	702,433,315	0.02
1002	Overtime and holiday pay	230,746,570	230,746,569	1.00
1003	Other allowances	368,927,083	368,927,083	-
1101	Traveling expenses domestic	78,668,645	78,668,645	-
1201	Stationery and office requisites	3,521,232	3,521,232	-
1202	Fuel and lubricants	15,044,650	15,044,650	0.27
1203	Diet and uniforms	935	935	-
1204	Medical supplies	47,625	47,625	-
1205	Other supplies	3,783,166	3,783,166	-
1301	Vehicles	11,696,788	11,696,788	0.41
1302	Plant machinery and equipment	411,211	411,210	0.79
1303	Building and structures	2,028,998	2,028,998	-
1401	Transport	32,773	32,773	0.07
1402	Postal and telecommunication	5,974,189	5,974,189	-
1403	Electricity and water	6,264,276	6,264,276	-
1404	Rent rates and local taxes	224,392	224,392	0.47
1409	Other	926,761	926,761	0.31
1506	Property loan interest	9,204,746	9,204,746	0.08
1702	Contingency services (if applicable)	297,489	297,489	0.05
1703	Implementation of the official language policy (if applicable)	96,735	96,735	-
		1,440,331,579	**1,440,331,576**	**3.47**

10.1.4 Summary of Recurrent Health Expenditure by Programmes

Table 10.5 Summary of Recurrent health expenditure by programmes

Programme	Expenditure/Rs.
General Administration	357,687,551.00
Patient care services	5,929,724,793.00
Community Health services	1,440,331,576.00
Total	**7,727,743,920.00**

Fig 10.2 Total Expenditure observed (both capital and recurrent) during year 2007-2018



10.2 Development Projects

Different fund sources provided capital expenditure for the development of health sector in the Central Province during year 2015. Provincial Specific Development Grants (PSDG) and Health sector development project (HSDP) made the biggest contributions for those development activities. The other sources included, Estate health program, Dengue control program, Kidney diseases prevention program, Dog sterilization program, Primary health development project, NCD prevention program, UNICEF, District Nutrition Action Plan (DNAP) and Mental Health program.

Table 10.6 Distribution of expenditure by Category of Development Projects in 2018

Source of fund	Allocation / Rs	Expenditure	Financial progress %
Provincial Specific Development Grants	275,000,000.00	178,774,549.75	65.01
Health sector development project	592,889,921.00	330,499,132.84	55.74
Primary health development project	13,638,801.00	6,638,800.85	48.68
Non communicable diseases programme	7,974,290.00	7,421,826.05	93.07
Dengue control programme	21,159,500.00	6,809,660.00	32.18
Estate health programme	4,673,056.00	4,673,056.00	100.00
UNICEF	245,600.00	199,600.00	81.27
Dog sterilization programme	6,215,088.00	6,215,088.00	100.00
District Nutrition Action Plan	3,492,200.00	3,242,277.00	92.84
Prevention of Chronic Kidney diseases	55,689,052.00	24,374,678.69	43.77
Development of Base hospital Dickoya	1,632,105.00	1,632,104.14	100.00
Strengthening of Laboratory services	17,566,829.00	17,566,829.00	100.00
Development of mental health	16,859,432.00	5,216,272.61	100.00
Criteria Based Grants	970,000.00	730,552.34	75.31
National programme for Tuberculosis control & Chest diseases	36,000.00	23,512.00	65.31
Purchasing of Bio medical equipment	20,546,573.00	20,546,573.00	100.00
Improvement of eIMMR system	282,146.00	282,146.00	100.00
Health sanitation programme	3,090,000.00	2,970,000.00	96.12
Total	**1,041,960,593.00**	**617,816,658.27**	**60.41**

10.2.1 Provincial Specific Development Grants (PSDG)

Table 10.7 Financial Progress of activities performed under* PSDG *project by Districts in 2018

	PDHS Office	Kandy	Matale	N'Eliya	Total
Approved Amount (Rs mn)	14.273	96.240	86.987	77.500	275.000
Expenditure (Rs mn)	8.354	65.574	58.232	46.614	178.774
Progress (%)	58.53	68.14	66.94	60.15	65.01

Table 10.8 Physical Progress of activities performed under* PSDG *project by Districts in 2018

PDHS Office		Kandy		Matale		N'Eliya	
No.of Projects	Completed	No.of Projects	Completed	No. of. Projects	Completed	No.of. Projects	Completed
11	11	34	22	44	38	16	11

10.2.2 *Second Health* Sector Development Project (SHSDP)

