

CHAPTER XV

MEDICAL AND HEALTH SERVICES

*U*dupi District which lies at the foot of the Western Ghats, in the coastal region is rich in natural wealth. The hot climate along with high moisture content has not impacted public health adversely and has actually proved conducive to good health. It has been a regular practice among the populace to use locally available medicinal plants and herbs to protect themselves from seasonal changes. Trees and plants with medicinal properties such as *peepul*, *banyan*, *bilwa*, *ashoka*, *brahmi*, *sandal*, *honne*, *jamun*, *amla*, *ishwari*, *ekke*, *tulasi* etc grow abundantly and play an important role in treating diseases. The district has hundreds of '*devara kaadu*' and '*naaga bana*'s maintained for the sole purpose of protecting plants. These forests contain valuable plant species. People make use of these forests and medication systems such as home medicine (*naati* medicine) and folk medicine which give quick relief without extra cost have been in practice since a long time. The *ayurveda* system of the *Katapadi Nayaka* family is well known in this area. To this day the rich and poor alike have great faith in these medical systems and are making good use of them.

The Ayurveda system of medicine has been in practice thousands of years before the western medical system '*Allopathy*' came into our country. Being a local medical system with a rich heritage, Ayurveda has been quite popular with the masses. In the past, experienced Ayurveda *pandits*, with a vast knowledge of medicinal plants, had developed the skill of treating all kinds of diseases effectively with their medicines. These well known *pandits* enjoyed the patronage of the royal kings. Ayurveda was taught as a part of the Sanskrit education texts in the *gurukulas*. There were *pandits* in every village and town who had taken up Ayurveda as their profession and they

continued this practice as a family tradition. Some professional Ayurveda families from our neighbouring State of Kerala have come and settled here and have gained fame by taking up the task of providing healthcare to the people. The 'Nambiyar' family of Vellur village in the Kannanur district of Kerala who have settled in Barakur have made a significant contribution to the Ayurveda medicine system. Several home industries which collected medicinal plants and herbs from the surroundings and prepared hair oil, 'vayuhara' tablets, 'vaatahara' medicines, rheumatism preventing ointments and other home remedies were established in the district and some of them are now flourishing as well known pharmacies. Thus there is a firm foundation for Ayurveda in the district. In addition, this district has seen success in providing a good science education. During the muslim rule, in about the 14th or 15th century a new system of medicine known as the 'Unani system' was introduced. Usually, *pandits* who were known as 'hakims' practiced Unani medicine in some urban areas. Even now, there are some who follow this system which has gained popularity.

In India, since public health and medical facilities were scarce before the British rule, it is not possible to obtain official figures or any other documented information. Little bits of information regarding the health of the royal family is available in history through the accounts of the royal physicians. There were no organized health services at that time. Only after the establishment of East India Company, did organized medical services begin in phases. The system of 'Allopathy' was introduced into our country with the view of protecting the health of the British army in India. Earlier, it started only as an vaccination programme. Udupi district was then under the administration of the Madras Presidency. Until 1851, the vaccination programme was under the control of the Revenue department. It was then transferred to the Medical department which started later. In Madras, the Sanitation department came into being in the year 1864 and was in existence till 1897. The District Civil Surgeons were made District Sanitary officers and were given extra responsibility. The Deputy Director of Public Health was made the Head of the department and the medical department was placed under the supervision of another Deputy Director. In Udupi, the hospital had started as early as 1887. Later, in 1920, children's dispensary and maternity hospital were started. In 1873, the District Board Dispensary was established in Kundapur and in 1928; the government took over its administration.

District Medical and Sanitary officers had the responsibility of the Public Health Services until 1946. In 1946, the post of District Health Officers was created and this responsibility was given over to them. After Independence, according to the Five Year Plans, priority was given to health services and the range of services was expanded. The District Health Officers were given extra staff and extra power and responsibilities and the post was converted to District Health and Family Welfare Officers. Increased importance was given to family planning.

Public health and Medical services, these two separate departments were combined in 1965, and a state level department called Director Health Services was created. At the district level, a Dakshina Kannada district office of the District Health and Family Planning officer started at Mangalore. After Udupi district got separated from Dakshina Kannada district in 1998, the office of District Health and Family Welfare officer has started functioning in Udupi too.

The urbanization, industrialization, environmental pollution that we see nowadays have created an adverse effect on the health of people and have subjected them to newer health problems. Diseases such as *AIDS, cancer, respiratory problems, blindness, polio* have created havoc in the lives of people. Even though contagious diseases such as, plague, small pox, cholera, malaria, leprosy and tuberculosis still exist, they are under control. The government has continued its efforts to prevent diseases by taking up newer and newer research projects. On the path to structuring a healthy society, it has devised new plans and is putting it to practice. Modernisation of district and taluk hospitals, control of contagious diseases, opening research sections in medical colleges, providing latest treatment facilities are the concerns of the government. The government has taken up the expansion of health services in rural areas under the Five Year Plans by opening Community Health Centres, Primary Health Centres and Primary Health Units, and has expressed its concern about the health of the rural population.

In order to implement state health programmes including various national and family welfare services, there are District Health and

Family Welfare officers. To assist them there are, District Malaria officer, District leprosy officer, District tuberculosis officer, District laboratory officer, medical officer (Family Welfare services, maternity and child health services) and Taluk Health and Family Welfare officers. These are providing various health services through the following programmes.

- 1) Rural health plan which is a part of the Minimum Needs project.
- 2) Medical development programme and hospital pharmacy programme.
- 3) National Aids control programme.
- 4) Mother and child health and Family Welfare programme and Vaccination programme.
- 5) National Leprosy Eradication programme.
- 6) National Tuberculosis control programme.
- 7) National Blindness control programme
- 8) National Malaria Eradication programme.
- 9) National gangrene Eradication programme.
- 10) Infectious diseases like Diarrhoea, *Kyasanoor* forest disease, Japanese *Encephalitis* (brain fever) control programme.
- 11) Health Education and Training programme.
- 12) Nutritious Food programme (Education and exhibits).
- 13) National programme to control Iodine Deficiency.
- 14) management of laboratory services and establishment of vaccination preparing units.
- 15) Education and Sanitation programme and disease treating services.

