ANNUAL HEALTH BULLETIN 2014

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Message from the Hon. Governor
Central Province

It is my great pleasure and privilege to write this message for the Annual Health Bulletin prepared by the Department of Health Services, Central Province.

Sri Lanka, has achieved a commendable progress in providing universal health care and the main health indicators of Sri Lanka are far ahead of the averages for countries at comparable levels of income. Social indicators such as life expectancy and mortality rates have been among the best in developing countries and are even comparable to some developed countries. Access to public health services is high in most areas and maternal and child health care services have performed exceptionally well within the Sri Lankan society.

Nevertheless, there are immense health challenges due to the recent transition in Sri Lankan social, demographical and economic contexts. With an increased ageing population and the success in combating the major communicable diseases, the disease burden has started shifting rapidly towards non-communicable disease including mental diseases, accidents and injuries.

As the policy of the government at present is to provide total health care free of charge at all points of delivery, the Ministry of Health need to prioritize health needs of the people and to strengthen evidence based planning in order to utilize available resources optimally. To decrease the resource gap and to increase the equity of service provision, there is significant pressure to make best use of the limited financial resources available and rationalize logistics and administration, in order to optimize resource utilization.

The Central Provincial Council provides the necessary resources to ensure that equitable health services are provided to all the people in the Central Province. The Department of Health has been able to use these resources for the maximum benefit of the people and I deeply appreciate the efforts taken by the team of health professionals to compile the Annual Health Bulletin, which reflects the results achieved during the year. The previous editions of this bulletin have been widely used by health planners, policy makers, healthcare professionals, different stakeholders and administrators for various purposes. The Annual Heath Bulletin which is published by the Department of Health, Central Province, is the main comprehensive report given the overall and up to date information of the health sector in the Province. To optimal resource utilization and enhanced equitable resource distribution for equitable health care service provision, it is essential to identify the existing situation of resource distribution and performances of health system of the province. Periodical update of this type of reports will serve this objectives.

I wish to thank Hon. BandulaYalegama, the Minister of Health, Mr. Nimal Balasooriya the Secretary of Health, Dr.(Mrs) Shanthi Samarasinghe Provincial Director of Health, all Regional Directors and their staff for numerous contributions made in preparing this valuable compilation and wish the Department greater success in the future years.

Hon. Surangani Ellawala
Governor
Central Province

Message from the Hon. Chief Minister
Central Province

It gives me a great pleasure and I am delighted to send this message to the Health Bulletin publish annually by the Department of Health services, Central Province and this eighth report for the year 2014.

The Department of Health Services, Central Province, prepares the Annual Health Bulletin to publish the throughputs of its mission over each year and the Annual Health Bulletin 2014 is the eighth report prepared thus far. I am delighted to deliver a message for this year publication as I did before and I believe it is a privilege.

The population in the Central Province and surroundings are served by the Central Provincial Council which is providing necessary resources through the different ministries and departments. The Department of Health services has been an outstanding performer in the province on providing respected services while utilizing the resources provided. It is the general public who gains the maximum benefit of the services and the Annual Health Bulletin provides the statistics of the utilization of the services and resources. Further it provides the information on the health indices and gives the opportunity to compare those with the national level statistics. We as the policy makers will certainly find these information as key factors and tools for the future plans and turning points.

As the Chief Minister, I am proud about the achievements of the Department of Health services Central Province, and pleased to state that I involved with the close monitoring of the resources utilization which made me witnessed for the success stories.

I wish the Department of Health Services further success in ensuring the provision of equitable health services to all people in the Central Province while extending my gratitude to the dedicated team of health professionals for the every effort behind the great achievements. Further the stakeholders who involved with the collection, compilation, analyzing, and dissemination of data, interpretation of results, making the scripts and edits and finalizing the product of Annual Health Bulletin are highly appreciated and I acknowledge the hard working.

Hon. Sarath Ekanayaka
Chief Minister
Central Province

Message from the Hon. Minister of Health Services Central Province

I am pleased to write this message for the Annual Health Bulletin 2014 prepared by the Department of Health Services, Central Province.

I am proud to have a dedicated team of health professionals who have worked tirelessly during the previous years to achieve the results which are given in the annual report.

Since assuming duties as the Minister, I had the privilege of reading three Annual Health Bulletins published by the Department of Health, Central Province and am proud to observe that the Provincial Health Department continues to publish this resourceful bulletin annually.

There were many health challenges including communicable diseases such as Dengue and Non communicable diseases such as chronic kidney disease of unknown origin which has has become an emerging problem in Wilgamuwa today. Furthermore TB and Leprosy are among the re-emerging trend. I will make it a point to ensure that the Central Provincial Council provides the necessary resources for the health sector, for the provision of curative care and also for preventive health programmes.

I wish to congratulate Provincial Director of Health services Dr Mrs. Shanthi Samarasinghe and her smart team for achieving first place in National Productivity Award 2012/2013. Finally I wish to thank the Provincial Departments of Health for their hard work in publishing this Annual Health Bulletin for the eighth consecutive year and assure them of my fullest support at all times to make the people in the Central Province happy and healthy.

Hon. Bandula Yalegama
Minister
Ministry of Health, Indigenous Medicine
Social Welfare and Probation & Child Care Services
Central Province

Message from the Secretary, Ministry of Health Services Central Province

It is a great privilege to send a message for the Annual Health Bulletin 2014 published by the Department of Health Services, Central Province.

The Annual Heath Bulletin is one of the main comprehensive reports which provides information of the health sector which are useful to evaluate present situation of the community health as well as for future planning of the sectorial development in Central Province. The Department of Health Services, Central Province has been successful over the past eight years in publishing the work done and its achievements.

I would like to take this opportunity to appreciate the enormous effort made by the team of professionals in the provincial health department who dedicated for the healthcare services delivery to the population and provide the information about health care provision of the year 2014 and hope this information will be used effectively to improve the health care service delivery in the Province.

I wish to extend my sincere thanks to the Provincial Director of Health Services, Central Province, Regional Directors and dedicated health care staff all over the central Province for their contribution to make this publication successful.

Mr. B.M. Nimal Balasooriya
Secretary
Ministry of Health, Indigenous Medicine,
Social Welfare, Probation & Child Care Services
Central Province

Message from the Provincial Director of Health Services Central Province

The Annual Health Bulletin brings you the information on healthcare delivery program in the Central Province, including the availability and utilization of the health facilities and resources, and the achievements of health services in the Province. Further it provides data on morbidity, mortality, and other important health indices. The Department of Health Services, Central Province, proudly publishes the bulletin for year 2014 as the eighth publication of the Annual Health Bulletin.

This is a valuable source of information for the managers of the health care delivery program, researchers, students, planners, and policy makers. Reviewing the information will help to see the impacts of interventions, failures and success stories. The readers can also compare the information with the national figures and be aware about where the Central Province is. We have a special interest on improving the productivity of our services in the province and the bulletin itself is an important tool for the evaluation of productivity.

The population in the Central Province is also served by the institutions which are under the national ministry of health services. I really appreciate the services rendered by those institutions and extend the gratitude to the Teaching Hospital Kandy, Peradeniya, General Hospital Gampola, Nuwareliya and Sirimavo Bandaranaike Children's hospital Peradeniya for sharing the health information to produce more comprehensive Annual Health Bulletin 2014. The comments and feedbacks on previous bulletins always let the current bulletin to be improved; hence our readers are also thankfully appreciated.

Eventually it is a team effort and I am thankful for all the stakeholders including each unit of the PDHS office, RDHS offices and other institutions for their valuable contribution. After all, the wonderful effort by the planning unit of the PDHS office has made another successful Annual Health Bulletin receiving my grateful appreciation.

Dr. (Mrs.) Shanthi Samarasinghe
Provincial Director of Health Services
Central Province

MAP OF HEALTH CARE INSTITUTIONS

Health Institutions in Central Province 2014

No.	Indicator	Year	Districts			Central Province	Sri Lanka	Source
			Kandy	Matale	Nuwara Eliya			
01	Land Areas(sq. km) (Excluding inland waters)	1998	1,917	1,952	1706	5575	62705	(Survey General's Department 1998)
02	Divisional Secretary Areas	2011	20	11	05	36	331	(Dept of Census and statistic 2011)
03	Grama Niladari Divisions	2011	1,188	545	491	2,224	14,021	(Dept of Census and statistic 2011)
04	Villages	2011	2,833	1,344	1,199	5,376	36,822	(Dept of Census and statistic 2011)
05	Pradeshiya Saba	2011	17	11	05	33	271	(Dept of Census and statistic 2011)
06	Urban Councils	2011	04	00	02	06	41	(Dept of Census and statistic 2011)
07	Municipal Councils	2011	01	02	01	04	23	(Dept of Census and statistic 2011)
08	Total population	2011	1,375,382	484,531	711,644	2,571,557	20,359,439	(Dept of Census and statistic 2011)
09	Urban population (%)	2011	12.4	12.4	5.6	10.5	18.2	(Dept of census and statistics-2011)
10	Rural population (%)	2011	81.4	83.6	40.9	70.6	77.4	(Dept of census and statistics-2011)
11	Estate population (%)	2011	6.2	3.9	53.5	18.9	4.4	(Dept of census and statistics-2011)
12	Population density (Per sq. km)	2011	717	248	417	461	324	(Dept of census and statistics-2011)
13	Population growth rate (%)	2013	0.65	0.88	0.05		0.80	(Dept of census and statistics-2013)
14	Crude birth rate (Per 1000 population)	2013	19.6	19.4	20.5		17.9	(Registrar General Department 2013)
15	Crude death rate (Per 1000 population)	2013	7.1	6.0	6.6		6.2	(Registrar General Department 2013)
16	Maternal mortality rate (per 100,000 live Births)	2013	33.1	0.0	61.1	34.3	32.5	(Family Health Bureau 2013)
17	Under 5 Child mortality rate (per 1,000 live births)	2013	6.67	7.83	9.58		9.90	(Family Health Bureau 2013)
18	Infant Mortality Rate per 1000 Live Births	2013	8.74	11.10	13.04		8.80	(Family Health Bureau 2013)
19	Neonatal Mortality Rate (per 1,000 live births)	2013	6.24	8.93	9.18		6.50	(Family Health Bureau 2013)
20	Number of MOH Divisions	2014	23	12	13	48	337 (2012)	(Medical statistics Unit)
21	Number of Hospitals	2014	53	20	27	100	616 (2012)	(Medical statistics Unit)
22	Number of Primary Medical Care Units	2014	28	15	21	64	487 (2012)	(Medical statistics Unit)
23	Medical Officers	2014	1,239	263	224	1,726	15,910 (2012)	(Medical statistics Unit)
24	Nursing Officers	2014	3,177	568	417	4,162	36,486 (2012)	(Medical statistics Unit)
25	Medical Officers Per 100,000 Population	2014	90	54	31	67	78 (2012)	(Medical statistics Unit)
26	Nursing Officers Per 100,000 Population	2014	231	117	58	162	179 (2012)	(Medical statistics Unit)
27	Number of Inpatients treated	2014	513,921	161,740	139,782	815,443	5,840,000 (2012)	(Medical statistics Unit)
28	Number of outpatients treated	2014	4,170,182	1,457,675	1,385,822	7,013,679	50,631,000 (2012)	(Medical statistics Unit)
29	Number of Hospital Beds per 1000 people	2014	4.4	3.3	2.5	3.7	3.7 (2012)	(Medical statistics Unit)

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, the mountain range of Adams peak, Kirigalpottha and Thotupala from the south 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	1,188	17	2,588	1	4
Matale	11	545	11	1,373	2	0
Nuwara Eliya	05	491	05	1,134	1	2
Central Province	**36**	**2,224**	**33**	**5,095**	**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 0.8% for Sri Lanka and the rate for Kandy, Matale and Nuwaraeliya were 0.65%, 0.88% and 0.05% respectively. (Department of Census)

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	666,481
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 Population Density

The population density for the Central Province was 461 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 1.3)

Table 1.3 Total population , population density and land area by Districts

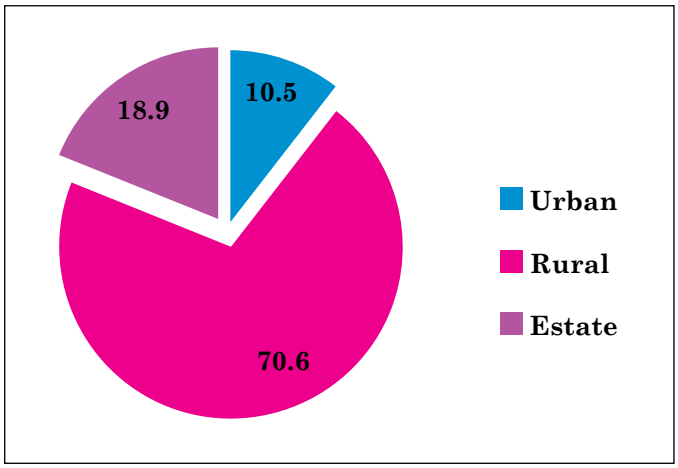
	Kandy	Matale	Nuwara eliya	Central province	Sri Lanka
Total population	1,375,382	484,531	711,644	2,571,557	20,359,439
Population density (persons per square Kilometer)	717	248	417	461	324
Land area/km^2	1,917	1,952	1,706	5,575	62,705
Inland waters/km^2	23	41	35	99	2,905
Total land area/ km^2	1,940	1,993	1,741	5,674	65,610

Source : Department of Census & Statistics 2012 & Survey Department

1.3.2 Population distribution by sector

The total population in Sri Lanka is 20.3 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

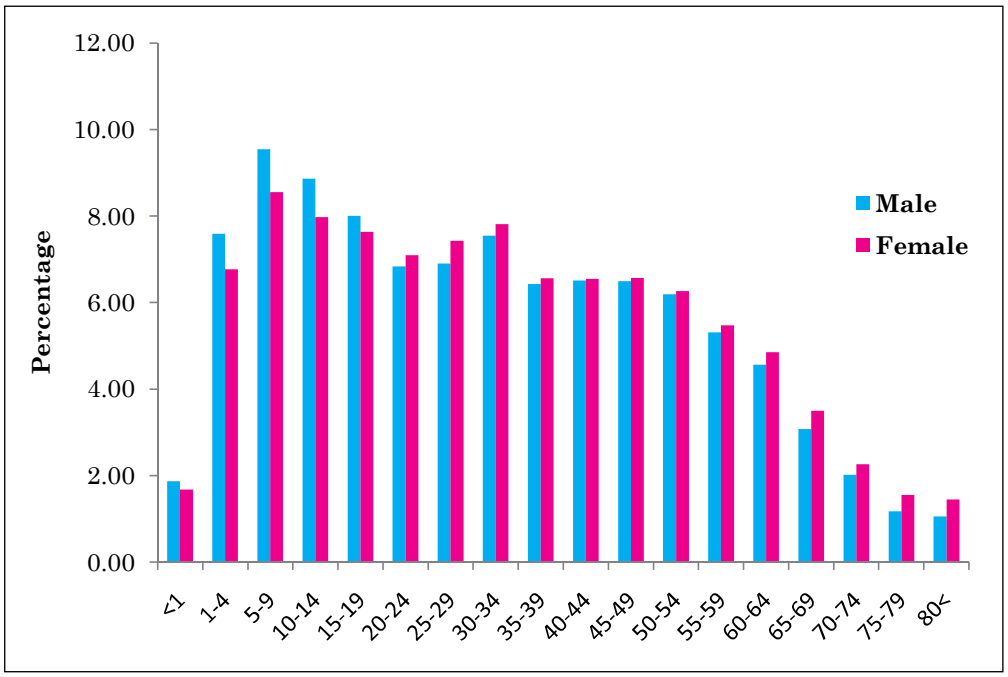


Source: Department of Census & Statistics 2012

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 2012 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 1.4 Sex Ratio by District

District	Sex ratio
Kandy	91
Matale	93
Nuwaraeliya	92

Source: Registrar General's Department 2012

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 were Sinhalese, while 23.8% were Tamils and 9.9% were Muslims. The detailed breakdown by District is given in table 1.5. 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 1.5 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 1.6 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 according to place of birth for Sri Lanka was reported as 17.9per 1000 population in 2013. The CBR for Kandy, Matale and Nuwara Eliya was 19.6, 19.4 and 20.5 per 1000 population respectively in 2013.
(Department of Census-provisional)

1.4.2 Crude Death Rate (CDR)

The CDR according to place of death in Sri Lanka was 6.2 per 1000 population in 2013. In 2013, the CDR for Kandy, Matale and Nuwaraeliya was 7.1, 6.0 and 6.6 per 1000 population respectively. **(Department of Census-provisional)**

Table 1.7 Live Births & Deaths Registered in 2013

	No of Live Births	No of Deaths
Kandy	30,862	10,856
Matale	10,152	2,741
Nuwaraeliya	11,394	4,047
Central Province	52,408	17,644
Sri Lanka	365,792	127,124

Source: Department of Census-provisional

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 2013 was 32.5 per 100,000 live births. The MMR for Kandy, Matale, Nuwaraeliya and CP was 33.1, 0.0, 61.1 and 34.3 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 for the year 2013 is 6.67, 7.83 and 9.58 per 1000 live births respectively while this value for Sri Lanka is 9.9 per 1000 live births.

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

The IMR and NNMR has declined over the last few decades and the Sri lankan figure of IMR reported by Family Health Bureau for the year 2013 is 8.8 per 1000 live births. The IMR in Kandy, Matale, Nuwaraeliya districts for the year 2013 is 8.74, 11.10 and 13.04 per 1000 live births respectively. The Neonatal Mortality Rate for Sri lanka is 6.5 per 1000 live births for the year 2013 and the figure in Kandy, Matale, Nuwaraeliya districts for the year 2013 is 6.24, 8.93 and 9.18 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 2.35 in 2012, according to the World Bank. 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.

1.4.7 Life Expectancy

The life expectancy at birth is 74.24 years in 2013. The figure for males and females is 71.21 and 77.42 respectively (WB 2013). 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 1.8 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 1.8 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
Nuwaraeliya	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 1.9 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 1.10 Computer literacy of population

	Both	Male	Female
Kandy	28.9	31.4	26.8
Matale	21.2	23.0	19.6
Nuwaraeliya	16.5	17.9	15.3
Central Province	24.1	26.1	22.3
Sri Lanka	24.2	26.5	22.1

Source : Department of Census & Statistics, 2012

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.
Source : Department of Census & Statistics 2012

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 1.11 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 1.12 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 1.13 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 1.14 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

Source: Department of Census & Statistics 2012

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 1.15 Poverty Headcount ratio by District

	2009/10	2012/13
Kandy	10.3	6.2
Matale	11.5	7.8
Nuwaraeliya	7.6	6.6
Sri lanka	8.9	6.7

1.5.9.2 Household expenditure

Table 1.16 Average monthly household expenditure on food & drink and on non-food items by province and district - 2012/13

	Kandy	Matale	Nuwara Eliya	Central Province	Sri Lanka
Total Expenditure /Rs.	41,442	39,222	33,882	38,989	41,444
Ratio for Food & drink	38.9	40.2	50.7	41.9	39.5
Ratio for Non-food	61.1	59.8	49.3	58.1	60.5

Source: Household Income and Expenditure Survey - 2012/13 - 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)

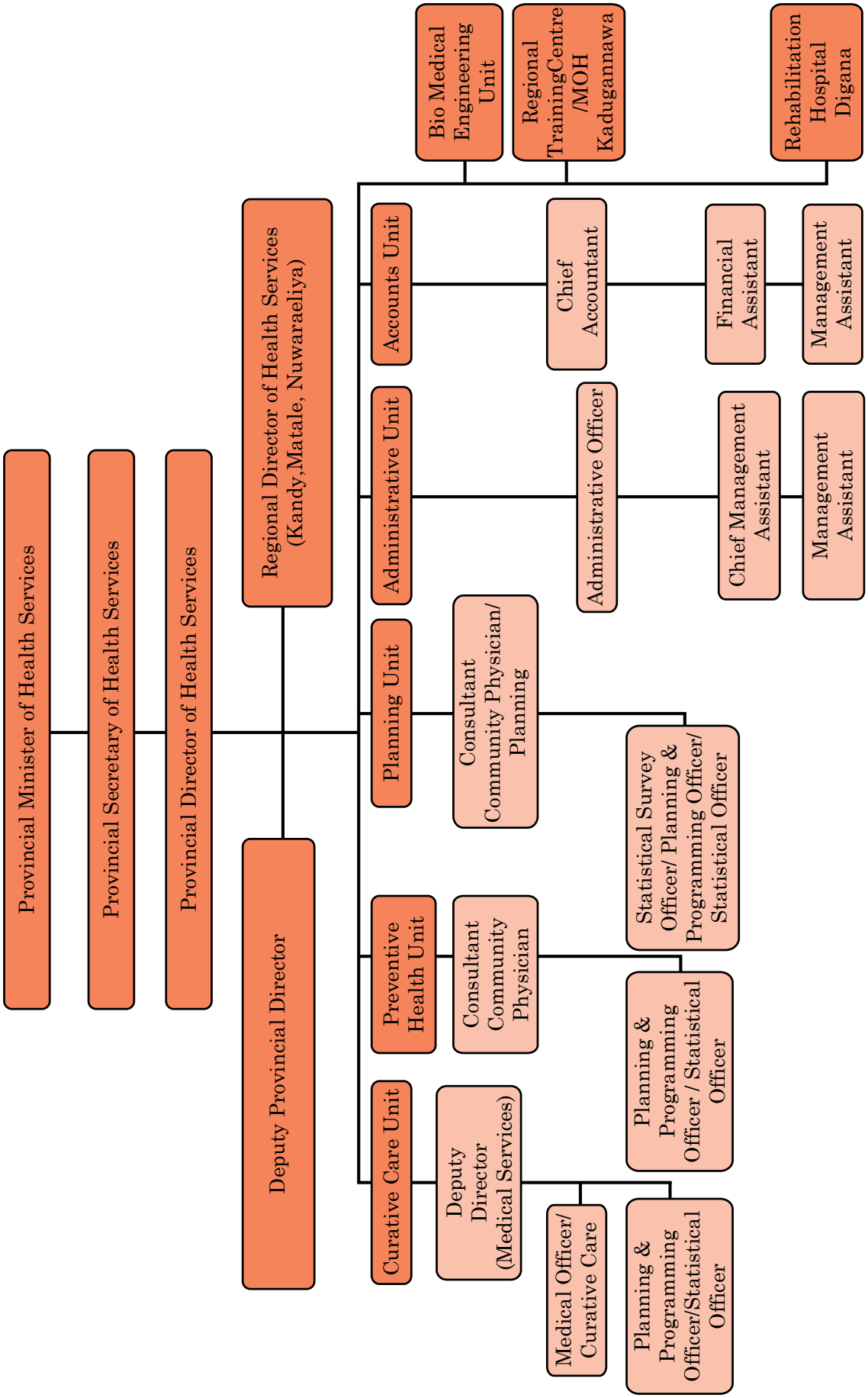
(b) **Secondary Care Institutions**

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

(c) Tertiary Care Institutions

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

Fig 2.1 Provincial Health Organization Structure



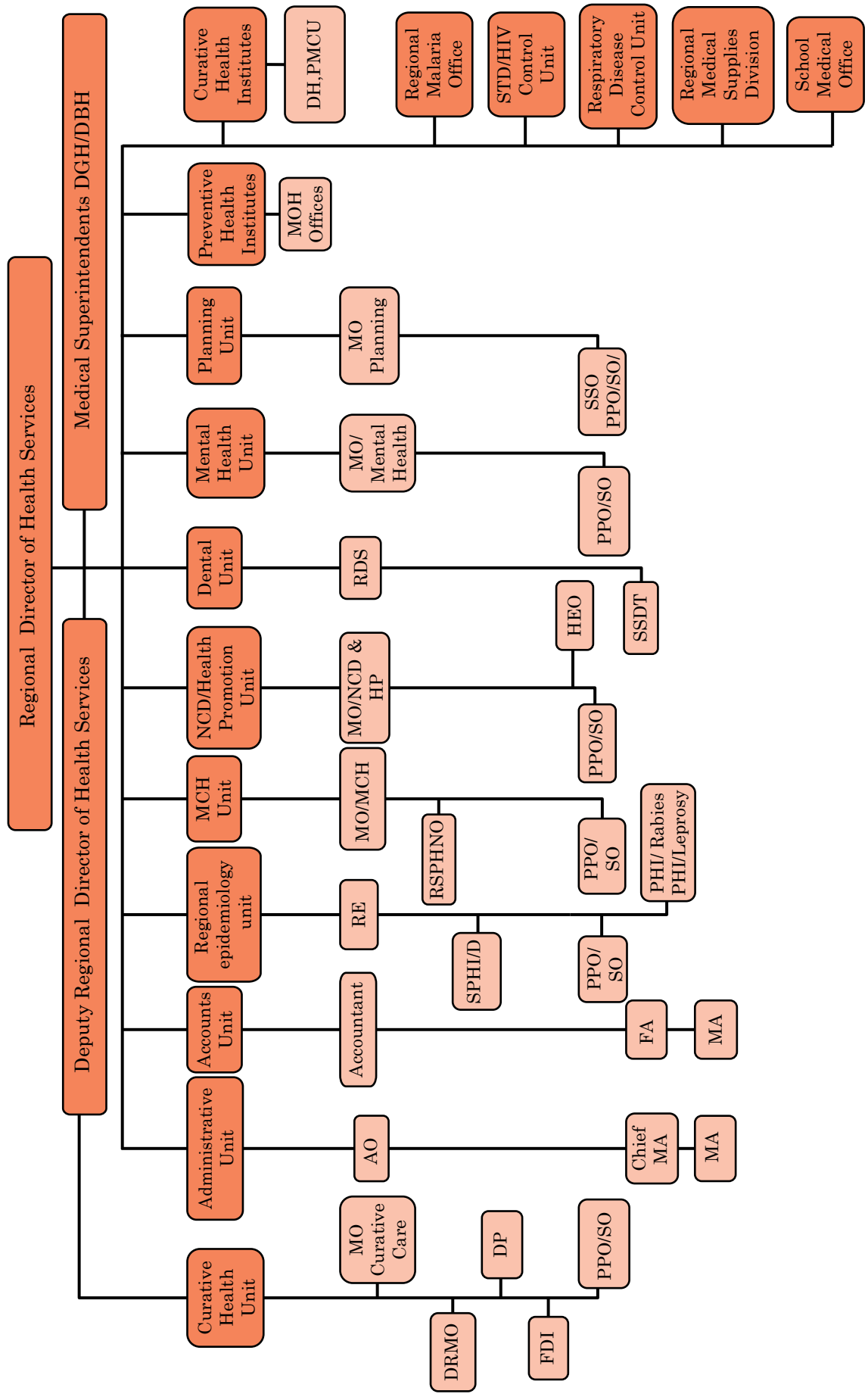


Fig 2.2 Regional Health Organization Structure

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 priventive and 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
Kandy	23	72	454	03	03	47	28	10
Matale	12	36	157	-	02	18	15	05
Nuwaraeliya	13	39	316	-	03	24	21	03
Central province	**48**	**147**	**927**	**03**	**08**	**89**	**64**	**18**

***** Kandy, Matale & 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 strength in institutions under Central Provincial Health Department

		No. of institutions	No of wards	No of beds
Secondary care institutions	Kandy	02	23	539
	Matale	02	34	1,062
	Nuwaraeliya	02	14	240
Primary care institutions	Kandy	75	176	1,819
	Matale	33	60	552
	Nuwaraeliya	45	96	1,160
Central province		**159**	**403**	**5,372**

Table 2.3 Total number of beds and beds per 1000 population in all government health institutions by District in 2014 (including line ministry institutions)

	No of beds	No. of beds per 1,000 population
Kandy	6,142	4.4
Matale	1,614	3.3
Nuwaraeliya	1,825	2.5
Central province	9,581	3.7
Sri Lanka	**76,087 (2012)**	**3.7 (2012)**

Central Province has bed strength of 3.7 (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	04	23
Nuwaraeliya	04	42
Central Province	**20**	**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 04 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 2014 (as at 31st December)

No	Designation	No. of staff 2014
01	Provincial Director of Health Services	01
02	Deputy Provincial Director (Medical Services)	01
03	Regional Director of Health Services	00
04	Deputy Regional Director of Health Services	03
05	Medical Administrator (Deputy Grade)	07
07	Medical Consultants	67
08	Consultant Dental surgeon	01
09	Medical officers	693
10	Dental surgeons	96
11	Regional Dental Surgeon	02
12	Bio Medical Engineer	01
13	Engineer (Electrical)	01
14	Registered / Assistant Medical Officers	198
15	Chief Accountant	01
16	Accountant	03
17	Administrative Officer	05
18	Programming & Planning Officer	56
19	Medical Record Officer	01

20	Statistical officer	37
21	Statistical Survey Officer	02
22	Planning & Programming Assistants	02
23	Medical Record Assistant	22
24	Development officer	116
25	Translator	01
26	Public Management Assistant	231
27	Matron	12
28	Ward Sister	28
29	Regional Supervising Public Health Nursing	04
29	Tutor Nursing	04
30	Public Health Nursing Sister	31
31	Nursing officer	1,210
32	Food & Drug Inspector	04
33	Health Education Officer	05
34	Special Grade Public Health Inspector	03
35	Supervising Public Health Inspector	08
36	Public Health Inspector	144
37	Supervising Public Health Midwife	28
38	Public Health Midwife	1,064
39	Divisional Pharmacist	02
40	Pharmacist	64
41	Medical Laboratory Technologist	51
42	Public Health Laboratory Technician (PHLT)	33
43	Radiographer	15
44	E.C.G. Recordist	09
45	Ophthalmic Technologist	08
46	Physiotherapist	12
47	Occupational Therapist	03
48	Special Grade Dispenser	02
49	Dispenser	171
50	Electro Medical technician	03
51	Technical Officer (Electrical)	01
52	Senior School Dental Therapist	03
53	School Dental Therapist	45
54	Ward Clerk	01
55	Data Entry Operators	02
56	Driver	227
57	Telephone Operator	01
58	Hospital Diet Steward	03
59	Cooks	02

61	House Warden	01
62	Hospital Attendants	654
63	Public Veterinary Dog Vaccinator	11
64	Entomological Assistant	16
65	Regional Malaria Officer	02
66	Public Health Field Officer	24
67	Spray Machine Operator	79
68	Office Aide /KKS	09
69	Hospital Overseer	02
70	Watcher	129
71	Saukya Karya Sahayaka (Ordinary)	205
72	Saukya Karya Sahayaka (Junior)	1,539
73	Lab Orderly	02
	Total	**7,424**

There is considerable increase of some staff categories such as medical officers, Nursing officers ,PHI and Laborers during 2014.

There were 67 doctors and 162 nurses 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 Nuwara eliya	SBCH Peradeniya
Medical Specialists (Consultants)	94	08	14	20	19
Medical Officers	613	177	62	66	115
Dental Surgeons	19	48	03	07	06
Nursing Officers	1,778	629	164	197	184
Medical Laboratory Technologists	61	26	08	13	09
Pharmacists	53	29	12	13	10
ECG Technicians	12	05	03	04	02
Radiographers	38	14	04	06	08
Physiotherapists	20	08	01	04	02
Management Assistants	83	39	17	19	15
Hospital Midwives	38	43	13	17	
Attendants	323	19	40	73	11
Laborers	1,286	245	90	30	166

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 19 specialized institutions. Of these, six secondary care institutions, all primary care institutions and all specialized institutions come under Central Provincial Health Department. (Annexure 4)

Being a relatively large province with diverse climatic and geographic variation, its people are subjected to a wide spectrum of ailments requiring dynamism in the provision of health services. High population density in the region has intensified this challenge with overcrowding of health institutes, causing an increased demand 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 2014, 2,614,202 and 595,072 people had received treatment as OPD and in-ward patients respectively from secondary and tertiary care hospitals while the corresponding figures were (OPD) and (Inward) for the 153 primary care institutes spread out in the province. In additional physical medicine department and special mental care health unit have been stabilized in large secondary care institutions.

As to cater the current need, the provincial health department is planning to use primary care institutions and primary medical care units to conduct non communicable disease control programs and elder care services. Remarkable steps of elderly care of the province are to establish a elderly care clinic and inward facilities at primary care unit Kadugannawa as the first unit in Sri Lanka.

Secondary care institutions consist of the four common specialties, Medicine, Surgery, Pediatrics, Obstetrics & Gynecology and other specialties such as Orthopedic Eye, ENT and Dermatology. Essential back up services are available at these institutions including laboratory services and basic radiological services. 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 2014.

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 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. Similarly, a large number of pregnant mothers prefer to deliver at bigger medical institutions based on the lack of faith they have of the quality of care at primary level.

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 this unfavourable trend 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 patient in the primary and secondary health care system. 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 instil a sense of dignity in the latter. Thus more emphasis was given to areas such as planning, management of human, 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, 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 were treated in wards. 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 institute and thereby optimise 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 the latter 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 me 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".

By mid 2009, a parallel project which focused on the improvement of quality and safety of health institutions in Sri Lanka was piloted in 6 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. DGH NuwaraEliya which comes under the administration of the line ministry was also included in the study. Through a situational analysis conducted by Dr.W. Karandagoda, the former Director, De Soyza Maternity Hospital, service and infrastructure gaps that existed in these hospitals with regard to provision of quality service were identified.

Further to this, the circular "National Quality Assurance Programme in Health" was issued in September 2009 which urged every health institute to begin a Quality Management Unit. The establishment of the latter in the 7 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 6 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 to be implemented by early 2011 to provide a forum to recognize and share best practices and to encourage them.

In 2011 Provincial Quality improvement and safety assurance programme was further strengthened by expending the program in 45 institution of the province which included 30 curative care institution as 15 preventive care institutions. Based on the guide lined issued by the national quality directorate provincial level unit was established with 3 unit in each districts to implements the project.

The Summary of services delivered by Primary Care Institutions is shown in table 3.1. The detailed information is given in the annexure 5 to 8.

Table 3.1 Basic information and services delivered in primary care institutions by District

	Kandy		Matale		Nuwara Eliya		Total	
	2013	2014	2013	2014	2013	2014	2013	2014
No. of Institutions	75	76	33	35	45	45	153	156
No.of beds	1,773	1,819	536	552	1,081	1,160	3,390	3,531
No.of wards	168	176	58	60	95	96	321	332
Bed occupancy rate (%)	35.8	34.4	33.9	39.3	27.5	20.8	32.8	30.7
No.of Admissions	133,863	129,749	38,169	38,478	61,671	52,114	233,703	220,341
OPD Attendance	2,427,870	2,543,652	731,057	940,846	986,439	914,979	4,142,366	4,399,477

Total inpatient days per year	231,505	229,027	66,318	79,307	108,315	88,475	406,138	396,809
No.of clinics held	7,074	10,600	4,606	6,114	9,912	5,496	21,592	22,201
Clinics Attendance	516,346	637,571	192,784	279,319	173,562	243,507	882,692	1,160,397
Total No. of Deaths	229	338	64	52	231	164	524	554
Total No. of Deaths Within 48 hours	113	172	42	38	97	256	252	466
No.of Deliveries	1,520	1,234	207	276	2,081	1,370	3,808	2,880
No.of patients transferred out	19,047	19,743	5,969	5,605	5,291	5,082	30,307	30,430
No. of Emergency Treatment Units (ETU)	43	47	11	12	22	12	76	71
No. of patients treated in the ETU	21,930	26,436	8,630	8,538	12,040	13,291	42,600	48,265

The same could have resulted in the decrease seen in the reduction in the OPD attendance is evaded. Over the year with increased in patent days. And may be patients seek out patent services from the private sector then the governments hospitals where as inpatient services for chronic diseases have been taken from the government hospitals.

A slight reduction of inward care is observed of the year. Whereas OPD attendance and attendance for special clinic are slight little increased. The most possible reason to the trend may be patients sick inward can at secondary or tertiary care institutions and expecting or specialized and quality care while seeking out patient and special clinic care from their nearest healthy care institution.

The significant increased in ETU treatments would be home future reduced the hospital administration in curative care institutions.

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. It is hoped that through quality assurance programmers such as mentioned above, this trend could be curbed in the future, with lesser number of mothers by passing their local hospital in preference for secondary care hospitals for planned, uncomplicated deliveries.