Table 10.9 Financial Progress of activities performed under* HSDP project *by Districts in 2018

	Kandy	Matale	Nuwara eliya
Approved Amount (Rs mn)	190.70	114.52	119.55
Expenditure (Rs mn)	81.01	19.55	42.35
Progress %	42.60	17.10	35.40

Annexures

Annexure 1. Information of Divisional hospitals in Kandy District 2018

	Institution	Total no of Wards	Total no of Beds	No of Admission	No of Admission per day	No of Inpatient Days	Bed Occupancy Rate	No of Transferred Out	No of Deaths within 48 Hours	No of Deaths after 48 hours of Admission	No of OPD Attendance	No of OPD Attendance per day	No of ETU Patients	No of Clinic Attendance	No of Clinics Held	No of Deliveries	No of Lab Tests Done
1	Ankumbura	6	63	4702	13	6526	28.38	846	2	11	63755	175	270	17802	155	31	4685
2	Pussallawa	5	71	3691	10	5636	21.75	546	12	5	76506	210	2001	22513	174	60	203
3	Dolosbage	3	35	947	3	2841	22.24	218	0	0	20725	57	58	5760	145	13	0
4	Deltota	5	62	3829	10	6118	27.03	880	11	0	61585	169	0	14248	97	42	0
5	Madolkele	5	81	4830	13	10541	35.65	2053	19	1	52727	144	1742	10497	96	71	0
6	Galagedara	5	67	5526	15	8271	33.82	816	9	0	77993	214	1612	26765	277	11	2700
7	Udadumbara	5	82	3190	9	5747	19.20	964	4	4	59260	162	73	17232	129	46	6989
8	Menikhinna	7	76	4078	11	5973	21.53	718	14	2	67190	184	5	27615	268	5	0
9	Akurana	6	81	5055	14	5321	18.00	737	2	0	79642	218	859	35583	207	61	5275
10	Kadugannawa	5	68	3077	8	7450	30.02	666	3	2	69407	190	3041	25535	331	1	7701
11	Mampitiya	4	50	1981	5	6001	32.88	181	1	1	39491	108	583	13697	393	0	0
12	Katugastota	6	54	6016	16	8313	42.18	1053	12	0	11960	328	1738	32981	235	13	9052
13	Wattegama	5	52	4262	12	6085	32.06	734	12	2	58436	160	1631	19415	180	6	9373
14	Sangarajapura	3	30	1686	5	2432	22.21	172	1	4	31009	85	660	8267	261	0	0
15	Medawala	5	40	2783	8	5002	34.26	324	0	0	49440	135	608	11868	184	1	0
16	Minipe	4	35	1577	4	2553	19.98	286	1	1	28384	78	346	7379	183	0	425
17	Marassana	5	46	2790	8	3821	22.76	113	5	0	55534	152	772	11976	123	0	0
18	Panwilatanna	2	30	2059	6	3576	32.66	283	6	1	35982	99	8	9856	208	2	96
19	Hasalaka	4	39	1727	5	2153	15.12	367	4	1	60832	167	193	9380	51	4	0
20	Tittapajjala	4	47	5185	14	6235	36.35	583	10	48	86300	236	2909	20828	144	6	0
21	Jambugahapitiya	3	23	1445	4	1582	18.84	251	0	0	30013	82	0	11485	310	0	0
22	Wattappola	3	26	1186	3	1777	18.72	74	2	0	24516	67	176	7597	128	1	44
23	Kotaligoda	4	36	7373	20	10020	76.26	783	2	0	38561	106	4107	15227	364	1	821
24	Pamunuwa	3	34	1303	4	2256	18.18	239	2	0	23599	65	95	11333	283	0	1060