At present (2005-06) there is one District Hospital, two General Hospitals at the Taluk level, four community Health Centres, 51 Primary Health Centres, 10 Primary Health Units and 320 Sub Health Centres in Udupi District. In addition there is a 400 bed Ayurveda hospital. 80 doctors, 264 junior female helpers, 165 medical staff and 195 other staff are providing health care to the urban and rural areas of the district. Supporting this, in the private sector, 25 Nursing Homes with a total bed capacity of 446 are also functioning.

Under the State and National Health programme in the year 2005-06, the progress of the district is as follows. Under the Family Welfare programme, a total of 5,756 sterilisation operations, 4,528 IUD insertions, 11 vasectomies, 288 *Nirodh* distributions and 2,266 oral pills distribution have been done. In the same year, under the Intensive

Vaccination programme, 1) 15,414 DPT 2) 15,414 polio 3) 15,391 BCG 4) 14,858 measles and 5) 16,209 DT vaccinations have been given; the department has been modified administratively and has been put under the administration of the Zilla Panchayat. In the various health organisations in the district, in the year 2005, the total number of in-patients registered are 41,782 (20,451 women, 18,115 men, 3,216 children); number of out-patients are 5,89,012 (2,07,455 women, 2,66,392 men, 1,45,165 children) and the total number of deaths are 305 (208 women, 70 men, 27 children)

Births-Deaths statistics

Earlier, the collection of statistics regarding births and deaths was not scientific and the registration of births and deaths was not organized. Therefore, an amendment to the existing Act was brought and in 1918 the registration system was regularised. *Patels* in villages and corporations in urban areas used to document birth and death events that came under their jurisdiction. The *Patels* of the villages used to send the facts and figures regarding births and deaths that they had collected to the Taluk *Tahsildar*. The data compiled by the *Tahsildars* would then be sent to the District officers. This information compiled by the District officers would be sent to the *Mahapanjikaaras* of births and deaths. Amendment to the Act was brought in so that the data thus documented would be subjected to verification. The birth-death registration Act of 1969 was brought into effect on 1st April 1970 in the state. The government framed the Karnataka birth-death Rules 1970 and brought it into effect in 1971. According to this Act, everyone has to register the births, deaths, marriages and other events in their household with the registration officer. This process of registration will be done by village clerks in rural areas and the *purasabhas* and corporations in urban areas. In the districts, the District Officer is the District Registration Officer and the District Statistics Collecting Officers of the Economic and Statistics department are the Additional Registration officers of their respective districts. See table 15.1 for details.

Table 15.1: Details of birth-death registration in district (2000-2004)

Sl.No.	Details	2000	2001	2002	2003	2004
1	Births	24,683	24,584	23,573	24,905	22,471
2	Deaths	9,356	10,216	9,592	11,399	8,897
3	Still born babies	148	270	98	154	149
4	Infant deaths	169	116	181	226	125
5	Death of mothers during delivery	-	-	-	-	-
6	Birth rate					
	Rural	23.3	23.6	23.5	23.2	-
	Urban	19.1	19	18.8	18.6	-
	Total	22.0	22.2	22.1	21.8	-
7	Death rate					
	Rural	8.6	8.2	7.9	7.8	-
	Urban	5.7	6.4	5.7	5.6	-
	Total	7.8	7.6	7.2	7.2	-
8	Infant death rate					
	Rural	68	69	65	61	-
	Urban	24	27	25	24	-
	Total	57	58	55	52	-

Source: 1) Sl. No 1 to 4:- Births and Deaths Registration Rule, Annual reports of 1969 (Directorate of Economics and Statistics) limited only to units registered in district

2) Sl.No. 5 to 8:- Model Registration system provided by the Chief Registration Officer of India (S.R.S) statistics. Department of Economics and Statistics

Model Registration system: Keeping the year 1961 as a base, the Registrar General of India started the model registration system in the country in 1968. The purpose of this system is to provide reliable annual estimates relating to births-deaths on a continuous basis to the government. This has been effective and has gained importance since it has been of help in devising and implementing public welfare and health programmes.

The Registrar General of births-deaths and marriages of India has brought the model registration system into effect in order to collect statistics regarding births and deaths in the country. In addition to registering statistics regarding births and deaths, the reasons for death will be given. The facts and figures thus collected will go through several statistical operations and will be used to estimate the proportion of births and deaths separately in state and national level, rural and urban areas. The number of births for every thousand

population in a defined field range is known as birth proportion and the number of deaths in the same period is termed as death proportion. Still born babies, death of mother during childbirth etc. are public health problems and have different reasons. Since these proportions are given on the basis of zones, separate details for the district are not available. So, the proportion of births for rural and urban areas is given separately and together. The following rural and urban areas have been selected for the model registration system. The rural areas of Udupi district i.e., *Mooduru* of Kundapura taluk; *Bola*, *Jarkala*, *Madradi* and a part of *Shivapura* of Karkala taluk, a portion of *Shirva* of Udupi taluk and urban areas such as a census division of Udupi and Kundapura are the selected areas.

Communicable diseases

Lack of hygiene, impure water and improper diet impacts public health negatively and makes them vulnerable to diseases. Filthy environment which breeds mosquitoes and flies are responsible for spreading fatal communicable diseases such as, cholera, malaria, plague and small pox. To prevent such contagious diseases, the government has been taking up programmes such as, spraying of pesticides and giving vaccinations periodically. Providing pure drinking water to rural people, construction of toilets and rural sanitization has helped in gradually bringing contagious diseases under control. Earlier, the district associations and municipalities would take measures to prevent spreading of infectious diseases in their localities. Now, on the suggestion of the Health Director, the District Health and Family Welfare Officers have been taking strict measures. Infectious diseases such as, cholera, gastroenteritis, jaundice, malaria, typhoid, tuberculosis and elephantiasis are common in this district and the health department has taken measures such as Intensive Vaccination programme and Health Education programmes to control them.