The overall bed occupancy in primary care hospitals still remain below 40%. This further highlights the need to facilitate 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 2013 & 2014

		OPD attendance	Indoor admissions	Clinic attendance	Deliveries
Kandy	2013	2,427,870	133,863	516,346	1,520
	2014	2,543,652	129,749	637,571	1,234
	% change	4.7	-3.0	- 2.3	-18.8
Matale	2013	731,057	38,169	192,784	207
	2014	940,846	38,478	279,319	276
	% Change	28.6	0.8	44.8	33.3
Nuwaraeliya	2013	986,439	61,671	173,562	2,081
	2014	914,979	52,114	243,507	1,370
	% change	-7.2	- 15.4	40.2	-34.1
Total	2013	4,142,366	233,703	882,692	3,808
	2014	4,399,477	220,341	116,0397	2,880
	% change	0.6	-5.7	30.7	-

Fig. 3.1 OPD Attendance in Primary Care Hospitals

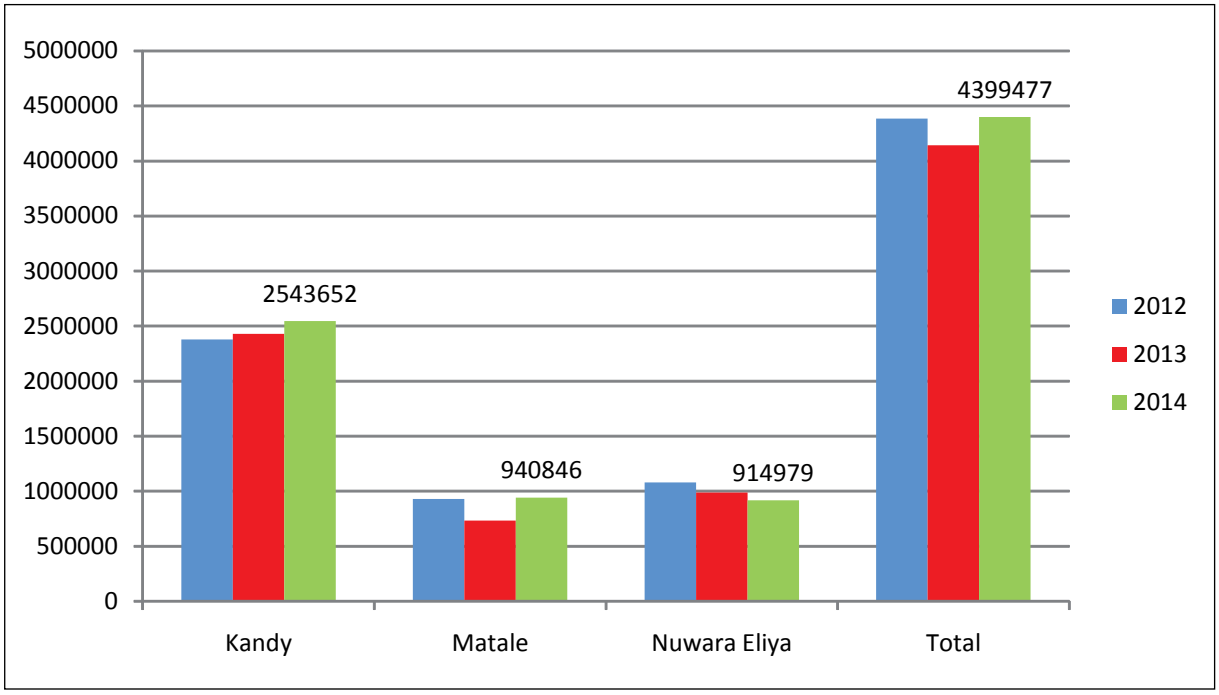


Fig. 3.2 **Indoor** *Admissions in Primary Care Hospitals*

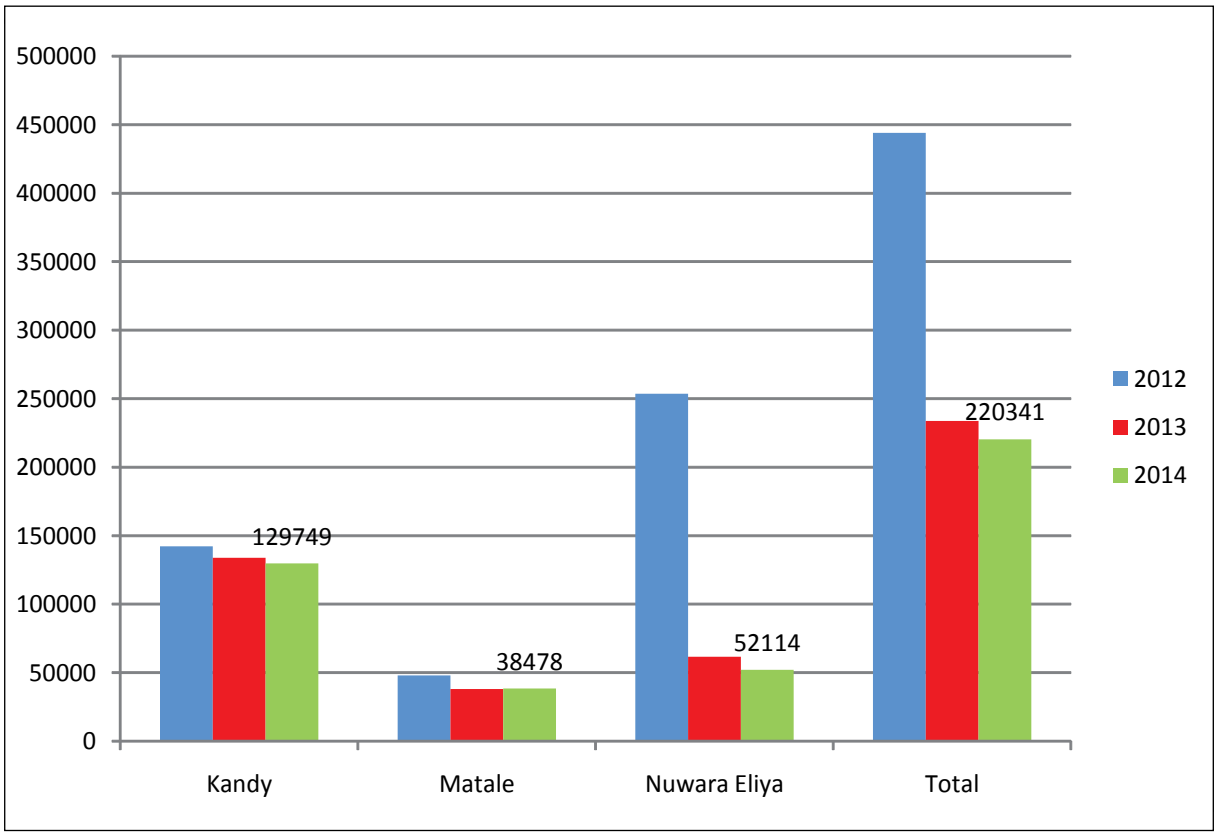


Fig. 3.3 Bed occupancy Rate in Primary Care Hospitals

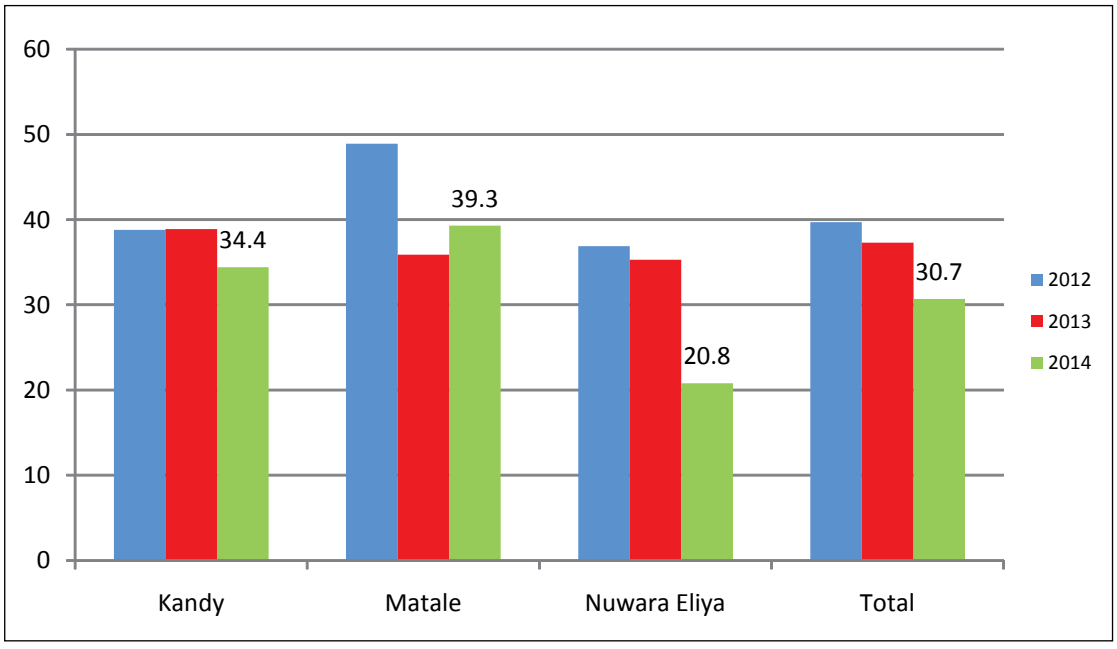


Fig. 3.4 Clinics Attendance in Primary Care Hospitals

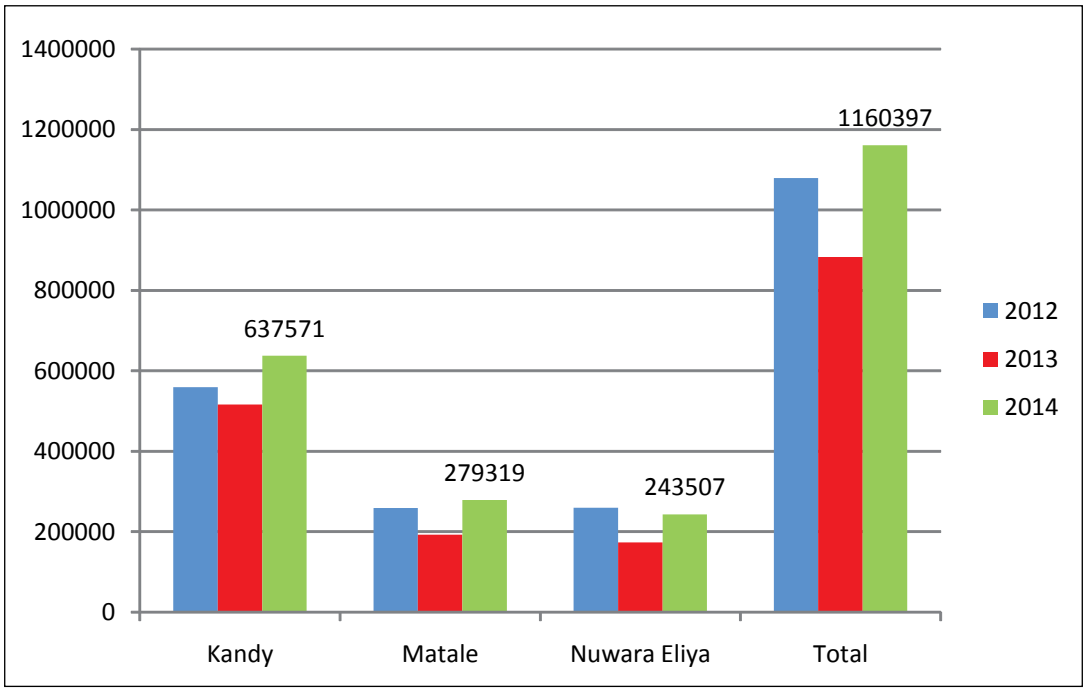


Fig. 3.5 No. of Deliveries in Primary Care Hospitals

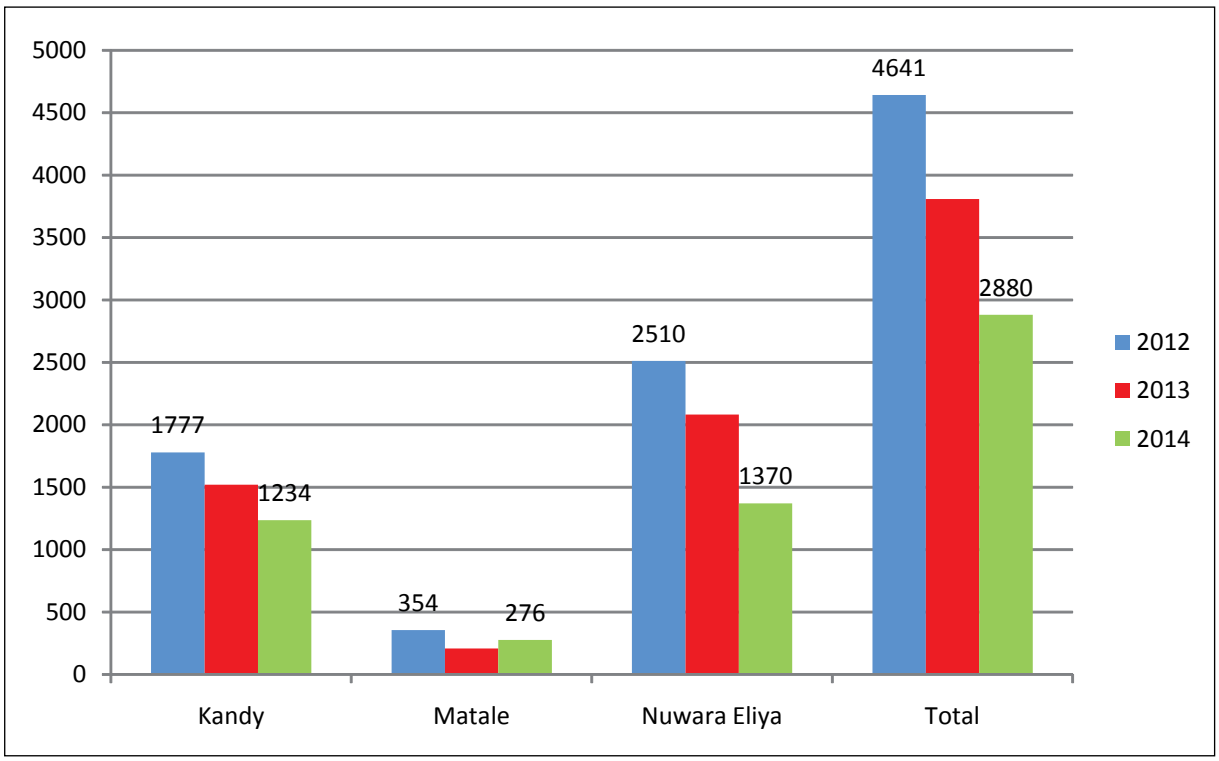
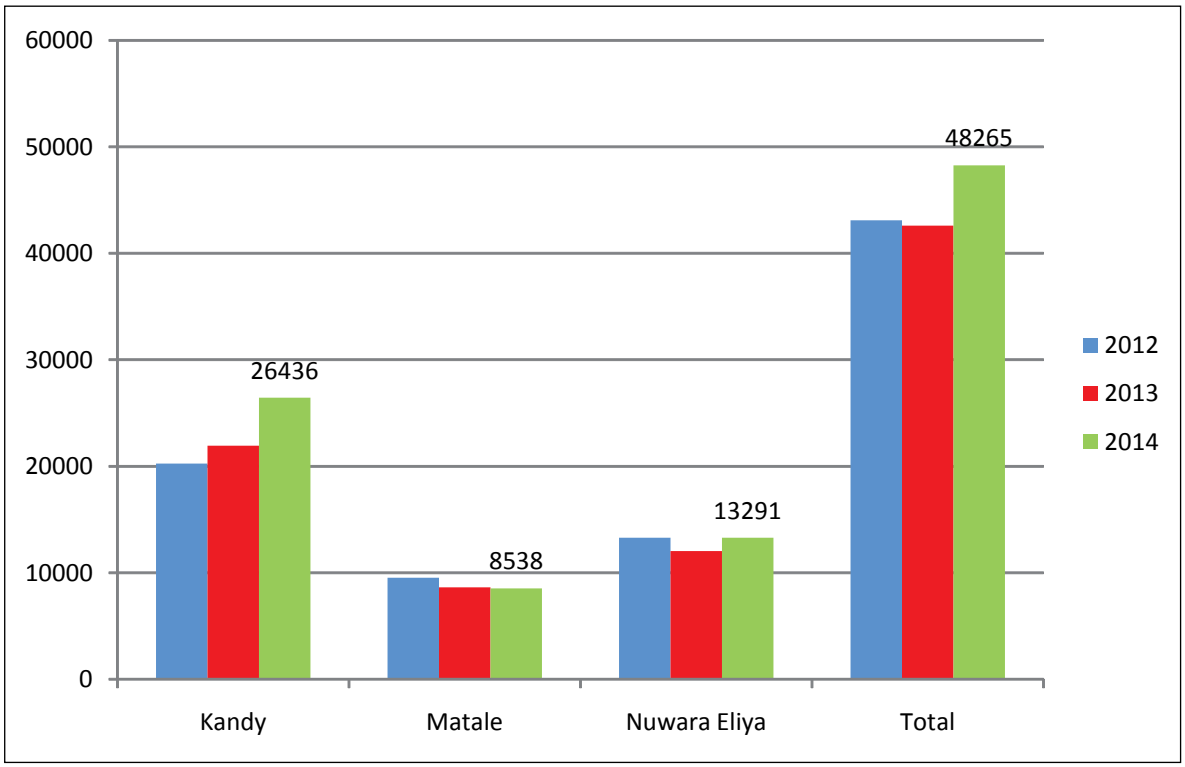


Fig. 3.6 No. of Patients treated at ETU in Primary Care Hospitals



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 reinforces the importance of establishing Emergency Treatment Units (ETU) in Primary Health Care Institutes.

By 2012, the total number of Emergency Treatment Units was 71 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 a standard plan and order. The object of the Central province health department in 2013 was to stand the existing ETUs and fill the all basic requirements. At the end of the year 2014 the department of health service central province was able to standardize all 71 ETUs of the province although a rise was observed in the number of patient being treated in ETUs up to 2012. A clear reduction was observed in 2013.

There is 13% increased ETU adduction in Primary care institution in 2014 than 2013 which may be a good sight of utilizing ETU service of primary care level.

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.

To this end, by 2013, 21 Health Institutes were offering laboratory services to the catchment population. 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. Thus, the current financial restraint of establishing laboratories in every hospital of the province which limited the accessibility of this service to all was to be overcome.

As it was planted in 2013, the department of health services central province located satellite laboratory services to primary care unit in close without laboratory facilities in 2013. Under the satellite laboratory system, 156,860 laboratory tests have been recovered in year 2014.

Table 3.3 Laboratory Services in primary care hospitals

	2013 (Number of test)	2014 (Number of test)
DH Wattegama	11,074	13,487
DH Akurana	7,137	11,273
DH Kaduganawa	8,458	12,040
DH Teldeniya	24,529	26,786
DH Galagedara	1,834	2,520
DH Hettipola	8,491	12,685
DH Rattota	6,018	4,274
DH Galewela	11,206	18,039
DH Walapane	20,156	-
DH Katugastota	14,932	10,807
DH Hasalaka	4,904	5,440
DH Ankumbura	5,032	1,634
DH Udadumbara	5,840	5,777
DH Yatawatta	-	7,679
DH Nalanda	-	16,688
DH Agarapathana	-	-
DH Kotagala	6,157	7,448
DH Lindula	00	00
DH Ginigathhena	00	191
DH Udapussallawa	637	92

To monitor the laboratory service toward to provide high quality laboratory service provincial level steering committee has been established and intake steps have been taken to accreditation 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. Of these, two hospitals (DGH Nuwaraeliya and DBH Gampola) are managed by line ministry while the rest come under the administration of the Central Provincial Health Department. Those are DGH Matale, DGH Nawalapitiya, DBH Dambulla, DBH Dickoya, DBH Rikillagaskada and DBH Theldeniya.

Table 3.4 Basic information and services delivered in Secondary care institutions - 2014

	DGH Matale	DGH Nawalapitiya	DBH Dambulla	DGH Nuwara eliya	DBH Gampola	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya
No. of wards	23	17	11	10	12	06	08	06
No. of beds	781	444	281	425	357	136	104	95
OPD attendance	349,817	304,798	167,012	208,802	246,730	159,888	102,153	78,863
Admissions	68,821	41,242	54,441	49,570	41,516	17,711	20,357	9,905
Bed occupancy rate (%)	59.92	68.42	89.4	77.95	109	54	98	53.44
Total No.of Inpatient Days	170,830	110,887	92,098	20,920	142,242	26,757	37,383	18,531
Total No.of Deaths	552	371	355	558	304	91	180	36
Total No.of Deliveries	5,674	3,953	4,172	3,953	3,668	618	2,102	131
Total No of Live Births	5,704	3,929	4,193	3,929	3,676	618	2,102	131
Total No of Maternal Deaths	00	00	00	00	00	00	00	00
Total No of Still Births	19	45	24	45	26	00	17	00
Total No of patients Transferred out	1,731	1,897	1,145	1,897	2,313	2,464	1,960	2,115
Minor operations done	8,875	8,516	5,784	7,566	3,557	158	1,297	166
Major operations done	4,841	1,442	4,038	1,442	2,971	86	992	
Total No of Clinics Held	3,348	2,065	1,572	2,065	1,622	1,612	719	676
Total No of Clinics Attendance	78,199	169,890	106,233	169,890	145,821	65,762	56,672	45,172
No. of patients treated in the ETU	7,551	7,182	2,897	7,783	6,526	9,085	00	1,629

In-ward care provided by secondary care institutions has undergone dramatic change 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 in these institutions.

There was an increase in the attendance at special clinics in secondary health care institutions, probably due to increase awareness and better detection of illnesses.
Out of these hospitals,

To accommodate these increasing numbers, master plans have been formulated to improve hospital facilities in a stage wise manner in DBH Dambulla, DBH Rikillagaskada and DBH Teldeniya.

Fig. 3.7 Indoor admission in Secondary Care Hospital

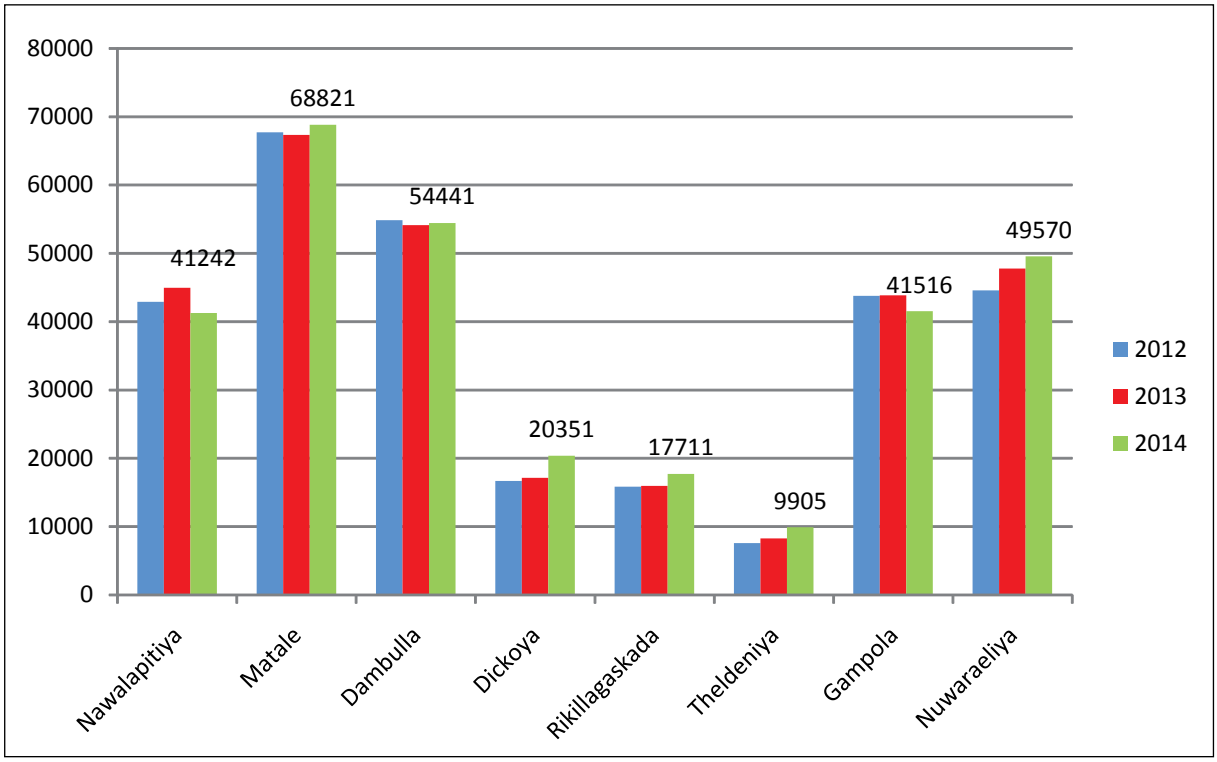


Fig. 3.8 Total No. of Deliveries in Secondary Care Hospital

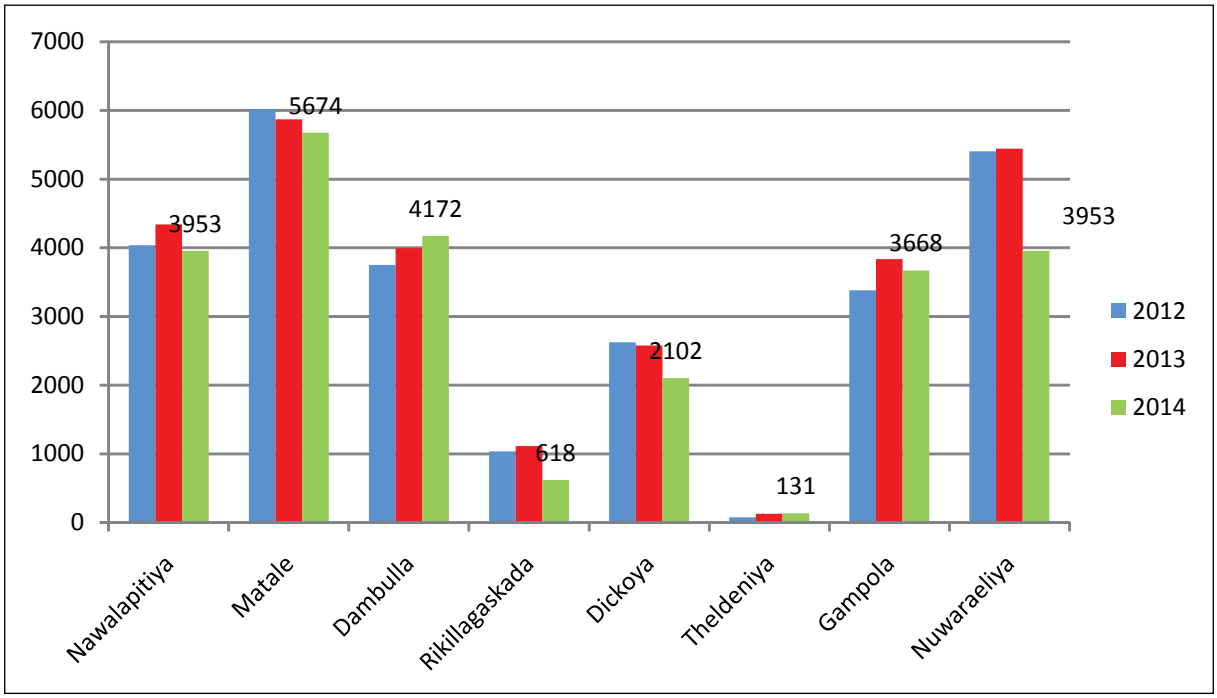


Fig. 3.9 Clinic Attendance in Secondary Care Hospital

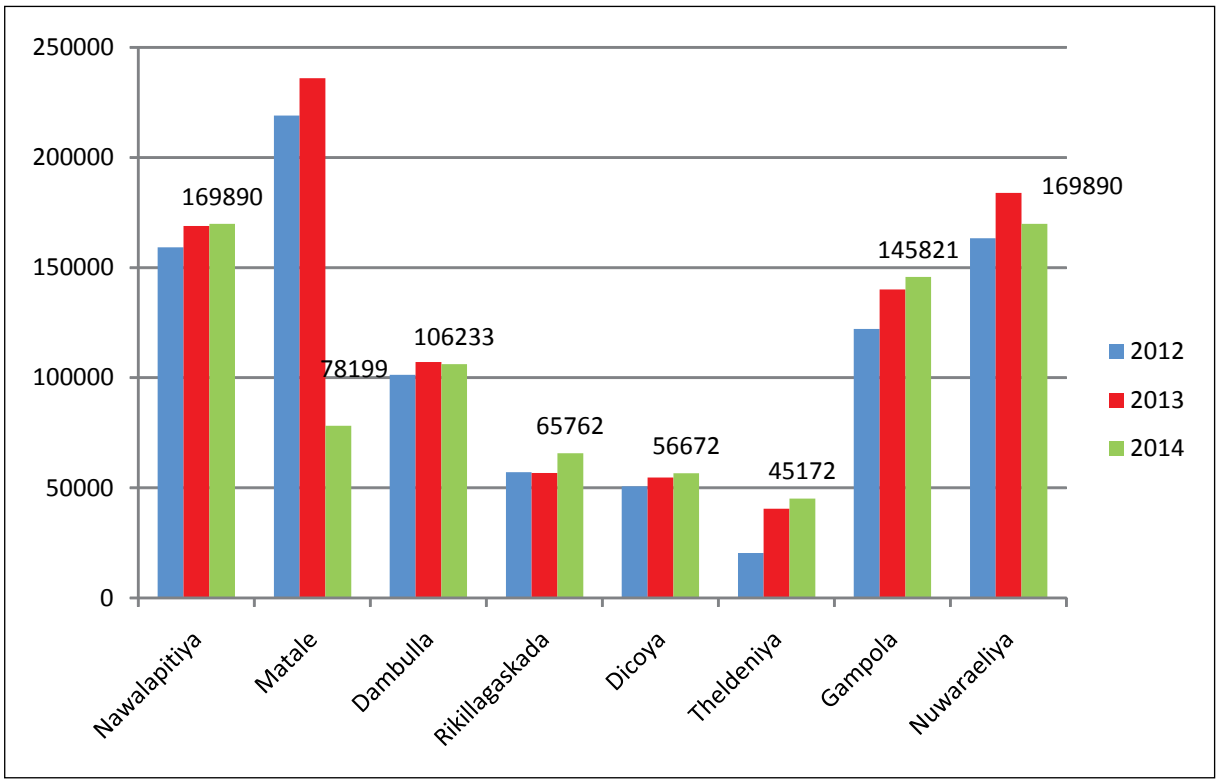
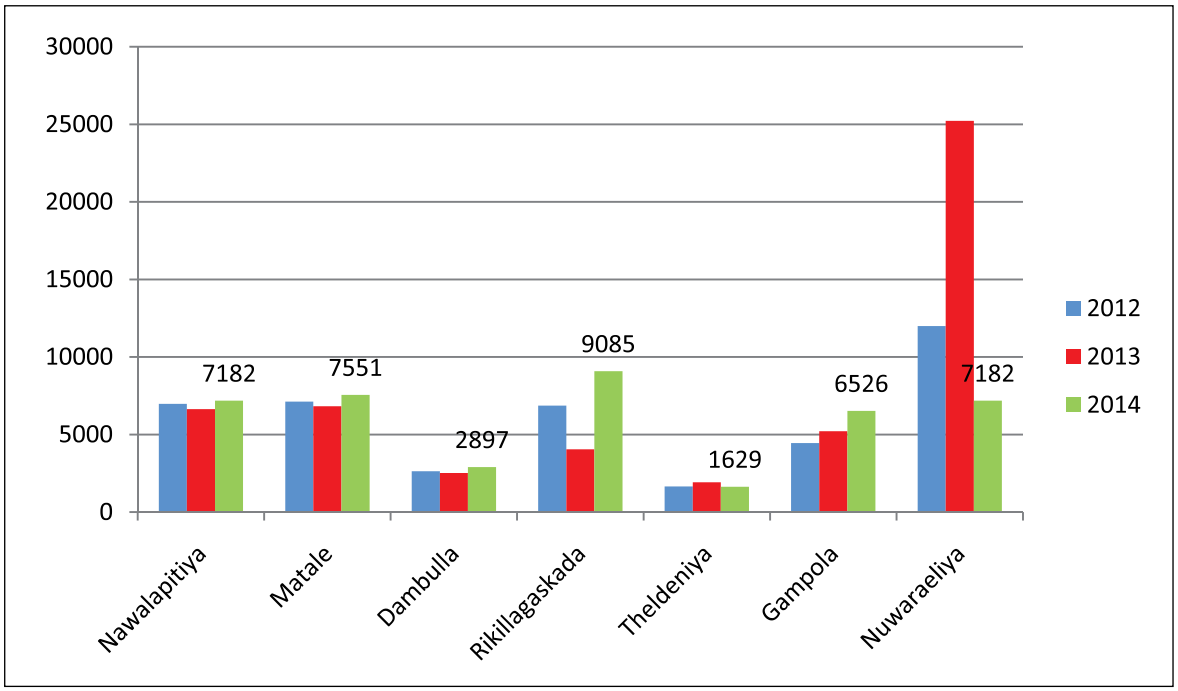


Fig. 3.10 No . of patients treated at ETUs in Secondary care Hospital



This further indicates the need to strengthen the health care services at primary level. Overall, in all the hospitals, the number of ETU admissions has increased by several folds when compared to the previous year, a trend that may reflect a lessened number of indoor admissions hospital deaths in the years to come.

Despite the Geographical difficulties and limited of resources of the base hospital Dickoya showed bed occupancy rate 98%. How with increased OPD and inward attendance at lowest number of hospital deaths in 2014. Further can be expected through the Operation of newly built hospital in the near future. 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 morbidity, mortality and prenatal deaths in the province.

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

Type of Indicator	Nawalapitiya	Matale	Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya	DBH Gampola	DGH NuwaraEliya
No. of admissions to Obstetric unit	10,690	7,360	5,925	2,063	2,183	523	5,032	6,810
Daily average of maternal admissions	29.29	20.16	16.23	6	5.9	1.4	14	18.6
Total no. of deliveries Single delivery Twin delivery Triplet delivery	3,953 3,881 36 02	5,626 47 1	4,124 48	618 - 618	2,102 2,089 13	131	3,634 34	5,079 5,031 47 1
Mode of delivery Spontaneous delivery Forceps delivery Breech delivery Vacuum extractions LSCS	 2,315 15 21 98 1,504	 3,298 27 13 32 2,204	 2,698 05 00 12 1457	 546 00 	 1,623 17 29 00 433	 131 00 00 00 00	 1,853 17 00 00 1,798	 3,961 13 00 03 1,102
Caesarean section rate	38.0	38.8						
Total no. of live births Total no. of still births Still birth rate (per 1000 live births)	3,929 45 11.4	5,704 19 3.3	4,193 24 5.7	1,180 04 3.4	2,102 17 8.0	131 00 0.0	3,676 26 7.0	5,034 450 0.8
Total live Births by birth weight <2500g >2500g Percentage of low birth weight babies	 3,090 824 20.9	 4,833 871 15.2	 3,253 940 22.4	 511 107 9.0	 1,643 459 21.8	 110 21 16.0	 3,185 490 13.3	 3,850 1,184 23.5
Early neonatal deaths* Early neonatal death rate (per 1000 Live Births)	38 9.6	28 0.4	04 0.9	00 00	04 1.9		00 00	00 00
Maternal Deaths Maternal death rate (per 100,000 Live Births)	00	00	00	00	00		34	23

* 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 Anti-rabies and Anti-tetanus vaccination.

Supportive services for curative care in secondary care institutions:

3.2.1 Laboratory Investigations

The facilities required to perform investigations ranging from tests such as urine sugar, blood sugar to the more sophisticated investigations such as renal function tests have been provided.

Today all most all laboratories of secondary care institutions have been automated with fully automated analyzes with consultant flown filled for providing high quality laboratory investigation in Biochemistry, Microbiology, Histopatalogy and Hematology.

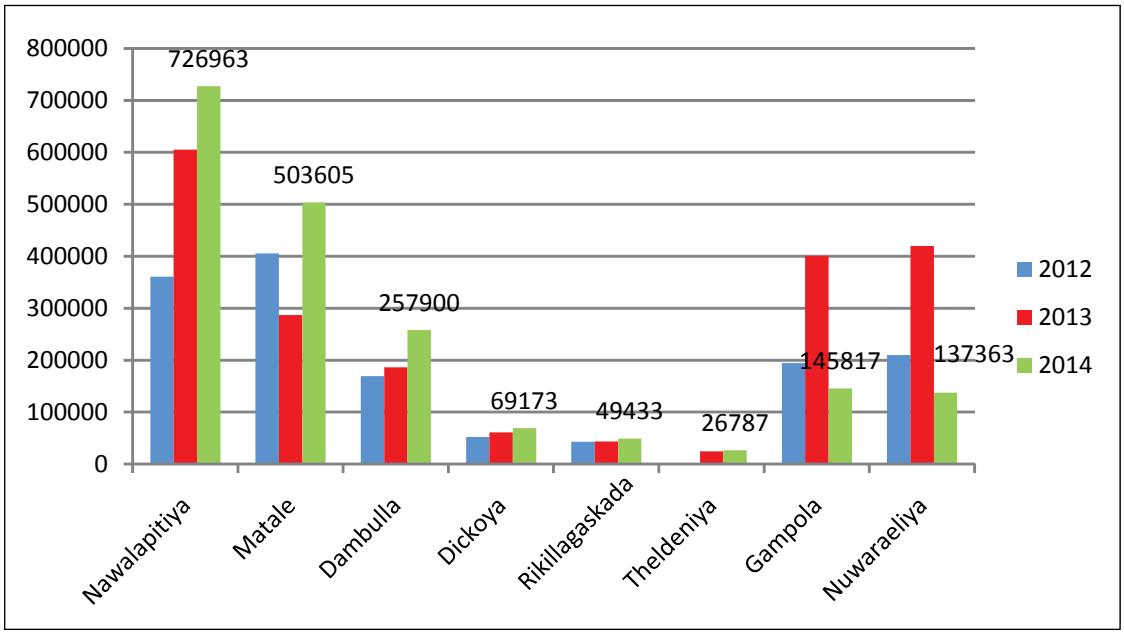
In 2014, Secondary Care Hospitals had performed approximately 1,917,041 laboratory tests in total.

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

Test category	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya	BH Gampola	DGH NuwaraEliya
Biochemistry-2013	142,634	113,804	83,374	7,242			121,459	22,933
2014	226,722	152,398	65,214	5,779	18,983	1,330	65,328	77,881
Bacteriology-2013	7,088	11,938	7072	567				
2014	7,228	10,990	39,235	780	00	00	210,760	
Haematology-2013	430,492	152,675	90,258	33,831			34,079	162,788
2014	464,570	204,498	153,451	32,569	41,934	21,652		48,942
Histopatalogy-2013	8,739		5,647					
2014	7,362					00		
Other-2013	15,800		00	2,108			56,789	17,017
2014	21,081	146,709		11,085	8,256	3,805	43,855	8,118
Total-2013	604,753	286,970	186,353	43,748			400,645	420,006
Total 2014	726,963	503,605	257,900	49,433	69,173	26,787	145,817	137,363
Total No of MLTs	09	13	05	02	02	01	08	13
No of tests per MLT per year	80,773	38,738	51,580	24,717	34,586	26,787	18,227	10,566

It is clear that all secondary care institution have performs increase number of laboratory investigation in 2014 than 2013 under this project.

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. 5 secondary health care institutions under the Provincial Council geared to provide basic radiological investigations including plain X-rays, Barium studies and special procedures like Maturation Cysto - Urethrograms (MCUGs).

Comparatively list number of investigation done radiological in DBH Dickoya, DBH Rikillagaskada, started investigating in 2013 in absent of permeate radiographer and service are provided and covering up basic from nearest available station.

In addition, these hospitals provide ultrasound scanning facilities. It is planned to improve the existing radiology facilities by way of providing modern equipment (eg. X-ray machines with fluoroscopy facilities and CT scans) in the near future.