	Institution	Total no of Wards	Total no of Beds	No of Admission	No of Admission per day	No of Inpatient Days	Bed Occupancy Rate	No of Transferred Out	No of Deaths within 48 Hours	No of Deaths after 48 hours of Admission	No of OPD Attendance	No of OPD Attendance per day	No of ETU Patients	No of Clinic Attendance	No of Clinics Held	No of Deliveries	No of Lab Tests Done
25	Gelioya	2	24	1256	3	1874	21.39	34	0	0	37036	101	89	8640	187	0	0
26	Bambaradeniya	4	34	4265	12	5144	41.45	445	1	0	43874	120	167	9226	124	0	0
27	Hataraliyadda	4	45	5153	14	11700	71.23	436	9	3	54492	149	1789	15871	168	12	0
28	Talathuoya	3	30	3797	10	6189	56.52	795	6	3	60394	165	314	17773	102	0	1810
29	Uduwela	3	27	1861	5	2260	22.93	313	0	0	9080	25	0	1179	33	0	0
30	Galaha	3	35	1266	3	2489	19.48	263	8	0	19139	52	29	6411	87	5	0
31	Yakgahapitiya	3	28	1802	5	2969	29.05	137	5	2	57230	157	636	15909	210	0	0
32	Narampanawa	3	30	156	0	184	1.68	4	1	1	25105	69	7	5036	77	0	0
33	Galpihilla	3	19	1897	5	2905	41.89	182	2	0	27303	75	60	6043	72	1	0
34	Kuruduwatta	4	39	3147	9	5493	38.59	586	4	2	85701	235	563	21067	263	0	0
35	Kahawatta	2	9	96	0	1143	34.79	4	0	0	24705	68	6	5933	97	0	120
36	Udagama Atabage	2	23	6	0	6	0.07	0	0	0	16828	46	0	5263	18	0	0
37	Morahena	2	14	232	1	312	6.11	64	0	0	8902	24	0	3763	119	0	0
38	Batumulla	3	25	159	0	275	3.01	43	0	0	10126	28	0	3555	99	0	0
39	Medamahanuwara	4	30	2529	7	4794	43.78	307	0	0	24016	66	111	8268	124	7	865
40	Ambagahapallessa	4	34	901	2	1323	10.66	440	0	0	32462	89	102	6624	118	0	0
41	Kolongoda	5	43	1703	5	3839	24.46	858	0	0	26439	72	334	5829	138	9	0
42	Bokkawala	5	44	3576	10	4616	28.74	1052	4	2	60068	165	1138	18514	132	0	0
43	Dunhinna	3	12	707	2	996	22.74	39	0	0	18500	51	325	4844	139	0	0
44	Westhall	2	7	415	1	804	31.47	191	0	0	20766	57	0	3045	112	0	0
45	Ulapane	2	12	1157	3	2884	65.84	48	0	0	18779	51	31	7806	97	0	1367
46	Murutalawa	2	18	1839	5	2632	40.06	275	1	0	18578	51	257	10777	180	0	0
47	Pattiyagama-Pallegama	2	12	444	1	780	17.81	100	2	0	22493	62	76	2870	56	0	0
48	Prison Hospital -Bogambara	2	15	649	2	5991	109.42	71	0	0	42194	116	0	2023	145	0	3185
49	Prison Hospital - Pallekele	1	10	126	0	841	23.04	14	0	0	6633	18	0	1124	93	0	1502
	Total	**180**	**1847**	**119437**	**327**	**198673**	**29.47**	**20588**	**177**	**96**	**2081336**	**5702**	**29521**	**592232**	**7916**	**409**	**57273**

Annexure 2. Information of Divisional hospitals in Matale District 2018

	Institution	Total no of Wards	Total no of Beds	Bed Occupancy Rate (%)	Total no of Inpatient Days	Total no of Admission	Average Admission Per Day	Total no of Transferred Out	No of Deaths within 48 Hours	Total no of Deaths	Total no of OPD Attendance	Average OPD Attendance Per Day	Total no. of Clinics Held	Total no of Clinic Attendance	Average Clinic Attendance Per Day	Total no of Lab Tests Done	Total no of Deliveries	Total no. of ETU Admissions
1	Galewela	5	81	33.06	9773	7198	20	1952	22	22	77546	212	638	34553	95	22312	27	6811
2	Gammaduwa	2	4	4.86	71	71	0	0	0	0	9547	26	64	2732	7	0	0	0
3	Hadungamuwa	3	17	28.86	1791	1417	4	187	5	5	21518	59	96	4713	13	0	27	648
4	Hattota amuna	3	13	74.60	3540	2099	6	433	0	0	28295	78	152	11548	32	1845	1	3
5	Hettipola	5	45	55.43	9104	7269	20	490	3	7	57670	158	362	19686	54	56163	14	3109
6	Illukkumbura	4	7	14.32	366	306	1	40	0	0	7384	20	147	3594	10	0	0	108
7	Kongahawela	4	58	12.99	2749	1207	3	148	2	2	18597	51	154	3656	10	0	0	77
8	Laggala /pallegama	5	62	7.11	1608	1428	4	276	0	0	30676	84	242	8082	22	840	3	338
9	Laliambe	2	13	9.86	468	31	0	0	0	0	22927	63	115	3842	11	0	0	0
10	Lenadora	2	12	24.77	1085	574	2	47	0	0	43271	119	262	12079	33	1628	0	29
11	Madipola	4	43	57.75	9064	6439	18	512	8	8	63006	173	465	19404	53	0	5	1220
12	Maraka	2	10	9.45	345	335	1	28	0	0	23036	63	111	4176	11	0	0	236
13	Muwandeniya	2	18	82.95	5450	101	0	6	0	0	12377	34	152	4725	13	0	0	0
14	Nalanda	4	40	29.21	4264	2924	8	507	5	8	53025	145	610	19433	53	37534	6	1709
15	Ovilkanda	3	11	26.80	1076	1051	3	240	0	0	18995	52	160	6543	18	1137	0	0
16	Rattota	4	57	32.10	6679	4299	12	662	3	3	81539	223	626	30400	83	15019	4	1020
17	Sigiriya	4	41	21.86	3272	2896	8	365	4	5	29587	81	319	12117	33	224	0	1048
18	Yatawatte	4	41	26.27	3931	2193	6	72	3	3	44296	121	166	18376	50	9261	3	142
	Total	**62**	**573**	**30.90**	**64636**	**41838**	**115**	**5965**	**55**	**63**	**643292**	**1762**	**4841**	**219659**	**602**	**145963**	**90**	**16498**