Smallpox

Smallpox is a disease which has existed since a long time and the British government had implemented a vaccination programme to prevent this disease in 1830. This disease which is caused by a virus known as *variola* spreads from the consumption of contaminated food. Nowadays, the number of deaths from this disease has gradually decreased and in the decades after 1980, smallpox has been completely eradicated. In 1961, the Central Government started the

National Smallpox Eradication programme to eradicate smallpox which spreads very fast. In order to prevent this disease which especially infects children, the initial practice was to vaccinate all new born babies (between 0-1 years) and again give a booster dose once in four years. In spite of this there were incidences of smallpox here and there. But, at present this disease has been completely eliminated. The World Health Organisation has taken up research on detection and prevention of smallpox with the collaboration of virus experts and has devised projects. They have gone from house to house several times to conduct research and have also created a lot of awareness. In 1978, India was declared to be free from smallpox. The Health department has taken a lot of precaution to ensure that smallpox does not recur again. There is a reward scheme for those who detect smallpox.

Cholera

This is an extremely infectious gastroenteric disease which causes acute dehydration in the body due to vomiting and diarrhoea. This is not fatal if timely treatment is given. The incidence of cholera has gradually decreased nowadays. By taking precautionary measures such as, use of pesticides, giving cholera preventive vaccinations, maintaining cleanliness of our surroundings, it is possible to prevent the spread of this disease. The government has established cholera prevention centres in every district. It has been possible to check the spread of this disease which is especially active in summer by taking measures such as, intensively administering cholera vaccinations, proper chlorination of unsafe water sources, health workers visiting houses within the range of their Primary Health Centres and educating the public about taking precautionary measures for preventing the disease, not eating uncovered food and cut fruits and vegetables on the roadsides, taking measures to avoid selling of uncovered foodstuff at the village fairs, etc. In Udupi district, in the years 2003-2004, 2004-2005 and 2005-2006, the number of gastroenteritis cases have been 4,97,570 and 127 respectively, and 2,101 cholera cases have been reported. No death has occurred due to this.

Plague

This malady which first appeared in 1898, spread all over the country. During the period 1948-52, it spread intensively and caused

many deaths and miseries. The spraying of pesticides, which was taken up under the National Malaria Eradication Programme was gradually extended to this disease and plague decreased to a considerable extent. Due to the survey and control measures taken up by the National Communicable Diseases Organisation, no cases of death due to plague have been detected in the district after 1952. At present, the district is completely free of this infection

Malaria

Female mosquitoes belonging to the Anopheles species are the carriers of Malaria. This disease spreads from a parasite known as Plasmodium. This globally occurring disease spreads intensively in places where mosquitoes breed such as stagnant water and marshy areas and infects people. The incidence of this disease is more in coastal and Malnad areas. This disease can be controlled by spraying of insecticides. The disease can be treated by administering Chloroquine tablets (Quinine). After the Government of India introduced the National Malaria Eradication Programme in 1953, control of this disease has become effective.

The type of Malaria depends on the species of the parasite. High fever and shivering are the symptoms of this disease. The number of the red blood corpuscles in an infected person, gets reduced drastically and causes anaemia. The spleen of the patient may increase in size and death might occur. In cases of fever, blood smears are taken and blood examination is done. If it is confirmed as a case of Malaria, Chloroquine tablets are given. Insecticides such as DDT are sprayed in the disease affected areas. Health workers have been assigned the job of creating awareness regarding the disease, and once in two weeks, they go from house to house, take blood smears in fever cases and give chloroquine tablets as a preventive treatment. The blood smears collected are sent to the concerned Primary Health Centre of the area and blood smear examinations are done. If it is confirmed as Malaria disease, facilities for proper and timely treatment of the disease is provided and the Health Department takes up community blood smear survey and spraying of insecticides in the area to prevent spread of the disease. It is observed that the incidence of Malaria has decreased by 30 per cent since the Government of India gave new improved guidelines in 1977. Malaria control laboratory examination and treatment facilities are provided in all District Hospitals, Community Health Centres and Primary Health Centres.

Measures taken to control Malaria

1) Deputing field staff from problem free Primary Health Centres to those centres with high incidence of Malaria and collecting blood smears from fever cases and making arrangements for speedy detection and treatment.

Table 15.2: Confirmed Malaria cases reported in the district

S. No.	Taluk	2004				2005				2006 (ending Feb)				Remarks
		Pod. smears collected and examined B C	cases P. M	P. F	Deaths D	Pod. smears collected and examined B C	cases P. M	P. F	Deaths D	Pod. smears collected and examined B C	cases P. M	P. F	Deaths D	
1.	Udupi	85320	417	34	0	88998	463	29	1	12256	75	3		Malaria cases from January to December end.
2.	Kundapura	82930	107	20	1	79495	117	18	0	10119	29	3	0	
3.	Karkala	47926	110	5	0	57958	244	36	0	6277	25	1	0	
4.	Udupi District	216176	634	59	2	226451	824	83	1	28652	129	12	0	

Source: Office of the District Health and Family Welfare Officer, Udupi

2) Giving proper training to all laboratory technicians and taking care to see that the blood smear tests are done on time.

3) Giving immediate, intensive treatment to confirmed Malaria cases and collecting group and contact blood smears and sending them to laboratories for examination.

4) As directed by the department, spraying of insecticides (malathion) in areas where a high incidence of Malaria is reported by the Regional Health Centres and taking measures to control mosquitoes.

5) Introducing guppy fishes which eat larvae to the water sources within the range of problematic Primary Health Centres and thereby take measures for biological control.

6) Constructing water tanks in some Primary Health Centres and making arrangements for rearing guppy fishes. In Malpe, Padubidri, Moodabetta, Kukkehalla, Shivana of Udupi taluk fish rearing programme is in progress. Guppy fish rearing is being done in the Primary Health Centres at Irvatturu, Hirshana of Karkala taluk and Bidkal katti, Keduru and Kumbhashi of Kundapura taluk.

