

CHAPTER XV
MEDICAL AND HEALTH SERVICES

The ancient system of Ayurvedic medicine is helpful in treating ailments by making use of locally available herbs and plants. This native system of medicine was efficacious and popular. There were practitioners of Ayurveda who knew the medicinal values of herbs and plants in every village. Such families, may be one or two in numbers, can be found in villages even now. Some pundits of ayurveda had such a profound knowledge of the herbs that they prescribed and administered medicines to all types of diseases. House-hold or native medicines were used for ordinary ailments like cold, cough or fever. Many famous *pundits* of ayurveda had the royal patronage. Some doctors with formal education in Ayurveda are practicing even now.

The Unani system had the royal patronage when a few areas of the state were under muslim rulers in the 14th century. Doctors of unani, called 'hakeems' were serving only in urban areas and did not penetrate in to rural areas. Munshi Gulam Hussiena Munjram of Shreerangapattana was a poet in the royal Court of Tippu Sultan and wrote a book on medicine. The officials of East India Company introduced the Allopathy system of medicine in the country. The medical department started in 1870 was limited to the job of giving medical treatment to the British army. After realising that the people were afraid of dreadful diseases like plague and cholera, the government took active steps in attending the health of the people. Vaccination and control of

the general diseases were entrusted to the doctors when Mysore state came under British rule in 1799 and when the doctors were deputed to the hospitals in the state of Mysore in 1831. Hospitals were established at the division level and a civil surgeon was appointed. The medical and public health department was limited in its activities and it was mainly to improve the health conditions of the military staff till 1870. The government withdrew the services of the deputy general surgeon in 1880 and transferred the duties to the Senior Surgeon of the Mysore State.

The regular and organised public health service has a history of a century and more. The medical department was started in 1844 and it took up the job of only identifying diseases and vaccination programme to control small-pox. The government introduced the programme of vaccinating all the children below the age of one year in 1922. The head of the medical department was made the sanitary commissioner and was entrusted with more responsibilities in 1913 to improve the public health. District civil surgeons were appointed as sanitary officers of the district and mobile dispensaries were opened with assistant surgeons as chiefs. They were designated as district sanitary assistants. The Public Health Department was reorganised in 1934. A Deputy Director of Health was made the departmental head. Another Deputy Director was appointed in the Medical Department. Both the departments were brought under a single director.

Urbanisation, industrialisation and modernisation had their ill-effects on the health of the people and paved way for new problems. People are now facing problems in health like cancer, diseases of heart, Aids, respiratory diseases, blindness, polio etc. Hence the health and medical services are ever-changing establishments. The dreadful and communicable diseases like plague, cholera, small-pox, typhoid etc are eradicated or are brought under control now. But leprosy, tuberculosis and malaria etc. are still prevalent. The government is continuing its efforts to control and solve such new health problems. The programmes under 'health for all by 2000AD' are going on and new schemes are implemented through the Department of Health and Family Welfare for prevention of disease, to bring down the death-rate and to create a healthy society along with taking up of many new research programmes.

The medical facilities in Mandya were very limited in pre-independence days apart from the hospital of the Sugar Company, the general hospital and some private practitioners. People had to go to Mission Hospital in Mysore for surgical operations and complicated maternity cases.

Apart from giving an impetus to rural health services, the government has extended them further in the decades after the states reorganisation. Effective medical education and facilities for treatment are included in the five year plans and different health services are implemented. The importance of family planning, extending medical services to rural areas, modernisation of district hospitals, increasing beds in hospitals, effective measures to control epidemics like cholera and malaria, establishment of new medical colleges, opening departments for research in colleges and other programmes are included and implemented in the 8th five year plan. The government is expressing concern towards the health of rural folk by opening primary health units, primary health centres and community health centres. All the measures are taken by these institutions to control diseases and cure them. The government has achieved considerable progress in the field of public health by opening general hospitals or community health centres in taluk headquarters and district hospitals in district headquarters. There are 37 primary health units, 6 general hospitals, 6 nursing mother service centres, one city family planning centre and 6 hospitals of Indian medicine in Mandya district in the year 2002. Apart from these, one T.B. control hospital, one ESIS hospital, a leprosy control centre and 4 other hospitals are functioning in the district. The people of the district have the services of 193 doctors, 418 nurses and other staff. The government has envisaged the programme of providing treatment to the door-steps of rural people through 407 sub health centres.

The progress achieved under National health programmes in 2000- 2001 was as follows:

Sterilisation operations under family planning programme were 13,299. Insertion of copperT's - 8,468. Members who used birth control pills- 4315. Members who used Nirodhs- 46,400. DPT vaccination for 29,585 members. Polio drops for 29,585 members. BCG vaccination for 29,147 members, measles vaccination for 26,692 members and Toxoid vaccination for 30,187 pregnant women were given under general vaccination programme in the same year.

Birth -Death, Statistics

The collection of the statistics of births and deaths was not accurate and scientific in the beginning. The collection work was done by police patils and patels in rural areas and staff of the town municipalities in urban areas. They used to send the information collected every month to the tahasildars of the taluk. This was in turn sent to the deputy commissioners and then to

sanitary commissioners . This was the arrangement prior to 1915. The act was amended so that the main records were revised. The registration system was made statutory in 1918. Every one has to register the birth, death and marriages in the family with the registrar under this law. This registration is done by village accountants in rural areas, and by the town municipalities and city municipalities in urban areas. This law of 1969 was enforced in 1971. The deputy commissioner is the district registrar and the district statistical officer is the additional register under this law.

Sample Registration System

The registrar-general of births, deaths and marriages has implemented a sample registration system for collection of statistics of births and deaths. The statistics of births and deaths in rural areas are recorded continuously and the reasons for death are reported in this system . The collected data is subjected to different processes of statistics and then used to find the rate of births and deaths in rural and urban areas at the state and national levels.

The number of births for a population of 1000 in a particular area is denoted as birth rate and the number of deaths as death rate. The infant death rate is also denoted in the study of demography. Still births, death of mothers at the time of delivery etc are social health problems and they are due to separate reasons. These rates are of zonal level and as such separate particulars are not available. So the birth and death rates of rural and urban areas are given separately and jointly as well. Number of still birth, number of deaths of mothers at the time of delivery, number of deaths of babies in Mandya district and the infant death rate at the state level are also given for the period.

The following rural and urban areas were selected to conduct the sample registration.

Hagalahalli and Sadolalu of Maddur taluk in Mandya district; Bheemanahalli, Gangavadi, Hosalli, Kavalagundi, Kenchiganahalli, Naragondanahalli, and Thattalli of Nagamangala taluk; Lingapura and Thonnur of Pandavapura taluk; Belagola and Chikka Horohalli of Shreerangapattana taluk under rural areas, Pandavapura (single enumeration division) and Shreerangapattana under urban areas.

The details of birth and death registration in the district from 1987 to 1998 are given in table 15.1 below and the number of persons died for different reasons in the district from 1987 to 1998 are given in table 15.2 below.

Table 15.1 Particulars of the registration of births and deaths in Mandya district from 1987 to 1998

Sl.No.	Particulars	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Birth	10,641	19,578	21,274	21,352	21,974	23,403	23,234	23,134	28,161	33,264	33,815	36,250
2.	Death	3,612	5,738	6,044	5,937	7,440	2,646	8,360	8,773	10,464	14,462	15,166	12,979
3.	Babies born dead	28	106	31	26	55	59	25	43	52	69	35	26
4.	Infant death-rate	84	121	142	103	144	65	111	97	38	149	63	99
5.	Death of mother at the time of delivery	1	4	9	4	6	5	11	32	7	13	30	41
6.	birth-rate (rural)	29.9	30.1	29.1	29.0	27.6	27.4	26.7	26.0	25.1	24.2	23.9	23.1
	birth-rate (urban)	26.3	28.9	25.1	25.0	24.0	23.3	23.1	22.7	22.1	20.3	19.4	22.0
	total	28.9	28.7	28.0	28.0	26.9	26.3	25.5	25.0	24.1	23.0	22.7	22.0
7.	death-rate (rural)	9.7	9.5	9.6	8.8	9.8	9.4	9.5	9.3	8.5	8.6	8.5	8.6
	death-rate (urban)	6.1	7.0	6.5	6.1	6.9	6.0	5.2	6.0	5.6	5.4	5.4	5.6
	total	8.7	8.8	8.8	8.1	9.0	8.5	8.0	8.3	7.6	7.6	7.6	7.6
8.	infant death-rate (rural)	86	83	69	47	41	42	42	50	43	25	24	25
	infant death-rate (urban)	41	46	53	39	47	41	42	50	43	25	24	25
	Total	75	74	80	70	77	73	67	67	62	53	53	58

Note : The rates at district level in Karnataka are not available.