Annexures

Annexure 3. Information of Divisional hospitals in Nuwaraeliya District 2018

Institutions	Total Number of Wards	Total Number of Beds	Total No. of Admissions	Average No of Admissions	Total Number of Inpatients Days	Bed Occupancy Rate	Total No of Patients Tarnsferred out	Total No Of Death	Total Number of OPD Attendance	Average No of OPD Attendance	No of Patients Treated in the ETU	Total No Of Clinic Held	Total No Of clinic Attendance	Average No Of clinic Attendance	Total No Of Lab Tests Done	Total No Of Deliveries
Agarapathana	4	46	2846	8	3376	20.39	500	43	46953	129	631	163	10784	66	5346	110
Bogawanthalawa	4	63	2248	6	4457	19.65	503	5	31930	87	626	89	8900	100	0	17
Dayagama	3	26	964	3	2715	29.01	276	2	20236	55	0	103	4062	39	0	15
Ginigathhena	4	65	1494	4	2396	10.24	439	21	34763	95	169	132	8712	66	0	5
Gonaganthanna	4	22	7499	21	2724	34.39	754	5	35546	97	5110	423	13844	33	1206	10
Gonapitiya	3	18	313	1	353	5.45	140	3	9819	27	0	73	2615	36	0	1
Haguranketha	3	23	3660	10	3376	40.77	242	6	56745	155	2098	168	18085	108	1109	0
High forest	3	24	1199	3	1474	17.06	563	7	33683	92	79	70	8101	116	0	8
Kotagala	5	62	3826	10	6618	29.65	946	15	61147	168	326	138	20947	152	0	64
Kothmale	4	50	4307	12	6876	38.20	875	5	41196	113	2556	489	20597	42	1033	9
Laxapana	3	22	7121	20	2040	25.76	166	6	29780	82	0	39	2777	71	0	2
Lindula	6	78	2714	7	4834	17.22	1333	20	44333	121	2583	165	8298	50	1184	55
Madulla	2	21	2198	6	2001	26.47	298	5	31003	85	929	131	8401	64	0	0
Maldeniya	5	79	1318	4	5282	18.57	266	9	14485	40	614	106	4772	45	0	4
Mandaramnuwara	2	8	450	1	921	31.98	92	0	13367	37	203	60	2691	45	0	1
Maskeliya	6	122	2113	6	5132	11.68	518	9	18569	51	1705	150	8158	54	1794	30
Mathurata	5	56	3531	10	5508	27.32	220	2	32612	89	2598	329	12748	39	0	2
Mooloya	4	23	2102	6	1259	15.21	98	7	23401	64	1393	101	5186	51	0	0
Nildandahinna	5	24	792	2	303	3.51	218	5	22983	63	291	117	4697	40	83	13
North Madakumbu	3	18	138	0	122	1.88	38	0	11053	30	0	121	2803	23	408	2
Theripeha	2	10	257	1	191	5.31	34	0	14330	39	3	125	3712	30	0	0
Udapussallawa	7	78	3159	9	3471	12.36	624	6	36538	100	1154	213	9723	46	1935	21
Walapane	6	101	5469	15	12629	34.73	1411	3	50538	138	2402	6526	21956	3	19141	19
Watawala	5	53	11197	31	4104	21.51	638	0	37571	103	985	75	11758	157	0	31
Total	**98**	**1092**	**70915**	**194**	**82162**		**11192**	**184**	**752581**	**2062**	**26455**	**10106**	**224327**	**22**	**33239**	**419**