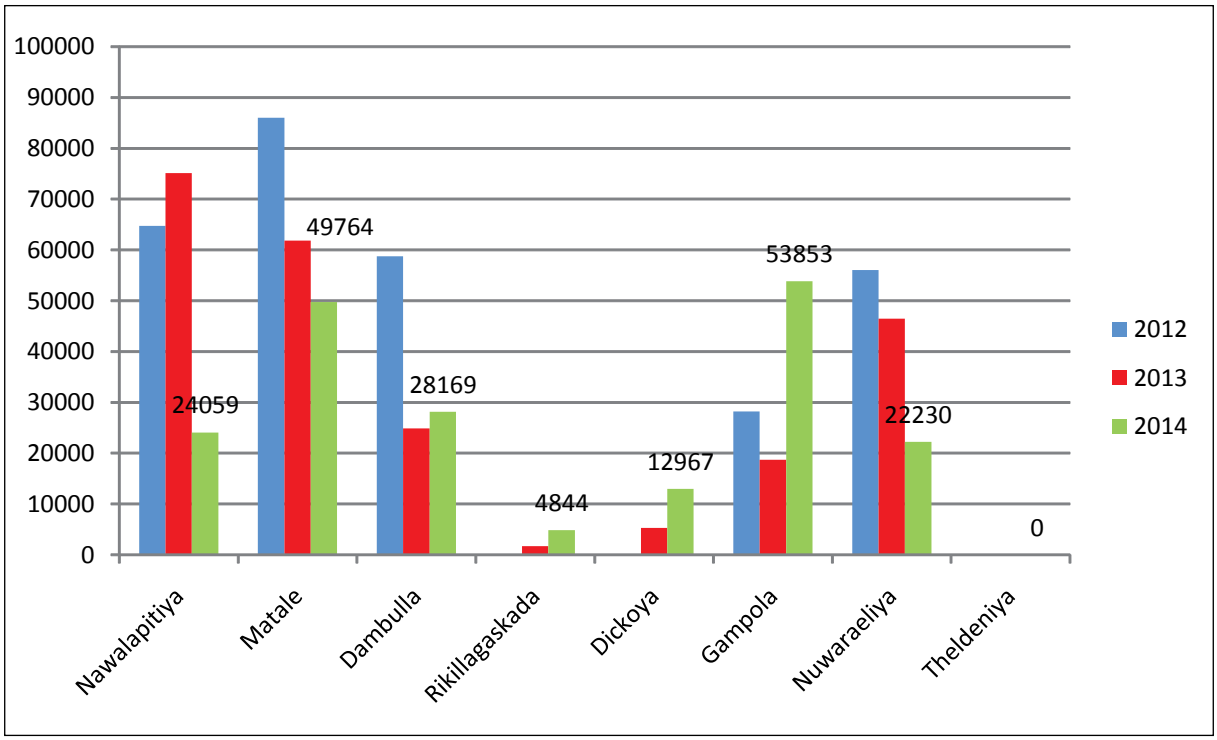
Table 3.7 Radiological investigations done in secondary care institutions under Central Provincial Health Department and line ministry

		DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagakada	DBH Dickoya	DGH Theldeniya	BH Gampola	GH Nuwaraeliya
No of OPD & clinic cases	2013	26,960	7,876	4,571	NDR	NDR	00	1,170	4,385
	2014	NDR	6,835	15,227	899	485	00	1865	5,787
No of Ward cases	2013	NDR	20,478	13,294	582	2,684	00	11,060	17,521
	2014	NDR	18,153	12,308	969	4,851	00	11,319	16,443
No of other investigation	2013	5,425	235	7,004	NDR	NDR	00	00	21,906
	2014		1,111	119	00	55	00	16,354	00
Total No.of Film	2013	42,759	33,485	NDR	505	2,283	00	19,233	2,542
	2014	18,841	38,602	28,050	2,976	7,570	00	19,898	00
Total	**2013**	**75,144**	**62,074**	**24,869**	**1,673**	**5,259**	**00**	**18,715**	**46,472**
	2014	**24,059**	**64,701**	**55,704**	**4,844**	**12,961**	**00**	**53,853**	**22,230**
No of Rediographers	2013	04	04	02	NDR	NDR	00	05	06
	2014	04	04	02	01	01	00	04	06
No. of tests per Radiographer per year	2013	18,786	15,460	12,434	NDR	NDR	00	3,743	7,745
	2014	6,014	16,175	27,852	4,844	12,961	00	13,463	3,705

NDR - Data Not Received

Steps have been taken to provide modern facilities to perform radiological investigations in secondary care institution in 2014. The department has provided modern ultra sound scanning machine, modern X-ray machine, and other necessary investigation facilities.

Fig. 3.12 Radiology Investigations in secondary care hospital



A reduction in the number of tests per radiographer is apparent in DBH Dambulla with the appointment of a new radiographer. However, there has been a threefold rise in the number of tests handled by a single Radiographer in DGH Matale. The latter could be partly attributed to the reduction of the number of radiographers from 5 to 4 in 2010 and indicates the necessity to expand the cadre of radiographers at DGH Matale and the need to use this facility discriminately by the hospital staff.

The average of radiological investigations per radiographer is range from 15,000-20,000. Per person per year except DBH Dambulla when then is a increase in number of radiographer. DBH Dickoya and DBH Rikilagaskada showed a lesser number of investigation per person since there is no permanent radiographer.

3.2.3 Electrocardiography services

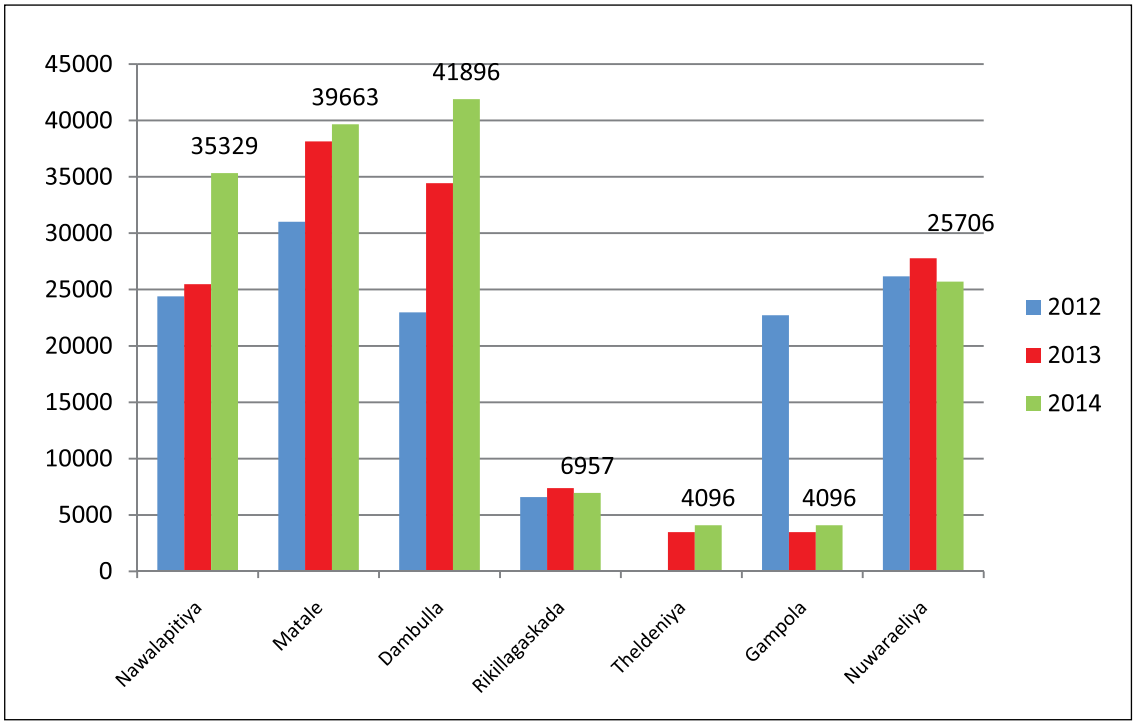
Electrocardiography (ECG) being an informative investigation for the management of many life threatening conditions ranging from ischemic heart disease to certain types of poisoning, the requirement of this facility at secondary care units could not be overemphasized.

Table 3.8 ECG recordings done in secondary care institutions under Central Provincial Health Department and line ministry

	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya	BH Gampola	GH Nuwaraeliya
OPD - 2013	4,563	3,853	1,625	3,010	2,640	3,477	8,067	4,377
2014	6,024	4,973	3,407	3,028			8,094	5,477
Clinics -2013	3,000	2,596	1,551	926	00	00		
2014	3,239	3,045	2,025	320		2,828	1,319	
Wards -2013	17,910	31,708	31,255	3,445	00	00	19,707	15,183
2014	26,492	31,645	36,464	3,609		1,268	16,293	21,196
Total 2013	25,473	38,137	34,431	7,381	2,640	3,477	27,774	19,660
2014	35,329	39,663	41,896	6,957		4,096	25,706	26,673
No. of ECG recordists	03	04	01	01	00	01	03	04
No. of ECGs per recordist per year	11,776	9,915	41,896	6,957	00	3,477	8,568	6,668

Shortage of ECG Technicians has limited. ECG tests do the inward patients, Medical offices and nursing officers do ECG tests for inward patients and special units. Besides the routine ECG testing handle by ECG Technicians.

Fig. 3.13 ECG Investigation done in Secondary Care Hospital



3.2.4 Blood bank services

In any institution which provides complete maternal services and operative services, a well established blood bank is a mandatory requirement. At present, all provincial secondary care institutions have blood banks administered by the Central Blood Bank.

The benefit for patients of establishing blood bank in secondary care institution is to get the service without fledging4 blood donors before the procedure as the facilities was early.

Table 3.9 Blood bank statistics of secondary care institutions under Central Provincial Health Department and line ministry

	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	BH Gampola	GH Nuwaraeliya
No. of donors - 2013	2,544	2,925	333	0		1,833	1,725
No. of donors - 2014	1,794	3,196	616	0	37	2,221	2,065
No. of blood pints taken from other Blood banks - 2013	744	714	2,604	864		1,068	420
No. of blood pints taken from other Blood banks - 2014	864	643	2,064	634	729	936	653
No. of blood pints issued - 2013	2,513	3,635	2,655	144		2,629	2,132
No. of blood pints issue - 2014	2,401	3,550	2,394	144	527	2,851	2,286
No. of blood pints discarded - 2013	239	310	272	202		393	79
No. of blood pints discarded - 2014	1,682	246	213	30	33	316	

3.2.5 Physiotherapy Services

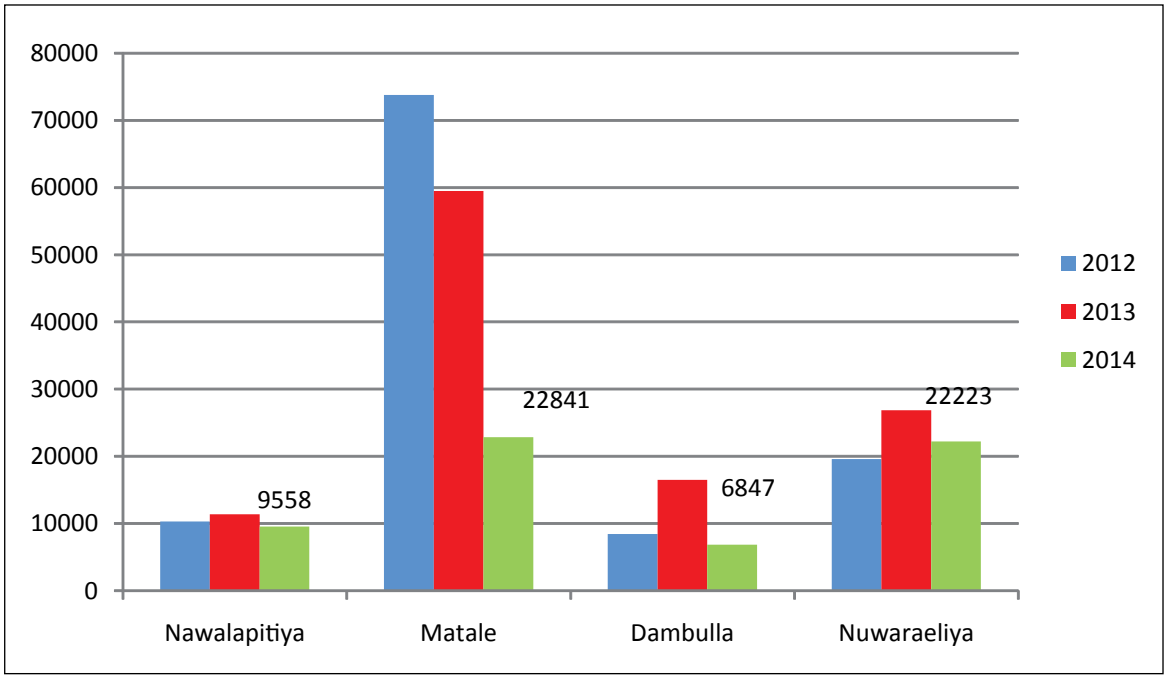
The Physiotherapy units at the DGH Nawalapitiya, DGH Matale and DBH Dambulla provide outpatient as well as inpatient services. These units have well trained physiotherapists supported by other required staff and are equipped to provide the appropriate therapy depending on the needs of the patient.

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 line ministry.

	DGH Nawalapitiya		DGH Matale		DBH Dambulla		GH Nuwaraeliya	
	2013	2014	2013	2014	2013	2014	2013	2014
Total No of patients treated	11388	9558	59468	22841	16506	6847	26871	22223
No. of Physiotherapists	03	02	03	04	01	01	08	04
Patients per Physiotherapist per year	3796	4779	19822	5710	16506	6847	8957	5555

Fig. 3.14 Physiotherapy done in Secondary Care Hospital



3.2.6 Special clinics

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

Table 3.11 Specialized clinics conducted in secondary care institutions under Central Provincial Health Department and line ministry

Speciality	DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Teldeniya	BH Gampola	GH Nuwaraeliya
Medical	103	152	196	102	50	104	252	95
Surgical	97	96	101	56	81	00	96	93
Gynecology and Family Planning	187	92	0	49	124	63	95	94
E.N.T	130	93	42	15	0	00	115	96
Eye	146	253	44	23	93	48	189	187
Pediatric	189	91	98	94	49	48	92	87
Psychiatric	242	151	25	0	70	56	150	144
Dental and Maxillofacial (OMF)	364	654	117	274	0	244	268	337
Other	197	92	655	115	257	292	193	1,190

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

Department of the health service in central province was able to establish in 2013 Orthopedic services at DGH Matale at the end of 2013 mating the long time need the province.

3.2.7 Surgeries

Table 3.12 Surgeries conducted in secondary care institutions under Central Provincial Health Department

Speciality	DGH Nawalapitiya		DGH Matale		DBH Dambulla		DBH Dickoya		DBH Rikillagaskada		BH Gampola		GH Nuwaraeliya	
	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major	Minor	Major
General Surgery	6131	621	6019	280	4053	862	1037	156	130	00	537	2687	900	3485
Obstetrics	00	00	395	2242	00	1529	00	469	00	72	1795	728	1551	974
Gynecology	00	00	1079	441	1314	303	245	39	28	14	270			
EYE	62	739	358	1384	425	1342	15	328	00	00	320	320	1021	53
Dental and Maxillofacial	00	00	153	68	00	00	00	00	00	00	00	00	52	2300
E.N.T.	193	82	521	157	00	00	00	00	00	00	49	120	83	118
Other	2128		350	269	02	02		0000	00	00	00	00	00	00
Total	8516	1442	8875	4841	5784	4038	1297	992	158	86	2971	3557	3607	6930

3.2.8 Premature Baby Unit (PBU)

Maternal and child care need the priorities in healthcare sector today. Because it has been reargued that the origin of a healthy nation begins from the healthy mother and a baby. Therefore the department of health service central province has provided its special attention to improve the quality of baby high care in the province.

DGH Nawalapitiya, Matale and BH Dambulla have well equipped premature baby units and other secondary care institutions are going to get this services in near future.

Table 3.13 Premature Baby Care in secondary care institutions under Central Provincial Health Department and line ministry

		DGH Nawalapitiya		DGH Matale		DBH Dambulla		GH Gampola		GH Nuwaraeliya	
		2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
1	Admissions	562	590	688	622	822	806	911	673	643	423
2	**Maturity**										
	< 28 weeks	06	136	25	14	45	07	09	06	24	47
	28-36 weeks	183	246	134	147	155	180	187	199	206	165
	> 36 weeks	337	437	529	461	622	619	452	468	413	210
3	**Weight**										
	< 1000g	12	21	27	23	07	04	07	10	22	20
	1000 – 1490g	73	50	41	47	27	35	33	26	98	62
	1500 – 2490g	231	203	227	166	296	336	206	217	256	182
	>2500g	212	311	393	380	492	431	402	420	267	161
4	**Reason for admission**										
	Birth Asphyxia	39	31	41	20	02	15	29	25	19	17
	Meconium Aspiration	08	11	17	16	22	13	10	05	22	16
	Preterm	128	68	135	109	71	84	88	108	125	62
	IUGR	33	16	24	15	07	05	19	27	16	32
	Grunting	59	86	73	56	79	99	25	34	54	36
	Poor Sucking/lethargy	60	71	80	71	72	29	40	33	32	40
	Gestational DM	01	00	03	0	-	04	32	10	10	30
	Congenital anomalies	25	18	18	17	219	00	26	20	27	21
	Other	200	265		306	350	319	379	348	338	170
5	**Total Number of NND***	45	51	54	35	18	03	16	00	64	57
	Number of early NND*(Deaths within the first 7 days of life)	38	38	53	28	00	11				
6	**Cause of Death**										
	Prematurity	20	12	32	19	13	06	-	06	-	34
	Birth Asphyxia	10	24	04	3	02	04	16		37	
	+Septicaemia	06	09	13	4	03	00				
	Congenital anomalies				7		01				
	Other										
7	Number Discharged	334	413	0	0	775	701	197	241	549	340
8	Number Transferred out	98	48	17	21	29	28	197	241	549	340

*** 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 of maternal and newborn neonatal health and care. Generally, the proportion of neonatal deaths is expected to increase as countries continue to witness a decline in child mortality.

3.2.9 Intensive Care Unit

Out of the 5 secondary care institutions belonging to the Provincial Health Department, DGH Matale and DGH Nawalapitiyaand DBH Dambulla had Intensive Care facilities in 2013. ICU in DBH Dambulla was open in middle year 2013.

DGH Nawalapitiya, DGH Matale, and BH Dambulla have intensive care facilities and BH Dickoya, BH Theldeniya will start intensive care facilities when newly build hospitals start its operation in 2016. Having HDU facilities in secondary care hospital wards reduce the demand for intensive care facilities. Which will reduces the cost of providing services for the ill patient, therefore central province health department take steps to provide HDU facilities for secondary care hospital.

Table 3.14 ICU statistics in secondary care institutions in Central Province and line ministry In 2013 to 2014

	DGH Matale		DGH Nawalapitiya		BH Dambulla		BH Gampola		GH Nuwaraeliya	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
No. of ICU beds	05	05	04	04	03	03	02	02	04	05
ICU admissions	368	380	287	525	77	161	121	101	340	294
ICU deaths	87	104	117	100	19	49	26	35	87	75
ICU death rate	23.6%	27.3%	40.8%	19.04%	24.6%	13.8%	21.49%	34.6%	25.58%	25.51%

3.2.10 Hospital deaths

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

Table 3.15 Hospital deaths which occurred in secondary care institutions under Central Provincial Health Department and line ministry

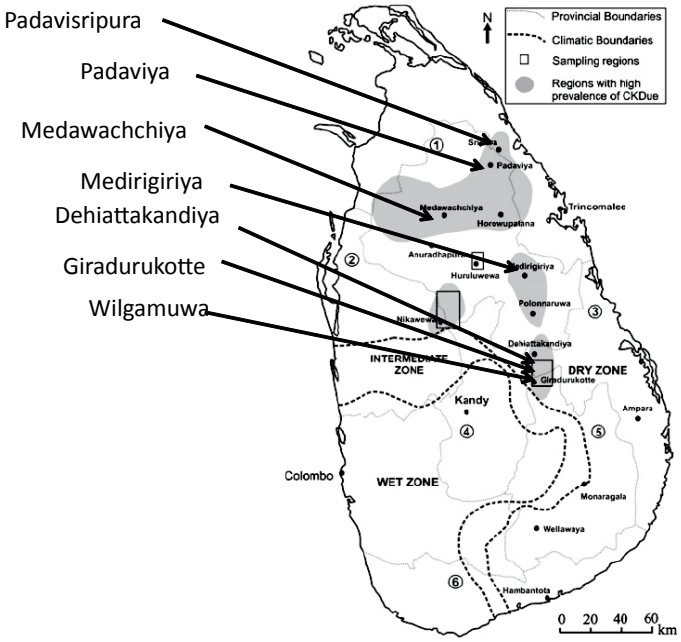
		DGH Nawalapitiya	DGH Matale	DBH Dambulla	DBH Rikillagaskada	DBH Dickoya	DBH Theldeniya	BH Gampola	GH Nuwaraeliya
Inpatients deaths	**2013**	322	541	563	80	154	34	336	496
	2014	371	552	355	91	180	36	304	558
No of Deaths on admission (OPD Deaths)	**2013**	82	103	151	30	37	10	124	92
	2014	00	126	87	00	00	30	114	65
Deaths within 48 hours of admission	**2013**	35	283	228	52	90	26	183	53
	2014	30	235	233	64	86	15	171	71
Still births	**2013**	48	43	30	04	24		18	50
	2014	45	19	24	00	17	00	26	45
Maternal deaths	**2013**	82	00	02	00	00	00	01	05
	2014	00	00	00	00	00	00	00	00

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.

3.3 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, Maraka from where a significant number of patients have been identified.

CKDu High prevalent areas



Following activities are conducted at ploriplaral nephrology clinic.

- Screening of the people for CKDu
- Follow up treatment at Renal Clinic, DH Hettipola
- Investigation facilities
- US scan facilities

The department of central province has developed a system to identify people who have since of CKDu inflow up in the enrolment of the Nephrology Unit in teaching hospital Kandy. This programme of guide by the ministry of health. Under the programme a consultant nephrologists TH Kandy is visiting Peripheral clinic located at Hettipola hospital on every Friday to see new referrals and follow up patients. This programme is well strength by medical officers of health of the area and specially train nursing officers.

3.3.1 Facilitating Research

Although many agencies talk on CKDU the exact and etiology factor or factors not yon yet. There for it is essential to identify the etiology factors CKDU and plan preventive measures accordingly. The department of the central province takes all possible affairs to conduct and facilities any research or studies to indentify etiology of CKDU.

3.4 Private Health Regulatory Council

Private Medical Institutions (Registration) Act was drafted in 2006, when it became necessary for the Government, in the 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 Institution registration was made a requirement by law and all Provincial Directors of Health Services were 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 Service Regulatory Council shall provide registration to the institutions or premises to which the relevant application relates satisfies the criteria prescribed by the regulatory Council.

Accordingly, by 2014, 20 private hospitals based in the urban areas of the province had received registration under the Act. Additionally there are 6 medical specialists, 55 general practitioners and 11 dental surgeons providing full time care in the private sector with a relatively larger proportion of Government employed medical specialists, medical officers and dental surgeons doing the same on a part time basis. Complementing these services are 31 medical Centers and 71 private medical laboratories within the province.

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 supporter care services such as private laboratories .

3.5 Tertiary care services

Health care institutions central province working with all tertiary care institutions which are operated under the line ministry. There are three (3) tertiary care institutions located in central province. Namely TH Kandy, TH Peradeniya, and Sirimavo Bandaranayake Children hospital. Service provided by those institutions have been shown on table below.

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	90	18	05
No. of beds	2,272	921	234
OPD attendance	384,693	407,721	203,725
Admissions	200,414	75,318	15,777
Bed occupancy rate	91.5	82	56.2
Total No.of Inpatient days	759,182	274,458	48,059
Total No.of Deaths	3,137	1,024	141
Total No of patient Transferred out	1,901	2,267	326
Minor operation done	30,107	7,112	1,544
Major operation done	24,229	10,065	1,194
Total No of Clinics Held	11,470	3,567	2,341
Total No of Clinics Attendance	918,834	311,376	103,405

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

3.5.1 Maternity Statistics

Table 3.17 Maternity Statistics

Type of Indicator	TH Kandy	TH Peradeniya	SBCH Peradeniya
No.of admissions to Obstetric unit	14,859	15,259	NR
Daily average of maternal admissions	41	41.8	
Total no.of deliveries Single delivery Twin delivery Triplet delivery Other (4 babies)	11,523 11,383 136 04 -	7,509 7,413 93 3 -	
Mode of delivery Spontaneous delivery Forcep delivery Breech delivery Vacuum extractions/others LSCS	 6,767 259 83 07 4,407	 4,163 72 120 38 3,116	
Total no. of live births Total no. of still births *Still birth rate (per 1000 live births)*	11,558 109 9.4	7,334 53 6.8	
Total live Births by birth weight >2500g <2500g *Percentage of low birth weight babies*	 2,072 9,486	 1,299 6,035	
Early neonatal deaths* *Early neonatal death rate* *(per 1000 Live Births)*	80 0.6	-	35
Maternal Deaths *Maternal death rate* *(per 100,000 Live Births)*	15 129	05 68.1	
Manual removal of placenta Postpartum hemorrhage	78	16	

3.5.2 Laboratory Investigations

Table 3.18 Laboratory Investigations

Test category	TH Kandy 2012	TH Peradeniya	SBCH Peradeniya	By secondary care institutions central province
Biochemistry	982,235		74,340	470,426
Microbiology	50,569		33,175	
Hematology	312,046		72,318	918,674
Other	92,334		43,216	190,936
Total	**1,437,184**	**728,036**	**223,049**	**1,580,036**
Total No of MLT	61	26	09	32
No of test per MLT per year	23,560	28,001	24,783	49,376

3.5.3 Radiology Investigations

Table 3.19 Radiology Investigations

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

	TH Kandy 2012	TH Peradeniya	SBCH Peradeniya	By secondary care institutions central province
No of OPD & clinic cases	16,329	9,202		23,446
No of Ward Cases	127,800	23,463	14,681	5,820
No. of other Investigations			175	1,285
Contrast Studies				
Plain X rays		35,669		96,039
Ultra Sound Scans	22,328	11,800	2,837	
CT Scans	30,789	00	3,737	
Imaging Magnetic Resonance	5,150	00	4,738	
Mammograms				
Interventional Radiology				
Total	**153,443**	**32,665**	**22,145**	**119,797**
No of Radiographers	38	14	08	12
No. of tests per Radiographer per year	4,037	2,333	2,768	9,983

3.5.4 E.C.G. services

Table 3.20 E.C.G. services

	TH Kandy	TH Peradeniya	SBCH Peradeniya	By secondary care institutions central province
OPD	26,401	8,322	236	17,432
Clinics		3,664	686	11,457
Wards	88,092	29,834	461	101,478
Total	**114,493**	**61,359**	**1,383**	**39,367**
No. of ECG recordists	12	05	02	10
No. of ECG per recordist per year	9,541	12,271	691	3,936

*** TH Peradeniya Provides ECG Facilities for SBCH Peradeniya.**

3.5.5 Blood bank services

Table 3.21 Blood bank services

	TH Kandy 2012	TH Peradeniya	By secondary care institutions central province
Blood Balance at the beginning of the year	1,056		
Total No.of Blood taken from Donors	22,214		5,843
No. of blood pints taken from other Blood banks	7,868		4,934
No. of blood pints issued	28,174	NDR	9,016
No. of blood pints discarded			2,204
Blood balance at the end of the year	2,245		

*** No blood bank Services available at SBCH Peradeniya.**

3.5.6 Physiotherapy services

Table 3.22 Physiotherapy services

	TH Kandy	TH Peradeniya	SBCH Peradeniya	By secondary care institutions central province
No of OPD Patients	46,089		901	
No of Clinics Patients			00	
No.of Wards Patients	62,965		2,471	
No of ICU Patients			914	
Total No of patients treated	109,054	464,757	4,286	39,246
No. of Physiotherapists	20	08	02	07
Patients per Physiotherapist per year	54,527	58,094	2,143	5,606

3.5.7 Special clinics held

Table 3.23 Special clinics held

	TH Kandy	TH Peradeniya	SBCH Peradeniya	By secondary care institutions central province
Medical	300	462	195	707
Surgical	287	442	194	431
Antenatal	144	229		
Gynecology and Family Planning	528	378		515
E.N.T	346	00	291	280
Eye	687	00	68	607
Pediatric	245	519		569
Psychiatric	198	502	50	306
Dental and Maxillofacial (OMF)	336	296	295	1,653
Neonatal Clinic		200	193	
Well baby			50	
Child Guidance Clinic			50	
Cardiology	733		186	
Chest	113		00	
STD/AIDS	00		00	
Diabetic	385	46	00	
Hematology			86	
Other	6,551	430	00	1,608
Total No.of Clinics held	**11,470**	**3,567**	**2,341**	**6,676**

3.5.8 Surgeries

Table 3.24 Surgeries

Specialty	TH Kandy		TH Peradeniya		SBCH Peradeniya	
	Major	**Minor**	**Major**	**Minor**	**Major**	**Minor**
General Surgery	3,729	16,364	2,950	2,852	556	811
Obstetric Gynecology	6,297	9,100	1,060	1,545		
EYE	6,815	9,130				
Dental and Maxillofacial	153	1,442	710	672	04	18
E.N.T.	1,051	5,957			634	715
Orthopaedic						
Urology						
Neuro Surgery						
Cancer Surgery						
Paediatric Surgery						
Cardiothoracic						
Plastic Surgery						
Gastrointestinal						
Nephrology Surgery						
Others	6,184	14,488	5,345	2,043		
Total	**24,929**	**60,270**	**10,065**	**7,112**	**1,194**	**1,544**

3.5.9 Premature Baby Unit (PBU)

Table 3.25 Premature Baby Unit (PBU)

		TH Peradeniya	DBH Gampola	DGH Nuwara Eliya
1	Admissions	1,011	911	643
2	Maturity < 28 weeks 28-36 weeks > 36 weeks	 36 505 470	 09 187 452	 24 206 413
3	Weight < 1000gr. 1000 - 1490 g 1500 – 2490 g >2500gr.	 63 147 391 410	 07 33 206 402	 22 98 256 267
4	Reason for admission Birth Asphyxia Meconium Aspiration Pre Term IUGR Grunting Poor Sucking/lethargy Gestational DM Congen. Abnormality Other	 06 42 53 48 35 08 00 48 771	 29 10 88 19 25 40 32 26 379	 19 22 125 16 54 32 10 27 338
5	*Total Number of NND	47	16	64
6	*Number of early NND (Deaths within the first 7 days of life)	41	16	37
7	Cause of Death Prematurity Birth Asphyxia +Septicemia Congen. Abnormality Other	 13 14 10	 06 04 06	 29 16 19
8	Number Discharged	976	197	549
9	Number Transferred out	29	45	18

Includes Deaths of Transferred out babies
NND - Neonatal Death 22.47

3.5.10 ICU care

Table 3.26 ICU statistics

	TH Kandy	TH Peradeniya	SBCH Peradeniya
ICU admissions	4387	895	662
ICU deaths	580	282	133
ICU death rate	13.2	32.0	20.7

3.5.11. Hospital deaths

Table 3.27 Hospital deaths

	TH Kandy	TH Peradeniya	SBCH Peradeniya
Inpatients deaths	3137	1024	141
No of Deaths on admission (OPD Deaths)	244	85	02
Deaths within 48 hours of admission	1208	463	34
Deaths after 48 hours of admission	1929	561	107
Still births	109	53	-
Infant deaths			-
Maternal deaths	15	05	-

3.5.12. Emergency Treatment Unit

Table 3.28 Emergency Treatment Unit

	TH Kandy	TH Peradeniya	SBCH Peradeniya
No.of Patients treated in the ETU	31341	20437	138
No. of Transfers	27716	774	-
Total No.of ETU Deaths (Within 24 hours)	138	86	-

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 such as non communicable diseases. However, morbidity data is available for the patients taking treatment as inpatients from government hospitals. The data on outpatient attendance is not routinely collected except for the special surveys. Apart from these, both inpatient and outpatient data in patients seeking treatment from 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

As described earlier, information on inpatient morbidity and mortality of government health institutions are gathered through IMMR. These data are collected by individual hospitals and quarterly returns are sent to 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. To overcome this problem, curative care institution of the province has started e-IMMR parallel to the national programme.

The summary of Provincial and District data on leading causes of hospitalizations and hospital deaths (including line ministry institutions) during year 2013 are shown in tables 4.1 and 4.2. As described earlier these data are analyzed by the Medical statistics unit, Colombo and at the moment these data are available only for the year 2013.

According to Table 4.1, it is evident that persons encountering health services for Traumatic injuries ranked top in hospital morbidity in all three districts. These figures provide clear evidence that a large number of patients are admitted to hospitals for injuries. This should be an important factor for policy makers to think of an alternative for these types of patients.

Apart from that, Symptoms, signs and abnormal clinical and laboratory findings are also ranked as number 2 in hospital morbidity (except in Nuwaraeliya district).

Ischemic heart disease has ranked in the top list of the hospital mortality in this Province.

Table 4.1 Leading causes of live discharges in Central Province - 2013

Central Province				Kandy			
Disease and ICD Code		No.	Rank	Disease and ICD Code		No.	Rank
Traumatic injuries	(S00-T19, W54)	109479	1	Traumatic injuries	(S00-T19, W54)	62292	1
Signs, symptoms and abnormal clinical findings	(R00-R99)	74341	2	Signs, symptoms and abnormal clinical findings	(R00-R99)	49179	2
Diseases of the resp. system exclu...	(J20-J22, J40-J98)	58469	3	Diseases of the resp. system exclu...	(J20-J22, J40-J98)	35246	3
Diseases of the gastrointestinal tract	(K20-K92)	37992	4	Diseases of the gastrointestinal tract	(K20-K92)	23198	4
Other obstetric conditions		35502	5	Viral diseases	(A80-B34,P35.0)	22510	5
Viral diseases	(A80-B34,P35.0)	33672	6	Other obstetric conditions		20289	6
Diseases of the urinary system	(N00-N39)	25673	7	Diseases of the urinary system	(N00-N39)	17734	7
Disorders of the musculoskeletal system	(M00-M99)	20811	8	Disorders of the musculoskeletal system	(M00-M99)	13477	8
Diseases of the eye and adnexa	(H00-H59)	20221	9	Diseases of skin and subcutaneous tissue	(L00-L08,L10-L98)	11414	9
Diseases of skin ad subcutaneous tissue	(L00-L08,L10-L98)	19411	10	Diseases of the eye and adnexa	(H00-H59)	10889	10
Other dise. of the upper respir. tract	(J00-J06,J30-J39)	18423	11	Neoplasms	(C00-D48)	9997	11
Intestinal infectious diseases	(A00-A09)	17447	12	Intestinal infectious diseases	(A00-A09)	9852	12
Hypertensive diseases	(I10-I15)	15937	13	Other dise. of the upper respir. tract	(J00-J06,J30-J39)	9477	13
Ischaemic heart disease	(I20-I25)	12103	14	Hypertensive diseases	(I10-I15)	9104	14
Diabetes mellitus	(E10-E14)	11764	15	Ischaemic heart disease	(I20-I25)	7199	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)	25318	1	Traumatic injuries	(S00-T19, W54)	21869	1
Signs, symptoms and abnormal clinical findings	(R00-R99)	14900	2	Diseases of the resp. system exclu...	(J20-J22, J40-J98)	11349	2
Diseases of the respiratory system exclu...	(J20-J22, J40-J98)	11874	3	Signs, symptoms and abnormal clinical findings	(R00-R99)	10262	3
Diseases of the eye and adnexa	(H00-H59)	7901	4	Other obstetric conditions		7811	4
Diseases of the gastrointestinal tract	(K20-K92)	7622	5	Diseases of the gastrointestinal tract	(K20-K92)	7172	5
Other obstetric conditions		7402	6	Viral diseases	(A80-B34,P35.0)	5509	6
Viral diseases	(A80-B34,P35.0)	5653	7	Intestinal infectious diseases	(A00-A09)	4319	7
Diseases of the urinary system	(N00-N39)	4799	8	Other dise. of the upper respir. tract	(J00-J06, J30-J39)	4242	8
Other diseases of the upper respiratory tract	(J00-J06, J30-J39)	4704	9	Disorders of the musculoskeletal system	(M00-M99)	3660	9
Diseases of skin and subcutaneous tissue	(L00-L08, L10-L98)	4441	10	Hypertensive diseases	(I10-I15)	3631	10
Disorders of the musculoskeletal system	(M00-M99)	3674	11	Diseases of skin and subcutaneous tissue	(L00-L08, L10-L98)	3556	11
Intestinal infectious diseases	(A00-A09)	3276	12	Diseases of the urinary system	(N00-N39)	3140	12
Hypertensive diseases	(I10-I15)	3202	13	Ischaemic heart disease	(I20-I25)	2420	13
Disorder of female genito-urinary system	(N70-N98, N99.2, N99.3)	2485	14	Diabetes mellitus	(E10-E14)	2418	14
Ischaemic heart disease	(I20-I25)	2484	15	Tox. effe. of ot. sub. oth tha..	(T36-T59, T61-T62, T63.1-T65)	2204	15

Source - Medical statistical unit, Colombo

Table 4.2 Leading causes of hospital deaths in Central Province - 2013

Central Province				Kandy			
Disease and ICD Code		No.	Rank	Disease and ICD Code		No.	Rank
Ischaemic heart disease	(I20-I25)	731	1	Neoplasms	(C00-D48)	513	1
Neoplasms	(C00-D48)	603	2	Signs, symptoms and abnormal clinical findings	(R00-R99)	472	2
Cerebrovascular disease	(I60-I69)	557	3	Ischaemic heart disease	(I20-I25)	463	3
Signs, symptoms and abnormal clinical findings	(R00-R99)	511	4	Cerebrovascular disease	(I60-I69)	431	4
Other heart diseases	(I26-I51)	499	5	Diseases of the resp. system exclu...	(J20-J22, J40-J98)	279	5
Diseases of the resp. system exclu...	(J20-J22, J40-J98)	446	6	Other heart diseases	(I26-I51)	264	6
Pneumonia	(J12-J18)	307	7	Other bacterial diseases	(A20-A49)	220	7
Other bacterial diseases	(A20-A49)	282	8	Pneumonia	(J12-J18)	202	8
Diseases of the urinary system	(N00-N39)	260	9	Diseases of the urinary system	(N00-N39)	196	9
Diseases of the gastrointestinal tract	(K20-K92)	214	10	Traumatic injuries	(S00-T19, W54)	155	10
Traumatic injuries	(S00-T19, W54)	187	11	Diseases of the gastrointestional tract	(K20-K92)	151	11
Hypertensive diseases	(I10-I15)	116	12	Hypertensive diseases	(I10-I15)	87	12
Diabetes mellitus	(E10-E14)	111	13	Diabetes mellitus	(E10-E14)	83	13
Other conditions originating in the perinatal period	(P00-P04, P08-P96)	107	14	Other conditions originating in the perinatal period	(P00-P04, P08-P96)	82	14
Diseases of the nervous system	(G00-G98)	101	15	Diseases of the nervous system	(G00-G98)	80	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)	164	1	Other heart diseases	(I26-I51)	119	1
Other heart diseases	(I26-I51)	116	2	Ischaemic heart disease	(I20-I25)	104	2
Diseases of the resp. system exclu...	(J20-J22, J40-J98)	82	3	Diseases of the resp. system exclu...	(J20-J22, J40-J98)	85	3
Cerebroavascular disease	(I60-I69)	74	4	Cerebroavascular disease	(I60-I69)	52	4
Pneumonia	(J12-J18)	59	5	Pneumonia	(J12-J18)	46	5
Neoplasms	(C00-D48)	48	6	Neoplasms	(C00-D48)	42	6
Diseases of the urinary system	(N00-N39)	43	7	Other bacterial diseases	(A20-A49)	28	7
Diseases of the gastrointestional tract	(K20-K92)	39	8	Diseases of the gastrointestional tract	(K20-K92)	24	8
Other bacterial diseases	(A20-A49)	34	9	Diseases of the urinary system	(N00-N39)	21	9
Slow fetal growth, fetal malnutrition and...	(P05-P07)	34	10	Signs, symptoms and abnormal clinical findings	(R00-R99)	21	10
Traumatic injuries	(S00-T19, W54)	28	11	Hypertensive diseases	(I10-I15)	15	11
Other conditions originating in the perinatal period	(P00-P04, P08-P96)	20	12	Diabetes mellitus	(E10-E14)	14	12
Signs, symptoms and abnormal clinical findings	(R00-R99)	18	13	Diseases of the nervous system	(G00-G98)	12	13
Diabetes mellitus	(E10-E14)	14	14	Burns and corrosion	(T20-T32)	10	14
Hypertensive diseases	(I10-I15)	14	15	Toxic effects of pesticides	(T60.0, T60.1-T60.9)	10	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 and manageable populations are covered within each MOH area. The structure and system ensures that all people receive all the levels of disease prevention including primodial, primary, secondary and tertiary prevention. The department has prepared a new cadre proposal according to national norms to meet the challenges ahead such as epidemiological transition, demographic transition and emerging and reemerging diseases.