Filariasis

This is a communicable disease that is caused by thread like bacteria called *Microfilaria nocturna*. Though not fatal, this disease is a social stigma since it causes the legs of the patient to swell like that of an elephant and cannot come back to normal state. These thread- like bacteria are found in the lymph glands of the infected patient. When a mosquito bites an infected patient, carries the Microfilaria germs and again bites a healthy person, the infection spreads. Thus, this disease spreads from person to person through mosquitoes and causes misery to people. The incidence of this disease is more in the coastal areas of Karnataka. The National Filariasis Control Unit is functioning in Udupi and is engaged in disease control. In order to reduce the density of the disease, intensive spraying of insecticides is done once in every week and the filarial control units conduct biological survey to identify the cases and later give DEC tablets for 12 days to the patients. The National Filaria Control Programme is operating since 1955 and has taken up preventive measures for control of the disease in the state. The rate of infection in Udupi district is 9.7 per cent and the occurrence of the disease is 1.8%. Control of mosquitoes prevents the spread of the disease. Filariasis Treatment Unit is functioning in Malpe of Udupi district. In the year 1993-94 a new Unit has been sanctioned to Kundapura taluk.

Under the Filaria Control Programme in the district, on the 5th June 2004, a community medicine distribution programme was held and out of the 11,31,383 population of the district, 10,58,450 people were given D.E.C tablets and 91% success was achieved. Filaria survey was conducted in the three taluks of the district and a total of 1069 Filaria cases were detected. According to that, a community medicine distribution programme was also conducted on 11th November 2005 and a success of 91 per cent was achieved by distributing D.E.C tablets to 10,52,314 people.

Table 15.3: Filaria cases reported in the district

Taluk	Physically disabled		Testicles	Chest	Other parts	Total	
	Leg	Hand				2004-05	2005-06
Udupi	455	24	155	1	3	638	641
Kundapura	240	11	92	3	-	346	325
Karkala	70	3	29	-	-	102	103
District total	765	38	276	4	3	1,086	1,069

Source: Office of the District Health and Family Welfare Officer, Udupi

Table 15.4: Details of blood examination undertaken at the Filaria testing centres

Centres		2004		2005		2006 (till Feb.end)	
		Collected blood smears	F.M. +ve	Collected blood smears	F.M. +ve	Collected blood smears	F.M. +ve
Udupi city Unit	Filaria	469	-	672	-	104	-
General Hospital, Kundapura	Filaria Clinic	8,764	64	47,066	11	266	-
Primary Health Centre, Malpe	Filaria Clinic	1,389	2	430	1	27	-

Source: Office of the District Health and Family Welfare Officer, Udupi

Tuberculosis

Tuberculosis still continues to be a primary health problem. This disease is caused by a germ known as Microbacteria. Tuberculosis Control Programme has been planned under health services. Tuberculosis centres have been opened in all districts of the state and disease control programme is being implemented by appointing trained doctors and other staff for the purpose. The severity of early infection of the disease is prevented by giving B.C.G vaccinations. The District Tuberculosis Officers supervise the Tuberculosis Control Programmes in all the Public Health Organisations in their area. The short duration treatment has been implemented in this district too. District Tuberculosis Centres and General Hospitals have X ray and sputum examination facilities. The progress achieved under the National Tuberculosis Control Programme in the years 2004-05 and 2005-06 (till February) are as follows.

Year	Detection of new patients	No. of TB patients treated
2004-05	1,250	1,075
2005-06 February ending	1,183	1,029

Ever since Udupi became a district centre, the District Tuberculosis Control Centre has been operating in Udupi. This comes under the administrative range of the District Health and Family Welfare Officer. Senior health workers, laboratory technicians, an X

ray specialist and other staff, come under the District Tuberculosis Officer. Sputum examination, medicine distribution and health education etc, are the activities of this office. The centre co-operates in all the phases of the health institutions of the district. The patients are given short term and long term medication. The office also takes up public health education. In the district, in the year 2003-04, 1,542 tuberculosis patients have been detected and 1,483 have been cured.

Dengue

Dengue can be a fatal disease and occurs in a severe form in children. This is caused by dengue virus. It spreads from the bite of a mosquito called *Edis egypti*. There are three types of Dengue – (1) Common Dengue (2) Dengue Haemorrhage (D.H.F) (3) Dengue Shock Syndrome (D.S.S). High fever, intense headache and pain in the joints and muscles are the main symptoms of this disease. There is no specific medicine for this disease. When this disease occurs, liquid diet is given, tablets such as *paracetamol* are given as immediate treatment and the patient is immediately transferred to a hospital. Dengue Haemorrhage fever can be very severe in children and is dangerous. High fever may be followed by haemorrhage and swelling of the body. Death may occur due to drop in blood pressure.

When *Edis egypti* mosquito bites an infected person, the dengue virus enters it. When this mosquito bites a healthy person, he gets infected with the disease. Mosquitoes act as carriers. So, the right thing to do is to destroy mosquito breeding places and take precautions for protection from mosquitoes. Dengue fever is caused by mosquitoes which bite during daytime. Both children and adults can get affected by this disease. In the year 2005, two cases of Dengue from Udupi district, one from Udupi taluk and one from Karkala taluk has been reported and a death has occurred in Karkala taluk. In the year 2004, no case of Dengue has been reported.

Plague

Plague is caused by bacteria known as *Yersinia pestis*. This disease mainly spreads to man from animals such as, rat, dog, pig, cow etc. The bacteria enter soil and water through the excreta of these domestic animals. They are latent there for a long time. When the soil and water, along with the bacteria enter the human body through a wound in the skin or through nose and mouth, it causes the disease. The incidence of this disease is high in the rainy season. Generally

this disease affects people who work in muddy places or in paddy fields without footwear. High fever with chills, headache, bodyache, vomiting and jaundice are the symptoms of Plague. The disease can be detected by examining the blood and urine of the infected person. Proper treatment has to be given when the disease is detected. If treatment is not given at the right time, death can occur. This is not a communicable disease. In the district, in the year 2005-06, 46 cases of Plague have been reported and 10 deaths have occurred. Details of the number of the reported communicable diseases, suspected cases of disease and deaths occurred in the years 2004, 2005 and 2006 in the district are given in the table below.