Base :- Sl. Nos. 1 to 5 Birth - Death rate - annual reports of 1969 (Directorate of economics and statistics). As the registration is incomplete, this data is not useful for any planning activities. Sl. Nos. 6 to 8 Statistics of the sample registrations system provided by the Registrar General of India.

Source : Directorate of Economics and Statistics, Bangalore

Statistics upto the year 1998 are available and not available thereafter.

Table 15.2 Number of people who died for different reasons in Mandya district.

Sl.No.	Reason for death	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Plague	2	-	-	1	-	-	-	-	-	-	-	-
2.	Small-pox	-	-	-	-	-	-	-	-	-	-	-	-
3.	Cholera	4	7	7	9	8	2	11	17	8	28	35	20
4.	Malaria	-	3	1	6	18	-	18	23	6	19	29	21
5.	Typhoid	0	5	4	6	7	-	24	33	1	10	31	47
6.	Other fever	107	152	204	234	183	39	1,073	1,246	973	1,319	1,640	1,866
7.	Dysentery	18	60	53	64	60	13	224	298	519	724	871	1,120
8.	Respiratory problems	-	3	15	11	-	2	39	81	327	404	500	496
9.	Tuberculosis	39	60	79	154	131	51	155	193	283	255	962	1,002
10.	Leprosy	3	1	3	-	-	1	3	3	2	13	-	-
11.	Problems at the time of delivery	1	4	9	4	6	5	11	32	7	13	30	41
12.	Suicide	7	9	9	7	22	6	24	26	26	25	55	39
13.	Drowning	11	34	24	490	32	47	49	54	46	12	51	73
14.	Wounds and accidents	41	49	93	78	70	18	99	137	172	151	229	263
15.	By cruel animals	-	-	3	3	1	2	2	3	-	-	23	-
16.	Snake-bite	10	33	42	37	17	3	19	26	34	35	15	7
17.	Rabies	-	4	6	4	6	2	9	9	-	22	5	35
18.	Tetanus	-	28	23	21	23	2	27	26	17	12	11	15
19.	Diphtheria	-	5	15	14	7	6	3	6	-	16	27	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14
20.	Whooping cough	-	11	8	2	5	6	3	5	3	-	-	-
21.	Polio	2	5	2	7	11	1	16	13	4	3	-	2
22.	Polio Mylitis	2	4	1	3	-	-	3	5	-	-	-	-
23.	Tuberculosis of lungs	-	13	14	22	20	7	12	15	-	-	-	-
24.	Food poisoning	24	22	52	14	29	20	25	43	188	4	23	29
25.	Measles	1	1	7	1	-	-	5	8	-	-	-	2
26.	Cancer	47	96	126	102	125	56	620	735	303	520	706	834
27.	Diabetes	6	16	21	16	15	7	18	33	8	8	43	12
28.	Anaemia	-	10	24	26	16	3	5	17	1	-	12	-
29.	Menengitis	-	7	17	11	10	3	1	26	-	-	8	-
30.	Heart disease	3	20	41	21	12	5	1,599	2,087	1,123	2,387	2,648	1,525
31.	Heart attack	179	251	323	521	343	187	452	750	885	1,186	1,130	2,649
32.	Pneumonia	3	3	11	20	6	3	7	13	19	24	74	125
33.	Infleunza	-	34	-	-	2	22	-	8	-	16	39	31
34.	Ashtma	97	257	384	466	469	117	487	892	456	776	868	1,064
35.	Jaundice	4	7	31	16	18	12	25	29	54	25	66	40
36.	Other reasons	2,514	2,117	2,154	2,260	3,019	1,404	1,942	1,163	3,037	4,067	2,567	995
37.	Reasons not mentioned	487	2,438	2,238	1,733	2,749	594	1,350	720	1,962	2,188	2,548	626
Total		3,612	5,738	6,044	5,937	7,440	2,646	8,360	8,775	10,6464	14,262	15,166	12,979
Base : Birth and deaths registration - Annual Report													

Contagious Diseases

The presidents of district boards and town municipalities had full responsibilities of preventing the contagious diseases in their jurisdiction in the beginning. Funds required to procure cholera vaccine was provided by district boards. The responsibility of controlling contagious diseases is now with the District Health and Family Planning Officer.

Plague

This disease has caused many deaths and miseries in the district in the past. This contagious disease occurred in the rainy season in the district every year. But there are no deaths due to plague in the recent few decades. Spraying of DDT taken up by the government health department to control Cholera and Malaria has controlled this disease also to a considerable extent. Now it can be said that plague has been eradicated completely in the district. Four deaths due to plague in 1958 and two deaths in 1987 were recorded. There were no deaths due to plague afterwards.

Cholera

Though the district is not a Cholera infected area, this epidemic has spread creating an atmosphere of panic and has taken its toll. The intensity is decreasing and the preventive measures like providing chlorinated drinking water, ban on the sale of cut and exposed eatables, spraying of DDT are being carried out.

Cholera vaccinations have considerably controlled the disease. The inscription of 1818 of Kannambadi in Pandavapura taluk of this district speaks of thousands of deaths due to Cholera in this area. 120188 people were vaccinated for Cholera in the year 1965-66 in the infected villages. This epidemic usually spreads in the summer. The deaths due to Cholera in the years 1996, 1997 and 1998 were 28, 35 and 20 respectively. There were 318 gastro-enteritis cases and four deaths were reported in 2000-2001 in the district. Nine Cholera cases were reported in this period and there were no deaths in the district.

Malaria

Malaria is prevalent all over the world and it is caused by a parasitic germ called plasmodium. This disease spreads in marshy areas through mosquitoes. *Anopheles* mosquito is the carrier of the disease. The spread of the disease can be controlled by spraying disinfectants like DDT and Malathion.

This is repeated after a period of 5-7 years. Though the government of India started the control of this disease by the spray of disinfectants, National Malaria Eradication Programme was implemented in 1953. It was limited to Malnad area of the State in the beginning. National Malaria Eradication Programme was extended to all the districts afterwards. Reformed method of National Malaria Eradication Programme has been implemented in the State from 1977. There were 6,30,000 cases of malaria found in Karnataka when the epidemic took a serious turn in 1976. The number came down to 30,000 in 1984. Mandya district has also come under the influence of this epidemic. The government had started the eradication and control measures as long back as 1928 in the district. Malaria control units were working in Mandya in 1953. Vishweshwaraiah canal area was infected with Malaria and it created a health problem. The health unit was started in 1929 to control the disease. The district health establishment came into existence in 1945. A research and training centre for the staff of Malaria control was opened in 1952 with the co-operation of Rockefeller foundation and the arrangement of training the staff every year was started. Malaria research centre also started functioning in Mandya in 1954. A total of 1,200 members of the staff were trained. The following measures are taken under the National Malaria Eradication Programme implemented in 1977.

1. Collecting blood smears and giving advance treatment to a minimum of 1% of the population once in 15 days for Malaria eradication.
2. Keeping constant vigil and collecting blood samples from 15% of new patients of fever, giving advance treatment.
3. Giving immediate intensive treatment to confirmed Malaria patients.
4. Spraying DDT, Malathion and Deltra Methrin of fixed rounds in areas where the yearly malaria index is 2 or more.
5. Establishing centres for medicine distribution through public and fever treatment banks for the advance treatment to patients of fever in far-off areas.
6. Extending technical help and help in the usage of the disinfectants to control disease-carrying mosquitoes by providing timely, germ-technology science facility at the zonal level.
7. Providing organised facility at the district level for proper implementation, critical evaluation and supervision of the programme.
8. De-centralisation of laboratory services at the primary health centre level and giving considerable priority to health education to gain social sanction for these programmes.

The number of people who died of malaria in the district were 1,158 in the year 1955, 954 in the year 1958, 680 in the year 1961 and 6 in the year 1980. It is evident by these statistics that the deaths due to malaria are decreasing

year after year. The deaths due to malaria were 19, 39 and 21 in the years 1996, 1997 and 1998 respectively. There were more cases of malaria before taking up of the reformed action programme in the month of April 1977. The objective of the the reformed action programme is to avoid deaths due to malaria and to intensify eradication measures. Cases of malaria have decreased very much from 1980 and onwards.