Annexure 4. Information of Primary Medical Care Units in Central Province 2018

KANDY							MATALE						NUWARAELIYA					
	Institute	Total no of OPD Attendance	Average no of OPD Attendance per day	Total no of Clinic Attendance	Total no of Clinics Held	Average no of Clinic Attendance per clinic	Institute	Total no of OPD Attendance	Average no of OPD Attendance per day	Total no of Clinic Attendance	Total no of Clinics Held	Average no of Clinic Attendance per clinic	Institutions	Total Number of OPD Attendance	Average no of OPD Attendance per day	Total No Of Clinic Held	Total No Of clinic Attendance	Average no of Clinic Attendance per clinic
1	Dedunupitiya	5727	16	712	46	15	Aluthwewa	3164	9	815	33	25	Ambewela	6494	18	48	1376	29
2	Kotikambe	8076	22	3223	130	24	Aluvihare	13719	38	4490	50	90	Hangarapitiya	13309	36	39	2322	60
3	Girihagama	10792	30	975	31	31	Dewahuwa	11676	32	1983	19	104	Hapugasthalawa	13867	38	53	4602	87
4	Sandasiridunuwila	2612	7	358	16	22	Dullewa	5170	14	2672	129	21	Hatton	37282	102	351	9708	28
5	Makuldeniya	7931	22	1578	29	54	Elkaduwa	2370	6	753	31	24	Kandapola	21900	60	108	5414	50
6	Dodamwela	10910	30	1242	13	96	Gurubabila	1459	4	228	6	38	Kalaganwatte	6203	17	27	569	21
7	Balana	7300	20	1852	25	74	Kalundewa	3627	10	784	16	49	Katambulawa	9606	26	58	2134	37
8	Yahalatanna	5688	16	762	43	18	Kandenuwara	3814	10	1626	19	86	Keerthibandarapura	8944	25	79	1988	25
9	Mailapitiya	11804	32	529	17	31	Madawala-ulpata	7064	19	1830	38	48	Kurupanawala	8010	22	133	2640	20
10	Udatalawinna	27504	75	1434	21	68	Opalgala	1326	4	307	9	34	Manakola	14412	39	52	3566	69
11	Elamaldeniya	18100	50	996	13	77	Paldeniya	1438	4	499	14	36	Maswela	15546	43	124	3862	31
12	Rajawella	23756	65	619	22	28	Pallepola	8174	22	3734	120	31	Munwatte	12432	34	44	5156	117
13	Suduhumpola	29645	81	1122	26	43	Ukuwela	7467	20	4839	66	73	Nanuoya	19706	54	46	1953	42
14	Mawathura	6982	19	726	18	40	Wahakotte	2465	7	288	13	22	Nawathispane	10795	30	84	3026	36
15	Kurugoda	11655	32	1650	60	27	Wawalawawa	3450	9	380	6	63	Protof	5620	15	41	5973	146
16	Rambukewela	7133	20	282	10	28							Pundaluoya	16139	44	169	9693	57
17	Alawathugoda	19208	53	564	2	282							Ragala	23190	64	76	5617	74
18	Gohagoda	22159	61	1943	19	102							Rupaha	13383	37	111	4590	41
19	Mahakanda	19472	53	593	118	5							Upkot	2814	8	42	2801	67
20	Galhinna	8141	22	1032	31	33							Widulipura	7173	20	70	2539	36
21	Welamboda	12392	34	1783	31	58							Wijebahukanda	13652	37	93	2736	29
22	Rrambuke-ela	4283	12	68	3	23												
23	Godahena	13063	36	611	27	23												
24	Poojapitiya	12300	34	273	10	27												
25	Mapakanda	11139	31	693	12	58												
26	Kalugamuwa	14571	40	561	22	26												
27	Meemure	1261	3	357	29	12												
28	Madawala Bazzar	6600	18	1265	22	58												
29	Chest Clinic Kandy	84498	232															
30	Rehabilitation Hos.	80633	221	42844	571	75												
31	SISILA Deltota			915	24	38												
	Total	**505335**	**1384**	**71562**	**1441**	**50**	**Total**	**76383**	**209**	**25228**	**569**	**44**	**Sub Total**	**280477**	**768**	**1848**	**82265**	**45**