Table 15.5

S.No. Diseases	2004		2005		2006	
	Case	death	Case	death	Case	death
1 Enteritis	497	0	570	0	611	0
2 Cholera	21	0	1	0	1	0
3 Typhoid	554	0	329	0	305	0
4 Jaundice	208	0	549	1	130	0
5 Plague	46	6	49	10	46	4

Source: Office of the District Health and Family Welfare Officer, Udupi

Indian Medicine System and Homeopathy

Indian Medicine and Homeopathy were separated from the Health Department in 1972, and a separate Directorate was created in the state. This Directorate encompasses Ayurveda, Unani, Siddha, Naturopathy, Yoga and Homeopathy medicine systems. Development of indigenous systems of medicine, providing health services to people, control over the manufacture of Ayurveda and Unani medicines etc. are the work and responsibilities of this Directorate. It also takes up the work of maintaining gardens of medicinal plants and herbs. Now the administration of this Directorate has been entrusted to the District Health and Family Welfare Officers.

Ayurveda

The ancient system of Ayurveda has a history of thousands of years in the Indian traditions and is an effective storehouse of medical knowledge. It has its origins in the Vedic times and is still a popular indigenous medicine system that has earned the faith of people. This system had exercised its influence not just in India, but also in Sri Lanka, Tibet, China and the Arab countries. There are records that

Takshashila and Nalanda Universities taught Ayurveda and Spiritualism. The Vedas give explanation regarding various diseases and their treatment. Ayurveda is based on a theory (*tridosha siddhanta*) which identifies three major flaws in the human body, ie 'vaata', 'pitta' and 'kapha' the imbalance of which causes disease. Ayurveda explains the treatment of these three type of ailments. The *Sushruta* and *Charaka Samhitas* are the foundations for the Indian medicine system and are considered as books of great value. Now, many books in Kannada on Ayurveda are available. There are many families in the district who have been traditionally trained in Indian Medicine methods. In Kerala and Dakshina Kannada districts too there are some well-known families who have taken up these medical practices as their sole profession. The Nambiar family, originally from Kerala have settled in Udupi district, contributed greatly to the field of Ayurveda and have established their own tradition. In Barakur, the old '*Dhanvantari Vaidyashala*' still exists and is famous for its indigenous treatment methods and traditional medicines. The late Pangala Lakshminarayana Nayaka had practiced Ayurveda Medicine system and was the first to start the '*Shrimad Bhuvanendra Maha Oushadalaya*' in Udupi. Later on the 'Swadeshi Oushada Bhandara' came into existence. Pangala Lakshminarayana Nayaka who had realized the importance of Ayurveda education was responsible for establishing the Ayurveda College in Udupi. Now that has grown into the S.D.M Ayurveda College. Another family which has contributed greatly to the field of Ayurveda in Udupi is the Daitota family. The late Maniyalu Krishna, who served in the areas surrounding Manipal for more than 40 years, was an expert in Ayurveda treatment. He was very well experienced in collecting herbs and treating Diabetes. As a result of his efforts, the well-equipped Manipal Ayurveda college, hospital and Dispensary has started in Manipal of Udupi. The great wealth of medicinal plants and herbs in Kodachadri of Kollur, Kudremukha forest area of Karkala, Manipalagudda area surrounding Udupi, Indrali, Hebri and Agumbe in the district has helped the preparation of Ayurveda medicines. Along with the educational institutions, a few Ayurveda pharmacies have also cropped up. The 'Bharath Pharmacy' of Moodabidre and the 'Rajashree Pharmacy' of Udupi district have made a great name in indigenous treatment. Even now there are patients coming from all over the world for Ayurveda Panchakarma treatment and there is a great demand for the products prepared in the pharmacy. Udupi district has gained International repute in the field of Ayurveda.

Health Institutions

Health Institutions play a major role in protecting the health of the public and in providing treatment for diseases. The Government of India has given priority to rural health in its Five Year Plans and has been developing its health services network. According to the government policy of providing good health facilities to all, District Hospitals with specialist doctors, special clinics, General Hospitals at the taluk level, Primary Health Centres in rural areas, Units and Sub centres have been opened and health services have been extended. In addition to this, in the private sector, hundreds of Nursing Homes, Maternity Hospitals, Hitech Hospitals and clinics have been providing supportive health service. Among these, some prominent health institutions have been discussed here.

District Hospital, Udupi

This hospital started way back in 1872 as a local fund hospital. The hospital was then constructed in the two acre plot donated by late Rao Bahadur Haji Abdulla in the middle of Udupi town. Gradually when Udupi district came under the administration of the Madras Province, this became the civil hospital and gained district level status. The present District Hospital has a Women and Children Government Hospital Wing and has a 200 bed capacity. The present hospital has a bed capacity of 250 and is functioning in a ten acre land. The Women and Children Government Hospital is under the administration of the District Hospital. The District Surgeons are the Chief Medical Officers and the District Hospital has a total staff of 113 including 14 Senior Specialists, Resident Medical Officers, General Duty doctors and Assistant Dental Surgeons. Similarly, the Women and Children Hospital has a staff of 62, including 6 Senior Specialists.

The hospital has many divisions such as the Department of Medicine, Department of Surgery, Department of Orthopaedics, Accident and Trauma treatment division, Department of Obstetrics and Gynaecology, Department of E.N.T, Department of Psychology, Department of Ophthalmology, Department of Skin and VD, Department of Psychiatry, Dental treatment division, Department of Paediatrics, Intensive Care Unit, Cardiac Intensive Care Unit, Tuberculosis treatment (24 bed facility) division, Paediatric Intensive Care Unit, emergency division, Cancer detection division, Outpatient department etc. In addition this hospital has facilities such as, X ray Unit, Scanning facility, well equipped laboratory, Operation Theatre;

separate Eye Operation Theatre, Mortuary with cooling facility, Haemodialysis Unit, equipped blood bank, separate vehicle arrangement for collection of blood, Aids Counselling division, Drug de-addiction treatment Centre etc. This hospital is also equipped with all kinds of modern treatment facilities such as, a 50kv generator for uninterrupted power supply, canteen, parking facility, garden and computerized registration of out-in patients, office and stores with computers. In the vicinity of the hospital, cases of communicable diseases such as Malaria and Filaria have been reported and the hospital has been treating them. For details see table 15.6