3,72,387 blood smears were collected and tested under National malaria eradication programme in the district in the year 1999. A total of 12,144 cases were detected (P.V. 11191, P.F. 953) and 12,066 people were given intensive treatment. 1,66,704 4-Q (chloroquine) pills were distributed in 50,862 cases of fever. Delta methrine disinfectant was sprayed in 31 villages. Gamboosia fishes are kept in 128 tanks to control mosquitoes. 863 medicine distribution centres were opened to distribute pills for the control and treatment of malaria. There are 15 problematic primary health centres in the district now (2001-2002) and 15 laboratory technicians are testing blood smears.

**Particulars of blood smears taken and malaria cases found
from 1995 to 2002 in Mandya district**

year	No.of blood smears	No.of tests of smears	No.of total cases of malaria	No.of patients who underwent intensive treatment
1995	4,05,581	4,05,581	19,174	18,877
1996	4,48,774	4,48,774	31,509	29,837
1997	3,83,459	3,83,459	20,396	18,713
1998	3,99,936	3,99,936	10,929	10,141
1999	3,72,387	3,59,344	11,782	11,724
2000	3,82,676	2,83,767	7,790	7,790
2001	4,76,442	4,76,442	13,192	13,192
upto Oct.2002	4,33,437	4,33,437	12,422	12,325

Small-pox

A total of 6,90,713 people were given injections to prevent small-pox under National small-pox programme in the district. 55,485 were vaccinated for first time and 6,35,228 were revaccinated. The taluk-wise statistics and percentage of the total population is given below.

Tuberculosis

Tuberculosis is still prevalent in the region. The government opened district tuberculosis prevention centres to prevent and control tuberculosis in all

the districts of the state and has implemented National Tuberculosis Programmes through them. Tuberculosis eradication programmes are integrated with the general health services. Beds are reserved for tuberculosis patients in government hospitals and hospitals of voluntary service. Trained doctors and other staff are appointed in tuberculosis centres. The intensity of the primary attack of the disease is being prevented by administering B C G vaccination.

Taluk	primary level	revaccinations	total	percentage
Maddur	8,719	1,03,488	1,12,207	76.8
Malavalli	9,845	1,14,293	1,24,138	79.5
Shreerangapattana	4,406	53,000	57,406	75.5
Pandavapura	4,021	65,068	69,089	77.9
Krishnarajapete	9,754	92,852	1,02,606	80.7
Nagamangala	8,888	77,082	85,970	83.7
Mandya	9,852	1,29,445	1,39,297	77.8

District tuberculosis centre is functioning under the district tuberculosis officer. All the primary health centres are identifying patients by testing the sputum and are giving treatment.

The 'short period treatment' which was started in different districts of the state in 1989-90 is available in this district also. Several rural health centres also have availed this facility of treatment. The facilities of x-ray and testing of the phlegm are available in the district tuberculosis centre and all general hospitals of district. The facility of testing the phlegm is extended to some other health centres also. Deaths due to this disease in the district were 255, 962 and 1002 in 1996, 1997 and 1998 respectively.

District Tuberculosis Centre

District tuberculosis centre in Mandya was opened in 1964 with the objective of preventing and controlling tuberculosis. This centre works under the District Health and Family Planning Officer. The medical officer is the chief administrative officer who has the whole district under his jurisdiction. Three senior health assistants, two laboratory technicians, one x-ray technician and nine other staff members work under Medical Officer. Tuberculosis control, sputum testing, distribution of medicine etc. are the responsibilities of this centre. This centre cooperates with health organisations of all levels. It takes up short-term and long-term treatments and also mass education programme. The centre held the national tuberculosis control week from 12-2-2000 to 23-2-2000

and drew the attention of the public in utilising the facilities provided by the government. 1,318 new patients were identified by collecting and testing 836 phlegm smears in 2001 in Mandya district. 72 patients were treated and cured of the disease completely in the same period.

Leprosy

This disease is caused by a Micro bacteria. The government with the objective of eradication the disease completely by 2000, included the national leprosy eradication programme in the 8th five year plan and opened many leprosy units to prevent the spread of this dreadful disease in the community. Many voluntary organisations are cooperating with the the government in this effort.

Maddur and Malavalli taluks were named as resident leprosy taluks among the seven taluks of Mandya district and the national leprosy centre was established in Malavalli in 1972. The number of lepers in Maddur, Malavalli and Mandya taluks of the district are more and as such the survey and treatment is intensified there.

Multi drug treatment (M D T) was started in November 1992 with the monetary assistance of 'Amicy'-a voluntary organisation of Italy. Another voluntary organisation, M.O.B has taken the responsibility of eradication of leprosy in Mandya and Shreerangapattana taluks. The other five taluks are looked after by district leprosy eradication centre. Multi drug treatment is found to be effective and workers visit all pulse centres of the district on stipulated dates every month and distribute medicine and incentive money to old and new patients in their own places wherever they live. The organisation gives Rs 10 to each patient for every treatment in the begining and also at the end of the treatment. Population survey and survey of the slum are undertaken and new patients are identified at regular intervals. They are subjected to test by specialists and treatment is given if found infected. Leprosy eradication campaign is arranged now and then and people are made aware of leprosy. Health education is imparted to see that people get the full advantage of the campaign. Health education is also imparted in a scientific manner through hand-bills, wall-posters, exhibitions, lectures and films on leprosy to remove the misconception about the disease among people. Leprosy eradication programme is continued in Mandya district though it has reached the stipulated goal in eradication of the disease.

District Leprosy Eradication Centre

The office of the leprosy eradication officer started functioning in 1983. This centre looks after the job of control and eradication of leprosy in

Malavalli, Nagamangala, Pandavapura Krishnarajpet and Maddur taluks except Mandya and Shreerangapattana taluks.

District Leprosy Eradication Officer heads the office with the jurisdiction of the whole district. One assistant leprosy officer, a senior laboratory technician, an assistant statistical officer and other staff are working under the Officer. District Health and Family Planning Officer is the immediate higher official.

The progress achieved under leprosy eradication programme for the last 7 years in Mandya district is as follows.

year	new patients identified	no. of patients cured (including new patients)	proportion of the disease for the population of every 10000
1995-1996	526	592	4.07
1996-1997	476	467	2.38
1997-1998	526	585	2.09
1998-1999	583	542	1.16
1999-2000	376	338	1.38
2000-2001	346	407	1.47
2001-2002	391	327	1.33

Meningitis

This disease is prevalent usually in the eastern part of the state. This disease is found in animals, pigs in particular, attacks the children quickly. Meningitis control programme is being taken up with the counselling and guidance of the government of India. The government of India provides assistance in cash and in the form of equipment. Segregating pigs from residential localities, spraying disinfectants, giving treatment to suspected cases of the disease in district hospitals etc are the preventive measures taken.

Cases of meningitis increased in 1980 in Mandya district and it spread fast. The number of people who had the disease and the number of people who died (given in brackets) from 1986 to 1990 is as follows: 1986 - 74 (17); 1987 - 41(10); 1988 - 40 (11); 1989 - 7(4); 1990 - 3(1). But there were no reports of deaths in 2000. There were 5 cases of meningitis in 2000-2001 in the district. Three out of the five people got cured and two died.

Aids (Acquired immuno deficiency syndrome)

Aids is caused by the infection of Human immuno virus. It has turned out to be the most dreadful health problem of the century. The person who

contracts this disease will lose his resistance for the disease completely. Loss of weight, intermittent fever, purging are the common disorders of the body that occur in this disease. The government started imparting health education about the preventive measures from 1987. All the hospitals in the state are working as blood testing centres. The disease can be identified by conducting the test for detecting the HIV virus. The person infected by the virus spreads the disease. The disease is spread by sexual contact and blood transfusion or infected syringe. 321 HIV virus infections and 33 AIDS cases were detected in the district from 1987 to 2001. Five deaths due to AIDS were reported in the district.