This chapter includes information of activities on Maternal and Child health , School Health, Family Planning, Well Women Services, Epidemiological Services, Environment Health, Expanded Program 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 and types of clinics during 2013 - 2014

	Kandy		Matale		NuwaraEliya		Total	
	2013	2014	2013	2014	2013	2014	2013	2014
Estimated Population*	1,384,000	1,464,217	489,000	491,122	719,000	719,000	2,592,000	2,674,339
Estimated eligible families	232,387	234,274	77,948	78,579	130,944	130,944	441,279	443,797
Estimated number of births	26,870	26,922	9,012	9,675	15,106	16,952	50,988	53,549
Number child welfare clinics (single and combined)	40	40	-	-	188	41	228	81
Number poly clinic	235	183	147	147	147	147	529	477
Number field weighing posts	2,052	2,052	970	943	1,268	1,268	4,290	4,263
Number IUCD clinics	61	81	45	54	41	41	147	176

*** Department of Census and Statistics**

Note: Crude Birth Rate taken as 18.5 births/ 1000 pop (2013) /19.1births/ 1000 pop(2014)

In 2014 maternal and child health services had been provided through 81 child welfare clinics and 477 poly clinics.

Table 5.2 Ante-natal care Services Provided in the Central Province

Indicator	2013		2014	
	No.	%	No.	%
Eligible families under care	464,859	105.34	468,586	105.58
Pregnant mothers registered by PHMM	52,517	102.9	48,379	90.34
Pregnant mothers registered at home before 8 weeks POA	37,477	71.4	33,618	69.48
Pregnant mothers registered at home before 12 weeks POA	48,753	92.8	18,874	39.01
Pregnant mothers under care	28,027	106.7	26,279	108.6
Prime registered	16,498	31.4	14,969	44.53
Pregnant mothers tested for VDRL at delivery	43,941	99.8	40,762	99.15
Pregnant mothers blood grouping done at delivery	43,970	99.8	40,782	99.19
Pregnant mothers protected with Rubella	37,053	84.1	47,853	116.39
Teenage pregnancies registered	2,507	4.8	2,439	5.04
Pregnant mothers with BMI < 18.5 kg/m²	9,507	18.1	8,487	17.5
Pregnant mothers with BMI > 25.0 kg/m²	7,033	13.4	7,553	15.6

The reported data in both years indicate that 100% of the eligible families were under care of the Public Health Midwives. Public Health Midwives have registered 48,379 pregnant mothers during year 2014 which is 90.34% of the estimated figure. Pregnant mothers have been registered at home before 8 weeks of gestationis 69.48% in 2014

The registration of a higher percentage of pregnant mothers before 8 weeks shows that the both Public Health Midwives and also families are aware of the importance of registering pregnancy early. Of the pregnant mothers registered 5.04% were teenage mothers. Service indicators such as VDRL coverage, Blood Grouping & Rh, Rubella were reported as 99.15%, 99.19% and 116.39% respectively. The gradual increase in these service indicators show that the PHC teams are even targeting the hard to reach pregnant mothers.In 201415.6% of pregnant mothers had a higher BMI value (BMI >25.0kg) compared to 13.4% in 2013.

Table 5.3 Results of natal Care provided in the Central Province

Indicator	2013		2014	
	Number	%	Number	%
Deliveries reported by PHM (hospital and field)	44,038	86.3	41,113	80.49
Home deliveries	85	0.2	63	0.15
Home deliveries receiving trained assistance	60	70.5	39	61.9
Live births reported	43,803		40,335	
Multiple births	744	1.6	615	1.52
Still Births reported *	335	7.6	282	6.99
Abortions reported *	3,378	77.1	3,331	82.58
Low birth weight	6,992	15.9	5,678	14.08

*** Per 1000 LB**

PHMM reported a total number of 41,113 deliveries during 2014 which was 80.49% of the estimated number 53549. The numbers of home deliveries have decreased from60 in 2013 to 39 in 2014. Further efforts should be made to discourage all home deliveries while investigating the causes for home deliveries in the Central Province to take preventive measures. Of the single live births 14.08% were low birth weight (LBW, birth weight less than 2500gr). 3331 abortions were reported from the Central Province in 2014 which warrants the need of unmint need of family planning. The gradual improvement of reporting and closer follow up is seen on the reporting of these vital events at MOH, District and Provincial levels.

Table 5.4 Post partum care provided by the Public health midwives in the Central Province

Indicator	2013		2014	
	Number	%	Number	%
At least 1 visit during first 10 days (of reported deliveries)	41,288	93.6	36,931	90.6
At least 1 visit during first 10 days (of estimated deliveries)	41,288	80.9	36,931	69
Post partum care around 42 day(of reported deliveries)	34,806	84.3	29,874	72.7

In 2014 the number of post partum visits done was 69% of the estimated deliveries during the first 10 days. The post partum visits reported by PHM around the 42nd days has decreased to 72.7% in 2014 compared to 84.3% in 2013.

Table 5.5 Post partum maternal morbidities reported in the Central Province

Indicator	2013		2014	
	Number	%	Number	%
Fever	385	10.8	224	9.94
Offensive discharge	39	1.1		
Excessive bleeding	175	4.9		
Dysuria	114	3.2		
Infected/ Separated Episiotomy	1008	28.3	447	19.83
Foreign material in vagina	49	1.4	48	2.13
Infected caesarian section	700	19.6	616	27.33
Deep vein thrombosis	19	0.5	22	1
Post partum psychosis	83	2.3	65	2.88
Engorged Breast	606	17	441	19.57
Breast abscess	107	3	107	4.74
Cracked nipple	272	7.6	264	11.7
Heart failure	13	0.3	20	0.88
Total	3570	100	2,254	100

Infected Caesarian sectionwas the most common postpartum complication reported by the public health midwives in 2014.

Table 5.6 Infant care provided by Public Health Midwives

Indicator	2013		2014	
	Number	%	Number	%
Infants registered by PHMM	46,119	90.5	46,535	86.9
Infant deaths reported by PHMM	464	10.1	389	8.35
Infant deaths investigated by PH staff	453	97.6	332	85.3
Neonatal Deaths reported	295	63.6	204	52.4
Post neonatal deaths reported	107	2.4	120	
Perinatal deaths reported*	584	13.3	469	11.4
Child deaths reported **	38		46	

*** per 1000 LB** **** per 1000 children 13-60 month**

In 2014 PHMM have registered 86.9% of the estimated infants for routine care as compared to 90.5% in 2013. Reporting of infant deaths has dropped in 2014 compared to 2013. Out of the infant deaths reported, 85.3% has been investigated by PH staff. 52.4% of the infant deaths reported to have occurred during the neonatal period in 2014. The Perinatal Mortality Rate reported from the field was 11.4 per 1000LB.

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

Indicator	2013		2014	
	Number	%	Number	%
Average number of infants weighed monthly	32,465	70.4	24,204	52
Infants weighing below – 2Sd	2,774	8.5	2,572	10.6
Infants weighed below – 3Sd (severe under weight)	587	1.8	648	2.7
Infants weighed over + 2Sd (over weight)	97	0.3	102	0.42
monthly average children weighed 1-2 yrs	31,171	67.6	20,158	43.3
Number of Children 1-2 yrs weighing below -2Sd (moderate under weight)	5,355	17.1	5,697	28.3
Number of Children 1-2 yrs weighing below -3Sd (severe under weight)	1361	4.4	1,420	7
Number of Children 1-2 yrs weighing over + 2Sd (over weight)	396	1.2	128	0.63
Quarterly average of children 2-5 yrs weighed	162,167	117.2	194,952	120.3
Number of children 2-5 yrs weighing below – 2Sd (under weight)	31,272	19.3	87,676	44.97
Number of children 2-5 yrs who weighed below – 3Sd (severe under weight)	7,664	4.7	20,269	10.4
Number of children 2-5 yrs weighed who were above + 2 Sd (over weight)	491	0.3	1,240	0.6

* The calculation based on estimated number of children 2-5yrs under care

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 moderately underweight (below – 2SD), severe under weight (below -3Sd) and also children over weight. 52.0% of the children 1-2 yrs were weighed monthly in 2014which needs to bemarkedly improved if we are to take timely action to prevent growth faltering.

Out of the children 1-2yrsweighed 28.3% were moderately under weight (<-2Sd) while 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 weighedwas44.97%.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 35 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.

During the year 2012 there were 218 maternal deaths notified to the Family Health Bureau through the active surveillance system of which 134 confirmed as maternal deaths. 72 (61%) direct maternal deaths while another 46 (39%) were classified as indirect maternal deaths. The rest were inconclusive. The leading causes of deaths nationally werecardiovascular disease, PPH and sepsis. The national MMR calculated for SL in 2013was 37.7 per 100,000 LB.

Table 5.8 Distribution of causes of maternal deaths in Central Province - 2013

Cause of Death	Kandy	Matale	Nuwaraeliya	Total
Post Partum Hemorrhage (PPH)	1		1	2
Abortion			2	2
Cardiovascular disease	3		2	5
Pregnancy Induced Hypertension (PIH)	1			1
Embolism (Amniotic fluid / Pulmonary)				
Reproductive Sepsis	1		1	2
Sepsis – other (Burn)				
Ante-Partum Hemorrhage				
Ectopic pregnancy				
Respiratory Tract Infections		1		1
Liver disease				
Malignancy (Snake bite)				
Cerebro-vascular disease				
DVT (Accuteruel failure)				
Other medical disorders	2		2	4
Rupture uterus				
Deaths related to Anesthesia				
Miscellaneous causes	1			1
Inconclusive (accident)	1			1
Total	**10**	**1**	**8**	**19**

Leading causes of deaths for maternal deaths in the Central province during year 2013 werecardiovascular diseases, other medical disorders and abortions.

During the past two years the Maternal & Child Morbidity & Mortality Surveillanceunit of the Family Health Bureau has been able to clear the backlog of NMMR. Further conduct of post-mortems has been streamlined, Informative case summaries 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 5.9 Maternal deaths according to classification in 2013

	Kandy	Matale	Nuwara Eliya
Maternal related Deaths notified		1	3
Direct Maternal Deaths	4		2
Indirect Maternal Deaths	2	1	3
Late maternal deaths			
Incidental			
inconclusive			
Estimated Number Births*			
MMR (100,000 LB)	33.1	0	61.1

**** Estimated Births calculated using Provincial CBR 19.1 per 1000 population)***

Fig 5.1 Trends of Maternal Mortality Ratio by District of Central Province 2001 -2013

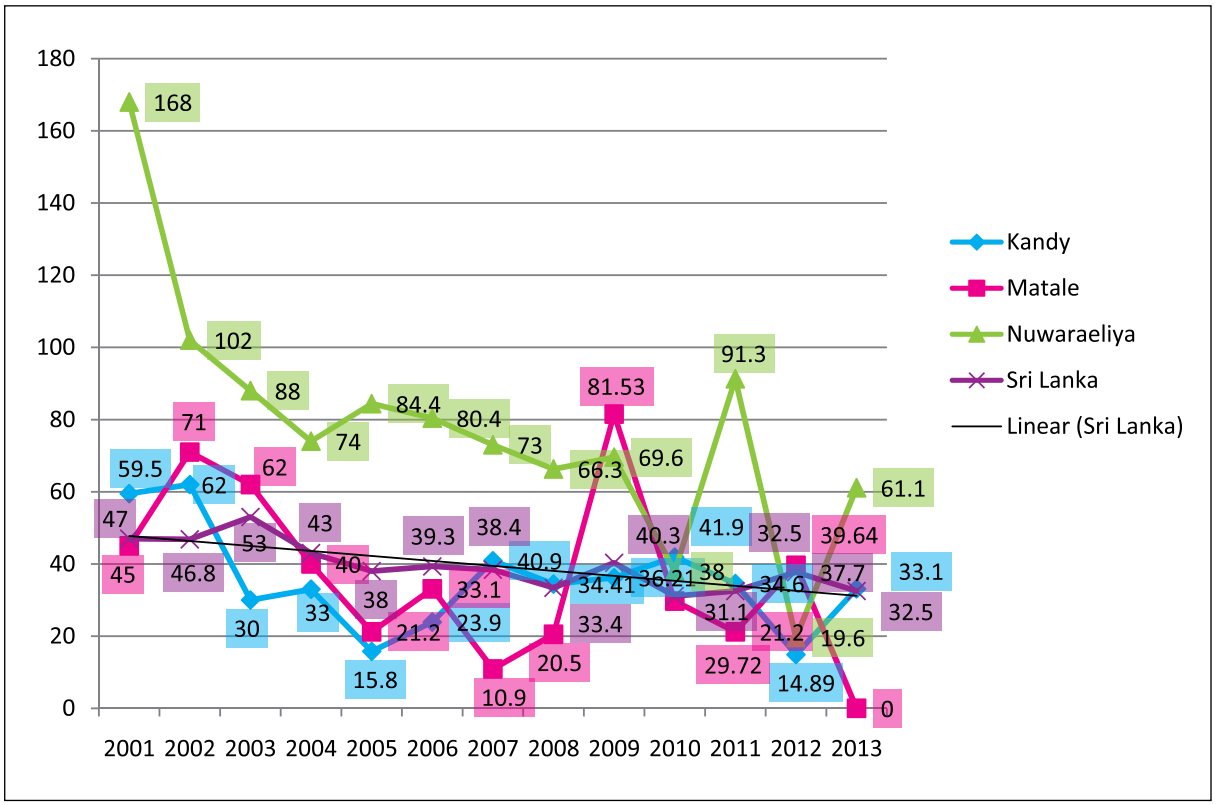
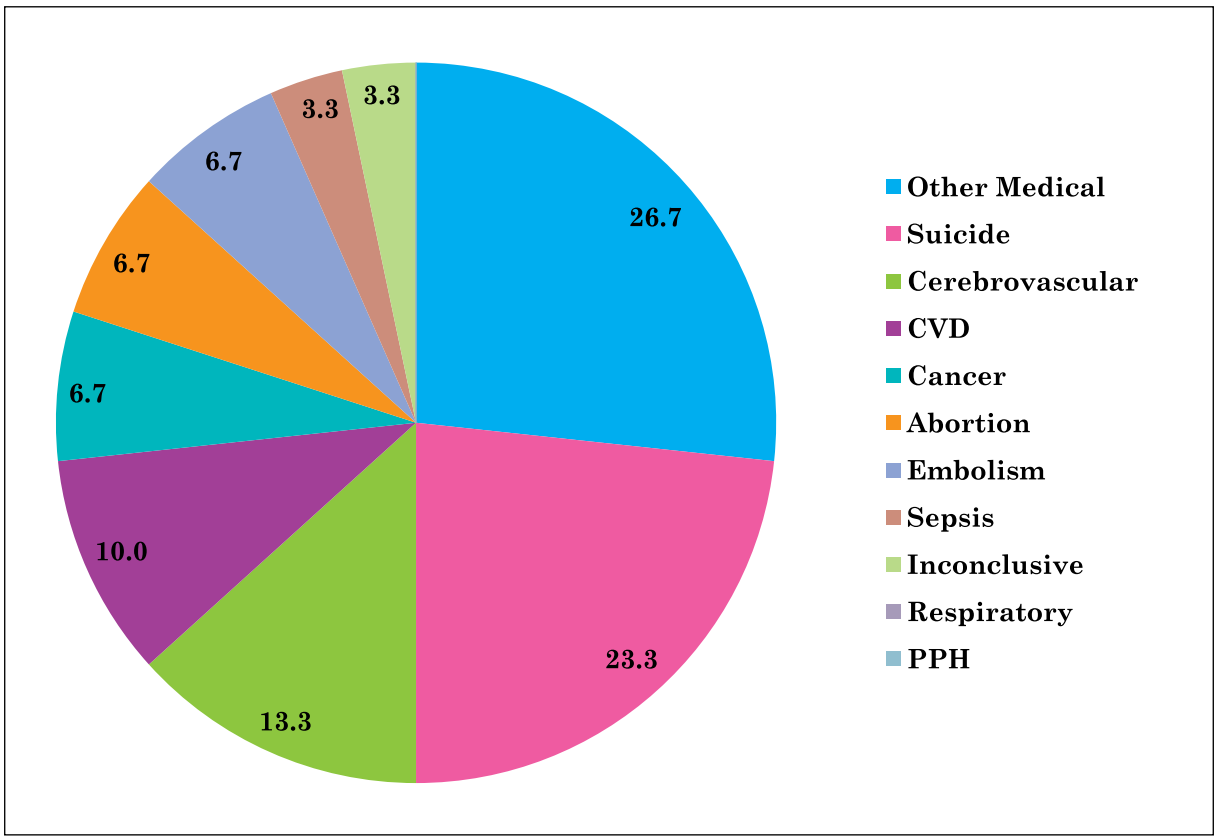


Fig 5.2 Causes of maternal deaths in Central Province – 2013



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. 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 of and correction of health problems, provision of immunization, worm treatment, and micro-nutrients 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 2014 sanitation survey has been completed in 1526 (100.0%) schools in Kandy and Matale and Nuwaraeliya districts. The number of schools with adequate drinking and sanitation facilities were reported as 800 (82.8%) and 702 (72.7%) respectively. The SMI coverage in the Central Province in year 2014 was 94.33%. This high coverage was achieved through the close collaboration and coordination with Ministry of Education.

Table 5.10 School Health Activities in the Central Province

Indicator	2013		2014	
	Number	%	Number	%
Total Number of schools	966		1537	
Total number of schools sanitation survey completed	966	100	1526	99.28
Total number of schools with adequate drinking water facilities	800	82.8	1218	79.24
Total number of schools with adequate sanitation facilities	702	72.7	1,012	65.84
Total number of schools SMI completed	906	93.7	1450	94.33
Number of children enrolled in year 1,4,7,10	107,325		418,459	
Number of children examined in year 1,4,7,10	96,926	90.3	185,878	92.4
Stunted	7,199	7.4	9,579	2.3
Wasted	16,145	16.7	31,190	7.45
Over weight	2,522	2.6	4,997	1.19
Total number of defects identified during SMI	77,267		78,373	
No. school health clubs functioning	307	31.8	524	33.57
Number of Health promoting schools	480	49.7	544	35.39

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 35 yrs) during the past few years. The performance reported at WWCs in 2013 and 2014 is given in the table below.

Table 5.11 Performance in Well Women Clinics in the Central Province

Indicator	2013		2014	
	Number	%	Number	%
Total clinic sessions held	1364		1,224	
First visits to clinic age under 35 yrs	1976	7.6	1,638	6.1
First visits to clinic age 35 yrs	9354	36.1	9,487	35.5
First visits to clinic age over 35 yrs	7214	27.8	8,693	32.5
No. of women subjected to breast examination	19240	103.7	19,149	103.3
Breast abnormalities detected	340	1.7	222	1.15
Number of women subjected to cervical visualization	18861	101.7	18,952	102.2
Number Pap smear taken	18034	97.2	17,666	95.3
Number reports received	14808	82.1	10,384	58.78
Cervical smears reported as CIN positive	7	0.05	3	1.8
LSIL			28	0.04
HSIL			14	
Diabetes mellitus detected	40	0.21	274	1.55
Hypertension detected	14	0.08	455	2.5

**** Incidence per 100 women examined***

The Well Women clinic services are still to be improved to reach national target coverage of 80% of the 35 year cohort. The First visit to clinic age at 35 years cohort is 35.5% which needs further improvement Every effort should be taken in 2015 to make sure that at least the cohort of women aged 35 years are all examined in the WWCs through active outreach services with giving targets at MOH level to PHMS. All district and divisional programme managers should ensure that special attention be given in 2014 to strengthen the well women programme.

5.4 Family Planning

During 2014 a total of 14,250 new acceptors were recruited. It is higher than the new acceptors recorded in 2013. Temporary methods accounted for 73.8% and a increase of over 100% was seen in the number of permanent methods in 2012 as compared to 2011. This was achieved by the proactive action by the Obstetric departments in the secondary and tertiary care institutes to do sterilizations despite various odds and also the NGOs supporting special FP programmes in the estate sector. This needs to be further strengthened and services made available to all those families requiring permanent methods of family planning. The distribution pattern of new acceptors is given in the table below.

Table 5.12 Family Planning new acceptors

Year	New acceptors for IUCD	New acceptors for injectable	New acceptors for oral pills	New acceptors for Tubectomy	New acceptors for Norplant	Total New acceptors
2005	4825	16873	5754	184	Nil	27636
2006	5169	15973	5634	697	Nil	27473
2007	7774	13647	5841	702	Nil	27964
2008	7322	14777	6057	2370	3112	33638
2009	5988	14692	5445	2401	2608	31134
2010	5812	14940	6858	4906	1006	33522
2011	5,787	16,780	6,786	2,399	2,319	34,071
2012	5,390	7,413	10216	3855	1,745	28,619
2013	6,470	7,481	7,558	3,531	5,143	30,183
2014	2776	2650	4005	1926	2893	14,250

*** Due to temporary suspension of use**

Total number of new acceptors for modern methods markedly reduced in 2014 compared to 2013 due to temporary suspension of DMPA. But number of new acceptors for implants has increased markedly. Hence it is identified the need of training for Medical Officers in the Peripheral institutions on modern family planning method.

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). It is important that all MOHs should ensure that the weekly return is sent on time while also visiting each of the hospitals in the area and all GPs to assist in increasing notification. The number of cases notified in 2012, 2013 and 2014 for the selected Notifiable Diseases in the Central Province is given below. Out of the notifications, majority of the cases reported were Dengue Fever, Leptospirosis and Water Borne Diseases.

Table 5.13 No of cases notified during 2012-2014

	2012		2013		2014	
	Number	Incidence per 100,000 population	Number	Incidence per 100,000 population	Number	Incidence per 100,000 population
Dengue Fever	3328	137.6	2427	87.6	3171	122.4
Dysentery	453	18.7	421	15.2	441	17.0
Encephalitis	12	0.5	110	4.0	12	0.5
Enteric Fever	67	2.8	63	2.3	82	3.2
Food Poisoning	121	5.0	247	8.9	111	4.3
Leptospirosis	171	7.1	206	7.4	154	5.9
Typhus Fever	194	8.1	160	5.8	145	5.6
Viral Hepatitis	171	7.9	217	7.8	408	15.7

Source: WER

5.5.1 Surveillance of Leptospirosis

Table 5.14 Leptospirosis cases in the Central Province from 2007-2014

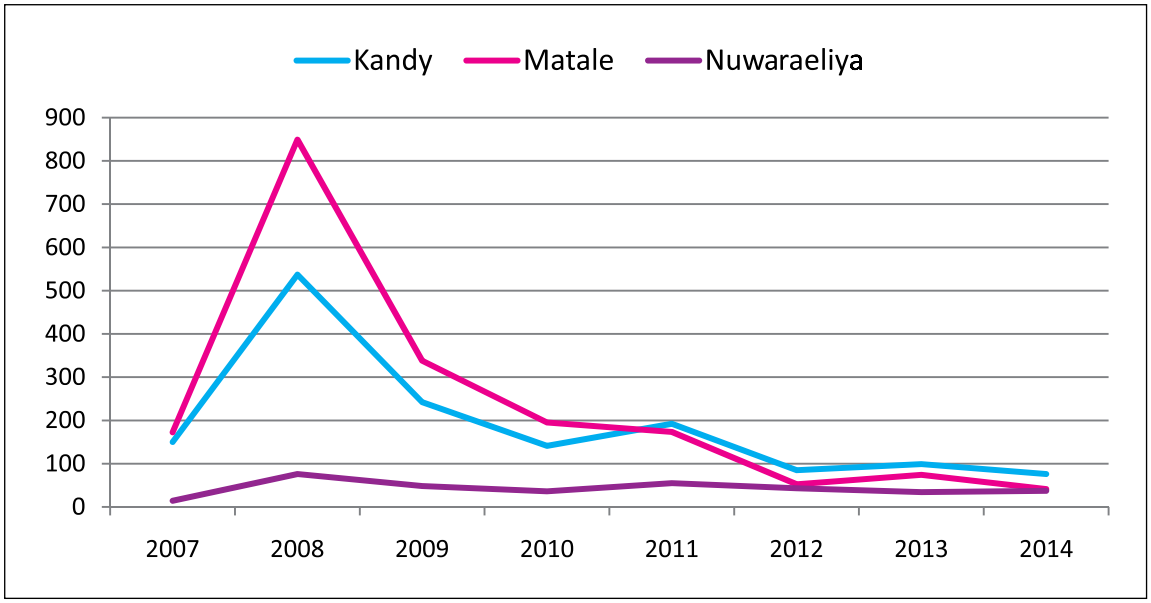
Year	Kandy	Matale	Nuweraeliya
2007	150	172	14
2008	537	849	76
2009	242	338	48
2010	141	195	36
2011	192	173	55
2012	85	52	43
2013	99	74	34
2014	76	41	37

Table 5.14 shows the number of Leptospirosis cases in Kandy, Matale and Nuwaraeliya districts from 2007-2014. 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. The total number of leptospirosis cases notified in Sri Lanka has also shown marked decline during year 2012, from 6689 cases in year 2011 to 2663 cases in year 2012. But, the number of notifications has been increased to 4276 in year 2013 and again decreased to 3214 in 2014.

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 2007-2014 in the Central Province



The implementation of the action plans with the support of 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 5.15 Enteric Fever cases in the Central Province from 2013-2014

Year	Kandy	Matale	Nuwaraeliya	Central Province
2013	16	22	13	51
2014	39	22	21	82

Source : WER

Total 82 cases were notified in year 2014 as compared to 51 cases notified in year 2013. This increase was seen in Kandy and Nuwaraeliya districts while the same number reported in Matale district. Epidemic of enteric fever observed in Panvila MOH division in Kandy district in December and was able to control it with prompt actions taken by the public health staff of the area with the support from other relevant sectors.

5.5.3 Surveillance of Viral Hepatitis

Table 5.16 Hepatitis cases in the Central Province from 2013-2014

Year	Kandy	Matale	Nuwaraeliya	Central Province
2013	102	61	19	182
2014	214	150	44	408

Source: WER

Viral Hepatitis case reported in 2013 and 2014 was 182 and 408 respectively. All three districts show increased number of cases reported in 2014 than the previous year. Epidemics of hepatitis were observed in Rattota MOH division in Matale district during March to June in 2014 and Gangihala MOH division during February to November in the same year. Public health staff of the respective areas took actions to control the epidemic with the support from water boards, Pradesiya Saba, AGA office, Community Based Organizations and community leaders of the divisions.

5.5.4 Surveillance of Dysentery

Table 5.17 Dysentery cases in the Central Province from 2007-2014

Year	Kandy	Matale	Nuweraeliya	Central Province
2007	316	252	316	884
2008	320	240	321	881
2009	365	169	423	957
2010	350	316	358	1024
2011	401	215	330	946
2012	136	131	186	330
2013	122	124	120	366
2014	104	81	256	441

Relatively higher number of cases of Dysentery were reported from Nuwara Eliya district in most of the years. A slight increase number of cases reported in 2014 in the province than previous year.

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 causinga 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.

In 2001 chronic NCDs accounted for 71% of all deaths in Sri Lanka, while 18% due to injuries, and 11% were due to communicable diseases, and maternal and prenatal conditions. Analysis of age- standardized data for 1991-2001 has shown that the mortality due to chronic NCDs is 20-30% higher in Sri Lanka than in many developed countries (WB ageing study 2008). Moreover, trend analysis suggests that NCD mortality rates have been rapidly increasing during the past decade (Registrar General, 2008).

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 curative 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 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 program 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 areas by 2017. 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. Funds for HLC development were received from Health Sector Development Program and total expenditure for 2014 in the province was Rs.5.37 million.

In addition to screening of target population at HLCs, health promotion and primary prevention activities also carried out at divisional, 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 5.18 NCD Activities in 2013 and 2014

Activity	Kandy		Matale		Nuwaraeliya		Total	
	2013	2014	2013	2014	2013	2014	2013	2014
Number of HLCs	24	29	12	23	9	16	45	68
Number of people screened at hospital HLCs	4562	8427	1441	2529	12081	8184	18084	19140
Number of screened at MOH HLCs	2337	4401	4209	420	00	1393	6546	6214
Number screened at work place	872	1350	1007	624	297	171	2176	2145
Tobacco users(Beetle)	883	684	491	852	4135	3619	5509	5155
BMI<18 Kg/m^2	925	1063	501	726	4484	3587	5910	5376
Blood pressure 120/80-139/89 Hg	9244	10605	4210	929	3911	1810	17365	13344
Blood glucose 90.0-109mg/dl	9244	10981	415	964	2251	2213	11910	14158
Number of people referred to the primary health care institutions	725	1030	241	295	3143	471	4109	1796
Number visited for follow up care	278	2047	152	503	1598	503	2028	3053
Awareness program	46	89	144	129	345	58	535	276

The number of functioning HLCs has gone up from 45 in 2013 to 68 in 2014, making increased access for NCD screening in all three districts. The total number screened in the province also increased from 18084 in 2013 to 19140 in 2014.

5.7 Expanded programme on immunization

The national immunization program has been a successful and a model program for developing countries. According to the routine information system virtually all eligible children and women throughout are receiving all the scheduled vaccines. Periodical surveys and the last concluded DHS 2006/2007have all verified this high coverage. The high immunization coverage has resulted in the decline in the targeted diseases reported. EPI coverage data based on the EPI quarterly returns show a high coverage for all vaccines given during infancy and childhood despite the negative publicity given by the press for suspected vaccine related deaths reported a few years back. The negative publicity given by the media had a temporary effect on the national program which is reflected in the vaccination coverage. Primary Healthcare staff needs to be vigilant and ensure proper investigation of reported child deaths and to report any suspected vaccine related death. However the coverage for antigens administered during school years is yet to reach the expected levels. District level program managers and divisional level staff should ensure that all adverse events are reported early and national guidelines followed in all immunization settings. National, Provincial and District level program managers should be trained in risk communication and also have a good rapport with the media to ensure rational media reporting. Coverage targets of EPI vaccines have been achieved for most of the antigen currently with the effort made at different levels and public health staff need to focus on improvement of quality of the EPI program in coming years.

Table. 5.19 Trends on selected vaccine preventable diseases

Year	Tetanus		Whooping Cough		Measles		Encephalitis		Viral Hepatitis	
	Central Province	Sri Lanka	Central Province	Sri Lanka	Central Province	Sri Lanka	Central Province	Sri Lanka	Central Province	Sri Lanka
1990	5	58	21	281	88	1315	8	310	644	2768
1992	5	77	10	33	11	303	10	195	1676	6895
1996	5	67	2	27	2	55	3	295	662	3690
1997	4	42	29	405	84	147	14	109	1090	3830
1998	7	61	14	152	32	65	15	93	409	2814
1999	3	46	7	85	128	1861	2	89	118	1589
2000	5	45	10	134	661	13216	4	122	167	1486
2001	8	72	3	43	24	267	1	59	396	2034
2002	0	34	1	14	11	139	0	68	810	2936
2003	6	40	5	118	22	114	10	165	725	2984
2004	4	44	9	50	13	86	2	111	324	2220
2005	7	37	1	114	10	48	7	60	131	2294
2006	3	45	2	71	7	36	16	130	462	2765
2007	3	39	2	47	21	81	14	203	2681	5869
2008	9	36	5	57	18	105	24	261	274	1930
2009	3	29	7	66	21	176	14	223	357	6855
2010	5	24	4	32	15	89	15	213	269	1495
2011	4	26	3	55	14	129	16	165	108	1647
2012	0	14	2	102	9	86	9	231	125	2146
2013	2	24	5	86	259	4024	20	70	217	2102
2014	1	15	6	79	128	3094	12	22	408	2045

Fig 5.4 Immunization coverage of Kandy District in 2013 and 2014

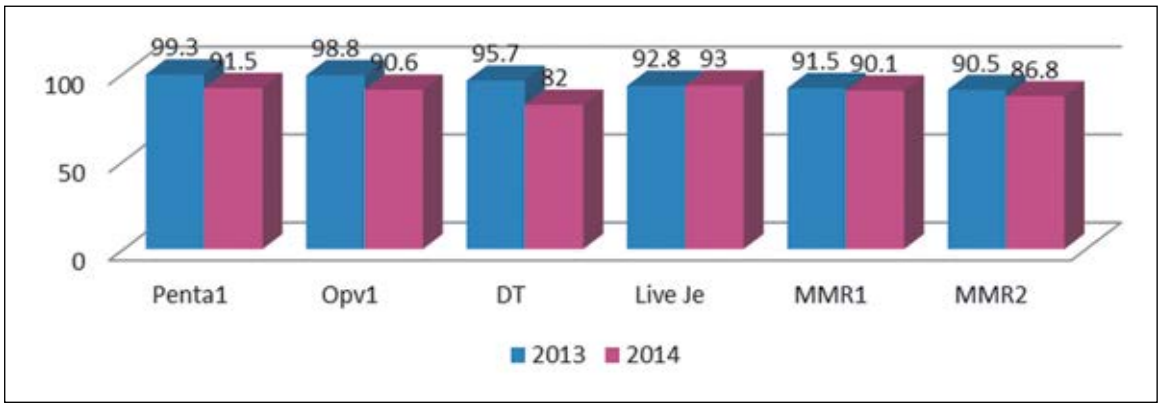
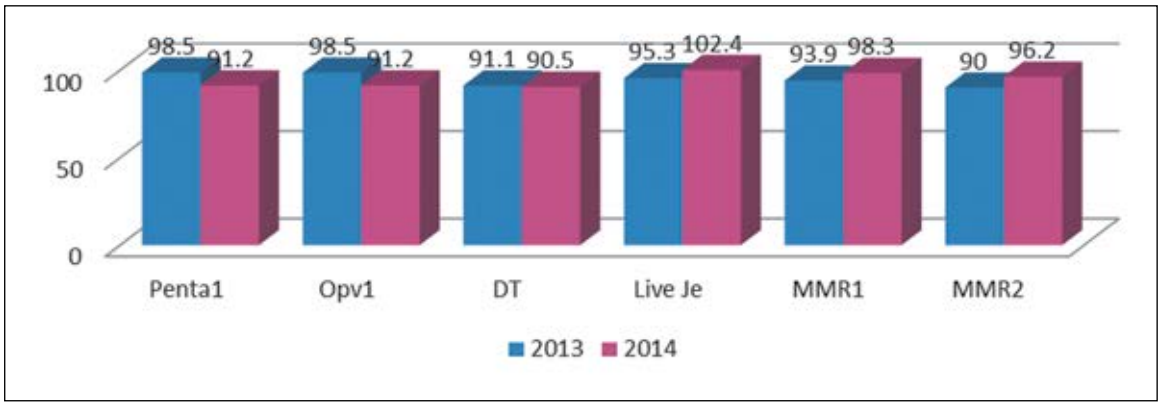


Fig 5.5 Immunization coverage of Matale District in 2013 and 2014

Fig 5.6 Immunization coverage of Nuwaraeliya District in 2013 and 2014



5.8. Environment Health

It is evident that from early times the importance of environmental health in prevention of diseases by ensuring good housing, safe water, excreta disposal, refuses disposal and provision of nutrient and safe food. The PHI, as an important member of the health team in a MOH area, has a fundamental role to perform in maintaining environmental sanitation in these varied circumstances.

Though the Ministry of Health is not directly responsible for the provision of water, MOH is involving in ensuring the supply of safe water to community by monitoring the water quality. PHIs monitor the chlorine levels in water and water samples are also checked for bacteriology from public health lab in Anuradhapura and MRI. Provincial Health department started a water quality monitoring and improvement program with water board for community based water projects in 2014 and checked 270 samples from all three districts and 70% of water sources were unsatisfactory for human consumption. Health department and water board jointly started awareness program for community based water project officials and consumers on water quality improvement.

However through the primary healthcare workers health education is also carried out to motivate people to consume safe water. Inadequate latrine facilities are still a problem in the Central Province being more acute in the NuwaraEliya District. Estate and Urban Health Directorate of Ministry of Health provided funds to construct 51 latrines in the estate sector of the province in year 2013 and 450 latrines in 2014.

Table 5.20 Water & Sanitation activities provided by Public Health Inspector

Indicator	2013		2014	
	Number	Percentage	Number	Percentage
Number of Houses in the sanitation Register	466,339		489,937	
Number of houses with sanitary latrines	425,674	91.3	448,430	91.5
Number of houses with insanitary/no latrines	40,665	8.7	41,507	8.4
Number of latrines constructed during the year	2,208		2,040	
Number of houses with pipe borne water connection	394,805	84.7	438,156	89.4
Number of houses using water from protected and deep wells	45,925	9.8	32,918	8.7
Number of houses using water from unprotected and other sources	25,588	5.5	18,863	3.9
Number of public water supplies sampled	578		1,150	
Number of private water supplies sampled	100		201	
Number of wells chlorinated	9,638		2,033	

Food safety and hygiene activities reported during 2013 and 2014 show that a gradual improvement in the rating of all types of food establishments. This needs to be further monitored at Divisional and District level in 2015. Closer monitoring using the revised H 800 with sub grouping in "B category" and "C category" would enable to see more clearly the improvement in each of the categories. Details of Food safety and hygiene activities are given in the tables below.