Table 15.6: Details of services provided by the District Hospital in various years

	Details of services	2003-04	2004-05	2005-06
I General services				
1	Out-patients treated	1,74,261	1,48,913	1,28,577
2	In-patients treated	62,764	66,210	63,284
3	Surgeries conducted	1,778	1,625	1,551
4	Obstetrics (delivery treatments)	781	698	575
5	Tuberculosis patients treated	209	255	232
6	Leprosy patients treated	50	51	44
7	X'Rays and Screens	10,021	10,366	8,448
II Family Welfare Programme				
1	Sterilisation Operations(including Tubectomy, Vasectomy & Laproscopy)	96	33	48
2	IUD insertions	74	66	86
3	Nirodh users	4,320	4,676	3,100
4	Oral contraceptive users	76	108	43
III Mother and Child Health Programme				
1	D.P.T vaccine	257	192	313
2	Polio drops	257	192	313
3	B.C.G	254	520	902
4	Measles	245	218	290
5	D and T	413	112	123
6	TT for mothers	274	359	516

Source: District Hospital, Udupi

General Hospital - Kundapura

This hospital was established in 1873 and was then under the administration of the District Board. Later, the government took this

under its control in 1928. It was then a 34 bed hospital. At present, it is functioning as a 100 bed General Hospital. The hospital has Out Patient Department, blood bank, X ray Unit, Laboratory and well equipped Operation theatres. It also has treatment facilities such as dental treatment, gynaecological diseases and orthopaedic treatment. It has 8 doctors including specialists and a staff of 45. But the sanctioned number of staff is 65. In the areas surrounding the hospital cases of communicable diseases such as Malaria, Filaria and Enteritis have been reported and the hospital has been treating them. See table 15.7 for details.

Table 15.7: Details of services provided by the hospital in various years

	Details of services	2003-04	2004-05	2005-06
I General services				
1)	Out-patients treated	1,05,092	1,02,618	85,898
2)	In-patients treated	4,633	5,127	4,554
3)	Surgeries conducted	2,006	1,116	1,383
4)	Obstetrics (delivery treatments)			
	Delivery	1,349	1830	1113
	LSCS	309	402	355
5)	'X' Ray and Screens	2,029	1,541	1,947
II Family Welfare Programme				
1)	Sterilisation Operations(including Tubectomy, Vasectomy And Laproscopy)	829	1,149	848
2)	IUD insertions	155	70	-
3)	Nirodh users			55
4)	Oral contraceptives users			50
III Mother and Child Health Programme				
1)	D.P.T vaccine	279	220	269
2)	Polio drops	279	220	269
3)	B.C.G	289	227	272
4)	Measles	273	215	261
5)	D and T	287	223	252
6)	TT for mothers	264	239	295
7)	TT for 10 years olds	312	242	282
8)	TT (16 years)	240	246	262

Source: General Hospital, Kundapura

General Hospital – Karkala

This hospital first started functioning in 1927 and later was converted to Local Fund (L.F) Hospital in 1939. In 1998, the government upgraded this to a 100 bed General Hospital. The hospital is housed in its own building and also has a 20 bed Tuberculosis Wing. It has a total staff of 32 people including 4 Senior Specialist doctors, 3 Specialists, 3 Dentists and 1 Dental Health Officer. The numbers of sanctioned posts are 52. The hospital has a Maternity division, X ray Unit, laboratory, and Operation Theatre. Facilities such as, dental treatment, orthopaedic treatment, surgery, general medicines etc. are available. Communicable diseases such as Malaria and Filaria are reported in the surrounding areas and are treated in the hospital. The details of Malaria detection and treatment in the years 2004-2005 and 2005-2006 are as follows.

Year	Blood smears Examined	Malaria +ve cases
2004-05	1,691	51
2005-06	2,969	62

Table 15.8: Details of services provided by the hospital in various years

	Details of services	2003-04	2004-05	2005-06
I General services				
1)	Out-patients treated	65,122	72498	75522
2)	In-patients treated	3409	4168	4652
3)	Surgeries conducted	86	224	207+188 Minor OT
4)	Obstetrics (delivery treatment)	19	-	114
5)	Tuberculosis patients treated	-	32	36
II Family Welfare Programme				
1)	Sterilisation operations(including Tubectomy, VasectomyAnd Laproscopy)	79	247	363
2)	IUD insertions	54	58	51
3)	Nirodh users	2500	2700	3200
4)	Oral contraceptives users	195	210	200
III Mother and Child Health Programme				
1)	D.P.T vaccine	421	526	487
2)	Polio drops	421	526	487
3)	B.C.G	245	494	607
4)	Measles	118	135	155
5)	D and T	150	170	165
6)	TT for mothers	350	450	560
7)	TT for 10 years olds	125	140	150
8)	TT (16 yrs)	120	135	140

Source: General Hospital, Karkala

Kasturba Hospital, Manipal

This hospital started functioning as the most well equipped Hitech instructional hospital in Manipal of Udupi in the year 1961. It has ultra-modern treatment facilities, medical equipment and a building complex of its own. In 1972, this hospital had 600 beds. At present,(2005-2006) the number of beds has increased to 1,470. Having ultramodern treatment facilities, this hospital has been recognized by the State and Central Governments and patients from coastal districts, Shimoga, Chickmagalur, districts of North Karnataka, Goa and Kerala come here to avail its speciality treatment facilities.