Indian medicine system and Homeopathy

Ayurveda, unani, siddha, Naturopathy, yoga and Homeopathy are included in the department of Indian medicine system and homeopathy. This department was bifurcated from the health department and was established as a directorate in 1972. This directorate is established to provide health service to rural and urban population, to impart medical education and to have control over the manufacture of Ayurvedic and unani medicines. It imparts training to take up medical profession in Indian system of medicine and homeopathy. It also imparts training of three and a half years duration for nurses and training of 10 months duration for dispensers of Ayurveda and unani. It also looks after the gardening of herbs. There are 17 Ayurveda pharmacies in Mandya district. Unani pharmacies are also there in Nagamangala and Shreerangapattana. The district has three Ayurvedic Pharmaceutical manufacturing units.

Ayurveda

Ayurveda is recognised as the most vital system of medicine since the time of vedas and it has remained popular even after many centuries. This is one of the oldest systems which tells about the life span and protection of the human body, characteristics of different diseases and treatment for them. Dhanvantari is considered to be the pioneer of ayurveda. Famous ancient doctors like charaka and Sushrutha are referred to in old books. The book on ayurveda written by Agnivesha is considered to be the best. This is considered as the original of the *charaka-Samhitha* available now. If the three elements - *Vaatha* (gas), *Piththa* (liver) and *kapha* (phlegm) in the body go out of control, the disease starts. Ayurveda tells us about the ways to get rid of these three disorders (*three-dosha*).

Though the allopathy system which entered the country at the time of British rule belittled the confidence of the people in ayurveda, it was not eliminated completely.

This system of medicine continued to develop itself as a parallel system. There is no dispute about the fact that this is scientific knowledge.

The government is cooperating in the all-round development of ayurveda which is one of the Indian systems of medicine. In addition to providing all economic assistance to the study and research of ayurveda, it is taking measures to re-establish the confidence and develop a liking for ayurveda in the people. There are ayurveda dispensaries in Doddabanasavadi, Muththagere, Dudda, Kannali and Thimmanahosuru of Mandya taluk; Nagamangala and Adichunchanagiri of Nagamangala taluk; Hosaholalu, Yallapura, Maadapura and Mandagere of Krishnarajpet taluk; Doddapaalya of Shreerangapattana taluk; Yadaganahalli of Maddur taluk and Byaaduru of Mallavalli taluk now (2001-2002). There is one ayurveda hospital with 25 beds in Mandya. There are two Ayurveda hospitals with two and six beds in Dudda of Mandya taluk and Byaaduru of Mallavalli taluk respectively. One more hospital is sanctioned to Maddur. 35 doctors are working in the district.

Peripheral Cancer Centre, Mandya

The peripheral cancer centre started working in Mandya in 1994 as a subsidiary of Kidwai Memorial Institute of Oncology of Bangalore. Patients of Mandya district and the neighbouring districts can get treatment in this centre for cancer. 2,549 patients registered and had treatment in this centre from 1994 to 1999. Laboratory, x-ray, radiation, in-patient departments and other facilities are available in this centre. There is a social welfare department and the social workers instill confidence in patients by imparting knowledge about cancer. They undertake the responsibilities of suggesting solutions to social and economic problems of the cancer patients, imparting knowledge about cancer to attendants of patients, helping them in procuring monetary assistance for the treatment of the patients, guiding them about treatment facilities etc.

The out-patients registered in this centre every year from 1997 to 2002 respectively were 1279, 1159, 1198, 1179, 1642 and 1520. The number of cases confirmed of the disease after the test were 367, 315, 264, 404, 606 and 505 in the same years respectively.

Peripheral Cancer Centre, Mandya: Particulars of patients admitted
and details of treatment given from 1997 to 2002

Sl. No.	Particulars	1997	1998	1999	2000	2001	2002 October
1	No. of new patients	367	315	264	404	606	505
2	Cases confirmed of disease	337	304	266	328	404	392
3	F.T. cases	3,502	4,062	4,409	3,731	6,482	5,063
4	Patients admitted	282	226	210	236	203	191
5	Patients re-registered	179	127	275	181	171	113
6	Patients treated	433	344	503	412	274	274
7	Deaths	13	5	2	-	1	2
8	Out-patients	1,279	1,159	1,198	1,179	1,642	1,520
9	Patients who underwent radiation.	318	344	258	318	370	344

Institutions of health

The progress achieved by the government in providing facilities for prevention of disease and treatment to people in the post- independence decades is considerable. The government, according to its policy of providing better and more medical facilities to the people, has opened the district hospital, hospital with specialist doctors, general hospitals (at taluk level), primary health centres, primary health units (in rural areas) in the district. Hundreds of private nursing homes, maternity homes, and dispensaries are also available in the district working for the cause of health. Details of the institutions of health in the district are discussed here.

District hospital, Mandya

This was started as a hospital with 100 beds in 1939-40. The bed-strength was increased to 250 and modern facilities were provided in 1977. It was upgraded to a hospital with 400 beds in 1992-93. There are 25 specialist doctors and 232 non-medical staff working in the hospital. Blood bank, cold storage, mortuary, a modern kitchen and 150 additional beds were provided in 1991-92 with the assistance from the world Bank.

An additional building with 90 beds, renovation of the old building, 5 residential quarters for doctors, 10 residential quarters for nurses, 10 residential quarters for D group staff, 4 operation theatres, x-ray department, casualty department and a generator room were built , a borewell was dug, other extention works were taken up and finished under Karnataka health development system programme in 1998.

This hospital which attracts more rural patients is providing the service of specialist doctors. General medicine, cardiology, surgical operation, maternity and gynaecology, orthopaedics, ophthalmology, Ear and Nose, Skin and Venereal disease, leprosy, psychiatry, dental, x-ray and paediatrics departments are providing the services of specialists. The hospital is engaged in National Vaccination Programme, Family Planning Programme, leprosy control, Aids control, delicate treatment to Pregnant women, treatment for high blood pressure, heart disease, diabetes and prevention of blindness programme. Uninterrupted medical service is also provided in emergency and casualty departments. Intensive care unit for new born babies, surgical operation for the eye, medical gas supply units, endoscopic and ultra sound scanning facilities are also available in the hospital.

Nursing mothers service centre is attached to the hospital through which vaccination programme for pregnant women and babies is taken up under women and child welfare scheme. There is a senior lady health assistants training centre in the hospital which trains 30 lady health assistants per year. The hospital was providing medical education facility to Adichunchanagiri medial college from 1987 to 1998. For more details see table 15.3.

General Hospital, Pandavapura

This hospital was a primary health unit and then it was upgraded as primary health centre. It was upgraded to a hospital with 50 beds in 1992. It has its own building. It has the facilities for eye and heart treatment, x-ray unit, laboratory and maternity department. An assistant surgeon is the chief medical officer. 7 doctors and 60 members of other staff are there to help. There are 12 sub-units under this hospital in Pandavapura A and B towns, Beerashettahalli, Harohalli, Hirebevinakuppe, Kerethonnuru, Mahadesh warapura, Chikkabyadarahalli, Kanaganamandi, Puttasomanahalli, Chandre etc.

The number of out-patients in the hospital from 1995 to 2002 were 106232, 105884, 117256 and 10165 every year respectively. Accordingly the tuberculosis patients were 47, 42, 75, 49, 83, 48 and 79 respectively. x-rays taken in the same period were 1134, 654, 474, 729, 623,788 and 878. Maternity treatment was for 1028,1045,1030,1050,1085,694,and 650 women respectively. Vasectomy operations conducted under family planning programme from 1995-96 to 1998-99 and from 2000-2001to 2001-2002 were 453, 401,424, 434, 318, and 452, insertion of copper Ts were 345, 341, 336, 294, 354 and 260 every year respectively. For more details see table 15.4.