Table 5.21 Food safety & hygiene activities provided by Public Health Inspector in Kandy district

Food safety & hygiene activities provided by PHII (According to new H 800)				
	2013		**2014**	
Factories	381		195	
	No. registered	%	No. registered	%
A -Grade - Good	77	20.2%	52	26.6%
B -Grade - satisfactory	276	72.4%	108	55%
C -Grade- Unsatisfactory	28	7.3%	35	17%
D -Grade- very unsatisfactory				
Bakeries	262		288	
A -Grade - Good	31	11.8%	45	15.6%
B -Grade - satisfactory	114	43.5%	185	64.2%
C -Grade- Unsatisfactory	102	38.9%	58	20.1%
D -Grade- very unsatisfactory	15	5.7%		
Hotels and Restaurant	625		441	
A -Grade - Good	79	12.6%	50	11.3%
B -Grade - satisfactory	239	38.2%	328	74.3%
C -Grade- Unsatisfactory	216	34.6%	63	14.2%
D -Grade- very unsatisfactory	91	14.6%	0	0
Inspection on food handling establishments				
Number of Inspections	13671		10571	
Number served notices	1911		742	
Number prosecuted	187		302	
Number convicted	166		844	
Food sampling				
Number formal samples taken	636		578	
Number unsatisfactory	212		107	
Number prosecuted	192		84	
Number convicted	131		75	
Number of formal iodized salt samples taken	101		92	
Food seizures				
Number of food seizures	1981		1395	
Number of awareness programme on food safety				
Traders	116		1376	
Public and other groups	157			

Table 5.22 Food safety & hygiene activities provided by Public Health Inspector in Matale district

Food safety & hygiene activities provided by PHII (According to new H 800)				
	2013		**2014**	
Factories	197		184	
		%		%
A -Grade - Good	16	8.1%	11	5.9
B -Grade - satisfactory	138	70.1%	140	76.0
C -Grade- Unsatisfactory	36	18.3%	24	13.0
D -Grade- very unsatisfactory	07	3.6%	09	4.8
Bakeries	162		131	
A -Grade - Good	05	3.8%	04	3.0%
B -Grade - satisfactory	103	63.5%	93	70.9%
C -Grade- Unsatisfactory	50	30.8%	31	23.6%
D -Grade- very unsatisfactory	04	2.4%	03	2.2%
Hotels and Restaurant	325		323	
A -Grade - Good	23	7.1%	22	6.8%
B -Grade - satisfactory	223	68.6%	225	69.6%
C -Grade- Unsatisfactory	70	21.5%	76	23.5%
D -Grade- very unsatisfactory	09	2.8%	00	0%
Inspection on food handling establishments				
Number Inspections	4616		4073	
Number served notices	159	3.4%	136	3.3%
Number prosecuted	37	23.2%	10	0.2%
Number convicted	37	100%	05	0.1%
Food sampling				
Number formal samples taken	646		617	
Number unsatisfactory	180		237	
Number prosecuted	172		213	
Number convicted	161		179	
Number of formal iodized salt samples taken	99		118	
Food seizures				
Number food seizures	543		444	-
Number of awareness programme on food safety				
Traders	-	-	154	
Public and other groups	-	-	659	

Table 5.23 Food safety & hygiene activities provided by Public Health Inspector in Nuwaraeliya district

Food safety & hygiene activities provided by PHI (According to new H 800)				
	2013		2014	
Factories	133		108	
	No. registered	%	No. registered	%
A -Grade - Good			21	19.4%
B -Grade - Satisfactory	19	14.2%	82	75.9%
C -Grade- Unsatisfactory	113	84.9%	04	3.7%
D -Grade- Very unsatisfactory	01	0.7%	01	0.9%
Bakeries	88		74	
A -Grade - Good			12	16.2%
B -Grade - Satisfactory	22	25.0%	46	62.2%
C -Grade- Unsatisfactory	65	73.9%	16	21.6%
D -Grade- Very unsatisfactory	02	2.3%	00	0.0%
Hotels and Restaurent	302		219	
A -Grade - Good			62	28.3%
B -Grade - Satisfactory	51	16.9%	153	69.8%
C -Grade- Unsatisfactory	221	73.2%	00	0%
D -Grade- Very unsatisfactory	30	9.9%	04	1.8%
Inspection on food handling establishments				
Number of Inspections	7202	%	5834	%
Number of served notices	541	7.5%	333	5.7%
Number prosecuted	388	5.4%	77	1.3%
Number convicted	349	4.8%	90	1.5%
Food sampling				
Number of formal samples taken	964		850	
Number of unsatisfactory	290		184	
Number prosecuted	246		166	
Number convicted	136		111	
Number of formal iodized salt samples taken				
Food seizures				
Number of food seizures	1790		1514	
Number of awareness programme on food safety				
Traders	-		168	
Public and other groups	-		1072	

5.9 Food and Drugs activity

Table 5.24 Activities on Cosmetics and Drugs

Activities related to cosmetics devices and drugs-annual report 2013 & 2014						
	2013			2014		
	Kandy	Matale	Nuwaraeliya	Kandy	Matale	Nuwaraeliya
No of Pharmacies	174	57	57	180	58	56
No registered	169	55	54	165	56	53
No Unregistered	05	02	03	15	02	03
Drugs						
Sampling						
Samples sent for analysis- Formal	03	-	02	-	-	2
Samples sent for analysis- Informal	03	04	-	04	08	-
No Found unsatisfactory	03	-	-	00	02	2
No of items withdrawn/ withhold	20	18	-	-		2
Quantity withdrawn/ withhold(tab/cap)	6580	12786	-	-		1450
Quality failure Drugs Report by the D.R.A.				-		-
No of circulars Received	83	31	46253	20	15	21
No of items withdrawn/ withhold	21	18	46	05	05	212
No of batches withdrawn/ withhold	35	21		23	07	22
Quantity withdrawn/ withhold(tab/cap)	26425	12786	76348	2000	4855	12248
Flying Squad Activities						
No of Flying Squad Activities	15	08	03	06		3
Seizures under the C.D.D.Act						
Unregistered	2600	01	07	06	-	-
Prohibited Item	03	00	-	-	-	32
Storing under the Insanitory condition Item	150	06	30	-	15	42
Expired Item	150	05	21	760	09	02
Spoil & Damaged Item		02	04	26	01	02
With State Logo Item	26	-	01	-	00	-
Storing Without a License Item	56	24	88	200	05	44

Prosecutions						
No of Prosecutions	6	08	10	13	04	11
No Convicted	2	08	10	13	04	11
No Pending	4	-	-	-		01
Fines Imposed (Rs)	60000.00	'	350000.01	363,000.00	36000.00	320000.00
Cosmetics						
No of Manufacturing establishment	2	-	-	02	-	-
Smuggled	10	-	-	00	-	-
Expired	8	12	-	12	08	12
Spoil & Damaged	2	10	-	17	06	02
No of Manufacturing establishment		-	-	-	-	-
Seizures under the C.D.D.Act						
Unregistered	4		-	-	-	
Expired	3		-	-	09	
Spoil & Damaged	6		-	-	01	04
Educational Programms						
Pharmacy Owners/ Assistance	6	03	04	03	03	-
Schools	5	12	07	05	13	02
Others	2	16	01	10	13	03
Public Complains						
No of Complains Received	13	08	05	5	03	06
No of Complains Investigated	13	08	05	5	03	06

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. WINNERS OF THE PROVINCIAL PRODUCTIVITY AWARDS – 2014

Under the guidance of Chief Secretary Office, Central Province, we were able to give the participation of the Health Care Institutions including provincial and regional director offices in the Central Province, for the completion of Provincial Productivity awards 2014. This completion selected 30 Health Care institutions as awardees of the Provincial Productivity awards 2014. The table shows the winners in five categories based on the level of administration and service provision. These winners were ceremonially awarded the provincial productivity awards at the auditorium of central provincial council on 04th September 2014.

No.	Name of the Institution	Category	Place
01.	Department of Health Services	Department Level	2nd Place
02.	RDHS Office – NuwaraEliya	District Level	1st Place
03.	RDHS Office – Kandy		3rd Place
04.	RDHS Office – Matale		Special merit
05.	District Base Hospital – Rikillagaskada	Curative care Institutional Level District General and District Base Hospitals	1st Place
06.	District General Hospital - Matale		2nd Place
07.	District Base Hospital – Theldeniya		3rd Place
08.	District General Hospital -Nawalapitiya		Special merit
09	Divisional Hospital - Kadugannawa	Curative care Institutional Level Divisional Hospitals & Special Units	1st Place
10	Divisional Hospital – Katugasthota		2nd Place
11	Divisional Hospital – Lenadora		3rd Place
12	Divisional Hospital - Dayagama		Special merit
13	Divisional Hospital - Ududumbara		Special merit
14	Divisional Hospital - Menikhinna		Special merit
15	Divisional Hospital – Galewela		Special merit
16	Divisional Hospital - Kotagala		Special merit
17	Community Mental Health Unit - Katugasthota		Special merit
18	School Medical Office – Katugasthota		Special merit
19	MOH Office - Rikillagaskada	MOH Offices Level	1st Place
20	MOH Office - Udunuwara		2nd Place
21	MOH Office – Doluwa		3rd Place
22	MOH Office – Naula		Special merit
23	MOH Office – Kothmale		Special merit
24	MOH Office – Kadugannawa		Special merit
25	MOH Office - Hasalaka		Special merit
26	MOH Office - Hatharaliyadda		Special merit
27	MOH Office - Werrellagama		Merit
28	MOH Office – Maskelliya		Merit
29	MOH Office – Dambulla		Merit
30	MOH Office - Mathurata		Merit

Provincial Directorate of the Health Services – Central Province

As the leading force of health care services improvement of the province, the Provincial Directorate of the Health Services guides the provincial health institutions for improving the quality, Safety and Productivity. Quality Safety and Productivity (QSP) improvement unit, which has been established under the Deputy Director (Medical Services), collaborates with district QSP units and provides technical guidance and other facilities when needed to improve the quality, safety and productivity of the services at institutional level. A special programme has been launched in every category of health care institutions targeting to develop as model institutions when standard service providing institution in the province. Provincial QSP unit has launched a special program focusing the development of model institutions from each and every category of the healthcare institutions with the objective of improving the service provision in terms of quality, safety, and productivity.

Further, we were able to strengthen the financial utilization on cleaning dirty linen by introducing a new payment method. The department of health services used to pay for the cleaning based on the number of pieces and currently it has been revised as pay for cleaning based on the dry weight of the dirty linen. This project was proposed through a quality circle of the provincial directorate of health services, and implementation of the project has ensured the financial productivity of the process.

The provincial directorate of health services was able to win the 2nd place of the provincial level in the Provincial Productivity Awards 2014, through the productive services delivered by the team spirit of the staff of the department.

Regional Directorate of Health Services - Matale

Production or service provision is the aim of an organization, and generating quality product or service is the ultimate goal when an organization walking towards a vision. The Regional Directorate of Health Services.Matale embarked on improving the quality of services it provides to the people in mid 1990s. The office launched formal productivity improving programmes using the newer concepts like 5S, Lean, Kisen and 7R,as the countries from Far East and Western regions. Initially the office practiced 5S, while carrying out many other activities through five quality circles. Later, few other productivity concepts were practiced as follows and the office was able to win several national and provincial awards.

- The control unit was established.
- A mechanism was established to redistribute slow moving drugs idling in health institutions in the district and amount of Rs. 1809028.80 was saved to the country.
- Health education programmes for the office staff was conducted to improve their health literacy, and all staff members were screened for non-communicable diseases.
- The construction of the playground was another important milestone, which gave a recreational environment for the staff. The staff members were able to show the best sport performances as individuals and teams and win many district and provincial level places and prizes in the competitions among other governmental organizations.
- The RDHS office won the silver medal in the national evaluation of well women (Suwanari) clinics.
- Additionally the RDHS office was awarded with an appreciation certificate at the productivity competition organized by the central provincial ministry of health in 2013, and a special commendation certificate at the productivity competition among district level offices in the central province in 2014.

Staff Training

NCD Training

Medical Camp (Diabetic Day)

Staff Welfare

MCH (Nutrition Programme) Exhibition)

Special Programm (World Kidney Day)

Divisional Hospital – Menikhinna

Divisional hospital Menikhinna has been improving its friendly environment, services and other facilities for the patient caring during the last few years. These quality improvements have been effected with the recent establishment of the Quality Management Unit, Infection Control Unit, Health Education Unit, Maintenance Unit and hardworking of the dedicated staff.

Services have been extended with the establishment of Eye Clinic, Family Planning Clinic Extra Medical Clinic and Diabetic Clinic. Healthy Life style Clinic had been conducted twice a month in the past and currently the clinics are being conducted weekly for the benefit of the clients. Separate dispensary counter for Clinic patients and Senior citizens, Disabled, service personals and Priests were arranged.

Measures were taken to reduce the waiting time and improve other facilities of OPD patients. Problems and grievances of the patients and the staff are also being attended without any delay. Close monitoring and timely evaluation of relevant steps made it easy to achieve our targets. We were awarded with a commendation Certificate in Central Province Productivity Awards 2013/2014. The DMO and the staff have already planned some more activities and have been proceeding with those for the improvement of services and facilities further.

Shramadana Campaign

Garden

Kitchen

OPD

Divisional Hospital Dayagama

Divisional hospital Dayagama is providing the curative care for a community consisting predominantly of tea estate workers in and around Dayagama area. The hospital had been under the estate management until it was taken over by the provincial ministry of Health as a government hospital in December 1997. The community is being served by the hospital through outpatient department services (OPD), weekly Medical clinics, weekly Antenatal clinics and 24 hour on call inward patient care services with the dedicated staff consisting of two medical officers, three nursing officers, two family health midwives, eight minor staff members and one ambulance driver.

Situation prior to the Modification:

Issues with the general Infrastructure:

1. Water drainage system:
   The water and associated waste drainage system in the hospital had not had any renovation apart from repair of minor faults. Thus, drainage water seeps to the earth below, which poses a threat to the integrity of the buildings of the hospital.

2. Doors and windows:
   Many of the doors and windows of the hospital, especially in the wards, were in a non-functional state and required renovation. Most doors could not be properly secured and most windows had missing window panes, which posed a threat to the security of the patients as well as to the staff of the hospital.

3. Kitchen:
   The hospital kitchen was in dire need of painting, cleaning of the chimney, repair of floor cracks and exhaust system and installation of racks. These essential renovations were needed to provide an efficient and hygienic food service to the inward patients of our hospital.

4. Quarters for Dental officer, Nursing Officers and the minor staff attendants and laborers:
   There was and still is a significant shortage of accommodation for the staff of this hospital, with only the 2 medical officers, the ambulance driver and the Family health midwives having separate quarters for accommodation with no such facilities for the dental officer, nursing officers and the minor staff.

5. Mortuary:
   The hospital has a very small mortuary which has space to accommodate only one body, which is located outside the hospital premises, in the midst of tea bushes.

6. Placenta Pit:
   The hospital was in need of a proper placenta pit for the hygienic disposal of placenta.

7. Toilets:
   Most of the toilets (except for the toilet attached to the Antenatal clinic, which was renovated 5 years back) needed renovation with regard to the toilet fittings and doors.

8. Electrical system:
   The hospital electric system was in need of repairs, with no renovation done since being taken over by the government. There were many faulty switches and plug bases, which posed a threat to the lives of the staff as well as the patients.

9. Roof of the hospital:
   The roof and the gutter system of the hospital were in dire need of multiple repairs. It had not been repaired since the hospital was handed over to the government.

10. Vehicle park shed:
    The hospital has one vehicle park shed which has a broken roof. Repair of this vehicle shed as well as construction of new car parks for the ambulance and the medical officer's vehicle was also needed.

11. Medical Officer's Consultation Room:
    There is no proper room for the medical officer to examine patients (on an outpatient basis and as emergency patients) apart from the consultation room which is for the Medical officer in charge/ District Medical Officer (DMO). There are no examination beds for the medical officer to examine patients (on an outpatient basis and as emergency patients)

12. Wound Dressing room:
    The present wound dressing room was short on instruments for suturing and wound dressings. This was a necessity as we provide wound care for a large number of inward as well as outpatients.

13. Generator facility:
    There was no functioning generator at the hospital to ensure the uninterrupted power supply as the area is subjected to frequent electricity supply disruptions. Power generator is an essential equipment for attending medical emergencies when there are power cuts especially during the nights.

Issues with the human resources availability:

1. Lack of a Dispenser for the hospital
   The hospital has been functioning without a dispenser ever since the sudden unexpected demise of the former Dispenser during August 2013. This put an increased strain to the already depleted staff of the hospital.

2. Shortage of minor staff employees
   There is a total of 10 minor staff employees (attendants, laborers and a watcher) which is highly inadequate for the day-to-day service requirement at the hospital.

3. Lack of a clerk and non-usage of a computer:
   All correspondences to and from the hospital were via letters written by hand. The documentation and filing system was in complete disarray.

Change instituted at the Dayagama Hospital:

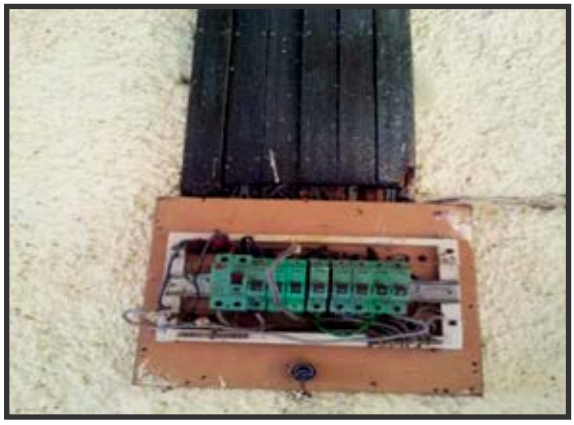
With the arrival of new medical officer in-charge (MOIC) in October 2013, significant changes of many aspects of the hospital were implemented.

Achievements after implementation of Productivity programs by the new MOIC

Allocation of Funds for Hospital Infrastructure development:
Following the discussions between the new MOIC and Hon. Minister of Livestock and Rural Community Development a grant of SLR 5.5 million was allocated for constructions and renovations of the hospital infrastructure. Followings are among constructions, renovations and other quality improvements:

1. Water drainage system repaired
2. Renovation of Doors and windows of all the wards and the units
3. A new Placenta Pit was constructed
4. All toilets and bathrooms of the hospital were tiled and placed with new fittings.
5. Construction of a new toilet and bathroom complex for OPD patients and visitors to the hospital.
6. Floor tiling and Painting of All wards of the hospital.
7. Complete replacement of the electrical system with new wiring, plug points and switch boards.
8. Roof repair
9. Introduction of the Public Health Record and Clinic record books for the Medical clinic patients (after discussions with the support of the Policy Analysis Unit of the Ministry of Health).
10. Minor staff employees were trained to dispense drugs under the supervision of nursing officers. They also assist with record keeping at the drug store.
11. Implementing 5S; Staff members were trained on 5S and reorganized the drug store, OPD dispensary, Nurses station, Dressing room, and All wards along with the Labor room, with improvement of inventories.
12. Computerization of the documentation process with a proper filing system. All drug stocks and balances were entered into databases, and the Family health midwives were given training on use of Microsoft software packages.
13. Provision of Internet and wi-fi facilities to the staff.
14. Introducing the hospital layout plan for the patients to have an easy access.
15. Community health education and patients education.
16. Getting the community leaders & NGO's involved in the welfare and improvements of the hospital; a pediatric unit was established after partitioning the female ward.
17. Community involvement for the hospital development.

BEFORE **AFTER**



Electrical System Main Switch Board

BEFORE **AFTER**

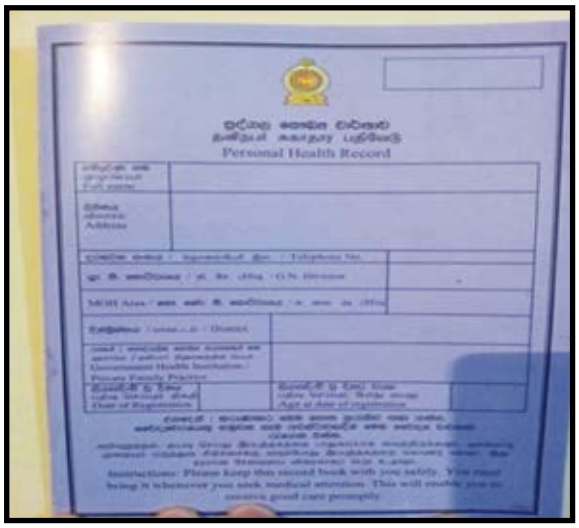
Ward Toilets

Newly painted and tiled female ward with partitioning for the pediatric ward.

Future plans for Hospital Development

Propose to acquire buildings which had been previously used by the hospital, through the negotiations between Plantation authority and the RDHS Nuwara Eliya. Followings are planned to be established within those buildings.

1. A Pediatric Unit
2. Emergency treatment Unit
3. Store room for medical records and drugs
4. A proper outpatient department (OPD) with toilet facilities for the patients
5. A rest room/dining room for the hospital staff as well as a visitors' dining/rest room
6. Hospital quarters facilities for the nursing staff / minor staff employees



Personal health record

hospital drug stores

Medical Officer of Health Office - Hanguranketha

The staff of the MOH office Hanguranketha have been practicing 5S productivity and quality improvement since year 2008. The MOH office has been able to win the productivity awards at national and provincial levels in the years 2008, 2009, 2010/2011, and 2012/2013. Further the office was able to win the first place at provincial productivity awards 2014..
MOH office was further improved gradually through several projects. The new office building was opened early 2011, giving the opportunity to use the old building as a clinic centre, stores, counseling unit, changing room, indoor play area, vaccination room, exercise unit, and record room, etc. The direction boards and name boards were displayed in all three languages. The office and clinic premises were made friendly by painting health message and pictures. Health education unit was established in the office., File cupboards were recognized in General stores to reduce time waste. All equipments were placed in the appropriate places with their labels and displayed directions to use.

An internal auditing process was established according to given guidelines for supervising the productivity practice.. Health returns were improved in terms of timeliness and accuracy. A library and a health education unit were also established within the office. Funds allocated for the productivity improvements were utilized for the reorganization of the structure. Maintenance unit played an important role in all the renovations. Staff motivation programs such as awarding the gifts & certificates through debates and competitions were helpful in these achievements. Medical records for all staff members were also among the motivation.

Green productivity concept was introduced with composting for farming the fruit plants, medicinal plants, and flower plants in the garden. Actions were taken to reduce the wasting of electricity and water..Proper waste disposal unit was practiced. A home garden was grown as a model. It maintained a nursery and nursery plants were distributed, promoting home gardens in the field. Thriposha bags were reused to make letters envelops, item carriers, drug envelops.

Efficiency of the services was improved with special attention to reduce the client waiting time in all clinics and also to complete the School inspections as early as possible during the first term.

The above achievements with awards made the staff more committed to maintain the high standers. The team ambition is to win the first place in national and provincial productivity awards in next year.

Display mission and vision

Display our services

Waiting area

Our productivity awards

School Medical Office - Katugasthota

The School Medical office was established in 1917 for the purpose of screening for health among school children in Kandy municipal area. Department of health Services, Central Province assigned a permanent place for the school health at district hospital Katugastota.

Initially it was mainly concentrated on preventing communicable diseases including Malaria, and small pox along with the immunization, and also on preventing worm infestations and dental problems, among school children. In the recent history, Kandy school medical

office has being improved with the facilities to provide high quality health services. The office was recognized as a productive institution and awarded certificate at the productivity awards central province in 2014.

The improvements in quality services have been extended towards

- Identification of medical problems with a better referral system and an improved follow up system
- Identification of oral health problems and treatments.
- Medical examination, and vaccination of pirivena Buddhist monks in kandy municipal area.
- Conducting medical clinics for screening the students of technical Colleges in KMC area.
- Medical Examination of the children in international schools
- Establishment of fruit stalls in the schools in KMC area with the help of the agriculture department.
- Conducting awareness programs for parents of primary grade students
- Conducting awareness programs for upper grade students
- Counseling programs on STD/AIDS
- Conducting screening clinics for school teachers and principals on NCDs
- Conducting counseling programs for teachers
- Dengue prevention program; shramadana activities–at the schools, piriven, and technical colleges in KMC area
- Supervision of school canteen, sanitary facilities.
- Conducting awareness programs on adolescent health, re productive health, life skills, drug abuse, STD/AIDS, nutrition WIFS program, and child abuse.
- Staff motivation through the well established well fair society

  Annual trips

  In-service programs arrangement with different departments

  Improvement of society fund – organized pola, book marks

  Summary of last 5 years school medical examination statistics and other activities.

Community Mental Health Resources Center - Katugasthota.

Location

- Community mental health resource centre has been established at the divisional hospital katugastota, providing services to the central province since 22.06.2001.
- The services being implemented in the central province have been identified as a model for improving mental health in other provinces of Sri Lanka.

Our services

01. Mental health promotion and prevention in the community
    - awareness program on investigation of maternal deaths with suicides

02. Mental health care coordinated at district and provincial levels
    - Provincial steering meeting
    - District review meeting
    - System meeting
    - Statistics of mental illnesses in kandy district

Our Projects

- Care givers society
- Community support centre
- Day centre
- Nenasala projects

Circles

- We have established two quality circles MASESA and MANESA
- We have selected as a Productivity winner as implementing new and model Projects to national mental health services
- CMHRC staff and MOIC work together to achieve an award in the 2014 central province productivity awards.

Our aim

- Our aim is to win a place in the national productivity awards

Mental Health Day Celebration

Workshop on mental health

Special Campaign

January 1st Celebration

7. SPECIAL CAMPAIGN

7.1 Malaria control programme in Central Province

Since 2010, there is no locally infected malaria cases in the CP. However, during the year 2013 Kandy district reported 4 imported malaria cases while Matale and Nuwara Eliya districts reported 01 imported case per each district. In 2014, each of the three districts reported 01 imported malaria case. The sources of infection of the majority of these cases were from India although a few cases contracted the disease in Africa. As a whole CP shows a declining trend of malaria over the past few years, however, 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.

This is a great achievement of the malaria elimination programme in the years 2013 and 2014 too. 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 the CP.

Epidemiology of malaria in the Central Province

The number of malaria cases reported from 2001 - 2014 in CP are shown in Table 7.1

Table 7.1 Number of malaria cases reported by districts from 2001 - 2014

Year	Kandy	Nuwara Eliya	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)

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

In the Kandy district, 43240 and 45495 blood smears were examined in the years 2013 and 2014 respectively. Of these blood smears, 04 were positive for *P. vivax* in 2013 and 01 was positive for *P. falciparum* In 2014. All these cases were contracted the disease outside the districts, but diagnosed and treated at the medical institutions in the Kandy district. In the Nuwara Eliya district 2719 and 2739 blood smears were examined in 2013 and 2014 respectively. Of these, one P.f*alciparum* was positive in each year. In the Matale district, 22935 and 32820 blood smears were collected in 2013 and 2014 respectively and one P. vivax case was detected in 2014. (Table 7.2)

Table 7.2 Number of blood films, malaria cases and annual parasite incidence (API) by district in 2013 and 2014

District	Year	No. of blood smears	No. of positives	P. vivax	P. falciparum	Mix	API
Kandy	2013	43,240	4	4	0	0	0.003
	2014	45,495	1	0	1		0.0007
N Eliya	2013	2,719	1	0	1	0	0.0014
	2014	2,739	1	0	1	0	0.0014
Matale	2013	22,935	1	0	0	0	
	2014	32,820	1	1	0	0	

Entomological surveillance

In Kandy district, *An. culicifacies*, the principal vector of malaria and *An. subpictus*, a secondary vector of malaria in Sri Lanka were encountered in the years 2013 and 2014 too. In 2013, *An. culicifacies* 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* was found in cattle baited net trap collections and cattle baited hut collections. In 2014 too, *An. culicifacies* and *An. subpictus* was found in all techniques as in 2013, except that it was also found in Human bait night collections. In the Nuwara Eliya district, in 2013, *An. culicifacies* was encountered in cattle baited net trap collection, cattle baited hut collection, human bait night collection (both indoors and outdoors), outdoor collections and larval collections while *An. subpictus* was found only in Cattle baited net trap collections. In 2014, *An. culicifacies* was encountered throughout the year in DDHS area Hanguranketha by cattle baited net trap collection, larval surveys and human landing night collections while *An. subpictus* was found only by cattle baited net trap collection. 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	2013		2014	
			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	0.02	0.07	0.012	0.134
	CBH	No/Hut	1.55	0.08	1.147	0.088
	WTC	No/Trap	0	0	0	0
	LS	No/Dip	0.005	0	0.001	0
	HBNC (in) (out)	No/bait/hour	0.004 0.102	0 0	0	0.006
	ODC	No/man hour	0	0	0	0
Nuwara Eliya	INRC	No/hour	0	0	0	0
	PSC	No/room	0	0	0	0
	CBT	No/Trap	1.12	0.02	0.04	0.04
	CBH	No/Hut	4.95	0	0	0
	WTC	No/Trap	0	0	0	0
	LS	No/Dip	0.09	0	0.431	0
	HBNC (in) (out)	No/bait/hour	0.27 1.94	0 0	0.334	0
	ODC	No/man hour	0.03	0	0	0
Matale	PSC	No/Room	0.004	0.029	0.001	0.011
	INRC	Per house	0	0	-	0.01
	CB TC	Per trap	0	0.265	0.04	0.39
	CB HC	Per hut	0.482	0.56	1.85	0.15
	WTC	Per trap	0.011	0.007	0.040	-
	HLNC (in)	Per man hour	0.005	0	0.04	0.02
	HLNC (out)	Per man hour	0.023	0.003	0.100	0.018
	ODC	Number Per man hour	0	0	-	-
	LS	Per dip	0.01	0.005	0.006	0.005

Indoor residual insecticide spraying

In Kandy and Nuwaraeliya districts, no residual insecticide spraying was carried out in 2013 and 2014.

Distribution of long lasting insecticide treated bed nets (LLIN)

In the Kandy and Nuwara Eliya districts no LLINs were distributed in the year 2013 and 2014. Since currently it is not recommend impregnation of normal bed nets, no bed net impregnation with permenthrin was carried out. In Matale district, 2150 LLINs were distributed in 2 MOH areas in 2013.

Application of larvivorous fish

Larvivorous fish, *Poecilia reticulata* was applied in brick fields, abandoned gem pits, small streams and water storage tanks in the Province. In the Nuwara Eliya district, fish is introduced to river bed pools (Table 7.4).

Table 7.4 Application of larvivorous fish, P.reticulata by district

District	Year	No. of permanent breeding sites	No. of fish introduced
Kandy	2013	50	700
	2014	20	400
Nuwara Eliya	2013	02	120
	2014	04	200
Matale	2013	331	7635
	2014	639	10595

Health education and community awareness programmes

Health education and community awareness programmes conducted in the years 2013 and 2014 are shown in table 7.5 and 7.6

Table 7.5 Health education and community awareness programmes conducted in Kandy and Nuwara eliya districts

District	Year	Target group	No. of programmes	No. of participants
Kandy	2013	Health staff SMO + PHFO PHLT Leaders (Intersectoral)	02 01 01 01	120 30 10 35
	2014	Consultant Medical Officers/MO EA+PHLT SMO EA + PHFO PHLT PHI + PHFO Leaders (Intersectoral)	01 01 02 01 01 01 01	55 10 50 30 11 40 34
Nuwara Eliya	2013	Health staff	01	40
	2014	Leaders (Intersectoral)	01	34

Table 7.6 Health education and community awareness programmes conducted in Matale district

Target group	2013		2014	
	No. of Programmes	No. of Participants	No. of Programmes	No. of Participants
Community	30	3,799	16	501
Student	19	2,417	34	3,696
Institute Staff	5	155	11	800
Army Soldiers & police	11	639	03	226
Government Institution	0	0	18	534
Volunteers	0	0	02	120
Field staff	0	0	02	72
Private Institution	50	3,456	50	3,456
Other	0	0	0	0
Tourist hotel	0	0	0	0
Total	115	10,466	115	10,466

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 programme embarked on malaria elimination. Thus, case detection and prompt appropriate treatment of malaria cases is of utmost importance where blood filming of fever cases is a key element. Currently, the level of screening of fever cases at PHLT centres is very poor, so, it is recommended to take necessary steps to improve screening of fever cases at theses centres for good surveillance of malaria in the province. Also, The present number of public health field officers (PHFOs) is inadequate for achieving the target it is recommended that cadre approval be obtained to increase the number of PHFO for the CP.

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.

The malaria elimination programmes in Central Province needs to be further intensify vector surveillance since monitoring vector density is of utmost importance in preventing malaria outbreaks/ epidemics. Minipe, Adikarigama (river beds below the dams Victoria and Minipe) Hataraliyadda, Kotmale, Nilambe, Ambagamuwa in Kandy and Nuwara Eliya districts are at high risk of malaria, thus, regularly entomological investigations are necessary to detect emergence/ increase of *An. culicifacies*. In malaria and dengue vector prevention and control, laboratory studies are essential. Therefore, it is very important to have laboratory facilities for the regional office, Anti Malaria Campaign, Kandy and Matale.

7.2 Surveillance of Dengue Fever/ Dengue Haemorrhagic fever

Dengue fever is endemic in Sri Lanka as well as in the Central Province (CP) and epidemics have been occurring with increased magnitudes periodically. The worst epidemic was reported in 2012 with 44456 cases reported in Sri Lanka. The early action taken in the Central Province paid dividends where the morbidity was reduced by more than 60% and mortality by more than 80% despite the epidemic of dengue ravaging in all most all Provinces in Sri Lanka. Central Province contributed only 7.4% to the total dengue burden in Sri Lanka. His Excellency the president established a presidential task force in May 2010 to combat the Dengue epidemic in Sri Lanka. The Provincial task force in CP was established on 3rd June 2010. This further strengthened the Divisional and village level activities as the members of the police, armed forces and civil defence 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.

The MOH divisions which report a high case load in 2014 were Yatinuwara, Kandy Municipal Council, Gampola, Harispattuwa, Gangawatakorale, Wattegama, Udunuwara, and Kurunduwatta in the Kandy District , Galewela, Matale, MC Matale and Ukuwela in the Matale District and Ambagamuwa and Nawathispane in the Nuwara Eliya

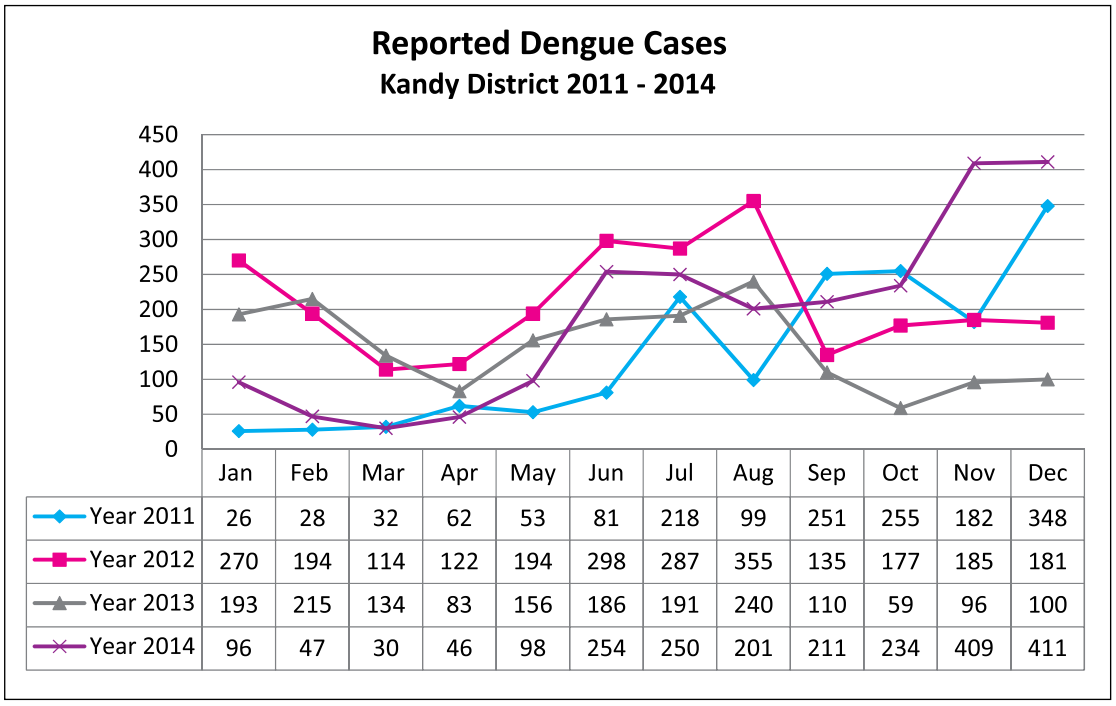
Key strategies adopted in the province for Dengue control

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

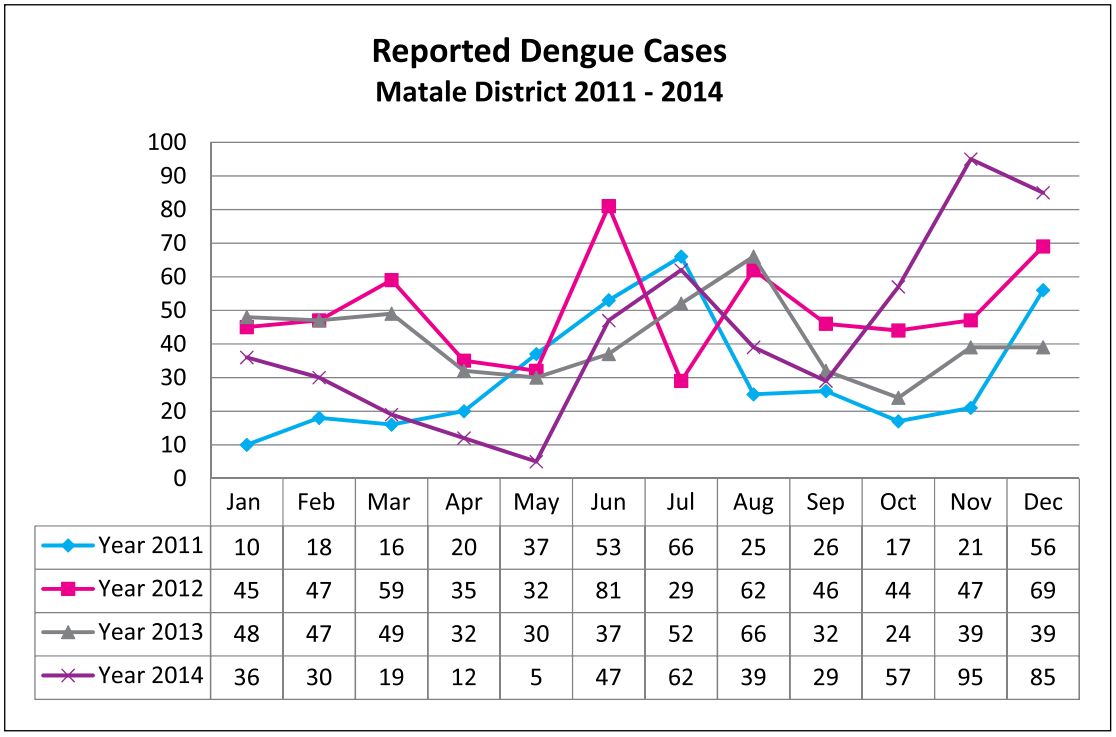
Dengue control activities were carried out in all three districts according to an annual plan with the financial support from National Dengue Control Unit in 2014. Two vector control weeks were declared from 2nd to 8th April and 10th to 16th September in parallel with national program and it was possible to reduce case load towards the later part of the year than expected. Art competition was held among school children and winners were selected and awards were given at divisional, district and provincial level to aware school children on dengue control. 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

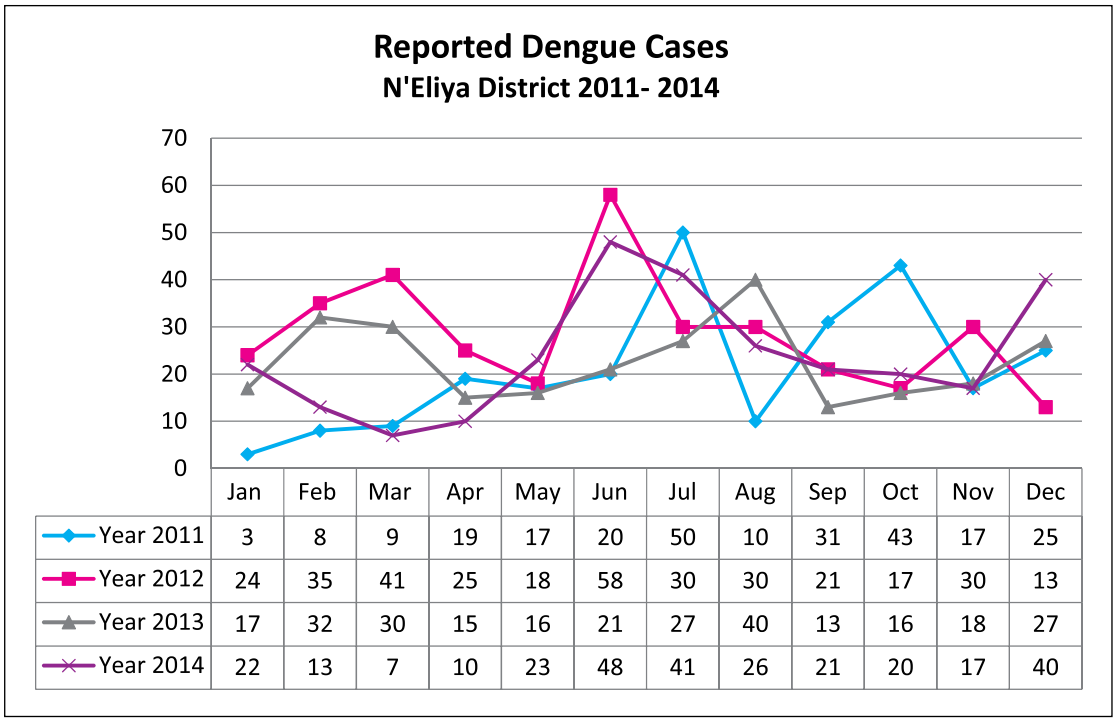
Reported Dengue cases in each district from 2011 to 2014 are given in following graphs. Seasonal pattern was observed in all three districts as in other districts in the country according to rain fall.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Year 2011	26	28	32	62	53	81	218	99	251	255	182	348
Year 2012	270	194	114	122	194	298	287	355	135	177	185	181
Year 2013	193	215	134	83	156	186	191	240	110	59	96	100
Year 2014	96	47	30	46	98	254	250	201	211	234	409	411



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Year 2011	10	18	16	20	37	53	66	25	26	17	21	56
Year 2012	45	47	59	35	32	81	29	62	46	44	47	69
Year 2013	48	47	49	32	30	37	52	66	32	24	39	39
Year 2014	36	30	19	12	5	47	62	39	29	57	95	85



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Year 2011	3	8	9	19	17	20	50	10	31	43	17	25
Year 2012	24	35	41	25	18	58	30	30	21	17	30	13
Year 2013	17	32	30	15	16	21	27	40	13	16	18	27
Year 2014	22	13	7	10	23	48	41	26	21	20	17	40

Dengue control programme - Vector surveillance Kandy and Nuwaraeliya districts

Entomological Assistants were deployed to work in high dengue risk Medical Officer of Health (MOH) areas in Kandy district. This facilitated monthly monitoring of dengue vector density in those MOH areas. In addition to this, Entomological Assistants attached to the Regional Office of the Anti Malaria Campaign carried out entomological surveys in the rest of MOH areas in the Kandy and Nuwara Eliya districts. Entomological data was analyzed and used for early warning of dengue epidemics and risk communications were carried out, thereby major epidemics were prevented in the province

.