The Outpatient Department started functioning in 1970. The hospital has 18 most modern Operation Theatres, 10 Intensive Care Units, Trauma Units, equipped CT scans, MRI, Xray Unit, Obstetrics and Gynaecology treatment, paediatrics treatment, orthopaedics, E.N.T treatment, Eye treatment, Psychiatry, Cardiac diseases, Tuberculosis, Skin diseases and VD treatment, Neonatology, Ayurveda, Yoga, Dental treatment, Radiology and 15 special treatment facilities. In addition, there are 15 Super Speciality divisions such as, Cardiology, Cardio Thoracic Surgery, Gastroenterology, Nephrology, Neurology, Neuro Surgery, Urology, Plastic Surgery, Paediatric Surgery, Radiation Oncology, Medical Oncology, Surgical Oncology, Nuclear Medicine and Pain treatment. Emergency services such as, Trauma, Casualty service, Intensive Care Unit, Burn care, Blood bank, Radiology facility and Pharmacy facilities are available all the 24 hours. Shree Shirdi SaiBaba Hospital is functioning under this hospital. It has earned a name of its own in the state and is providing complete services for cancer patients. It also has medical examination, medical treatment, and surgical and medical oncology facilities. The hospital has Haematology, Microbiology, Pathology laboratories. The Dental treatment division has 300 dental chairs. This division also has facilities such as Endoscopic Cryosurgery and Ultrasonic Scanners. There are 222 doctors including a team of specialists, 1387 paramedical staff, nursing and other helper staff. This hospital has earned fame as the major provider of hi-tech health services in the state.

Table 15.9: Details of Services provided by Kasturba Hospital during 2003-04 to 2005-06

	Details of services	2003-04	2004-05	2005-06
I General services				
1)	Out - patients treated	2,95,758	3,19,379	3,46,472
2)	In - patients treated	36,420	37,203	41,230
3)	Surgeries conducted	14,006	13,644	14,406
4)	Obstetrics (delivery treatments)	889	835	1,049
5)	Tuberculosis patients Treated	348	295	271
6)	Leprosy patients treated	95	80	75
7)	X'Rays and Screens	70,900	66,057	80,385
II Family Welfare Programme				
1)	Sterilisation Operations(including Tubectomy, Vasectomy,And Laproscopy)	2,025	1,675	1,440
2)	IUD insertions	681	621	640
3)	Nirodh users	374	292	290
4)	Oral contraceptive users	215	235	229
III Mother and Child Health Programme				
1)	D.P.T vaccine	2,628	2,073	1,357
2)	Polio drops	2,908	2,988	2,712
3)	B.C.G	480	465	331
4)	Measles	431	423	270
5)	D and T	206	242	240
6)	TT for mothers	608	519	555
7)	TT for 10 year olds	376	186	168
8)	TT (16 yrs)	352	266	220

Source: Kasturba Hospital, Manipal

Dr.T.M.A.Pai Hospital - Udupi

Dr.T.M.A.Pai Hospital started functioning in Udupi in the year 1984. It began as an Outpatient Department, providing Family Welfare facilities to the people in the surrounding areas and later became a branch of Manipal Academy of Higher Education and is now a well-equipped 200 bed hospital. At present it has various departments such as, Medicine, Obstetrics and Gynaecology, Dental treatment department, Paediatrics department, Department of surgery, Department of Orthopaedics and Physiotherapy departments. To cater to the needs of the patients, facilities such as a well-equipped laboratory, X ray Unit, Ultra Sonography and Laproscopy are being provided by the hospital at affordable rates with the help of sponsors.

The hospital has taken up several programmes for doctors who have their own private clinics in Udupi, Bramhavara and Kundapura. It has also started evening clinics with the co-operation of specialist doctors of Manipal. This institution, which has 8 departments and a staff of 128 people, is providing 24 hours X Ray, Ultrasound, laboratory, ambulance facility, pharmacy, trauma and evening clinic facilities. Speciality clinics facilities such as, treatment for Diabetes, Asthma, Arthritis, Geriatrics treatment for the aged, well women clinic, treatment of wounds, disc prolapse treatment and treatment for high risk diseases are also provided by the hospital.

Table 15.10: Details of services provided by Dr.T.M.A.Pai Hospital during 2003-04 to 2005-06

	Details of services	2003-04	2004-05	2005-06
I General services				
1)	Out - patients treated	41,345	57,871	63,036
2)	In - patients treated	3,509	4,801	5,214
3)	Surgeries conducted	1,452	3,091	4,501
4)	Obstetrics (delivery treatments)	628	688	798
5)	Tuberculosis patients treated	18	20	16
6)	Leprosy patients treated	-	-	-
7)	X-rays and Screens	3,976	5,020	6,396
II Family Welfare Programme				
1)	Sterilisation Operations(including Tubectomy, Vasectomy,And Laproscopy)	219	166	174
2)	IUD insertions	110	112	146
3)	Nirodh users	—	-	-
4)	Oral contraceptive users	40	42	45
III Mother and Child Health Programme				
1)	D.P.T vaccine	400	380	400
2)	Polio drops	1,200	1,400	1,500
3)	B.C.G	720	800	820
4)	Measles	375	350	380
5)	D and T	40	35	50
6)	TT for mothers	375	350	424
7)	TT for 10 year olds	20	25	28

Source: Dr.T.M.A.Pai Hospital, Udupi

**Shree Dharmasthala Manjunatheshwara Ayurveda Hospital,
Katpadi, Udupi**

The Ayurveda College Hospital of Udupi which was started by the Karnataka Ayurveda Association in 1958, later on came under the administration of the Shree Dharmasthala Manjunatheshwara Education Society/trust in 1978 and a well-equipped hospital of 300 beds was established in an area of 1,35,000 square feet in 1993. At present this is a centre for graduate and post graduate Ayurveda Education and has all modern facilities. Attached to this is the Ayurveda Folk Research Centre and Community Health Unit and are under the administration of the hospital. These have been arranging free health camps in rural areas, imparting health education in the camps, introducing people to valuable medicinal plants and herbs, and giving information to the public about home remedies and health protection.

The hospital has several facilities such as, 14 Outpatient Departments, Inpatient department, Surgery, Emergency treatment unit, Yoga and exercise treatment division, Maternity division, X Ray division, laboratory, Panchakarma division, small surgery division and Research divisions. A Health Centre in Bijai, Mangalore with Outpatient division and a 50 bed facility is also functioning under this hospital.