Table 15.3
Particulars of the services provided by government hospital, Mandya
from 1996-97 to 2001-2002 and the No. of deaths

Particulars	Years					
	1996-97	1997-98	1998-99	1999-2000	2000-2001	2001-2002
I. General services						
1. Out-patients	2,90,630	3,14,210	2,70,802	2,67,750	2,14,125	2,41,255
2. In-patients	12,600	12,028	11,818	11,219	12,301	12,301
3. Surgical operations	4,959	2,713	3,611	3,878	1,943	1,775
4. Maternity operations	1,462	1,667	1,763	1,765	1,797	2,262
5. X-rays	11,037	10,276	8,886	10,864	11,780	13,241
II. Family planning Programme.						
1. Vasectomy operations	1,633	1,674	1,470	-	899	755
2. Copper Ts	668	441	650	-	563	627
3. Oral pills	1,237	1,572	1,294	-	1,045	1,089
4. Nirodh	21,420	20,816	18,430	-	11,638	11,231
III. Maternity and child health Programme						
1. DPT Vaccinations	2,679	2,725	2,581	-	2,252	1,237
2. Polio	2,679	2,725	2,581	-	2,252	1,237
3. BCG	3,813	3,923	3,424	-	4,144	1,930
4. D and T	512	552	1,626	-	2,035	1,460
5. T.T.(for mothers)	2,539	1,972	1,704	-	1,406	1,310
6. T.T (for children of 10 years of age)	380	294	1,308	-	1,378	933
7. Vaccination for measles.	2,661	2,529	2,506	-	2,107	1,181
IV. Other treatments						
1. M T P	73	55	65	-	67	32
2. Cataract operation	180	171	135	-	680	989
3. Death of newly born babies	7	15	22	-	23	26
4. Death of mothers at the time of delivery	7	2	4	-	-	2

General Hospital, Krishnarajpet

This hospital was established as Laxamma DundaShetta Maternity hospital in 1938. It was converted into a primary health centre in 1966 and then upgraded to a general hospital with 30 beds in 1981. The government has sanctioned a nursing mothers service centre under the hospital and it is also

functioning. Hospital has its own building with x-ray unit, dental and eye treatment departments, a laboratory and sterilisation operation facilities.

There are 10 sub-units under this hospital. Five senior specialist doctors, an assistant dentist and 70 other staff members are working under the medical officer.

The out-patients who had treatment from the hospital in the years 1997-98, 1998-99, 1999-2000 were 38384, 38740 and 64885 respectively. In-patients were 2559, 2347, 4805 in the same order. Persons who got maternity treatment were 1147, 1165 and 1573 respectively. Persons who underwent vasectomy operations under family planning programme were 1142, 632 and 1487 respectively. Number of patients who had treatment for tuberculosis were 54, 46 and 49, for leprosy-31, 5 and 14 respectively.

Table : 15.4

The progress achieved by the general hospital, Pandavapura under General Vaccination Programme from 1995-96 to 2001-2002 is as follows

Year	BCG	D P T	D and T	Measels vaccination	T T (mothers)	T T (children)	Polio vaccination
1995-96	869	820	1,123	804	934	539	820
1996-97	1,031	1,012	974	972	1,809	954	1,012
1997-98	809	757	398	725	892	539	757
1998-99	855	839	905	756	1,026	905	839
1999-2000	901	824	1,026	720	1,046	509	824
2000-2001	915	881	695	827	776	833	881
2001-2002	717	773	706	729	807	945	773

General Hospital, Shreerangapattana

This hospital was a dispensary in the beginning and was converted into a primary health unit in 1954. It was made a combined dispensary when a maternity department was added in 1972. A nursing mothers service centre with 6 beds (C type) was added in 1982. This was upgraded by the government to a general hospital with 30 beds in 1983. As this hospital is situated on Bangalore -Mysore highway, the government has started a trauma care centre with 10 beds in 1999. This hospital has an administrative medical officer with 8 doctors and 39 other staff members. Modern facilities like operation theatre, x-ray unit, laboratory and maternity department are available in the hospital. Contagious diseases like malaria, cholera, typhoid, jaun-

dice and meningitis found in the neighbouring areas are treated in this hospital. Two sub-units, Ganjam A and B are working under this hospital.

**Particulars of the medical services provided by the hospital from
1998-99 to 2000-2001 (In No's)**

Details of the service	Years		
	1998-99	1999-2000	2000-2001
I			
1. Out-patients treated	39,786	71,424	86,277
2. In-patients treated	1,562	1,786	2,286
3. Maternity treatments	364	375	443
4. Surgical operations	35	38	49
5. M.T.P. cases	110	375	443
6. X-rays	169	567	1,407
7. Tuberculosis patients treated	47	28	15
8. Leprocy patients treated.	4	4	4
II. Under Family planning programme			
1. Vasectomy operations	293	444	283
2. Inersations of copper Ts	125	130	136
3. Nirodh users	910	770	720
4. Users of oral pills.	413	447	463
III. Vaccinations under mother and child health programme			
1. D P T	395	403	397
2. Polio	395	403	397
3. B C G	431	436	402
4. Measels	395	336	360
5. D and T	540	536	483
6. T T for mothers	368	407	414
7. T T for 10 year old children	422	478	514
8. T T for 16 years old ones	424	342	420

10,324 and 9,889 blood smears were tested in the hospital in the years 2000 and 2001 respectively. Positive cases among them were 170 and 159 respectively and 62 and 82 patients were treated respectively. Phlegm of 156 and 473 persons was tested in the above years and it was found positive in 123 and 14 cases among them.

Testing of the eyes is done once in a week and surgical operations of the eyes are conducted once in a month in the hospital.

General Hospital, Maddur

This was started as a combined hospital in 1956 and converted in to a general hospital with 30 beds. It was upgraded to a general hospital with 50 beds in 1985. The hospital has its own building with x-ray and laboratory facilities. It gives eye treatment twice in a week. An assistant surgeon is the chief medical officer. 57 other staff members are working under the officer. Gastro enteritis, hepatitis, Malaria are the contagious diseases found in the jurisdiction of this hospital and patients come here for treatment.

Particulars of the medical services provided by the hospital from 1996-1997 to 2001- 2002

Particulars	Years					
	1996-97	1997-98	1998-99	1999-2000	2000-2001	2001-2002
I.						
1. Out-patients treated	55,128	51,616	51,468	48,030	70,700	76,387
2. In-patients treated	3,151	3,262	2,325	2,469	4,044	4,987
3. Maternity treatments	842	948	647	494	778	945
4. Tuberculosis patients	54	53	58	64	67	96
5. Leprocy patients.	61	66	62	68	64	20
II. Under family planning programme						
1. Vasectomy operations	202	213	204	203	210	203
2. Insertions of copper Ts	235	192	170	172	162	162
III. Under mother and Child Health Programme						
1. D P T Vaccination	569	468	512	554	446	517
2. D and T immunisation.	576	565	557	517	914	511
3. T T for mothers	706	530	502	557	518	524
4. T T (children of 10 years)	595	488	553	522	572	551
5. T T (children of 16 years)	434	604	430	492	542	508
6. B C G Vaccination	654	547	459	475	466	456
7. Measles	587	603	579	503	502	454
8. Polio	569	468	512	504	466	517

493 gastroenteritis cases in 2001 and 227 cases up to september 2002 were admitted to the hospital and treated and also 318 major and 221 minor surgical operations were conducted.

General Hospital, Malavalli

Started first as a combined dispensary in 1951, this institution was converted in to a general hospital with 50 beds in 1984. The hospital with its own building is having a family planning operation unit with 10 beds. It is also functioning as the city family planning centre from 1980. Dental department, x-ray unit, laboratory, maternity section, in-patient and out-patient departments, leprosy department, with 20 beds are also functioning in the hospital. This has been converted in to a hospital with 100 beds as per the government order in 1997. Renovation of the hospital and construction of the new building has started with an aid of Rs 162 lakhs under Karnataka Health Development Scheme. Three sub-units are functioning under this hospital. Paediatrics, orthopaedic, skin and general surgery facilities are available in the hospital. Nine doctors and 70 other staff members are helping the chief medical officer. Patients from the neighbouring rural areas come to this hospital for treatment for Malaria, cholera, typhoid, leprosy and other diseases.

**Particulars of the medical services provided by the hospital from
1997-98 to 1999-2000**

Details of the service	Years		
	1997-98	1998-1999	1999-2000
I.			
1. Out-patients treated	51,410	44,410	50,842
2. In-patients treated	2,776	2,678	2,186
3. Maternity treatments	877	912	993
4. X-rays and scanning	263	221	334
5. Patients treated for tuberculosis	27	43	54
6. Leprocy patients	138	127	129
II. Under Family planning			
1. Vasectomy, operations	985	721	823
2. Insertions of copper T	194	144	248
III. Under Women and Child Health Programme			
1. D P T Vaccination	667	678	617
2. D and T	1,716	706	594
3. T T for mothers	748	767	743
4. T T for children	1,114	1,024	971
5. B C G Vaccination	683	682	632
6. Polio Vaccination	667	678	657

General Hospital, Nagamangala

Started as a local fund hospital and then converted into a combined dispensary, it was upgraded to a general hospital in 1998. It has its own building with 30 beds strength. Nursing mothers centre, x-ray, E C G, Laboratory, dental and eye treatment facilities are available in the hospital. Seven doctors are working with a senior medical officer as the head of the hospital. Other 37 staff members help. Patients get treatment for diseases like cholera, typhoid and malaria.