During 2013 and 2014, *Ae. aegypti* was not found in some MOH areas in the Kandy district. All the MOH areas under vector surveillance found *Ae. albopictus*. Majority of MOH areas reported high percentage (> 3.0) of *Ae. aegypti*/ *Ae. albopictus* positive houses. In the year 2014, the number of positive houses per 100 houses varied from 0 - 9.88 in the Kandy district, 0 - 5.72 in the Nuwara Eliya district. This indicates the risk of dengue transmission in all the MOH areas and the necessity of more effective cleaning programmes for dengue control in the area (Table 7.7).

Table 7.7 Number and percentage of houses positive for Ae. aegypti/ Ae. albopictus in different MOH areas in the Kandy and Nuwara Eliya districts

District	MOH area	2013			2014		
		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.	%
Kandy	Akurana	2,915	204	6.99	2,357	233	9.88
	Bambaradeniya	709	32	4.51	1,316	40	3.03
	Doluwa	2,143	83	3.87	1,464	47	3.21
	Hataraliyadda	259	20	7.72	200	4	2
	Hasalaka	-		-	202	9	4.45
	MC Kandy	3,068	182	5.93	3,321	61	1.83
	Kundasale	101	5	4.95	3,058	88	2.87
	Udunuwara	2,089	87	4.16	2,335	120	5.13
	Poojapitiya	1,915	59	3.08	2,076	61	2.93
	Talatuoya	1,318	86	6.52	1,727	78	4.51
	Galagedera	825	35	4.24	1,840	89	4.83
	Gangawatakorale	988	28	2.83	2,126	72	3.38
	Kurunduwatta	1,317	44	3.34	3,194	187	5.85
	Menikhinna	1,057	61	5.77	2,064	118	5.71
	Yatinuwara	3,005	137	4.56	2,510	145	5.77
	Gampola	5,546	191	3.44	9,313	344	3.69
	Nawalapitiya	247	15	6.07	4,633	155	3.34
	Wattegama	1,543	68	5.89	3,516	276	7.84
	Werallagama	1,262	91	5.38	2,358	140	3.93
	Panwila	-	-	-			
	Udadumbara	-	-	-	2,335	120	5.13
	Galaha	-	-	-	107	9	8.41
	Medadumbara	721	38	5.27	684	36	5.26
Nuwara Eliya	Kotmale	754	11	1.45	309	17	5.28
	Lindula	96	3	3.12	152	5	3.28
	Nawatispane	431	9	2.08	1,424	41	2.87
	Rikillagaskada	816	53	6.49	571	14	2.45
	Walapane	-	-	-			
	Ambagamuwa	575	13	2.26	472	27	5.72
	Nuwara-Eliya	104	3	2.88			
	Kotagala	-	-	-	342	10	2.92
	Bogawantalawa	-	-	-			
	Maturata	100	10	10	529	29	5.48

In the year 2013, the number of positive containers per 100 houses were varied from 5.7 - 9.6 in the Kandy district, from1.9 - 6.8 in the Nuwara Eliya district. In the year 2014, it was from 3.0 -13.1 in the Kandy district and from 3.3 - 9.6 in the Nuwara Eliya district.

This indicates the risk of dengue transmission in all the MOH areas and the necessity of more effective cleaning programmes for dengue control in the area (Table 7.8 and 7.9).

Table 7.8 Number of actual breeding sites of Ae. aegypti and Ae. albopictus in different MOH areas in Kandy and Nuwara Eliya districts

District	MOH area	2013			2014		
		No. of houses surveyed	No. of containers		No. of houses surveyed	No. of containers	
			Examined	positive for Ae. aegypti and Ae. albopictus		Examined	positive for Ae. aegypti and Ae. albopictus
Kandy	Akurana	2,915	2,098	221	2,357	1,783	233
	Bambaradeniya	709	450	33	1,316	1,060	40
	Doluwa	2,143	1,251	83	1,464	922	48
	Hataraliyadda	259	218	21	200	135	04
	Hasalaka	-	-	-	202	111	09
	MC Kandy	3,068	3,153	194	3,321	1,939	61
	Kundasale	101	82	5	3,058	2,876	91
	Udunuwara	2,089	4,247	92	2,335	2,250	115
	Poojapitiya	1,915	1,219	58	2,076	1,151	61
	Talatuoya	1,318	1,071	90	1,727	1,667	80
	Galagedera	825	789	35	1,840	1,501	89
	Gangawatakorale	988	752	28	2,126	2,103	76
	Kurunduwatta	1,317	1,390	46	3,194	3,393	191
	Menikhinna	1,057	982	62	2,064	1,882	119
	Yatinuwara	3,005	2,580	145	2,510	2,460	145
	Gampola	5,546	4,164	213	9,313	6,815	346
	Nawalapitiya	247	242	17	4,633	4,462	155
	Wattegama	1,543	1,086	91	3,516	2,415	276
	Werallagama	1,262	1,241	68	2,358	1,935	144
	Medadumbara	721	588	40	684	586	36
Nuwara Eliya	Kotmale	754	448	11	309	172	17
	Lindula	96	68	3	152	182	6
	Nawatispane	431	254	11	1,424	603	44
	Rikillagaskada	816	803	58	571	301	14
	Ambagamuwa	575	415	13	472	275	27
	Nuwara-Eliya	104	155	3			
	Kotagala	-	-	-	342	258	10
	Maturata	100	125	10	529	553	29

Table 7.9 Number and percentage of potential breeding sites per 100 houses in the Kandy and Nuwara Eliya districts

District	MOH area	2013			2014		
		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	2,915	2,098	71.9	2,357	1,783	75.64%
	Bambaradeniya	709	450	63.46	1,316	1,060	80.54%
	Doluwa	2,143	1,251	58.37	1,464	922	62.97%
	Hataraliyadda	259	218	84.16	200	135	67.5%
	Hasalaka	-	-		202	111	54.95%
	MC Kandy	3068	3153	102.77	3321	1939	58.3%
	Kundasale	101	82	81.18	3058	2876	94.04%
	Udunuwara	2089	4247	203.30	2335	2250	96.35%
	Poojapitiya	1915	1219	63.65	2076	1151	55.44%
	Talatuoya	1318	1071	81.25	1727	1667	96.52%
	Galagedera	825	789	95.63	1840	1501	81.57%
	Gangawatakorale	988	752	76.11	2126	2103	98.91%
	Kurunduwatta	1317	1390	105.54	3194	3393	106.2%
	Menikhinna	1057	982	92.90	2064	1882	91.18%
	Yatinuwara	3005	2580	85.86	2510	2460	98.00%
	Gampola	5546	4164	75.08	9313	6815	73.17%
	Nawalapitiya	247	242	97.97	4633	4462	96.30%
	Wattegama	1543	1086	70.38	3516	2415	68.68%
	Werallagama	1262	1241	98.33	2358	1935	82.06%
	Medadumbara	721	588	81.55	684	586	85.67%
Nuwara Eliya	Kotmale	754	448	59.41	309	172	55.66%
	Lindula	96	68	70.83	152	182	119.73%
	Nawatispane	431	254	58.93	1424	603	42.34%
	Rikillagaskada	816	803	98.40	571	301	52.71%
	Ambagamuwa	575	415	72.17	472	275	58.26%
	Nuwara-Eliya	104	155	149.03			
	Kotagala	-	-	-	342	258	75.43%
	Maturata	100	125	125	529	553	104.53%

Container types

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

In 2013, BI varied from 2.83 to 8.91 in Kandy district and 1.45 to 10.00 in Nuwaraeliya. BI was varied from 2.00 to 9.88 in Kandy district and 2.92 to 5.72 in Nuwaraeliya in 2014. This shows the risk of spreading the disease in both the districts during the given years.

Table 7.10 CI, HI and BI in different MOH areas in the Kandy and Nuwara Eliya districts

District	MOH area	2013			2014		
		CI	HI	BI	CI	HI	BI
Kandy	Akurana	10.53	6.99	7.58	13.06	9.88	9.88
	Bambaradeniya	7.33	4.51	4.65	3.77	3.03	3.03
	Doluwa	6.63	3.87	3.87	5.20	3.21	3.21
	Hataraliyadda	9.63	7.72	8.10	2.96	2	2
	Hasalaka	-	-	-	8.10	8.45	8.45
	MC Kandy	6.15	5.93	6.32	3.14	1.83	1.83
	Kundasale	6.09	4.95	4.95	3.16	2.97	2.87
	Udunuwara	2.17	4.16	4.40	5.11	5.13	5.13
	Poojapitiya	4.75	3.08	3.02	5.29	2.93	2.93
	Talatuoya	8.40	6.52	6.82	4.79	4.51	4.51
	Galagedera	4.43	4.24	4.24	5.92	4.83	4.83
	Gangawatakorale	3.72	2.83	2.83	3.61	3.57	3.38
	Kurunduwatta	3.30	3.34	3.49	5.62	5.85	5.97
	Menikhinna	6.31	5.77	5.86	6.32	5.71	5.76
	Yatinuwara	5.62	4.56	4.83	5.89	5.77	5.77
	Gampola	5.11	3.44	3.84	5.07	3.69	3.71
	Nawalapitiya	7.02	6.07	6.88	3.47	3.34	3.34
	Wattegama	8.37	5.89	5.89	11.42	7.84	7.84
	Werallagama	5.47	5.38	5.38	7.44	5.93	6.10
	Medadumbara	6.80	5.27	5.54	6.14	5.26	5.26
Nuwara Eliya	Kotmale				9.88	5.28	5.50
	Lindula	2.45	1.45	1.45	3.29	3.28	3.94
	Nawatispane	4.41	3.12	3.12	7.29	2.87	3.08
	Rikillagaskada	4.33	2.08	2.55	4.65	2.45	2.45
	Ambagamuwa	7.22	6.49	7.10	9.81	5.72	5.72
	Maturata	3.13	2.26	2.26	5.24	5.48	5.48
	Nuwara-Eliya	8	10	10.00			
	Walapane	1.93	2.88	2.88			
	Kotagala	-	-	-	3.87	2.92	2.92

Dengue control programme - Vector surveillance Matale districts

Table 7.11 No of houses positive for Ae.aegypti and Ae.albopictu and No of containers positive for Ae.aegypti and Ae.albopictus in Matale district in 2013 and 2014

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	
	2013	2014	2013	2014	2013	2014	2013	2014
MC -Matale	2878	2805	73	174	4839	6702	76	220
Matale	4427	3012	180	211	8065	7196	201	253
Yatawatta	369	426	06	17	746	580	06	20
Ambanganga/ Rattota	2601	3310	128	223	5513	6983	141	281
Ukuwela	6725	5217	236	313	10717	11128	342	375
Pallepola	517	646	23	59	932	1477	25	77
Wilgamuwa	00	90	00	10	00	129	00	12
Dambulla	897	451	19	21	1838	2195	20	23
Galewela	1309	2072	36	66	2712	3572	46	98
Naula	294	621	12	86	668	1615	14	122
L/Pallegama	00	215	00	07	00	342	00	07
Institutions	59	52	32	15	2853	2071	57	42
Total	20076	18917	745	1202	38883	44260	928	1530

In 2013 total of 20076 houses were surveyed and 745 houses were positive for ***Ae.aegypti and Ae.albopictus***. Whereas in 2014 total of 18917 houses were surveyed and 1202 houses were positive for ***Ae.aegypti*** and ***Ae.albopictus*** in Matale district.

Similarly in In 2012 total of 38883 containers were surveyed and 928 containers were positive for ***Ae.aegypti*** and ***Ae.albopictus***. Whereas in 2014 total of 44260 containers were surveyed and 1530 containers were positive for ***Ae.aegypti*** and ***Ae.albopictus*** in Matale district.

Table 7.12 Dengue vector surveillance - Other Premises 2013

Institution	No. examined		No. positive for positive for Ae.aegypti and Ae.albopictus		% of institutions positive for Ae.aegypti and Ae.albopictus	
	2013	2014	2013	2014	2013	2014
Government Offices / Institution	51	25	05	00	9.80	20.00
Schools	25	11	10	03	40.00	27.21
CTB Depot	03	02	03	00	100.00	00.0
Hospitals	06	04	05	01	83.33	25.00
Building site	240	129	04	06	1.67	4.65
Commercial site	736	535	18	55	2.45	10.28
Religious place	01	-	01	-	100.00	00
Dump yard	31	04	00	00	0.00	00
Army Camps	02	-	02	-	100.00	00
Open Areas	09	-	00	-	0.00	00
Private	05	10	03	02	60.00	20.00

Table 7.13 Percentage of different containers types positive for Ae.aegypti & Ae.albopictus in Matale District 2013 and 2014

Container Type	2013	2014
Water storage	44	24
Discarded containers	34	36
Polythene	08	26
Natural	03	04
Tyres	04	03
Refregirator	01	02
slab	04	03
Gutter	02	02

Table 7.14 Application of larvivorous fish in water storage containers by MOH areas 2013 & 2014 in Matale district

MOH Area	No of permanent breeding sites		No of fish introduced	
	2013	2014	2013	2014
Matale	87		1040	
MC Matale	49		296	
Ukuwela	50		414	
Rattota	7	201	51	1400
Galewela	25	265	740	3044
Dambulla	0	57	0	4250
L/Pallegama	0	18	0	540
Pallepola	4		40	
Yatawatta	2	83	8	471
Naula	1		9	
Total	**225**	**624**	**2598**	**9705**

Larvivorous fish, Poecilia reticulata were stocked in 189 water storage containers in the district. The MOH areas and the no. 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 7.15 Number of Rounds of space spraying in the MOH areas

MOH area	No. of patients covered		No. of rounds		Amount of Insecticide used (Lit)					
					Deltacide		Pestguard		Technical Melathion	
	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014
Dambulla		02	3	10	0	-	0.79	-	0	8
Galwela		-		31	0	-	0	11.800	0	5
Matale	5	18	13	09	0	-	2.735	0.935	0	8
MC Matale		60	12	38	0	-	2.77	-	1	36.5
Naula	2	02	3	02	0	-	0.53	-	0	2
Pallepola		-	2	-	0	-	0.385	-	0	-
Rattota		-		01	0	-	0	0.125	0	-
Wilgamuwa		-	2	-	0	-	0.655	-	0	-
Ukuwela	4	12	8	07	0	-	1.585	-	0	10
Yatawatta		03	4	05	0	-	0.54	0.125	0	3
Laggala		08		05		-		12.895		5
Total	**11**	**105**	**47**	**108**	**0**	**-**	**9.99**	**-**	**0**	**77.5**

7.3 STD, HIV/AIDS Control Programme

Global Situation of HIV/AIDS

According to World Health Organization (WHO) Globally, there were 35.3 million (32.0 million-38.0 million) living with HIV in 2013. Among them 31.8 million were adults and 3.2 million were children below 15 years. Among the adults living with HIV infection 16.0 million were females. The estimated number of adults acquiring HIV infection in 2013 was 2.1 million (1.9-2.4 million), which was 2.2 million in 2011. This decline may be due to combination of factors, including the natural course of HIV epidemics, behavioral changes and increasing access to antiretroviral therapy and global prevention efforts. But, the rate of decline is not sufficient to reach the goals of reducing the number of people acquiring HIV infection 50% by 2015.

The number of people dying annually from AIDS - related causes worldwide decreased from a peak of 2.3 million (2.1 million -2.5 million) in 2005 to an estimated 1.5 million (1.4million-1.7 million) in 2013. Globally, about 6000 new HIV infections occurred in a day in 2013. Among them, 700 are children under 15 years of age and 5 200 are adults. Almost 47% of them are women and about 33% are among young people (15-24). Majority of them (68%) are living in Sub Saharan Africa.

An estimated 1.4 million more people were receiving antiretroviral therapy in low and middle income countries in 2011 than in 2010.The most dramatic progress has been in Sub Saharan Africa, where treatment coverage increased by 19% between 2010 and 2011. Antiretroviral therapy has added 14 million life years in low and middle income countries globally since 1995, with more than 9 million of these in sub Saharan Africa.

HIV situation in Sri Lanka

The estimated number of people living with HIV as at the end of 2014 was 3200 among them were 100 children. Cumulative total deaths due to HIV infection by the end of 2014 was 336. The estimated HIV prevalence among adults (15-49 years) is less than 0.1%. As at end of December 2014, a cumulative total 2074 HIV infected persons were reported to the NSACP. The main mode of transmission is due to unprotected sex between men and women (82.8%), Men who have sex with Men accounted for 12.3% of the transmission while mother to child transmission was 4.4%. Transmission through blood and blood products was 0.4%. Injecting drug use is not a common phenomenon in Sri lanka (0.5%).***Source: NSACP Sri Lanka***

Table 7.16 Estimated Number /Prevalence of people living with HIV/AIDS, at the end of 2014

Estimated Cases	Number	Prevalence Rate (%)
People living with HIV/AIDS(total)	3200	< 0.1%
Adult Male > 15 years of Age	2150	< 0.1%
Adult Female > 15 years of Age	1050	< 0.1%
Cumulative number of AIDS cases	548	
Cumulative Number of people who received ARV	95	

Source: NSACP Sri Lanka

Table 7.17 Most at risk population (MARP) of Sri Lanka, 2011

MARP	Estimated size of the MARP	HIV prevalence among MARP
Commercial Sex Workers	35000 - 47000	0.2%
MSM	24000 - 37000	0.9%
Patients with STDs	200,000	0.2%
IDUs	900	NA
Prisoners	30,000	0
Migrant workers	350,000	NA
Drug users	45,000	0.2%

Source: NSACP Sri Lanka

Situation 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 2013 and 2014

	Kandy		Matale		Nuwaraeliya	
	2013	2014	2013	2014	2013	2014
Total Clinic Attendance	7091	11108	234	231	1803	1915
Syphilis	65	48	09	08	10	06
NGU/NGC	269	260	08	09	32	10
Genital Herpes	164	187	45	51	20	15
Candidiasis	183	144	12	22	13	11
HIV	05	25	00	00	00	00
Gonnorrhoea	38	31	04	03	44	12
Other STIs	28	27	28	20	05	22

Total number of clinic attendance in Kandy and Nuwaraeliya districts has increased in year 2014 compared to 2013. NGU, Genital Herpes, candidaias and Syphilis were the major STIs in all three districts and significant number of Genital Hepes cases reported from Nuwara Eliya district in 2014. In 2014, 25 cases of HIV positives were reported from Kandy District.

Table 7.19 Serology test for Syphilis in Kandy District

	2013		2014	
	Total VDRL	**VDRL + ve**	**Total VDRL**	**VDRL + ve**
STI Clinic attendance	1949	105	1973	112
Ante-natal mothers	13653	18	24024	49
Pre - employment	4786	04	4739	05
Other	2677	33	2923	30
Total	23065	160	33659	196

The total number of VDRL tests carried out in Kandy district was 33659 and 196 among them were positive. Number of VDRL tests carried out among antenatal mothers in Kandy district has increased in year 2014 than 2013. Among them there were 49 VDRL positive antenatal mothers in Kandy district.

Table 7.20 Serology test for Syphilis in Matale District

	2013		2014	
	Total VDRL	**VDRL + ve**	**Total VDRL**	**VDRL + ve**
STI Clinic attendance	233	08	231	06
Ante-natal mothers	5676	17	6300	03
Pre - employment	1608	05	1484	01
Other	159	00	226	07
Total	**7676**	**30**	**8240**	**17**

Total Number of VDRL tests carried out in Matale district in 2014 were 8240 and 17 were positive for the test. Tests carried out for antenatal mothers were 6300, which is higher than previous year and 3 were positive for the test.

Table 7.21 Serology test for Syphilis in Nuwara Eliya District

	2013		2014	
	Total VDRL	**VDRL + ve**	**Total VDRL**	**VDRL + ve**
STD Clinic Attendance	370	22	412	06
Antenatal Mothers	10099	46	9599	25
Pre- Employment	1332	-	1141	05
Others	86		43	-
Total	**11887**	**68**	**11195**	**36**

Number of VDRL tests carried out among Antenatal mothers in Nuwara eliya district have decreased in year 2014 compared to 2013. In 2014, 25 pregnant mothers were VDRL Positive whereas in 2013 , this figure was 46.

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Table 7.22 Serology test for HIV in Matale District

	2013		2014	
	No tested	**HIV Positive**	**No tested**	**HIV Positive**
STI Clinic Attendance	232	00	231	00
Ante natal mothers	00	00	00	00
Survey samples	00	00	00	00
Others	133	01	166	00
Total	365	01	397	00

There were 397 serological tests carried out for HIV in 2014 and no positive cases were reported.

Table 7.23 Serology test for HIV in Kandy District

	2013		2014	
	No tested	**HIV Positive**	**No tested**	**HIV Positive**
STI Clinic Attendance	1489	00	1590	14
Ante natal mothers	1911	00	26596	01
Survey samples	00	00	00	00
Others	3625	04	5404	10
Total	7025	04	33590	25

There were 33590 serological tests carried out for HIV in Kandy district in 2014 and 25 of them were positive.

Table 7.24 Serology test for HIV in Nuwara Eliya District

	2013		2014	
	No tested	**HIV Positive**	**No tested**	**HIV Positive**
STI Clinic Attendance	397	00	480	00
Ante natal mothers	-	-	-	-
Survey samples	-	-	-	-
Others	15	00	-	-
Total	412	00	480	00

There were 480 serology test carried out for HIV in Nuwara eliya district and non were positive

7.4 Rabies Control activities

Rabies control measures were 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 dog vaccination and elimination of stray dogs. In 2006 Ministry of Health Care and Nutrition 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 7.25 Rabies Situation and control activities

Dog Vaccination						
District	2013			2014		
	Estimated Dog Population	Number vaccinated	%	Estimated Dog Population	Number Vaccinated	%
Kandy	16,7116	98,598	59.0%	173,945	94,651	54.4%
Matale	60,897	47,367	77.8%	60719	45,748	75.3%
Nuwara Eliya	86,009	53,237	61.9%	71,724	41,994	58.5%
Central Province	314,022	199,202	63.4%	306,388	182,393	59.5%

Dog Sterilization						
District	2013			2014		
	Estimated Female Dog Population	Number of sterilization	%	Estimated Female Dog Population	Number of sterilization	%
Kandy	53,662	Nil	Nil	59,938	2,352	3.9%
Mathale	18,083	Nil	Nil	21,088	1,996	6.6%
Nuwara Eliya	27,929	Nil	Nil	30,888	1,880	37.0%
Central Province	99,674	Nil	Nil	111,914	6,228	

Dog Birth Control (Temporary method)						
District	Estimated Female Dog Population	Number	%	Estimated Female Dog Population	Number	%
Kandy	43977	419	1.0 %	59938	-	-
Mathale	15069	273	1.8%	21088	-	-
Nuwara Eliya	23274	0	-	30888	-	-
Central Province	82320	692	0.84%	111,914	-	-

Table 7.26 Expenditure for Dog Sterilization

Year	Expenditure
2011	Rs. 0.70 million
2012	Rs. 7.50 million
2014	Rs. 6.54 million

Table 7.27 Human Rabies Deaths

	2011	2012	2013	2014
Kandy	00	00	00	01
Mathale	00	02	00	00
Nuwara Eliya	01	00	00	00
Central Province	01	02	00	01

Table 7.28 Post Exposure prophylaxis used in the Central Province 2008-2014

	2008	2009	2010	2011	2012	2013	2014
Human ARV Doses	40,931	41,231	37,625	25,477	127,223	36,445	37,311
Human ARS Doses	24,899	18,959	17,942	11,502	19,857	8,031	4,259

Table 7.29 The usage of Human ARV & ARS by Hospital in the Central Province 2013 - 2014

Institutions	2013		2014	
	Human ARV	Human ARS	Human ARV	Human ARS
	No of Vials	No of Vials	No of Vials	No of Vials
TH Kandy	5,060	2,300	5,466	2,768
TH Peradeniya	2,600	1,690	2,723	1,720
BH Gampola	4,264	845	5,435	55
DGH Matale	2,171	510	3,676	405
DBH Dambulla	1,330	618	1,602	0
DGH Nawalapitiya	31,500	200	4,600	350
DGH Nuwara Eliya	1,598	91	8,366	509
BH Rikillagaskada	1,038	00	1,053	0
BH Dickoya	1,910	00	2,580	0
DH Maskeliya	178	00	278	0
DH Walapane	619	00	550	0
DH Watawala	45	00	179	0
DH Udupussellawa	182	00	263	0
DH Bogawanthalawa	25	00	85	0
DH Lindula	30	00	100	0
CD Nildandahina	40	00	240	0
DH Madulla	25	00	75	0
DH Hangurankethe			20	0
DH Mathurata			20	0
DH Galewela	463	00	401	0

DH Wilgamuwa	399	00	360	0
DBH Theldeniya	513	00	580	0
DH Delthota	579	00	850	0
DH Hasalaka	351	00	343	0
DH Madulkele	280	00	570	0

7.5 Respiratory diseases Control Unit

Tuberculosis 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. Control of Tuberculosis is a priority for the development.

Global Burden of Tuberculosis

TB is a global threat. Based on surveillance and survey data, WHO estimates that 8.8 million new cases of TB occurred in 2010 (128 per 100 000 population) and 5.7 million cases were notified in 2010 of which 2.6 million were New Smear-Positive TB cases. For the 2.6 million patients with sputum smear positive pulmonary TB in the 2009 registered cohort, 87% were successfully treated. There were an estimated 12 million prevalent cases in 2010 (178 per 100 000 population). Worldwide, there were an estimated 0.65 million (650 000) cases of Multi-drug Resistant TB (MDR-TB) cases in 2010.

Mortality Due to TB

Globally, an estimated 1.1 million deaths (range, 0.9 million–1.2 million) occurred in 2010 among HIV-negative cases of TB, including 0.32 million deaths (range, 0.20 million–0.44 million) among women. This was equivalent to 15 deaths per 100 000 population. In addition, there were an estimated 0.35 million deaths (range, 0.32 million–0.39 million) among incident TB cases that were HIV-positive. Thus, in total, approximately 1.4 million people (range, 1.2 million–1.5 million) died of TB in 2010. The number of TB deaths per 100 000 population among HIV-negative people plus the estimated number of TB deaths among HIV-positive people equates to a best estimate of 20 deaths per 100 000 population.

Sri Lankan Situation

Tuberculosis is continuing to be a major public health problem in the country. About 9000 new cases of tuberculosis are notified every year, of which around 60% are smear-positive pulmonary TB cases. The estimated prevalence and incidence rates of all forms of tuberculosis in 2010 were 101 and 56 per 100 000 population respectively. The case detection rate of all forms of TB and new smear-positive cases were 86% and 88% respectively, showing a slight but steady increase compared with previous years. Treatment success rate among new smear-positive cases was 86% for the cohort of patients registered in 2009.

HIV co-infection rates among TB patients are currently estimated at 0.2%. TB patients have been included under the annual surveillance for HIV since 1993. Only two cases have been detected from among 1015 TB patients tested in 2010. A national policy for the provision of CPT and ART to HIV-positive TB patients is in place.

MDR-TB Patients

So far, MDR-TB is low. Only eight cases were detected in 2010. A national drug resistance survey was completed in 2006, and this confirmed the very low levels of drug resistance of 0.2% among new patients and 18% - 21% among re-treatment cases in the country.

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

Epidemiological burden of TB 2013

Incidence (all cases) - 44.1/ 100 000 pop/yr
Incidence (Sputum Smear Positive) - 21.7/100 000 pop/yr
Prevalence rate (all cases-2012) -101 /100 000 pop/yr
Mortality rate (TB cases-2012) - 5.5/100 000 pop

Laboratory services in Sri Lanka (2013)

Number of laboratories performing smear microscopy - 214
National/Provincial reference Lab - 03
Number of Accredited Laboratories performing Culture and DST - 01
Implemented of EQA -190

Table 7.30 Incidence of Tuberculosis cases by type in Nuwaraeliya District 2013 & 2014

Type	2013	2014
PTB smear + ve	125	112
PTB smear - ve	78	65
EPTB	68	73
Total	**271**	**250**

Note: EPTB - Extra Pulmonary Tuberculosis

Highest number of cases was reported in Ambagamuwa MOH area in both 2013 and 2014. The incidence rate of all TB cases was 33.7/100,000 population.

Table 7.31 Incidence of Tuberculosis cases by type in Kandy District 2013 & 2014

Type	2013	2014
PTB smear +ve	247	260
PTB smear -ve	252	200
EPTB	221	216
Total	**720**	**676**

Note: EPTB - Extra Pulmonary Tuberculosis

In 2014 higher number of smear positive cases were reported from Kandy Municipal Council, Yatinuwara, Harispattuwa and, Gampola MOH areas.

Table 7.32 Incidence of Tuberculosis cases by type in Matale District 2013 & 2014

Type	2013	2014
PTB smear +ve	77	76
PTB smear -ve	34	35
EPTB	44	61
Total	**155**	**172**

Note EPTB - Extra Pulmonary Tuberculosis

In 2014 highest number of smear positive cases, reported from Ukuwela MOH area and the situation was same for year 2012 and year 2013.

Table 7.33 Percentage Distribution of new smear positive cases by sex 2013 & 2014

District	2013		2014	
	Male	Female	Male	Female
Kandy	76	24	74	26
Matale	73	27	79	21
Nuwaraeliya	66	34	59	41
Central Province	72	28	71	29

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

Table 7.34 Distribution of TB cases by District

	2013	2014
Kandy	720	676
Matale	155	172
Nuwara eliya	271	250
Central Province	1146	1098

Number of Tuberculosis cases diagnosed in Matale district was increased and it was decreased in other districts in 2014 when compared to the year 2013.

Table 7.35 Clinic Attendance

Category	2013		2014	
	Number	%	Number	%
Referral	8154	25	11035	30
Self referral	15373	46	16094	43
Contacts	969	3	1505	4
Medicals	8650	26	8677	23
Total	**33146**	**100**	**37311**	**100**

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

Table 7.36 No of Investigations Carried out and Results

	2013	2014
No of Smears Examined	30874	37208
No of Smears Positive Slides	1122	1150
No of Smears Negative Slides	29752	36058
No of X rays Carried Out	24286	27005
No of Films Used	21799	23462

Table 7.37 Treatment success in 2013 and 2014

District	2013			2014		
	Kandy	Matale	N eliya	Kandy	Matale	N eliya
DOTS implementation coverage	100%	100%	92%	100%	100%	80%
Treatment success rate	84.2%	88.73%	91%	89.7%	89.0	89.5%
Default rate	3.7%	1.4%	2.9%	2.8%	0.0%	3.1%
The mortality rate	4.9%	8.45%	6.9%	6.3%	7.0%	8.0%

DOTS coverage in Kandy and Matale was nearly 100% in 2014 and all three 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 the control of leprosy.

Of all the diseases that continue to plague humanity, 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.

3. Strengthening of field activities and introduction of Multi drug Therapy (1970 - 1990)

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

4. Community involvement and elimination of leprosy at national level (1990 - 2006)

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 Dr Atul 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.

Vision of the programme

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 7.38 Incidence of leprosy by District in the CP from 2006 - 2014

	2006		2007		2008		2009		2010		2011		2012		2013		2014	
	PB	MB	PB	MB	PB	MB	PB	MB	PB	MB	PB	MB	PB	MB	PB	MB	PB	MB
Kandy	19	16	33	09	29	14	18	22	30	20	00	00	00	00	20	16	15	23
Matale	18	29	17	24	10	17	14	11	14	21	11	7	14	13	12	24	09	07
Nuwara Eliya	Nil	Nil	01	02	Nil	04	06	06	04	09	05	03	04	06	05	05	05	07
Total CP	**37**	**45**	**51**	**35**	**39**	**35**	**38**	**39**	**48**	**50**	**16**	**10**	**18**	**19**	**37**	**45**	**29**	**37**

Source - sentinel Leprosy Register

When compare to the year 2013, in 2014 PB leprosy cases were decreased but MB cases were increased in Kandy and Nuwara ELiya districts.

Table 7.39 Proportion Child patients and Deformities reported in 2013 and 2014

	2013		2014	
	Number	%	Number	%
Child patients reported (< 15 yrs)				
Kandy	02	5.5 %	05	13.2
Matale	02	8.7%	02	15.3%
Nuwara Eliya	-	-	-	-
Total CP	04		7	
Deformity patients reported				
Kandy	11	30.5 %	06	15.8
Matale	-	-	-	-
Nuwara Eliya	-	-	-	-
Total CP	11			

Source - sentinel Leprosy Register

Table 7.40 Treatment and rehabilitation status

	2013			2014		
	Kandy	Matale	N Eliya	Kandy	Matale	N Eliya
Number cured	36	-	02	38	14	03
Number defaulted treatment	Nil	-	01	-	-	02
Cumulative deformity patients	11	05		06	-	-
Number patients received foot wear	05	10		08	03	-
Number of patients received foot splints	Nil	0		-	02	-
Finger splints	05	0		06	-	-
Ulcer care kit	Nil	0		-	-	-
Large plastic basin	Nil	0		-	-	-
MC for social relief allowance	13	05		06	04	-

The incidence of leprosy was decreased in the province in 2014 than 2013.

8. SPECIAL UNITS

8.1 Patient Rehabilitation Services

Physical Rehabilitation Center - Digana

The rehabilitation of physically disabled patients is an aspect that fails to draw adequate attention in the general health services due to the lack of facilities and trained staff. The long term adverse impact of not addressing this problem was highlighted when statistics showed a significant number of patients needing medium and long term rehabilitation being discharged from tertiary care units without a proper rehabilitation plan resulting in bed ridden or wheel chair bound citizens.

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

1. Inward facilities

By 2014 the total number of beds of the hospital are 68 and the total inpatient days been recorded as 16,140 for the year. Bed occupancy rate is 65 %.

2. 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 the boundaries of straight forward medical treatment.

Rheumatology Services

These services are provided for

1. Inward patients
2. Out patients
3. Follow up services

Community Paediatric Services

This pilot project involves the early identification of disabled children and education of field officers by the community Paeditrician in order to enable early referral of these patients to the rehabilitation centre.

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

Special Ward Rounds

A special ward round with pre ward round discussion is held every friday with the participation of a Consultant Rheumatologist, Paediatrician, the Medical Officer In Charge, Medical Officer of Mental Health, physiotherapist, occupational therapist, planning officer, social service officer and nursing officers. During the ward round, ideas and suggestions from each specialty are shared in order to individualize and optimize patient care services.

3. Physiotherapy

The objective of physiotherapy is to facilitate the movements of disabled muscles and joints through the use of heat, electricity, gravity, sound, kinetic energy etc. The treatment given with the use of the hands of the physiotherapists also plays a major role in their prognosis. By discharge, the patient is made to overcome many of the limitations caused by the initial disability and allowed to explore the capacity to conduct daily activities of living as much as possible with autonomy. E.g. training given to balance oneself when sitting, walking with or without crutches.

Physiotherapy services are available for outpatients as well as for inpatients in the institution.