**Particulars of medical services provided by the hospital from
1997-98 to 2000-2002**

Particulars	years				
	1997-98	1998-99	1999-2000	2000-2001	2001-2002
I.					
1. Out-patients treated	42,030	48,669	49,788	59,020	67,337
2. In-patients treated	1,701	1,827	1,876	3,825	2,554
3. Maternity treatment	533	478	420	564	639
4. Surgical operations	1,022	1,029	1,106	984	1,012
5. Tuberculosis patients treated	28	75	89	61	56
6. Leprosy patients treated.	20	15	10	-	-
II. Under Family planning programme					
1. Vasectomy operations	1,022	1,029	1,106	122	139
2. Insertions of copper T	133	98	60	172	153
3. Persons used oral pills	528	540	264	528	528
4. Persons used Nirodhs.	9,200	2,800	2,200	6,600	6,600
III. Under Mother and Child Health Programme					
1. D P T Vaccination	512	633	429	271	268
2. Polio immunisation	512	633	429	271	268
3. D and T	241	244	171	302	332
4. T T for pregnant women	654	681	474	302	296
5. Measles	481	597	420	267	267
6. T T for children of 10 years	262	243	170	282	352
7. T T for children of 16 years.	292	341	211	467	469

District Ayurveda Hospital

District Ayurveda Hospital, Mandya started functioning in 1962. This hospital with 25 beds is having special treatment facilities like eye treatment

and Panchakarma treatment. Chief medical officer and 14 other staff members are working in the hospital. Out-patients treated from 1995-96 to 2001-2002 were 58,718, 81,423, 61,964, 51,631, 46,989, 52,115 and 1,23,817 yearly respectively.

In-patients treated were 1869, 1423, 718, 804, 95, and 3 in the respective years.

Adichunchanagiri Hospital and Research Centre, Balagangadharanagar

The biggest private hospital with most modern facilities in the state was established in Balagangadhara Nagar in Nagamangala taluk in 1990. This hospital had only out-patient department, general medicine and surgery departments in the beginning. The other departments like in-patient, heart disease, x-ray, ENT, eye treatment, psychiatry, gynaecology, maternity, skin, orthopaedics, anesthesia, physiotherapy were started afterwards. Blood bank and emergency treatment departments were started in 1992 and CT scanning was opened in 1999. The hospital has an imposing building complex equipped with a very spacious operation theatre.

There is a facility of 700 beds in the hospital with heart, kidney and *suroopa* (plastic surgery) treatment facility, C.T.scanning, Ultra sound, Electovitis analyser, Hemodialysis, CRM table, Computerised treadmill, Electrocardiograph (ECG), Orthoscope, Leproscope, Colour doppler, Endoscope, Auto analyser, Urology, Ventilators, Central oxygen system, Central sterilisation system, Autopsy department etc facilities.

This being a hospital with the department of teaching facility, it is co-operating with Adichunchanagiri nursing school, Adichunchanagiri nursing college and Adichunchanagiri college of pharmacy. There are 296 doctors and other members of the staff including the administrative officer of the hospital. Malaria, Cholera and other contagious diseases are usually found in the area and the patients get treatment here. For more details see table 15.5.

Rural health programme

There was no priority to rural health services in the pre-independence decades. Only the vaccination for Plague, Cholera and small-pox and spray of disinfectants were done by the government. The government started extending the facilities of rural medical services under five year plan after the advent of independence. Several general health services were envisaged and the government evinced interest in rural masses. The medical check up facilities were upgraded and the the quality was improved. The government is fulfilling the

basic health needs by protecting child health, controlling communicable diseases and taking measures to prevent their spread, implementing family planning programme and opening primary health centres in rural areas.

Table : 15.5

**Particulars of the medical services provided by the hospital
from 1995-96 to 1999-2000 (in Nos.)**

Particulars	Years				
	1995-96	1996-97	1997-1998	1998-1999	1999-2000
I.					
1. Out-patients treated	1,10,466	1,44,366	1,82,111	2,06,320	47,950
2. In-patients treated	10,142	17,643	20,786	23,797	20,203
3. Maternity treatment	998	1,139	1,298	1,485	1,500
4. Surgical operations	2,187	3,191	4,565	4,445	3,908
5. X-rays and scannings	8,504	9,214	9,077	9,162	9,273
6. Tuberculosis patients	433	377	209	144	150
II. Under Family planning programme					
1. Vasectomy operations	78	100	104	150	310
2. Insertions of copper Ts	78	200	200	200	200
III. Under maternity and child health programme					
1. D P T Vaccination	158	284	265	263	232
2. B C G Vaccination	223	393	201	473	426
3. Polio	350	424	380	560	698
4. D and T	16	37	12	4	-
5. Measles	-	99	24	35	32

Free medical camps are conducted by the hospital. Free eye treatment camps and cancer camps are also conducted by the hospital.

Community Health Centres

The government has established community health centres usually in the taluk headquarters or urban areas. A 30 bed hospital for every four health centres or for each one lakh population is established and is named a community health centre. 30 beds facility is provided in a community health centre. The community health centre is functioning as a guide or referral hospital for all the health institutions of the area.

Community Health Centre, Bharathinagara

The primary health centre started in 1963 in Barathinagar (K.M. Doddy) was upgraded to a community health centre from 1-4-2000. It has its own building with 30 beds and is equipped with x-ray unit, Maternity department, laboratory, dental and eye departments. A medical officer, one lady doctor, one dentist and 27 other staff members are working. There are 8 sub-centres under this hospital. Patients visit this hospital mostly for the treatment of gastro-enteritis, malaria, respiratory problems, fever and other diseases.

Particulars of the medical services provided by the centre from 1998 to september 2002 (in Nos.)

Particulars	Years				
	1998	1999	2000	2001	2002
I.					
1. Out-patients treated	14,857	21,912	18,714	37,600	25,551
2. In-patients treated	710	1,400	690	1,450	1,200
3. Maternity treatments	600	588	332	460	355
4. Blood smears	7,948	7,587	5,178	9,380	7,768
5. Malaria cases	20	15	11	11	5
6. Surgical operations of the eye	67	31	15	72	58
7. Tuberculosis patients treated	5	17	3	31	22
8. Leprosy patients treated	10	11	5	24	7
II. Family planning programme					
1. Sterilization operations	215	259	152	293	263
2. Insertion of copper Ts	237	230	102	133	131
3. Users of oral pills	1,949	1,723	915	1,065	1,119
4. Users of Nirodh	23,074	18,238	8,070	11,050	11,720
III. Mother and child health programme					
1. DPT Vaccination	642	676	375	499	505
2. Polio Drops	642	676	375	499	505
3. BCG Vaccination	642	674	748	515	511
4. Measles Vaccination	702	756	395	483	488
5. D and T	664	888	695	742	875
6. T T for mothers	702	756	395	556	527
7. T T for 10 year old children	626	854	689	791	796
8. T T for 16 year olds	549	581	304	500	993

Primary Health Centres

The government has fulfilled the medical needs of the rural people by establishing primary health centres with the objective of providing basic health services to the rural population. These centres are providing necessary health services through several programmes like protecting general health and taking preventive measures to control the spread of communicable diseases. These centres have taken up central and state government health programmes to control and prevent communicable diseases like cholera, leprosy, tuberculosis and malaria, general vaccination programme, pulse polio programme, family planning programme, maternity and child health programme etc.

There were two types of primary health centres in the beginning. They were the government of India model and the government of Mysore model. There were 21 government of Mysore models and 4 government of India models by 1960 in the district. All these have been established as government of India models from 1975 and onwards.

Every health centre is catering to the health and medical needs of 30,000 people and the government is supplying medicines worth Rs. 30000 to each centre in the beginning. One medical officer, four nurses, one health visitor, one dispenser, one junior health supervisor were there in each primary health centre and the number of doctors and other staff was increased as the activities increased. Every primary health centre now is having a minimum of two medical officers, including one lady medical officer, senior and junior health visitors, senior and junior health supervisor, laboratory technician, multipurpose male and female health workers under health education programme. There are 69 health centres and 456 beds in these hospitals in the district (2000). There are 407 sub-centres functioning under these centres. Primary health centres are playing a prominent role in managing the programmes of the health units under them effectively. Taluk-wise division of primary health centres in the district is as follows:

Mandya taluk : Shivalli, Keragodu, Koththaththi, Basaralu, Madagunduru, Thaggahalli, Holalu, Chandagalu, Holeboodanuru, Hemmige, Maragowdanahalli, B. Hosuru and Kyathangere; Maddur taluk: K.M Doddy/ Bharathinagara (now community health centre), Kesthuru, Koppa, K.Honnalagere, Besagarahalli, Daddarasinakere, Kadaluru, Valagerehalli, Gurudevanahalli, Gejjalagere, Sadolalu, Kowdle and Bekkalale; **Malavalli Taluk** : Hittanahalli, Halaguru, Kirugavalu (now community health centre), Agasanapura, Belakavadi, Poorigali, Kandegala, Dalavayi Kodihalli, Kalkuni,

Thalagavadi, Kunduru, Channapilekoppalu, Ragibommanahalli and Chikkamulagudu; Nagamangala Taluk: Belluru, Haradanahalli, Bindiganavile, Adichunchanagiri, Devalapura, Cheenya and Doddayagachi; Pandapura Taluk: Chinakuruli, Kyathanahalli, Melukote, Bannangadi and Kerethonnuru; Sreerangapattana Taluk : Kodiyala, Mahadevapura, Arakere and K.Shettihalli; K.R.Pete Taluk: Akkihebbala, Sheelanere, Kikkeri, Bookanakere, Santhebachahalli, Bandihole, Ganjigere, Madenahalli and Kunduru.

As it is very difficult to give the particulars of the medical services provided by all the primary centres listed above separately, the particulars of medical services, treatment facilities and medical staff etc of K. Shettihalli of Shreerangapattana taluk are given as a model below. It is brought to the notice of the readers that all the other primary health centres in the district are providing medical services in the same manner.

Primary Health Centre, K.Shettihalli

This was started as a primary health unit in 1976 and was upgraded to a primary health centre in 1984. The building of the hospital which came from donations is having operation theatres. Ballenahalli primary health unit is functioning under this centre. There is a maternity department and laboratory here; eye treatment facility is also available. One medical officer and 23 staff members are there in the centre. The patients with malaria, gastro-enteritis, pneumonia and respiratory problems from neighbouring places are treated here. Treatment facility for leprosy and tuberculosis is also available here. The in-patients treated here in 1998-99 were 76. For more details see table : 15.6.

Primary Health Units

The government converted the erstwhile health institutions like Municipal dispensaries, combined hospitals, local fund dispensaries, Taluk Board dispensaries, and others to primary health units in 1970. These units have taken up the functions as that of the functions performed by primary health centres.

There is usually one health unit for each 15,000-20,000 population. They send the report of the health programmes conducted in their jurisdiction to the concerned health centre. The medical officer in the unit is helped by a dispenser and nurses. These units work in collaboration with one another in implementing the control of communicable diseases, family planning and general vaccination programmes. There are 56 health units working in the district. A taluk-wise list is given below:

Table : 15.6
Particulars of the medical services provided in the primary health centre
from 1995-96 to 2001-2002 (in Nos.)

Particulars	years						
	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-2001	2001-2002
I. 1. Out-patients treated	15,231	14,490	11,975	12,383	15,636	18,576	24,246
2. Maternity treatments	112	69	44	20	21	20	22
3. Tuberculosis patients treated	9	4	11	12	-	1	18
4. Leprosy patients treated	3	4	5	7	5	9	5
II. Under Family Planning Programme							
1. Vasectomy operations	255	216	219	212	249	233	215
2. Insertions of copper Ts	204	196	203	177	171	155	162
III. Under women and child health programme							
1. D P T Vaccination	523	498	541	453	517	450	487
2. D and T	376	340	470	496	421	525	500
3. T T for mothers	541	594	612	513	576	426	537
4. T T for children	405	296	492	520	491	484	529
5. B C G	512	446	527	410	505	415	448
6. Measels	567	497	507	462	452	419	491
7. Polio	523	498	341	453	517	450	487

Mandya taluk : Thubinagere, Hallegere, G. Malligere, Shivapura, Hulivana, Mangala, Hanakere, Beluru, Sathanuru, Dudda, Banasavadi; **Maddur Taluk :** Bidarakote, Hagalahalli, Koththipura and Kadu koththanahalli; **Malavalli Taluk :** Dugganahalli, Maththambadi, Doddaboovanahalli, Nitturu, Malavalli, Shivanasamudra, Shimshapura, Thore Kadanahalli and Malavalli (N.L.C.C); **Nagamangala Taluk:** Kadaballi, Bilagunda, Bogadi, Kelagere, Adichunchanagiri and Nagamangala (unani); **Pandavapura Taluk:** Bellale, Narayanapura, Aralakuppe and Chikkabyadarahalli; **Shreerangapattana Taluk:** Ballenahalli, Belagola, T.M. Hosuru, Doddapalya, Sreerangapattana (unani) , K.R. Sagara and Palalli; **Krishnarajapet Taluk:** Somanahalli, Sindaghatta, Maduvinakodi, Aanagola, Bellekere, Sarangi, Aalenahalli, Makavahalli , Mandagere, Vittalapura, Madapura, Ballenahalli and Hosaholalu. The government is having a scheme to convert all primary health units into primary health centres in stages.

Family Planning

The programme of family planning with the objective of reducing birth-rate from 27.7% to 21% and infant death rate from 70 to 60 (for every 1000) and also increasing protection rate of eligible couple from 47.6 % to 60% came in to existence as a part of public health in 1952. The main objective of this programme is to make the people accept family planning programme voluntarily and equipping them to create a healthy society. Family planning programmes were started officially in India in 1952. This is an important and useful national programme of achieving the economic and social development of the nation. More importance was given to this nationwide programme in the 2nd five year plan. The government has the prime aim of making the people accept the family planning programme on their own by impressing upon them the fact that a small family is essential for a happy life through family planning and mother and child health programme; creating a healthy society through rural health services. Local hospitals are providing family planning services and also imparting proper knowledge about contraceptives and administering them to the newly wed couples. But this programme was taken to the door-steps of the people on the basis of extension of the programme. Family planning department came in to existence to provide service on a full-scale in 1966.

The government is providing family planning programme through primary health units, primary health centres, urban family planning centres and nursing mothers service centres. Mother- child health services are included in the family planning programme and they are playing an important role. Children and mothers suffering from vitamin deficiency and anaemia are provided timely medicines and their health is protected. The government is giving cash incentives and prizes to see that common people participate in the programme and thus support and co-operate in preventing population-explosion.

The scheme which started as family planning programme is now functioning as a department. The entire management, supervision and guidance of the health programmes of the district is the responsibility of the district health and family planning officer from 1978. It is the responsibility of the officer to implement the national and state health programmes through the various health and medical institutions. District leprosy officer, district tuberculosis officer, district malaria officer, district laboratory officer, medical officer, (family planning, maternity and health services), regional assistant analyser, district vaccination officer, L C D R officer, district nursing supervisor, district

health education officer, district deputy education officer and other staff are there to help the district health and family planning officer. All the government, quasi-government and private medical institutions in the district are actively participating in the family planning programme.