4. Occupational Therapy

This involves specific activities utilized as a mode of treatment with regard to mentally and physically disabled patients. Following are a 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 out daily activities of living
- Patients with paralysed upper limbs are trained to explore the ability to reuse them with the help of adaptive devices and splints
- Assessing the suitability to use a wheel chair and the provision of training once chosen to use one
- Guiding to improve the movements of the joints, the strengthening of muscles, coordination, balancing when sitting and when changing positions
- Designing adaptive devices and providing training to use them
- Assessing the ability to engage in the original job or a new job in order to make the person financially independent

5. 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.

6. Supply of disable appliances majority free of charge and some days at a cost by a NGO.

7. 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 is also counseled to help create an atmosphere where the individual is capable of living an active and dignified life.

8. Speech therapy

Since there is no speech therapist attached to the Centre, temporary services have been provided by the Peradeniya University Speech Therapist. A Nursing Officer of the Centre has been undergoing training to continue the provision of this service.

9. Leisure activities

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

10. 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.

11. 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 563 resettlement activities been carried out by the end of 2014.

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 2014 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..

12. 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	2009	2010	2011	2012	2013	2014
01	Total No. of Admission	330	338	549	641	674	623
02	Discharge with total recovery	245	164	310	298	408	563
03	Total No. of Deaths	01	01	05	0	01	1
04	Total No. of Vocational Training given	216	147	62	56	120	51
05	Total No. appliances given free of charge • Wheelchairs • Crutches • Walking aides • Others - commode chairs	 09 05 15 10	 27 11 08 09	 10 0 05 05	 27 05 0 07	 15 02 02 04	 12 02 03 04
06	No. of Patients Counseled	114	52	40	35	60	44
07	No. of Home Visits	17	36	20	10	11	10
08	No. of successfully resettled Patients	200	143	150	135	408	563
09	General OPD average Per month	7620	5608	6351	6812	7490	7701
10	Medical clinic	2280	4138	4873	5540	6541	7676
11	Medical clinic average per month(Diabetic)	1770	2755	2400	2100	1377	5298

The number of patients who were discharged with total recovery has increased in 2014 when compared to the previous years.

Table 8.2 Details of Clinics held in 2014

Clinic	Total Number of Clinics held	First Visits	Subsequent Visits	Total Visits	Average attendance per day	Designation of Officer conducting the clinic
Medical	51	262	7434	7696	151	MO
Diabetic	46	189	5296	5485	119	MO
Dental	243	5958	1110	7068	29	DS
Rheumatology	167	1524	10068	11592	69	Rheumatologist
Paediatric	45	322	534	856	19	Paediatrician
Psychiatry	29	16	405	421	14	MO Psychiatry
NCD	12	98	-	98	08	MOIC
OPD	290	92415	-	92415	318	MO/RMO

Table 8.3 Physiotherapy and Occupational therapy statistics

Unit	No of Patients		
	2012	2013	2014
Physiotherapy	3,200	628 in ward patients only	15702
Occupational therapy	8,100	9,470	11918

The following activities were undertaken in 2014 to improve the services at Digana Rehabilitation Hospital.

Paediatric

- Neurology clinic is held once a month on Saturday morning by visiting Neurologist Dr. Jagath Munasingha.
- Established an education unit for disable children.

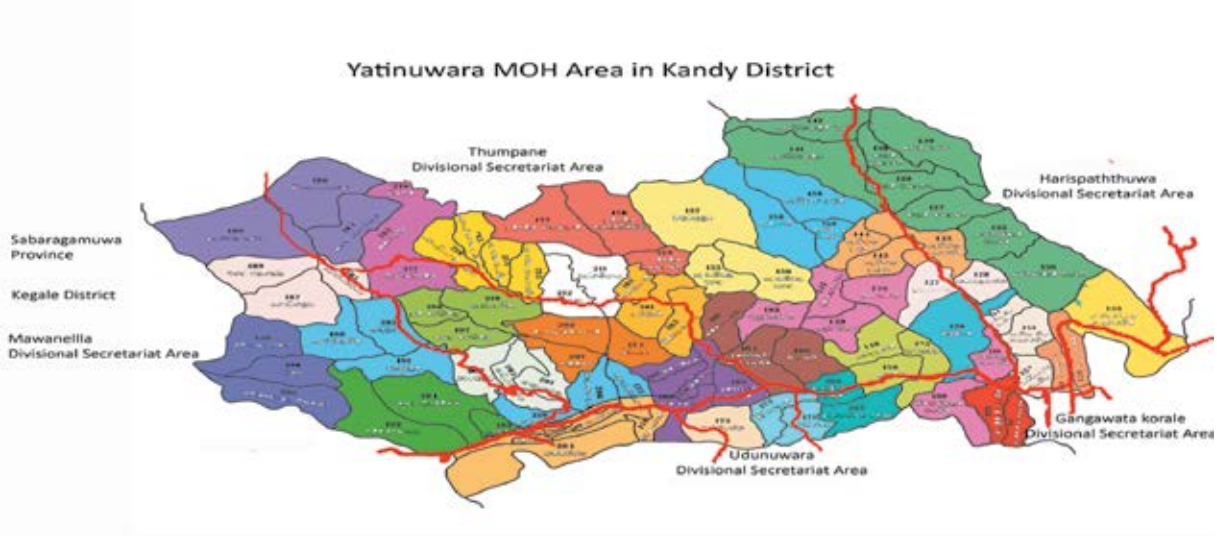
Contribution from well wishers

- Replace new orthopedic mattresses worth around 0.3 million Rupees.
- Supply equipment for Occupation therapy unit worth 0.4 million Rupees.
- Supply rehabilitation friendly beds.
- Visit private speech therapist once a week.
- Appointed a diet clerk to the hospital.

8.2 Regional Health Training Center-Kadugannawa

Location

RHTC is located by the main Kandy - Colombo trunk route at Henawala, Kadugannawa.



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Introduction and History

Office of the Medical Officer of Health Yatinuwara (MOH) was established in 1936 to carry out preventive health activities in the area. It has been identified as a center for 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 centre when it was established.

The Training Center was upgraded as Regional Health Training Center (RHTC) in 1990 and expanded its services as a training centre 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 HenawalaKadugannawa. 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"

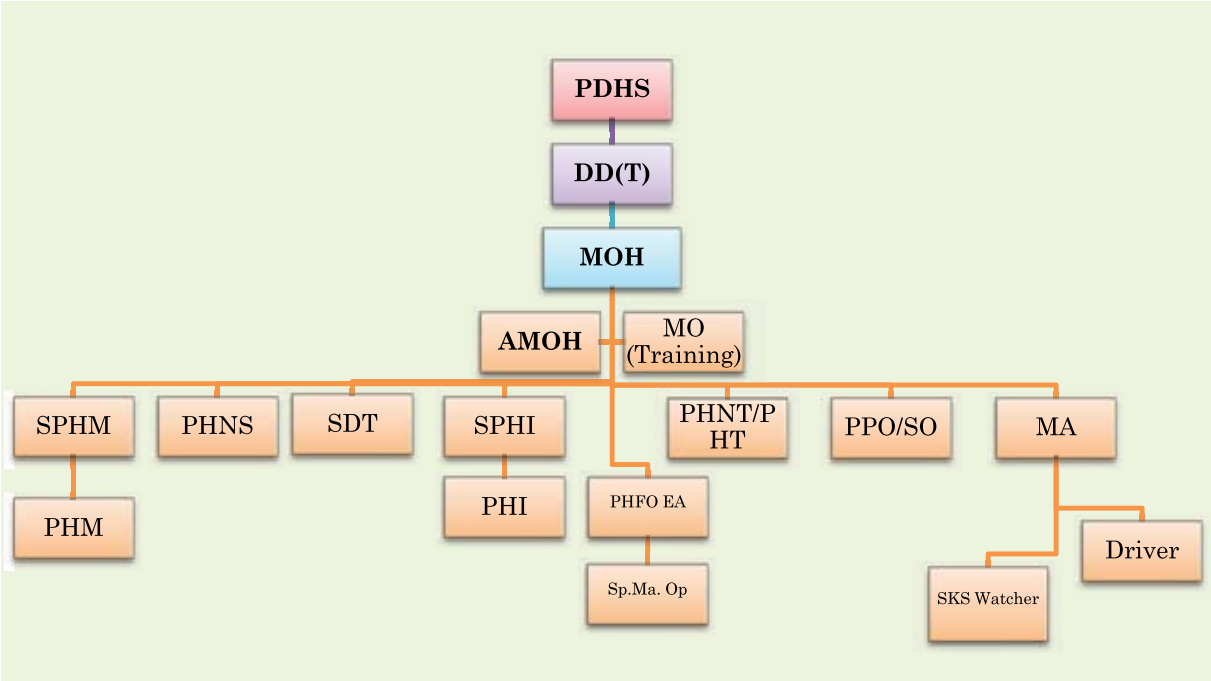
Overall objective

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
EA - Entomological Assistant
PHFO - Public Health Field Officer
PHNS - Public Health Nursing Sister
SPHM - Supervising Public Health Midwife
SPHI - Supervising Public Health Inspector
SDT - School Dental Therapist
MA - Management Assistant
PHI - Public Health Inspector
PHM - Public Health Midwife
SKS - SaukyaKaryaSahayaka
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 academic Personal with Post graduate degrees diploma. Most of our Academic lectures 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
- Charted Accountant s
- SLAS officers
- Technical officers
- Engineers
- Researchers

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 is with 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, 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.

Kind hearted assistance staff is a another strong arm in the institute. They consist of drivers and SKS,

Facilities

❖ **Lecture Halls**

- Auditorium 01 - Accommodate facilities for 100 Persons with Air Conditions. Multimedia and Other Audio Visual Equipments.
- Lecture Hall 02 - Accommodate facilities for 60 Persons with Air Conditions.
- Lecture Hall 03 - Accommodate facilities for 50 Persons.
- Lecture Hall 04 - Accommodate facilities for 75 Persons.
- Tutorial room - Accommodate 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 and Photocopying, dooplo machines, Laminating book binding & printing facilities

Field Practice area

Yatinuwara MOH area is equal to Divisional Secretariat area as an administration unit. It spreads around 70 square kilo meters along the Kandy Colombo road starting 9 kilo meters away from Kandy City. There are 161 villages and 95 GramaNiladari divisions in the MOH area. Both Yatinuwara Local government and Kadugannawa Urban council are in the Yatinuwara MOH area.

General Information of the Area

- ❖ Total Population : 108486
- ❖ Population density (Per Sq Kilometers) : 79
- ❖ 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 holders : 23842

Field Services

- 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 healthylife style,
- NCD Screening,
- Adolescent health,
- Oral Health,
- Drugs Inspection,
- Mental Health,
- Business registrations, Rehabilitation

Table 8.4 Training programmes conducted in 2014 at RHTC Kadugannawa

No	Name of Training/ Workshop	No of Programmes	Target Group	No of Participants	Total Expenditure Rs.
1	Basic Life support & First Aid	3	NO, HA	118	46,340.00
2	Elderly care	3	MO,NO	83	56,499.00
3	Basic IT Skills	2	MA	45	10,745.00
4	Medical equipment management	2	MO,NO,PHI, PHM, PHNS	102	17,515.00
5	Hospital management	1	MO,MOIC	12	4,760.00
6	TOT Health Information management	1	PPO,PHNS, SO,MRA	46	15,995.00
7	Pre-hospital care & patient transporation	1	MO,MOIC	18	9,330.00
8	Oral care disabled & Austistics children	1	DS	48	10,050.00
9	Gender & Gender Base violence	1	PPO,DO,MRA,SO	47	10,180.00
10	Infection control & Hand Hygiene	2	NO	50	14,945.00
11	Diabetic Education(DENO)	1	NO	33	22,460.00
12	Early Childhood Care Development(ECCD)	1	MO.PHM, SPHM	58	24,585.00
13	Neonatal Life Support Course	1	MO	14	9,134.00
14	Geriatric Dental Care	1	DS	36	8,885.00
15	Personal Development & communication skills	1	NO	42	18,145.00
16	Human Rights & child Protection	1	MOH,PHM,PHI, PHNS	31	8,285.00
17	Logistic management	1	Phamacist, Dispenser	34	7,400.00
18	Costing for Health care	1	MO,MA.DO, PPO	30	10,335.00
19	Pre-placement Training	3	DT,NO,HA	103	108,018.00
20	Orientation Programme	1	PHI Students	45	9,489.00
21	In-service Training	9	DO,MA,SPHM, PHNS, PHM, Ambulance drivers	251	108,260.00
	TOTAL	**38**		**1246**	**531,355.00**

Table 8.5 Achievements on maternal and child health and environmental health at MOH area Kadugannawa

Indicator	2010	2011	2012	2013	2014
% of Pregnant mothers registered	86.6	90.7	90.7	89.2	99
% of Pregnant mothers registered < 8 weeks	67.5	71.8	69.7	72.4	70.7
% of Pregnant mothers registered 8> 12	6	5	7.2	11	23.3
% of Pregnant mothers protected for Rubella	99.2	93.8	90	98.5	99
% of Teenage pregnant mothers registered	3.8	31.9	4	2.6	2.9
% of Mothers tested for Grp. & Rh at clinic	31.9	24.1	32.7	26.7	27.3
% of mothers tested for VDRL at the time of delivery	90.9	99.8	99.7	100	99.7
% of Mothers Protect red for TT at the Time of delivery	99.8	99.9	99.7	100	99.7
% of pregnant mothers received at least one home visit by PHM	88.1	89.2	86.6	88	90.3
Average number of home visits per mother by PHM (total no. of home visits/1st visits)	4.7	3.7	3.5	3.8	3.2
% of mothers tested for Haemoglobin at clinic	12.9	45.2	63.8	69.7	73.6
% No. of pregnant mothers whose BMI measured	82.2	83.2	80.5	88	89
% of total deliveries reported	72.8	78.8	88	86	81.4
% of total live births reported	72.8	79.1	88.4	86.3	81.8
% of Home deliveries	0	0.2	0	0	0
% of infants registered	73.4	77.3	85	85.9	82.7
% of preschoolers weighed (l-2yrs)	65	74	72	73	74.9

8.3 Bio - Medical Engineering Services Unit

Prior to 2002 The repairing of all medical equipment was carried out by the Bio- medical Engineering Services Unit in Colombo (BES). However, as there were 224 health institutions under the Central Provincial Health Department, it was impossible 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 needing major repairs in secondary care hospitals were done by the BME Unit on urgent requests. The Province did not have proper procedures for purchasing, condemning and maintenance of medical equipment. The Central Province Bio - Medical Engineering Services unit was established in November 2002 with the aim 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 health institutions within the Central Province
2. Services of medical, surgical and other equipment in the health institutions within the Central Province
3. Provision of reports on equipment and other items to be condemned in health institutions
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 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.

Table 8.6 List of medical equipments repaired during year 2012,2013 and 2014

Type of Equipment	Name of Equipment	Quantity		
		2012	2013	2014
Laboratory Equipment	Centrifuge	11	02	
	Microscope	21	17	10
	Autoclave	18	24	20
	Water bath	01		02
Theatre and ICU equipment	O.T. Lamp		02	
	O.T. Table	06		15
	Laryngoscope	01		
	Pulse Oxymeter	03	02	05
	Oxygen regulator			03
	Ventilator	02	01	
	Anesthetic machines		01	
	Diathermy	04	05	06
	Infusion pump	02	06	23
	Syringe pump		02	08
	Bed side monitor		02	05
	Defibrillator	03	01	01
	Endoscope	01		
	ICU Beds	04		
	Air compressor			08

Maternal & Paediatric Equipment	Incubator	07	05	03
	Phototherapy	02		06
	Doppler			02
	Warmer	04	03	14
	CTG			07
Radiology	X-ray machine	08	04	05
	Ultra Sound Scanner	03		01
	X-ray illuminators	01		01
	Slit lamp			06
	Eye surgical microscope			02
	Auroscope			03
	Infra red lamp			01
Dental equipment	Dental chair and unit	120	98	116
BP Apparatus		132	121	180
Non medical equipment	Generator	11	02	
	Water pump	03	01	
	Fogging machine	06		
	Air conditioner	41	46	28
	Refrigerator	16	04	04
	Electric repairs	16	01	
	Mortuary coolers			02
Surgical equipment	Sucker	13	14	11
	Nebulizer	17	14	05
	Stethoscope	01		
	Spot Lamp	06	01	09
	Sterilizer	16	36	41
	E.C.G Machine	15	21	26
	Stimulator			01
Psychiatric	E.C.T	01		
General equipment	Scales	19	19	02
	Boiler	03	05	05
	Gluco Meter	01		
	Kettle	02	03	01
	Water Distiller	02	01	01
	Grass Cutter	01		
	Hot Plate	03	01	01

The cost saving to the Department of Health for some of the equipment repaired in 2014 is approximated to be Rs. 2,198,750/-

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

The BME unit has established a system of quick repair and delivery of damaged 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.

Another service provided by the BME unit is establishing lab services and Emergency Treatment Unit services in the hospitals. Under this programme equipment which has maximum benefit to establish these units are identified and procured through redistribution and other methods.

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 has helped change the attitude of the staff using these equipments.

During hospital visits the BME team inspects all the medical instruments used and condemned by that institute. The discarded equipment is brought back to the unit, repaired and re-distributed to other hospitals needing them. A Sticker system with the hospital name, type of equipment and inventory number are pasted on each medical instrument belonging to the hospital. This in the long term will prevent the damage to the equipment by using plasters, Sellotape etc for the above purpose.

The construction of the new BME unit with different areas to handle electronic equipment, high pressure apparatus, generators, dental equipment etc has paved way for more organized and efficient rendering of services. As a result, the unit has expanded its services to handle repairs of generators and air conditioning units of the whole of central province and has attended to repairs of many domestic 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 Dambulla are 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 Sirimavo Bandaranayake memorial Children's hospital, Peradeniya also provide orthodontic services to the children under 14 years of age. General hospital Nuwaraeliya and District General hospital Matale are 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. These programmes include 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 of these 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 8.7 Dental services in Central Province in 2014

	Kandy	Matale	Nuwara Eliya	Total
Hospital Dental Clinics	37	13	22	72
Community Dental Clinics	3	0	0	3
Adolescent Dental Clinics	3	2	1	6
School Dental Clinics	32	12	9	53
School dental clinics functioning	32	10	9	51
Mobile Dental Unit	1	1	1	3

Table 8.8 Performance of Dental Surgeons in 2014

	Kandy	Matale	Nuwara eliya	Total
EMERGENCY				
No. of extractions : deciduous	3736	4037	1366	9139
Permanent : caries	43122	27829	19765	90716
: periodontal	11717	8103	5410	25230
: Other	1153	752	716	2621
D.A.A Treated	8635	7764	4880	21279
Fractures treated	221	375	55	651
Medico Legal	26	25	05	56
Post operative : Haeamorrhage	35	81	04	120
: Infection	372	666	1183	2221
ORAL MEDICINE				
Premalignant : Leukeplakia	28	177	145	350
: Other	135	621	239	995
Oral carcinoma	13	35	44	92

Candida Albicans	46	141	110	297
Restorations Temporary	28153	19831	9074	57058
Permanent : Amalgam	18242	12154	8252	38648
: Composite	7347	7887	3275	18509
: Advanced Construction	3767	2137	840	6744
Periodontal Treatment : Scaling	9237	7782	2639	19658
: Surgery	1080	165	175	1420
SURGERY				
Incision & Drainage	1148	972	379	2499
Impacted	1139	614	188	1941
Apicoectomy	-	26	-	26
Fractures	10	21	08	39
Biopsies	12	295	-	307
Other	78	191	301	570
Indoor	428	326	125	879
All Referrals	3669	3240	1056	7965
Miscellaneous	20229	16365	4735	41329
Prevention individual	16530	14836	1370	32736
Community	4687	4507	508	9702
First Visit	**124804**	**83233**	-	208037
Second Visit	**22727**	**25282**	-	48009
Total Attendance	**147531**	**108515**	**66847**	**322893**

Table 8.9 Performance of School Dental Therapists in 2014

	Kandy	Matale	Nuwara eliya	Total
Permanent filling : Deciduous	27093	12513	7004	46610
: Permanent	6158	2194	2674	11026
Dressing : Deciduous + Permanent	15045	3358	2430	20833
Complete Scaling	7792	2693	2374	12859
Miscellaneous	945	2693	3219	6857
Referrals	4881	1494	973	7348
Casual	9194	4870	1728	15792
Total attendances	**80256**	**35074**	**23606**	**138936**
Health education : No of Children	62601	18449	20626	101676
: No of Adults	19757	3615	6207	29579
: No of Teachers	2310	553	1081	3944
: No of Sessions	2502	852	1058	4412
No of outreach program	427	231	250	908

Table 8.10 Mobile dental unit performances in 2014

	Matale	Nuwaraeliya
No of patients screened	1477	4399
No of patients treated	1157	2875

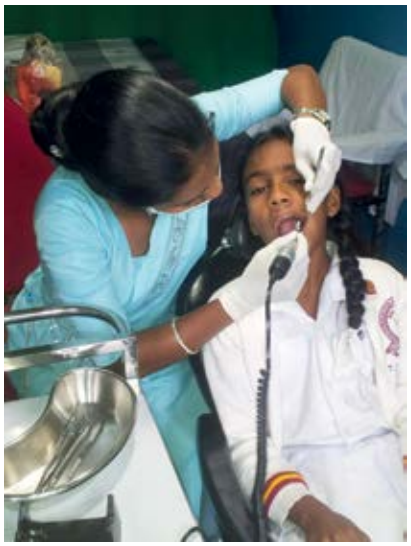
Table 8.11 Total no of patients treated at OPD at hospitals in 2014

	TH Kandy	Dental hospital Peradeniya	DGH Nuwaraeliya	Base hospital Gampola
1st Quarter	7356	10225	3,965	1446
2nd Quarter	7924	9477	3,658	1268
3rd Quarter	8306	11238	3,439	1740
4th Quarter	8375	11788	2,126	2281
Total	31961	**42,728**	**13,188**	**6735**

Table 8.12 Total no of patients treated at OMF at hospitals in 2014

	TH Kandy	Dental hospital	DGH
1st Quarter	1091	2177	927
2nd Quarter	1161	1876	734
3rd Quarter	1322	2215	922
4th Quarter	1126	2325	363
Total	**4,700**	**8,593**	**2,946**

In order to bring up the quality, accessibility, and cost efficiency of oral health care systems in central province it has been planned to increase the number of dental health care facilities, on the process of which, 2 school dental clinics in Nuwara Eliya district, Ragala T.B.M Herath secondary school and Nawathispane Harangala secondary school were established in 2014.



School dental therapist treating a child

The day of Ragala School dental clinic opening

8.5 Mental Health Services in 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 Central Province have been identified as a model for Mental Health for other Provinces in Sri Lanka.

Mental health services are planned and implemented with the team by the mental health steering committee of the province and the steering committee consists of Provincial Director, Consultant Community Physician, Planning Units of the PD Office, Regional Directors, Consultant Psychiatrists, Medical officers from District mental Health Resource centers, Medical officers in the special mental health units, Social service department officers and Probation Officers.

Community mental health activities supported through the MOHH

Strength of Central province's Mental Health programme lies on the already established primary health care structure where the MOH is the key person. MOHs in the province were trained in the 4 day Mental Health Training programme 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 at 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.

Tertiary psychiatric care services at the TH Kandy TH Peradeniya and SBSCH Peradeniya

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. Psychiatry Department at Kandy holds a Sinhala/ Tamil New Year celebrations annually in a ground outside the hospital.

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 Deltota Sisila 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 a Day Centre for 6 days a week where two Occupational Therapists are providing services. One Social Worker is supported by two Mental Development Officers who are trained in social work for this scheduled activity.

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 Steering Committee 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.

Sirimawo Bandaranayake 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 children per year.

Mental health services - Kandy district

Community mental health resource centre - Katugastota

This Centre is situated in DH Katugastota, MO/MH focal points in Matale and Nuwaraeliya districts conduct training and awareness programs for Government & Non Government Organizations, the community at large and identified special personnel on Mental Health.

Table 8.13 No. of Training Programmes conducted in 2014

	Kandy	Matale	Nuwara eliya
Health staff	50	30	04
School teachers	25	10	0
School children	20	04	0
Volunteers	12	-	0
Religious leaders	04	-	0
Grama/ Samurdhi Niladhari	11	04	0
World Mental Health day	02	01	01
Work places	03	-	0
Youth Camp	04	-	0
Others	08	08	11
Total	**214**	**57**	**15**

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 was celebrated by organizing a exhibition and educational program.

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 Nuwara Eliya 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 hospital Gampola

Mental health unit is headed by a consultant psychiatrist and holds daily clinic, day centre services and out reach clinics at DH Pussellawa, DH Panvilatenna and DH Kurunduwatta.

Sisila rehabilitation hospital Deltota

Sisila Rehabilitation Hospital was established in 1995 at Deltota. The mental health rehabilitation hospital has 30 beds for both male and function as a medium stay unit for Kandy district. Well planned rehabilitation program is in place at the hospital and TH Peradeniya and TH Kandy provides consultation services.

Alcohol rehabilitaion centre Mampitiya

Alcohol Rehabilitation Unit at Mampitiya was the first government institute, which provided rehabilitation facilities for alcoholic 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 at secondary and tertiary health care institutions.

Table 8.14 Functioning Mental Health Clinics in the province

No.	Kandy	Matale	Nuwaraeliya
1	TH Kandy	DGH Matale	DGH Nuwara Eliya
2	TH Peradeniya	DBH Dambulla	DBH Dickoya
3	SBSCH Peradeniya	DH Leliambe	DBH Rikillagaskada
4	DGH Nawalapitiya	DH Nuwandeniya	DH Udupussellawa
5	DBH Theldeniya	DH Nalanda	DH Walapane
6	DH Akurana	DH Sigiriya	DH Madulla
7	DH Bokkawala	DH Rattotha	DH Theripahe
8	Rehabilitation Hosp. Delthota	DH Yatawatta	DH Kothmale
9	DH Galadedrea	DH Galewela	DH Agarapathana
10	DH Panvilatenna	DH Kongahawela	DH Lindula
11	DH Pussellewa	DH Wilgamuwa	DH Ginigathena
12	DH Thalatuoya		DH Kotagala
13	DH Ududumbara		DH Watawala
14	DH Wattegama		DH Bogawanthalawa
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		

Table 8.15 Diagnosed new cases by type of disease in 2013

ICD 10 code	Diagnosis	Kandy	Matale	Nuwaraeliya
F00	Dementia	68	18	08
F05	Delirium	27	18	06
F10	Alcohol Use Disorders	361	19	34
F11	Drug Use Disorders	52	34	09
F17.1	Tobacco Use	40	10	05
F20	Chronic Psychiatric Disorder	428	245	77
F23	Acute Psychotic Disorder	133	88	05
F31	Bipolar Disorders	498	232	138
F32	Depression	2456	940	110
F40	Phobia Disorders	280	259	01
F41.0	Panic Disorder Generalized Anxiety	69	20	09
F41.1	Generalized anxiety	80	35	03
F41.2	Mixed anxiety and Depression	67	20	01
F43	Adjustment Disorder	66	02	04
F44	Dissociative disorder	19	18	00
F45	Unexplained Somatic Complaint	22	05	02
F48	Neurasthenia	12	08	00
F50	Eating Disorder	12	0	00
F51	Sleep Problems	08	02	00
F52	Sexual Disorders	40	04	08
F70	Mental Retardation	179	108	06
F90	Hyperkinetic Disorder	120	84	02
F91	Conduct Disorder	48	38	00
F98.0	Enuresis	14	5	00
	Other Categories	262	0	09
G40	Epilepsy	82	41	01
F22.0	Delusional Disorders	22	0	00
F30.0	Hypomania	25	0	02
F53.1	Post partum psychosis	18	0	02
F42	OCD	26	0	15
F84.0	Autism	83	0	81
F43.2	Breavement Disorders	34	0	15
	Para Suicide	324	304	-
	Suicide	219		60
TOTAL		6185	2557	623

Table 8.16 Human Resource Development in 2013

		Kandy	Matale	Nuwar aeliya
01	Consultant Psychiatry	09	01	01
02	MO Psychiatry	06	00	00
03	MO MH	-	05	05
04	Community Psychiatry Nurse	04	01	01
05	OT	03	01	01
06	PSW	01	01	01
07	Development Assistant - Mental Health	04	01	01
08	C. Psychologist Trainning	01	00	00

9. ESTATE HEALTH DEVELOPMENT

9.1 Strengthening of Estate Preventive Health Services

Poor accessibility to quality of care in the antenatal and natal period and non availability of quality essential obstetric care services along with protocols has resulted in a high maternal mortality in the estate sector.

A cabinet decision was taken in 2007 to provide equitable preventive health services to the estate sector like in the rural and urban sectors. This decision made the Medical Officer of Health responsible for the health of the total population including the estate sector.

Medical officers of Health were able to conduct all field ante-natal clinics in the estate sector. Outreach well women clinics were conducted in all MOH areas by the public health staff. Special outreach clinics were conducted by the VOG from DGH Nuwaraeliya and DBH Dickoya to selected hospitals in the Nuwaraeliya District. Hospital development project with financial support of the Indian Government in progress and functions will start in early 2014.

Table 9.1 PHM availability in estate sector by PHDT region

Region	Number of estates	Government	Trained	Volunteers	Vacancies
Nuwaraeliya	72	35	22	12	03
Hatton	75	43	17	09	06
Kandy	59	09	22	10	18
Total	**206**	**87**	**61**	**31**	**27**

In year 2014, 130 new trained PHMM were appointed to the Estate Health Sector. This has strengthened the PHC in the most vulnerable populations within the estate sector. Most of the PHMM were provided with basic facilities like residential and office facilities by the estate management.

The basic preventive health indicators in the estate sector show a gradual improvement during 2014 but more needs to be done in the areas of nutrition, general behavior change to promote healthy life styles. The health Department needs to work closely with the estate health management to maximize the workout put of the PHC staff appointed to the estate sector. Additional Medical Officers of Health needs to be appointed to the estate areas to improve the health system further.

9.2 Strengthening of Estate Curative care services

A good network of hospitals provide basic primary healthcare to the estate sector. DBH Dickoya has been able to provide specialized care in Obstetrics, Medicine and Paediatrics, which has brought specialized services closer to the most vulnerable population in the Bogawanthalawa / Maskeliya region. With the purpose of providing every citizen an equitable healthcare service, a proposal was brought forth by the Sri Lankan Government to take selected Estate Hospitals under the purview of the Government and to develop these hospitals to enable them to provide efficient and productive healthcare services to the people in that estates. The 10 estate hospitals which were functioned under the estate administration earlier were taken over by the government.

Nuwaraeliya District

1. Dayagama Estate hospital - Functioning as a Divisional hospital
2. Mooloya Estate hospital - Functioning as a Divisional hospital
3. High forest Estate hospital - Functioning as a Divisional hospital
4. Gonapitiya Estate hospital - Functioning as a Divisional hospital
5. North Medakumbura Estate hospital - Functioning as a Divisional hospital
6. Frotoft Estate hospital - Functioning as a PMCU
7. Ragala Estate hospital - Functioning as a PMCU
8. Alma Estate hospital - Not taken over

Matale District

1. Bandarapola Estate hospital - Functioning as a PMCU

Kandy District

1. West hall Estate hospital – Functioning as a PMCU

The Department of Health needs to identify strategic locations within the estate sector to ensure equitable curative healthcare services are provided to the people in the estate sector.

During 2014 under Estate Health Unit of the Ministry of Health has implemented following activities in the Estate Health Sector in the Central Province.

Table 9.2 Improvements of estate health under estate health programme

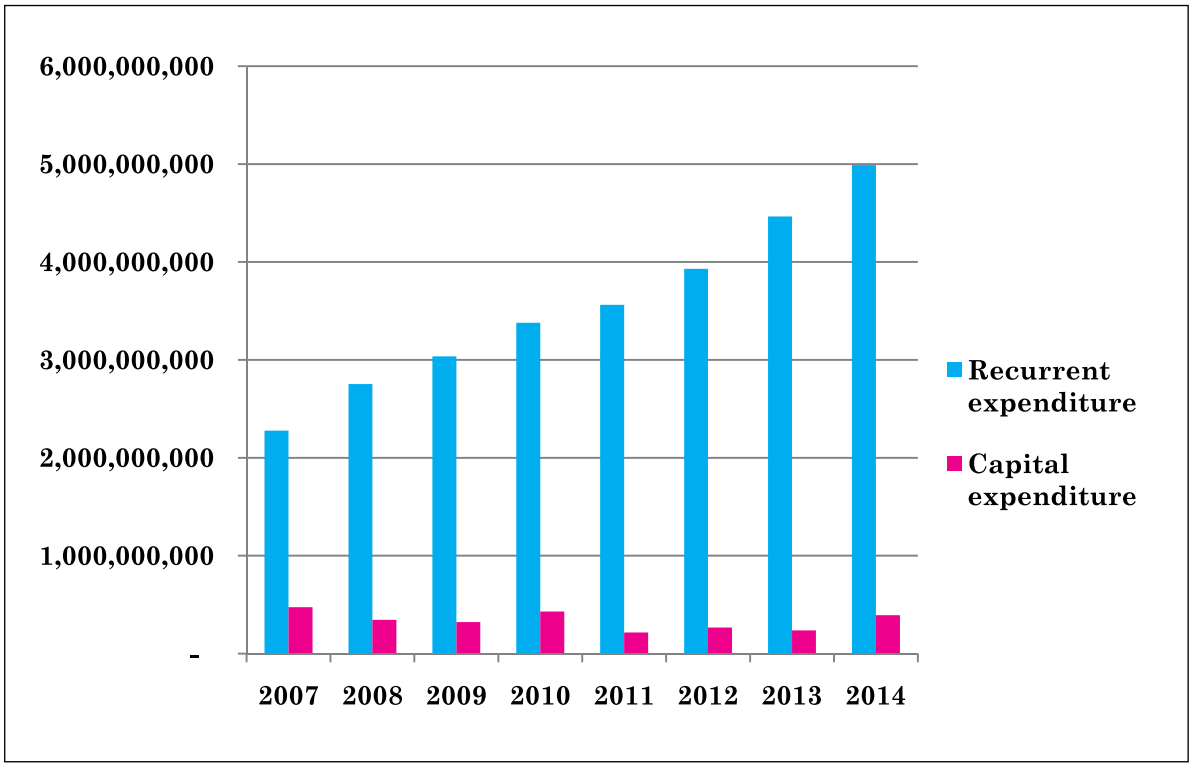
	Item	Details of Activity	Budget /Rs. mn
01	Malliappuwa twin quarters at Hatton	Completion of work at Malliappuwa twin quarters at Hatton for health staff	1.8
02	Latrine construction	No of Latrines Kandy 50 Nuwaraeliya 450 CP 500	7.5

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.

	2014
Recurrent allocation	4,989,362,301.00
Capital allocation	426,912,232.00

Fig 10.1 Total allocation (both capital and recurrent) for the Province 2007-2014



10.1 Recurrent Expenditure Summary

Table 10.1 General administration in 2014

561-1-4-0				
Object	**Title**	**Total Estimate**	**Total Expenditure**	**Balance Rs.**
1001	Salaries and Wages	74,169,727.00	74,169,726.78	0.22
1002	Overtime & Holiday Pay	19,081,614.00	19,081,613.68	0.32
1003	Other Allowances	56,229,205.00	56,229,204.19	0.81
1101	Traveling Expenses - Domestic	9,825,892.00	9,825,891.71	0.29
1201	Stationery & Office Requisites	4,176,340.00	4,176,339.40	0.60
1202	Fuel and Lubricants	21,626,940.00	21,626,939.30	0.70
1203	Diet & Uniforms	26,663.00	26,662.50	0.50
1205	Other Supplies	2,859,715.00	2,859,714.04	0.96
1206	Mechanical & Electrical Goods	762,356.00	762,355.90	0.10
1301	Vehicles	21,300,872.00	21,300,871.04	0.96
1302	Plant, Machinery & Equipment	880,429.00	880,428.64	0.36
1303	Building	839,311.00	839,310.10	0.90
1304	Other Maintenance	349,818.00	349,817.71	
1402	Postal & Telecommunication	4,226,480.00	4,226,479.42	0.58
1403	Electricity & Water	2,720,487.00	2,720,486.48	0.52
1404	Rents, Rates & Local Taxes	1,238,408.00	1,238,407.74	0.26
1405	Other Contractual Services	8,312,970.00	8,312,969.90	0.10
1506	Property Loan Interest	1,485,085.00	1,485,084.67	0.33
1703	Other Recurrent Expenditure	2,679,304.00	2,679,303.48	0.52
	Total	**232,791,616.00**	**232,791,606.68**	**9.32**

10.2 Patient Care Services

Table 10.2 Patient Care Services in 2014

561-71-5-0				
Object	**Title**	**Total Estimate**	**Total Expenditure**	**Balance Rs.**
1001	Salaries and Wages	1,226,583,629.00	1,226,583,628.66	0.34
1002	Overtime & Holiday Pay	951,027,184.00	951,027,183.62	0.38
1003	Other Allowances	1,138,736,363.00	1,138,736,362.85	0.15
1101	Traveling Expenses-Domestic	20,185,387.00	20,185,386.16	0.84
1201	Stationery & Office Requisites	9,224,847.00	9,224,846.30	0.70
1202	Fuel and Lubricants	44,648,365.00	44,648,364.83	0.17
1203	Diet & Uniforms	72,460,486.00	72,460,485.79	0.21
1204	Medical Supplies	21,660,050.00	21,660,049.63	0.37
1205	Other Supplies	21,461,611.00	21,461,610.19	0.81
1206	Mechanical & Electrical Goods	9,291,752.00	9,291,751.84	0.16
1301	Vehicles	28,620,674.00	28,620,673.34	0.66
1302	Plant, Machinery & Equipment	7,274,868.00	7,274,867.02	0.98
1303	Building	10,096,553.00	10,096,553.00	-
1304	Other Maintenance	3,881,194.00	3,881,193.40	0.60
1401	Transport	70,023.00	70,022.64	0.36
1402	Postal & Telecommunication	12,144,873.00	12,144,872.71	0.29
1403	Electricity & Water	95,469,342.00	95,469,341.77	0.23
1404	Rents, Rates & Local Taxes	5,133,507.00	5,133,506.19	0.81
1405	Other Contractual Services	60,186,976.00	60,186,975.05	0.95
1506	Property Loan Interest	33,286,040.00	33,286,039.68	0.32
1703	Other Recurrent Expenditure	2,077,100.00	2,077,099.64	0.36
	Total	**3,773,520,824.00**	**3,773,520,814.31**	**9.69**

10.3 Preventive Care Services

Table 10.3 Preventive Care Services in 2014

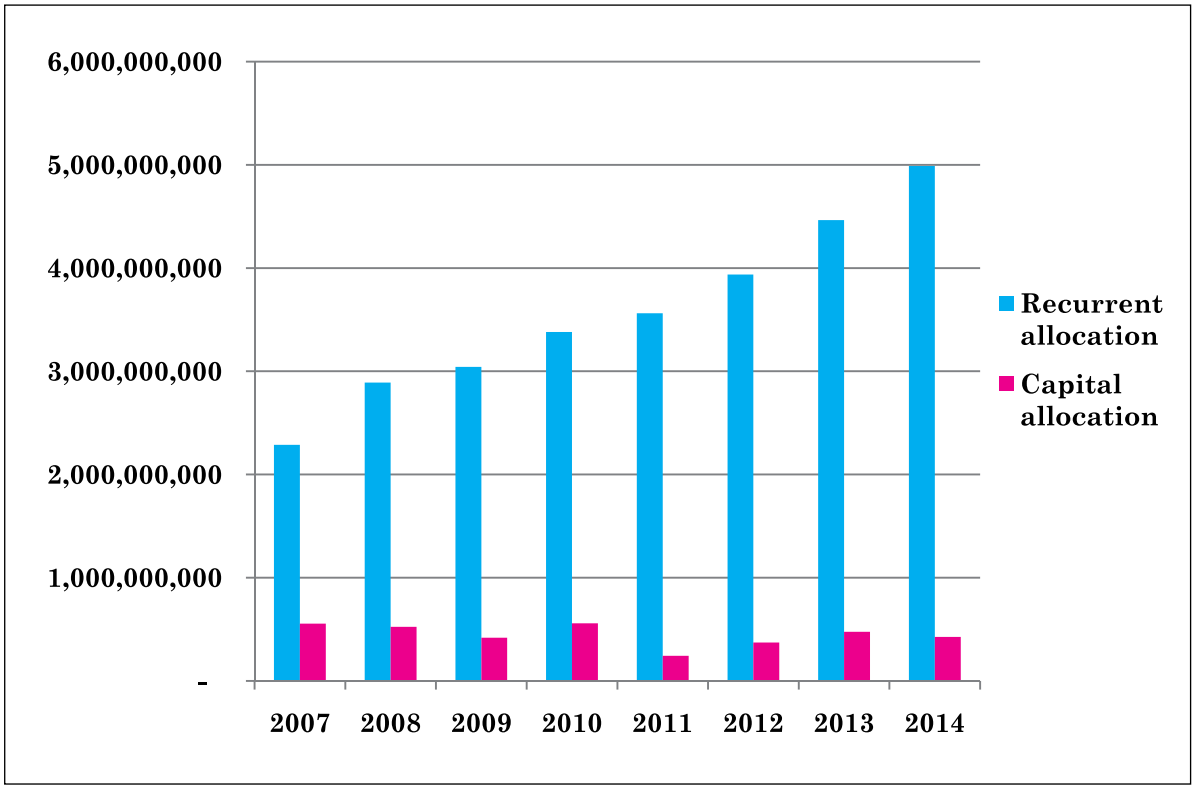
561-72-6-0				
Object	**Title**	**Total Estimate**	**Total Expenditure**	**Balance Rs.**
1001	Salaries and Wages	430,768,046.00	430,768,045.44	0.56
1002	Overtime & Holiday Pay	84,458,528.00	84,458,527.83	0.17
1003	Other Allowances	335,464,474.00	335,464,473.23	0.77
1101	Traveling Expenses- Domestic	70,642,940.00	70,642,939.42	0.58
1201	Stationery & Office Requisites	2,458,584.00	2,458,583.60	0.40
1202	Fuel and Lubricants	17,527,939.00	17,527,938.74	0.26
1203	Diet & Uniforms	-	-	-
1204	Medical Supplies	10,771.00	10,771.00	-
1205	Other Supplies	4,983,016.00	4,983,015.82	0.18
1206	Mechanical & Electrical Goods	579,590.00	579,589.68	0.32
1301	Vehicles	13,477,163.00	13,477,162.82	0.18
1302	Plant, Machinery & Equipment	211,162.00	211,161.12	0.88
1303	Building	2,418,115.00	2,418,114.05	0.95
1304	Other Maintenance	1,578,751.00	1,578,750.70	0.30
1401	Transport	89,752.00	89,752.00	-
1402	Postal & Telecommunication	2,560,404.00	2,560,403.09	0.91
1403	Electricity & Water	5,146,874.00	5,146,873.88	0.12
1404	Rents, Rates & Local Taxes	153,861.00	153,860.98	0.02
1405	Other Contractual Services	708,562.00	708,561.03	0.97
1506	Property Loan Interest	8,807,580.00	8,807,579.62	0.38
1703	Other Recurrent Expenditure	1,003,749.00	1,003,748.61	0.39
	Total	**983,049,861.00**	**983,049,852.66**	**8.34**

10.4 Summary of Recurrent Health Expenditure by Programmes

Table 10.4 Summary of Recurrent health expenditure by programmes

Programme	Expenditure/Rs.
General Administration	232,791,606.68
Patient care services	3,773,520,814.31
Community Health services	983,049,852.66
Total	**4,989,362,273.65**

Fig 10.2 Total Expenditure (both capital and recurrent) during year 2007-2014



10.5 Development Projects

For the development of health sector in Central Province, different types of sources of funds for capital expenditure were utilized during the year 2014. The major contributions for these were from Provincial Specific Development Grants (PSDG) and Health sector development project (HSDP). The other sources included Criteria Based Grants, 100 mn hospital development project, GAVI HSS, SAARC, Estate health programme, Dengue control programme, Kidney day programme, Dog sterilization programme and Primary health development project –NCD.

Table 10.5 Distribution of expenditure by Category of Development Projects in 2014

Source of fund	Allocation / Rs	Amount received / Rs	Expenditure	Financial progress %
Provincial Specific Development Grants	170,000,000.00	166,700,000.00	166,696,003.22	99.99%
Criteria Based Grants	1,000,000.00	1,000,000.00	996,399.40	99.64%
Health sector development project	180,000,000.00	180,000,000.00	179,986,810.60	99.99%
100 mn hospital development project	30,842,648.00	16,547,769.96	16,547,769.96	100.00%
GAVI HSS project	832,960.00	661,498.43	661,498.43	100.00%
Primary health development project -NCD	4,720,608.00	1,720,588.09	1,215,765.67	70.66%
Nutrition programme	1,264,050.00	1,264,050.00	1,255,917.00	99.36%
Dengue control programme	6,132,000.00	6,132,000.00	5,861,568.00	95.59%
Estate health programme	12,806,481.00	12,806,480.33	10,620,540.33	82.93%
SAARC project	1,048,485.00	1,048,484.74	1,048,484.74	100.00%
Dog sterilization programme	10,000,000.00	4,377,425.00	4,314,341.00	98.56%
Mental health programme	765,000.00	508,000.00	500,492.06	98.52%
Kidney day programme	6,150,000.00	2,053,754.84	2,009,759.84	97.86%
Teeth protection programme	1,350,000.00	1,350,000.00	1,048,185.00	77.64%
Total	**426,912,232.00**	**396,170,051.39**	**392,763,535.25**	**99.14%**

10.5.1 Provincial Specific Development Grants (PSDG)

Table 10.6 Financial Progress of activities done under* PSDG *project by Districts in 2014

	PDHS Office	Kandy	Matale	N'Eliya	Total
Approved Amount (Rs mn)	42.12	56.36	34.77	36.75	170.00
Expenditure (Rs mn)	41.92	56.13	34.76	33.88	166.69
Progress (%)	99.5%	99.6%	99.9%	92.20%	98.0%

Table 10.7 Physical Progress of activities done under* PSDG *project by Districts in 2014

PDHS Office		Kandy		Matale		N'Eliya	
No. of Projects	Completed	No. of Projects	Completed	No. of. Projects	Completed	No. of. Projects	Completed
23	22	19	18	47	46	45	44

10.5.2 Criteria Based Grants (CBG)

Table 10.8 Financial Progress of activities done under* CBG *project by Districts in 2014

	Kandy	Matale	Nuwara eliya	PDHS office
Approved Amount (Rs mn)	0.20	0.10	0.098	0.602
Expenditure (Rs mn)	0.20	0.096	0.098	0.602
Progress %	100	96	100	100

10.5.3 Special Development projects

Dickoya Base Hospital Development Project

Dickoya Hospital development project commenced in year 2011 under Indian Government funds. Total allocation for this project is around Rs 1200 million. It includes 150 bedded ward complex, theatre complex, special treatment units and medical equipments for relevant units. The project is now in the final stage and to be opened in year 2015.

Teldeniya Base Hospital Development Project

Teldeniya Hospital Development project commenced in 2013. This project is funded by Japan International Cooperation Agency. Construction of surgical complex, Intensive care unit ,blood bank, radiology unit, laboratory drugs stores and purchasing of medical equipments to relevant units include in the project. Total allocation for this project is around Rs. 670 million. The project is planned to be completed in 2015.

Annexures

Annexure 1 Number of Health Institutions and Field Areas in Kandy District (under Central Province Health department)

No	Name of MOH Area	No of PHI Areas	No of PHM Areas	No of District General Hospitals	No of District Base Hospitals	No of Divisional Hospitals	No of Primary Medical Care Unit
1	Akurana	03	18	-	-	01	03
2	Galagedara	03	15	-	-	01	01
3	GangaIhala	03	23	-	-	03	-
4	Hatharaliyadda	03	17	-	-	02	02
5	GangawataKorale	02	18	-	-	01	01
6	Hasalaka	03	19	-	-	05	-
7	Kundasale	02	15	-	-	00	01
8	Medadumbara	04	27	-	01	02	02
9	Nawalapitiya	03	26	01	-	01	01
10	Panvila	02	18	-	-	01	-
11	Poojapitiya	04	22	-	-	02	04
12	Thalathuoya	03	23	-	-	03	01
13	Udadumbara	02	15	-	-	01	01
14	Gampola	03	30	-	-	02	01
15	Udunuwara	03	19	-	-	03	01
16	Wattegama	04	30	-	-	02	02
17	Warallagama	06	28	-	-	02	01
18	Yatinuwara	05	37	-	-	03	03
19	Doluwa	04	19	-	-	03	02
20	Deltota	02	16	-	-	03	00
21	Manikhinna	02	20			04	00
22	Bambaradeniya	02	16			02	01
	Total	**68**	**471**	**01**	**01**	**47**	**28**

- Kandy Municipal Council comes under Local government.
- T.H. Kandy, T.H. Peradeniya, Sirimawo Bandaranayaka Childrens Hospital & B.H. Gampola come under Line Ministry

Annexure 2 Number of Health Institutions and Field Areas in Matale District (under Central Province Health department)

	Name of MOH Area	No. of PHI area	No. of PHM area	No. of District General Hospitals	No. of District Base Hospitals	No. of Divisional Hospitals	No. of Primary Medical Care Unit
1	Matale	03	11	01	-	-	02
2	Rattota	03	20	-	-	02	01
3	Galewela	05	26	-	-	02	03
4	Dambulla	06	26	-	01	02	02
5	Naula	02	12	-	-	02	01
6	Laggala Pallegama	02	07	-	-	03	-
7	Yatawatte	02	11	-	-	01	01
8	Ukuwela	04	20	-	-	02	02
9	Pallepola	02	11	-	-	-	02
10	Wilgamuwa	02	10	-	-	03	-
11	Abangangakoralaya	01	08	-	-	01	01
	Total	**32**	**162**	**01**	**01**	**18**	**15**

- Matale Municipal Council comes under Local government.

Annexure 3 Number of Health Institutions and Field Areas in Nuwaraeliya District (under Central Province Health department)

	Name of MOH Area	No. of PHI Areas	No. of PHM Areas	No of District General Hospitals	No of District Base Hospitals	No of Divisional Hospitals	No of Primary Medical Care Unit
1	NuwaraEliya	03	25	-	-	00	03
2	Kothmale	03	24	-	-	02	02
3	Maskeliya	03	29	-		01	01
4	Ambagamuwa	06	37	-	01	03	03
5	walapane	03	22	-	-	03	03
6	Maturata	02	18			03	01
7	Nawatispane	02	23			01	05
8	Haguranketa	03	30		01	03	00
9	Bagawantalawa	01	21			01	00
10	Ragala	03	26			03	03
11	Lidula	03	35			03	00
12	Kotagala	03	27			01	00
	Total	**35**	**317**	**-**	**02**	**24**	**21**

- DGH Nuwaraeliya comes under Line Ministry

Annexure 4 Curative Care Institutions in central province by District

CATEGORY	KANDY	MATALE	NUWARAELIYA
PRIMARY CARE	DH DELTOTA DH AKURANA DH ANKUMBURA DH DOLOSBAGE DH GALAGEDARA DH KADUGANNAWA DH MADOLKELE DH MAMPITIYA DH MENIKHINNA DH PUSSALLAWA DH UDADUMBARA DH KATUGASTHOTA DH WATTEGAMA DH SANGARAJAPURA DH MEDAWALA DH MINIPE DH PANVILATENNA DH MARASSANA DH HASALAKA DH TITHTHAPAJJALA DH WATTAPPOLA DH KOTALIGODA DH PAMUNUWA DH GELIOYA DH BAMBARADENIYA DH HATHARALIYADDA DH THALATHUOYA DH UDUWELA DH GALAHA DH YAKGAHAPITIYA DH NARAMPANAWA DH GALPIHILLA DH JAMBUGAHAPITIYA DH KURUDUWATTE DH KAHAWATTE DH UDAGAMA ATABAGE DH BATUMULLA DH MEDAMAHANUWARA DH AMBAGAHAPALASSA DH KOLONGODA DH MORAHENA DH BOKKAWALA DH DUNHINNA DH ULAPANE DH MURUTHALAWA DH PATTIYAGAMA PALLEGAMA DH WESTHALL PMCU ALAWATHUGODA PMCU KURUGODA PMCU MAHAKANDA PMCU MAILAPITIYA PMCU MAKULDENIYA PMCU MADAWALA BAZAR PMCU MAWATHURA PMCU POOJAPITIYA PMCU RAMBUKEELA PMCU RAJAWALLA PMCU SUDUHUMPOLA PMCU WELAMBODA PMCU YAHALATENNA PMCU KOTIKAMBE PMCU UDATHALAWINNA PMCU SANDASIRIDUNUVILA PMCU ELAMALDENIYA PMCU MAPAKANDA PMCU BALANA PMCU DODAMWELA PMCU DEDUNUPITIYA PMCU GIRIHAGAMA PMCU GODAHENA PMCU GALHINNA PMCU GOHAGODA PMCU MEEMURE PMCU MEGODA KALUGAMUWA PMCU RAMBUKEWELA	DH GALEWELA DH RATTOTA DH LAGGALA PALLEGAMA DH NALANDA DH MADIPOLA DH HETTIPOLA DH KONGAHAWELA DH MUWANDENIYA DH YATAWATHTA DH HADUNGAMUWA DH OVILIKANDA DH LENADORA DH MARAKA DH HATTOTAAMUNA DH GAMMADUWA DH ILUKKUMBURA DH SIGIRIYA DH LELIAMBE PMCU ALUVIHARE PMCU DULLEWA PMCU ELKADUWA PMCU KALUNDEWA PMCU ALUTHWEWA PMCU MADAWALA ULPATHE PMCU OPALGALA PMCU PALDENIYA PMCU PALLEPOLA PMCU WAHAKOTTE PMCU WAWALAWEWA PMCU UKUWELA PMCU GURUBABILA PMCU DEWAHUWA PMCU KANDENUWARA	DH AGARAPATHANA DH BAGAWANTHALAWA DH NILDANDAHINNA DH KOTAGALA DH LIDULA DH MASKELIYA DH MATURATA DH UDUPUSSALLAWA DH WALAPANE DH THERIPAHA DH MALDENIYA DH WATAWALA DH KOTHMALE DH GINIGATHHENA DH LAXAPANA DH HIGHFOREST DH GONAPITIYA DH N/ MEDAKUMBURA DH DAYAGAMA DH GONAGANTENNA DH HANGURANKETHE DH MOOLOYA DH MANDARANNUWARA DH MADULLA PMCU AMBEWELA PMCU HATTON PMCU HANGARAPITIYA PMCU KANDAPOLA PMCU KURUPANAWELA PMCU KEERTHIBANDARAPURA PMCU KATABULAWA PMCU KALAGANWATTE PMCU MUNWATTE PMCU MANAKOLA PMCU MASWELA PMCU NAWATHISPANE PMCU WIDULIPURA PMCU NANUOYA PMCU PUNDALUOYA PMCU RAGALA PMCU RUPAHA PMCU UPKOT PMCU WIJEBAHUKANDA PMCU HAPUGASTHALAWA PMCU PROTOF

CATEGORY	KANDY	MATALE	NUWARAELIYA
SECONDARY CARE INSTITUTIONS	DGH NAWALAPITIYA DBH GAMPOLA DBH TELDENIYA	DGH MATALE DBH DAMBULLA	DGH NUWARAELIYA DBH DICKOYA DBH RIKILLAGASKADA
TERTIARY CARE INSTITUTIONS	TH KANDY TH PERADENIYA SIRIMAWO BANDARANAYAKE CHILDRENS HOSPITAL		
SPECIAL UNITS	CHEST CLINIC DRUG STORES KANDY A.M.C KANDY SISILA MENTAL HEALTH DELTOTA SCHOOL MEDICAL OFFICE STD CLINIC KANDY DIGANA REHABILITATION MENTAL HEALTH KATUGASTOTA TRAINING CENTER KADUGANNAWA B.M.E.S UNIT WATAPULUWA	CHEST CLINIC DRUG STORES MATALE A.M.C MATALE MENTAL REHABILITATION CENTRE LALIABE STD CLINIC-MATALE	CHEST CLINIC DRUG STORES N'ELIYA STD CLINIC-N'ELIYA

Annexure 5 Information of Divisional Hospitals in Kandy District - 2014

	INSTITUTION	Type	WARDS	BEDS	Admission	OPD Attendance	Inpatient days	Bed Occupancy rate	Total No of Deaths	No of clinics held	Clinic attendance	Deliveries	Transfer out	ETU patients
1	Akurana	A	6	81	6576	86186	9120	30.85	09	544	41578	54	982	681
2	Ambagahapellessa	B	3	36	907	24808	1720	13.1	01	480	4012	0	00	171
3	Ankumbura	A	6	63	3641	54272	7511	32.66	11	116	12322	51	1014	188
4	Bambaradeniya	B	4	33	4911	43415	3588	29.79	05	58	7751	05	372	667
5	Batumulla	C	3	26	127	9758	188	2.0	01	74	3163	00	51	00
6	Bokkawala	B	5	42	3766	66013	7356	48.0	10	52	13833	09	765	107
7	Delthota	A	5	62	4084	60846	6488	28.6	09	154	12020	77	1150	00
8	Dolosbage	A	3	37	1527	21686	2959	21.9	01	116	5868	33	242	201
9	Dunhinna	C	3	12	595	22555	1089	24.9	01	73	4217	00	82	282
10	Galagedara	A	4	62	5946	95492	8991	39.7	27	109	21343	59	940	1243
11	Galaha	B	3	35	2369	35713	6023	47.1	04	298	12260	19	543	70
12	Galphilla	B	3	20	1750	29196	2646	36.2	01	96	5723	00	119	48
13	Gelioya	B	2	24	430	39530	979	11.18	00	159	13761	00	35	20
14	Hasalaka	A	4	39	3914	78132	4884	34.3	13	96	12604	55	743	518
15	Hatharaliyadhda	B	4	45	3285	43287	6365	38.7	11	240	10347	11	615	455
16	Jambugahapitiya	B	3	23	1545	27700	2320	27.6	03	85	13696	00	309	123
17	Kadugannawa	A	5	67	4555	77848	8531	34.8	10	745	33975	03	578	939
18	Kahawaththa	C	2	14	97	30055	365	7.1	00	126	4109	00	08	15
19	Katugastota	A	6	56	6659	137717	9261	45.3	20	194	30914	28	727	1774
20	Kolongoda	B	5	44	3752	24525	4230	26.3	00	48	5016	23	410	135
21	Kotaligoda	B	4	34	4860	38479	7747	62.4	02	424	14749	05	718	3355

22	Kurunduwatta	B	4	39	3752	85006	8486	59.6	01	511	16533	01	513	153
23	Madulkelle	A	5	80	5152	48073	16156	55.3	29	359	13869	294	691	1645
24	Mampitiya	A	4	50	2567	45224	8227	45.0	06	482	12410	02	265	282
25	Marassana	A	5	46	3663	54252	6519	38.8	15	156	13456	34	378	6596
26	Medamahanuwara	B	4	36	2540	34187	5448	41.5	03	172	11229	20	354	35
27	Medawela	B	5	40	3620	57071	7690	52.6	02	98	11474	00	552	986
28	Menikhinna	A	7	76	6393	74305	8862	31.9	42	193	19629	25	870	68
29	Morayaya	B	4	36	2422	35652	3762	28.6	13	48	5166	08	534	148
30	Morahena	B	2	14	17	6018	499	9.8	00	68	403	00	06	00
31	Muruthalawa	C	2	14	1942	35812	2778	54.4	00	96	9393	00	199	68
32	Narampanawa	C	3	32	789	20784	948	8.1	04	409	9179	00	88	90
33	Pamunuwa	B	3	34	1381	26424	2650	21.3	01	144	10405	00	217	52
34	Panvilathanna	B	2	30	938	44917	2529	23.1	01	156	4050	00	75	00
35	Pattiya pallegama	C	2	12	284	960/8	831	19.0	02	72	2392	00	50	39
36	Pussallawa	A	5	71	3919	62416	8452	32.6	17	176	17471	250	580	1430
37	Sangarajapura	B	3	30	1713	32313	2787	25.4	02	155	12094	01	178	356
38	Thalathuoya	B	3	30	3820	68495	4310	39.3	09	105	15315	06	757	402
39	Thiththapajjala	A	4	48	4739	80690	5820	33.2	09	168	17252	27	982	1675
40	Udadumbara	A	5	72	3657	49933	10682	40.6	05	209	14401	88	384	33
41	UdagamaAtabage	C	3	20	78	15529	1306	17.9	01	50	4981	00	28	423
42	Uduwela	B	3	32	1519	36277	2789	23.8	02	99	5359	07	226	276
43	Ulapane	C	2	12	2828	21925	3747	85.5	01	93	5308	00	179	101
44	Wattappola	C	3	22	533	17948	1228	15.2	04	52	4021	00	112	19
45	Wattegama	A	5	54	3762	51864	7174	36.4	28	193	15964	23	506	290
46	Westhall	C	2	06	605	19218	780	35.6	00	104	2793	00	298	00
47	Yakgahapitiya	B	3	28	1820	58373	2206	21.6	02	165	13277	00	318	277
	Total		**176**	**1819**	**129749**	**2139527**	**229027**	**34.4**	**338**	**8820**	**551082**	**1234**	**19743**	**26436**

Annexure 6 Information of Divisional Hospitals in Matale District – 2014

	INSTITUTION	Type	WARDS	BEDS	Admission	OPD attendance	Inpatient days	Bed occupancy rate	Total No of Deaths	No of clinics held	Clinic attendance	Deliveries	Transfer out	ETU patients
1	DH-Hettipola	**A**	5	45	4022	63617	5798	35.0	05	573	21442	76	645	184
2	DH-Rattota	**A**	4	60	4233	83074	6005	27.0	06	645	26655	17	630	111
3	DH-Laggala / Pallegama	**A**	5	46	1625	36138	3397	20.1	09	395	10758	06	238	266
4	DH-Galewela	**A**	5	85	5967	97575	8705	28.5	22	618	41053	95	1255	5461
5	DH-Nalanda	**A**	4	34	2140	45090	5448	44.3	02	389	12893	12	321	57
6	DH-Madipola	**A**	4	58	5432	46324	19983	92.0	01	163	9380	14	323	590
7	DH-Kongahawela	**A**	4	48	2215	46658	3819	22.0	02	24	8614	25	177	45
8	DH-Yatawatte	**B**	**3**	**33**	**2795**	**53144**	**5520**	**48.0**	**02**	**308**	**14734**	**13**	**266**	**08**
9	DH-Hadungamuwa	**B**	3	17	2280	23685	3400	55.5	03	128	6005	14	398	941
10	DH-Lenadora	**B**	2	12	935	44030	1231	28.0	00	209	9770	00	34	00
11	DH-Hattota Amuna	**B**	3	14	1658	18788	3641	71.0	00	91	5979	02	389	00
12	DH-Sigiriya	**B**	3	30	3575	36521	4267	39.0	00	384	9052	00	603	753
13	DH-Laliambe	**B**	2	12	43	13569	1899	43.0	00	257	3713	00	03	00
14	DH-Illukkumbura	**C**	4	11	210	6305	406	10.0	00	93	2978	00	71	08
15	DH-Maraka	**C**	**4**	**34**	**2140**	**45090**	**5448**	**44.0**	**02**	**389**	**12893**	**12**	**321**	**57**
16	DH-Gammaduwa	**C**	2	4	170	12057	170	12.0	00	48	2063	00	00	00
17	DH-Ovilkanda	**C**	3	17	906	13620	1241	20.0	00	95	5266	02	140	00
18	DH-Muwandeniya	**C**	2	17	91	16156	4863	78.0	00	88	5668	00	12	00
	Total		**60**	**552**	**38478**	**666751**	**79307**	**39.3**	**52**	**4595**	**199474**	**276**	**5605**	**8538**

Annexure 7 Information of Divisional Hospitals in Nuwara Eliya District – 2014

	INSTITUTION	Type	WARDS	BEDS	Admission	OPD attendance	Inpatient days	Bed occupancy rate	Total No of Deaths	No of clinics held	Clinic attendance	Deliveries	Transfer out	ETU patients
1	DH Agarapathana	**A**	4	45	3174	42706	7900	48.1	05	274	11290	158	1247	00
2	DH Bogawanthalawa	**A**	4	63	4977	60833	9520	60.5	12	172	14798	108	28	284
3	DH Ginigathhena	**A**	4	47	1857	40824	3148	28.2	05	293	40824	20	77	191
4	DH Kotagala	**A**	5	83	1084	29416	2052	6.7	14	52	3558	82	57	7448
5	DH Kothmale	**A**	4	50	4566	33375	5451	29.8	07	448	14638	10	333	1336
6	DH Lindula	**A**	6	74	3090	38617	5813	21.5	16	116	3832	214	00	00
7	DH Maldeniya	**A**	6	82	1235	18779	4018	13.4	14	00	00	14	100	110
8	DH Maskeliya	**A**	8	120	4700	37378	7951	37.2	27	519	16316	191	37	127
9	DH Mathurata	**A**	5	102	3692	36215	2400	6.5	09	48	2643	27	00	2103
10	DH Udapussallawa	**A**	7	75	1449	25532	3067	11.2	04	65	3993	53	19	92
11	DH Walapane	**A**	6	100	4170	43120	11220	30.7	06	187	15200	80	1459	477
12	DH Watawala	**A**	5	54	3023	39161	3874	31.9	08	93	7338	138	26	58
13	DH Dayagama	**B**	**3**	**26**	**1231**	**14959**	**2439**	**25.7**	**15**	**324**	**6877**	**61**	**00**	**00**
14	DH Haguranketha	**B**	3	23	2112	59537	3208	38.0	03	03	13585	03	287	167
15	DH Laxapana	**B**	3	32	4299	24541	1963	15.2	06	49	3882	05	00	00
16	DH Gonaganthanna	**C**	3	20	2562	29219	1777	28.2	01	164	9320	11	52	715
17	DH Gonapitiya	**C**	**3**	**30**	**669**	**16047**	**3272**	**38.9**	**02**	**39**	**1690**	**20**	**738**	**102**
18	DH Highforest	**C**	3	26	1307	27931	129	1.4	06	57	6069	06	442	00
19	DH Mandarannuwara	**C**	2	21	155	15316	211	2.7	00	60	1875	00	35	72
20	DH Mooloya	**C**	4	22	1234	19331	1290	16.0	00	78	2825	14	00	00
21	DH Nildandahinna	**C**	2	13	898	00	794	16.7	04	141	6035	145	105	0
22	DH North Madakumbura	**C**	2	21	86	9702	6674	85.8	00	74	1206	03	00	00
23	DH Theripaha	**C**	2	10	84	4565	90	601	00	61	1079	04	03	09
24	DH Madulla		2	21	478	19777	214	2.7	00	29	1539	03	37	00
	Total		96	1160	52114	686881	88475	20.8	164	3346	161643	1370	5082	13291

Annexure 8 Information of Primary Medical Care Unit (PMCU) in Central Province - 2014

	Kandy				Matale				N'Eliya			
	INSTITUTIONS	NO. OF. CLINIC HELD	CLINIC ATTENDANCE	OPD ATTENDANCE	INSTITUTIONS	NO. OF. CLINIC HELD	CLINIC ATTENDANCE	OPD ATTENDANCE	INSTITUTIONS	NO. OF. CLINIC HELD	CLINIC ATTENDANCE	OPD ATTENDANCE
1	PMCU-DEDUNUPITIYA	138	2425	8002	PMCU-ALUVIHARE	138	14356	52293	PMCU-RAGALA	52	1903	28260
2	PMCU-KOTIKAMBE	30	3310	10438	PMCU-DULLEWA	132	4355	7244	PMCU-RUPAHA	21	365	1608
3	PMCU-GIRIHAGAMA	48	2986	16210	PMCU-ELKADUWA	53	2144	6244	PMCU-KEERTHIBANDARAPURA	51	1123	9467
4	PMCU-SANDASIRIDUNUWILA	25	2560	2415	PMCU-ALUTWEWA	114	2077	10889	PMCU-KURUPANAWELA	63	559	7163
5	PMCU-MAKULDENIYA	73	4754	14938	PMCU-MADAWALA-ULPATA	154	7190	39027	PMCU-UPCOT	78	2773	8068
6	PMCU-DODAMWELA	49	5000	17255	PMCU-OPALGALA	36	367	3842	PMCU-KALAGANWATTHA	43	6575	8054
7	PMCU-BALANA	113	6683	9998	PMCU-PALDENIYA	69	1277	6227	PMCU-MUNWATTHA	00	4479	11848
8	PMCU- YAHALATHENNA	96	1833	10455	PMCU – PALLEPOLA	296	10027	21005	PMCU-MANAKOLA	37	1295	9040
9	PMCU-MAILAPITIYA	60	2053	12253	PMCU-WAHAKOTTE	50	1256	10608	PMCU-KANDAPOLA	12	2085	26781

10	PMCU-UDATHALAWINNA	136	5582	26939	PMCU-WAWALA WAWA	38	1654	6849	PMCU-NANUOYA	30	11140	15633
11	PMCU-ELAMALDENIYA	52	3286	15526	PMCU-UKUWELA	195	19490	49498	PMCU-AMBEWELA	50	719	10078
12	PMCU-RAJAWELLA	49	1819	39146	PMCU-GURUBABILA	36	1494	7469	PMCU-HAPUGASTHALAWA	62	4087	12972
13	PMCU-SUDUHUMPOLA	64	4355	35343	PMCU-DEWAHUWA	64	6515	31934	PMCU-PUNDALUOYA	91	1866	18961
14	PMCU-MAWATHURA	75	2759	7427	PMCU-KALUNDEWA	31	2167	5730	PMCU-KATABULA	18	185	11270
15	PMCU-KURUGODA	71	3603	8909	PMCU-KANDENUWARA	113	5476	15236	PMCU-MASWELA	11	487	600
16	PMCU-RAMBUKEWELA	22	777	10084					PMCU-WIJEBAHUKANDA	477	2887	48
17	PMCU-ALAWATHUGODA	72	873	16484					PMCU-NAWATHISPANE	909	1217	10562
18	PMCU-GOHAGODA	52	5162	26305					PMCU-HATTON	94	5652	24916
19	PMCU-MAHAKANDA	48	2102	14377					PMCU-HANGARAPITIYA	51	1581	12697
20	PMCU-GALHINNA	73	3604	10816					PMCU-WIDULIPURA		14128	70
21	PMCU-WELAMBODA	97	7183	16517					PMCU Protof		16758	
22	PMCU-RAMBUKE ELA	1	485	4911								
23	PMCU-GODAHENA	89	2698	12342								
24	PMCU-POOJAPITIYA	122	3553	17136								
25	PMCU – MAPAKANDA	48	3072	11078								
26	PMCU-KALUGAMUWA	24	911	8562								
27	PMCU-MEMURE	0	0	1211								
28	PMCU-MADAWALA BAZAR	53	3061	19048								
	TOTAL	**1780**	**86489**	**404125**		**1519**	**79845**	**274095**		**2150**	**81864**	**228098**

Annexure 9 Development Projects

Provincial Specific Development Grants 2014

Construction and Repairs

Kandy District

1. Balance work of doctors' quarters at DBH Teldeniya
2. Renovation of wards and quarters at DBH Teldeniya
3. Completion of work of first floor of main building and establishment of quarters at Divisional Hospital, Akurana
4. Repair of roof of wards, toilets, consultant quarters and drainage system at DGH Nawalapitiya
5. Construction of first floor at Chest clinic of Bogambara
6. Balance work of ground floor and construction of first floor at MOH office, Bamabaradeniya

Matale District

1. Renovation works at Divisional Hospital, Rattota
2. Repair of electricity system of administration building at DGH Matale
3. Construction of Ambulance garage at Divisional Hospital, Illukkumbura
4. Repair of OPD and kitchen at Divisional Hospital, Madipola
5. Repair of Doctors' and Nurses' quarters at DBH Dambulla
6. Repair of Doctors' on-call room at DGH Matale

Nuwaraeliya District

1. Construction of central clinic at MOH office, Maturata
2. Repair of central clinic at MOH office, Hanguranketha
3. Expansion of OPD building and construction of a room for consultant at DBH Rikillagaskada
4. Completion of upstairs at Divisional Hospital, Nildandahinna
5. Establishment of ETU at Divisional Hospital, Walpane
6. Improvement of Drug stores at Divisional Hospital, Kothmale
7. Improvement of Drug stores at Divisional Hospital, Agarapathana
8. Renovation of 2nd floor at MOH office, Ragala
9. Improvement of facilities of rehabilitation unit at Divisional Hospital, Maldeniya

Health Sector Development Project 2014

Construction and Repairs

Kandy District

1. Essential repairs at mental rehabilitation Hospital Deltota
2. Improvement of ETU at Divisional Hospital, Katugastota
3. Improvement of infrastructure at Divisional Hospital, Wattappola
4. Balance work of Central clinic at MOH Office Menikhinna
5. Renovation of ward no. 1 & 2 at DH Kadugannawa
6. Balance work at Divisional Hospital, Haslaka
7. Improvement of infrastructure facilities at Regional Drugs stores, Kandy
8. Repair of Vendaruwa Clinic Centre at Medamahanuwara MOH area
9. Construction of Wall surrounding Alcohol rehabilitation center at Divisional Hospital, Mampitiya

Matale District

1. Establishment of ETU at Divisional Hospital, Lenadora
2. Establishment of ETU at Divisional Hospital, Nalanda
3. Establishment of ETU at Divisional Hospital, Rattota
4. Expansion of Record rooms at DGH Matale and DBH Dambulla
5. Renovation of Regional Drug stores, Matale

Nuwaraeliya District

1. Establishment of ETU at Divisional Hospital, Walpane
2. Improvement of Drug stores at Divisional Hospital, Kothmale
3. Improvement of Drug stores at Divisional Hospital, Agarapathana
4. Renovation of 2nd floor at MOH office, Ragala
5. Improvement of facilities of rehabilitation unit at Divisional Hospital, Maldeniya

Purchasing

Purchasing of six vehicles
Purchasing of Medical Equipments

ABBREVIATIONS

01.	ANC	Ante Natal Clinic
02.	AMC	Anti Malaria Campaign
03.	AMOH	Additional Medical Officer of Health
04.	BCG	Bacillus Calmette and Guanine Vaccine
05.	BH	Base Hospital
06.	CBR	Crude Birth Rate
07.	CDR	Crude Death Rate
08.	CP	Central Province
09.	CD&MH	Central Dispensary & Maternity Home
10.	PMCU	Primary Medical Care Unit
11.	DPDHS	Deputy Provincial Director of Health Service
12.	MOH	Medical Officer of Health
13.	DBH	District Base Hospital
14.	DGH	District General Hospital
15.	DMO	District Medical Officer
16.	DH	Divisional Hospital
17.	DF	Dengue Fever
18.	DHF	Dengue Hemorrhagic Fever
19.	DPT	Diphtheria Polio Tetanus Vaccine
20.	DD	Deputy Director
21.	DRMO	Divisional Registered Medical Officer
22.	DS	Divisional Secretariat
23.	DT	Diphtheria Tetanus Vaccine
24.	ETU	Emergency Treatment Unit
25.	ECG	Electro Cardio Gram
26.	ENT	Ear Nose Throat
27.	EA	Entomological Assistant
28.	FHB	Family Health Bureau
29.	FDI	Food & Drug Inspector
30.	HIV	Human Immune Deficiency Virus
31.	HEO	Health Educations Officer
32.	HP	Health Promotion
33.	IUCD	Intra Uterine Contraceptive Device
34.	IMR	Infant Mortality Rate
35.	JE	Japanese Encephalitis
36.	ICU	Intensive Care Unit
37.	MMR	Maternity Mortality Rate
38.	MC	Municipal Council
39.	MR	Measles Rubella Vaccine
40.	MB	Multi Bacillus
41.	MC	Medical Clinic
42.	MO	Medical Officer
43.	MOH	Medical Officer of Health
44.	MOIC	Medical Officer In charge
45.	MCH	Maternal & Child Health
46.	MA	Management Assistant
47.	NNMR	Neonatal Mortality Rate
48.	NGO	Non Government Organization
49.	NCD	Non Communicable Disease
50.	NSACP	National; STD/AIDS Control Programme

51.	OPD	Out Patient Department
52.	OPV	Oral Polio Vaccine
53.	PB	Pausy Bacillus
54.	PDHS	Provincial Director of Health Services
55.	PPO	Planning & Programming Officer
56.	PPA	Planning & Programming Assistant
57.	PHM	Public Health Midwife
58.	PHFO	Public Health Field Officer
59.	PHI	Public Health Inspector
60.	PHNS	Public Health Nursing Sister
61.	PHNT	Public Health Nursing Tutor
62.	PHT	Public Health Tutor
63.	RDHS	Regional Director of Health Services
64.	RMOIC	Registered Medical Officer In charge
65.	RSPHNO	Regional Supervising Public Health Nursing Officer
66.	RH	Rural Hospital
67.	SC	Surgical Clinic
68.	SPHM	Supervising Public Health Midwife
69.	SPHI	Supervising Public Health Inspector
70.	SPHI/D	Supervising Public Health Inspector/Divisional
71.	STD/AIDS	Sexually Transmitted Disease/Acquired Immune
72.	SDT	School Dental Therapist
73.	SSDT	Supervising School Dental Therapist
74.	SSO	Statistical Survey Officer
75 .	SO	Statistical Officer
76.	TH	Teaching Hospital
77.	TT	Tetanus Toxoide Vaccine
78.	TB	Tuberculosis