An over-view of the achievement of the district in family planning programme plan 1990-91 to 2001-02

year	vasectomy operations	Insertions of copper Ts	Users of Oral pills	Users of Nirodh
1990-91	14,105	8,370	3,717	13,937
1991-92	14,576	9,908	3,792	14,022
1992-93	15,188	10,654	4,061	15,247
1993-94	15,996	13,135	4,610	15,092
1994-95	15,444	12,081	5,112	17,881
1995-96	16,391	13,677	4,956	15,995
1996-97	15,080	13,533	5,104	14,943
1997-98	15,682	11,997	5,108	14,615
1998-99	14,909	10,863	4,667	15,567
2000-2001	13,988	9,960	4,851	45,238
2001-2002	13,931	8,468	4,394	46,400

The progress of family planning and vaccination programme in the district in 2001- 2002 (Taluk-wise)

Taluk	vasectomy operations of copper Ts	Insertation of pills	Users of oral nirodh	Users of	BCG	DPT	Polio	Measels	TT for pregnant women
Mandya	2,712	1,474	838	9,696	7,481	6,257	6,257	5,491	6,814
Madduru	2,390	1,407	773	6,116	5,117	5,165	5,161	4,862	4,766
Malavalli	2,030	2,077	896	7,284	4,121	4,697	4,697	3,991	5,278
Sreeranga-pattana	1,483	941	549	6,328	2,945	3,134	3,134	2,958	3,355
Pandavapura	1,485	1,023	495	2,565	2,565	3,461	3,461	2,694	2,882
K.R. Pete	1,932	679	352	3,686	3,677	4,174	4,174	3,491	3,802
Nagamangala	1,367	867	412	8,126	3,241	2,701	2,701	3,205	3,290
Total	13,399	8,468	4,315	46,801	29,147	29,589	29,585	26,692	30,187

The government, with the intention of providing better health protection services to pregnant women and nursing mothers under mother and child

health programme, has envisaged schemes like nutritious food programme, immunisation Vaccination programme, distribution of vitamin 'A' with iron content. The health of the maternity and child is improved and also their death rate is reduced considerably by these programmes. Vaccination officers are appointed at the district level recently at the district health and family planning office to manage immunisation vaccination programme properly in all the districts. Immunisation vaccinations are undertaken to protect children from dreadful diseases like sour-throat, whooping cough, tetanus, polio, tuberculosis, measles and typhoid. Pregnant woman and child health centres are established in primary health units, primary health centres and other health institutions. There is an arrangement of providing training of 30 days duration to nurses in sub-units and primary health centres.

Health programme for School children

Health programme for school children has been introduced in all the upper primary and primary schools in rural areas. School children are made to undergo medical examination and are vaccinated to prevent them from diphtheria and tetanus. School children underwent medical examination in the years 1997-98, 1998-99, 1999-2000, 2000-2001 and 2001-2002 were 105967, 97152, 100245 and 261005 respectively under this programme in the district.

Pulse polio programme

In the background of the declaration of the world health programme that polio to be eradicated by 2000, the government envisaged the programme of administering polio vaccination to all the children in the country. The programme of administering vaccination under this programme by all hospitals, primary health centres, primary health units, sub-centres of the district is being implemented by the government from 1995. The programme of administering vaccination in two rounds to all the children under 5 years on two particular days of the year has been taken up by the government. Polio vaccination was administered to children below 5 years in Mandya district in 1999-2000 as follows: Polio vaccination was administered to 205028 children in December 1999 (first round) and for 205450 children in January 2000 (second round). In December 2001, it was first round for 202841 children and in January 2002, second round for 204603 children.

Oral Re-hydration Solution (ORS) programme

There are the chances of death of children when there is an acute storage of water level in the body if they suffer from vomiting and purging due

to the intake of contaminated water or unhealthy food. Such children need immediate medical treatment. Water level in the body goes down to a very low level and they die if it is delayed. Hence such children are given water with salt orally. This water with salt is called ORS (oral re- dehydration solution). It is a solution made with a particular quantity of sugar and salt dissolved in water which is boiled and cooled. Packets of sugar and salt of the prescribed ratio are distributed free in all hospitals and health centres.

District Laboratory, Mandya

District laboratory was started in Mandya in 1960 with a medical officer as the chief. There are four senior laboratory technicians, four laboratory assistants and three other staff members to help. Serology bio- chemistry, and malaria testing departments are there in the laboratory. It is functioning under the jurisdiction of the district medical and family planning officer.

Family Planning Committees

There are family planning committees at the district, sub-division and taluk levels. These committees meet every month at the block level, review the progress of the family planning programme and submit reports to the higher authorities. There is a committee to examine the cases of death during surgical operation under the family planning programme and pay compensation. The maximum amount paid to the next of kin of the deceased is Rs 10,000. Three thousand people died in the district in 1999-2000 and compensation was paid to the next of kin.

A family planning bureau is functioning in the district family planning office. Health and family planning officer is the chief of the bureau. The academic, statistics and vasectomy operations departments are there in the bureau. A statistical assistant from the statistics department makes a survey of the progress of the family planning programme in the district. A surgeon and other staff members are there in the department of sterilisation operations. They arrange the sterilisation operation camps. District health education officer and the field health educator in the academic section arrange the family planning education camps, training, campaign and propaganda programmes. An urban family planning centre is functioning only in Mallavalli of Mandya district.

Medical Termination of Pregnancy (MTP)

Other programmes like maternity service after delivery, surgical operation beds scheme and medical termination of pregnancy notification are

schemes that are in force and their implementation contribute to the stability of population and control of fertility. It has been possible to prevent unwanted pregnancy through medical abortions. The list of taluk-wise primary health centres and other health institutions where medical termination of pregnancy facility is available is as follows:

Mandya Taluk : District hospital, Mandya; Primary health centres at Shivalli, Keragodu, and Basaralu; **Madduru Taluk:** Primary health centres at Kesturu, K.M. Doddy, Besagarahalli and PPC, Madduru. **Malavalli Taluk:** City family planning centre, Malavalli; Primary health centres at Koppalu, Halaguru and Belakavadi. **Pandavapura Taluk:** Primary health centres at Pandavapura, Kyathanahalli and Melukote. **Sreerangapattana Taluk:** PPC, Sreerangapattana; Primary health centres at Kodyala and Mahadevapura. **Krishnarajapet Taluk:** PPC, K.R.Pete; Primary health centres at Akkihebbalu, Kikkeri and Santhebachahalli. **Nagamangala Taluk :** PPC, Nagamangala and Primary health centres at Beluru and Haradanahalli.

Indian Medical Association (IMA)

Indian Medical Association was established in 1942 as a voluntary organisation of professional Allopathy doctors of the country. It has its branches all over the state. The branch in Mandya was started in 1945. It had 25 members in the beginning. Its present membership (1997- 2000) is 175. It has its branches in Malavalli and Krishnarajapet. They have 16 members each.

The association arranges programmes like health services, special lectures for doctors, debate competitions. It induces its members to participate actively in state and national health programmes and instructs them to co-operate in family planning programme, mother and child health programme, free health check up camps and free service of specialist doctors programmes and the like. The association has started a recreation club in January 2000 for the use of its doctor-members and their families. The facility of in-door games is also provided. 'Doctors day' is celebrated as a cultural programme. Sports meets of carrom, chess, badminton etc games are conducted every year at the district level. The association held a shuttle badminton tournament at state level in 1997. It has conducted 16 seminars, 12 health camps, 19 educational programmes and 6 sports and cultural programmes in 1999-2000.

The association has received the certificate of appreciation by the President for sports activities in 1996-97 and for medical-social activities and file disposal in 1999-2000. It also secured the rolling trophy for best achievement in membership-enrolment in 1999-2000.

The members collected a sum of Rs 65,655 as donation and contributed it to the relief of widows of the martyrs of Kargil war. They also collected and despatched medicines to the flood victims of orissa.

Drug Control

Drug control department has the important responsibility of maintaining a strict control over the drugs and cosmetics produced in the state and making available best quality drugs at stipulated prices. The department tests and gives permission to sell the drugs supplied to the market. The department functions through its three wings - 1. Administration and enforcement, 2. Drug testing laboratory and 3. Pharmacy education. The office of the supervisor of pharmacy is there in the district to see that the public get drugs of the best quality as per the rules of drugs and cosmetics of 1940. The supervisor has jurisdiction over the whole district. To issue licenses of all drugs and cosmetics to manufactures and dealers, to keep vigil on the manufacture of spurious drugs, to collect samples of drugs and cosmetics and conduct scientific tests of collected samples to ascertain whether they are of the stipulated standard and quality etc. are the responsibilities of this office. The drugs control acts and rules, namely, 1. Drugs (price control) order of 1982, 2. Drug and healing by incantation (objectionable advertisement) order of 1954, 3. Pharmacy order of 1948, 4. Rule of issuing necessary certificate to drug manufacturing units under import rule, 5. poisonous substances act of 1919 and Karanataka poisonous substances act of 1918 and 6. Norcotic drugs and intoxicating substances act of 1958 are enforced by this office.

Supervisory staff of the department prosecute the manufacturers of spurious drugs as per the law. There were 298 licenced and registered drug stores and qualified dealers of drugs in Mandya district in 1999-2000. Two blood banks are functioning in the district.