Panchakarma treatment is one of the primary special treatments available in this hospital. The eye exercise treatment given for eyesight disorders in the department of Ophthalmology has been very effective. In addition, the department of Gynaecology has been giving infertility treatment and traditional post-natal care effectively. The hospital in collaboration with Thames Valley University, England and Institute of Holistic Medicines and Quota, Australia provides treatment to patients and short term training to students. It also provides *kaayakalpa* treatment to interested people coming from Japan, Germany, America, Italy and Gulf countries. The hospital has a total staff of 185 including Medical Superintendent and 49 doctors. This Ayurveda hospital which has ultra-modern facilities is well known in Udupi district as a big hospital and has gained popularity.

**Table 15.11: Details of Services Provided by
Sri Dharmasthala Manjunatheshwara Ayurveda Hospital**

	Details of services	2003-04	2004-05	2005-06
I General services				
1)	Out - patients treated	64,136	64,208	63,315
2)	In - patients treated	4,922	5,190	5,544
3)	Surgeries conducted	660	592	720
4)	Obstetrics (delivery treatments)	427	360	437
5)	X'Rays and Screens	1,764	1,857	1,890
II Family Welfare Programme				
1)	Sterilisation Operations(including Tubectomy, Vasectomy,And Laproscopy)	80	71	95
2)	IUD insertions	11	13	09
III Mother and Child Health Programme				
1)	D.P.T vaccine	-	30	23
2)	Polio drops	-	258	439

Source: Sri.Dharmasthala Manjunatheshwara Ayurveda Hospital, Udupi

Rural Health Programmes

Health and medical services were very less in rural areas and the government went on expanding the range of medical facilities after Indian Independence, under the Five Year Plans. Before Independence, health programmes were limited only to administering vaccinations to prevent communicable diseases such as Plague and Cholera and spraying insecticides. The government devised many projects to ensure that public health services were made available to the rural population and expressed its concern by implementing them. In addition to prevention of communicable diseases, several programmes such as, Maternity, Mother and Child health programme, Family Welfare Programme and Health examination of school children were brought into effect. The government is now taking care of the basic needs of the rural population by opening Primary Health Units and Primary Health Centres in rural areas. It has taken measures so that the rural people get the advantage of all the National and State projects relating to health services. With the motto of 'Health for all by 2000AD', the government has made arrangements for expanding the network of health institutions extensively in the rural areas.

Community Health Centres

Generally, the Government has established Community Health Centres in Taluk Centres and in other villages where the population is high. One such Centre is established for every area with one lakh population or for every four Primary Health Centres. Generally such centres have a bed capacity of 30 to 50 and also have the services of specialist doctors. They act as referral centres for all the health institutions and dispensaries within the area.

In the district there are Community Centres at 1) Brahmavara, 2) Nitte, 3) Hebri and 4) Shirve. In 1995, the Government has recognized some General Hospitals as Community Health Centres. The establishment, growth, progress and details of the services provided by some Community Centres are given below.

Community Health Centre, Brahmavara: This health centre was started in 1964 and was converted into a 30 bed Community Health Centre in 1993. The hospital is housed in its own building and has Maternity division, X ray division, Laboratory and Operation theatres. There are nine sub-centres under this Community Health Centre. It has departments such as, Outpatient department, maternity division, laboratory, Family Welfare Operation theatre, general Operation theatre etc. It has a total of 21 active staff including three doctors. But the number of sanctioned posts are 31. The communicable diseases generally reported in the areas surrounding the Health Centres are Malaria and Filaria. Patients infected with disease can avail the facilities for treatment in this hospital. The details of the blood smears examined for detection of Malaria and Tuberculosis in the three year period from 2003-2005 are given below.

Malaria

Year	Blood smears examined	Confirmed cases of disease
2003	5,915	9 (+ve) (7 P.V, 2 P.F)
2004	6,346	4 (+ve) (6 P.V, 2 P.F)
2005	4,815	6 (+ve) 6 P.V

Tuberculosis

Year	TB	TB confirmed cases	People treated
2003	179	7 (+ve)	12
2004	491	21 (+ve)	20
2005	637	19 (+ve)	21

**Table 15.12: Details of services provided by Community Health Centre
Brahmavara, 2003-2006**

	Details of services	2003-04	2004-05	2005-06
I Family Welfare Programme				
1)	Sterilisation Operations(including Tubectomy, Vasectomy,And Laproscopy)	126	129	108
2)	IUD insertions	117	111	97
3)	Nirodh users	125	123	132
4)	Oral contraceptive users	59	57	61
II Mother and Child Health Programme				
1)	D.P.T vaccine	351	358	343
2)	Polio drops	351	358	343
3)	B.C.G	353	349	352
4)	Measles	342	339	324
5)	D and T	653	478	687
6)	TT for mothers	364	351	361
7)	TT for 10 year olds	472	521	709
8)	TT (16 yrs)	505	470	583

Community Health Centre, Shirva

This hospital was started in 1931 in the land donated by Shrimati. Erpadi Radhamma Heggadti and a building constructed using public funds. Later on in 1940, an Inpatient division of 8 beds was started. The Udupi Taluk Development Board took over this hospital in 1961. In 1963 a Tuberculosis ward was added to it along with an X Ray Unit. Later, in 1989, the government took this hospital under its control and converted it into a Primary Health Centre. Subsequently, in 2002 the Government upgraded this to a 30 bed Community Health Centre. The present hospital is housed in its own building of one crore ₹ value. It has a maternity division, X Ray Unit, laboratory and operation theatre. The hospital has a mortuary and an emergency vehicle facility. There are 8 sub-centres under this hospital and the cases of Malaria, Filariasis, Gastroenteritis occurring in the surrounding areas are being treated in these centres. There is a total of 34 staff sanctioned including 2 medical officers, and of these 17 people are actively engaged in work. For details see table 15.13

Table 15.13: Details of services provided by Community Health Centre, Shirva, 2003-06

	Details of services	2003-04	2004-05	2005-06
I General services				
1)	Out - patients treated	13,093	12,788	12,487
2)	In - patients treated	91	107	129
3)	Surgeries conducted	0	0	0
4)	Obstetrics (delivery treatments)	4	1	1
5)	Tuberculosis patients treated	17	32	26
6)	Leprosy patients treated	1	3	3
7)	'X'Rays and Screens	8	76	10
II Family Welfare Programme				
1)	Sterilisation Operations(including Tubectomy, Vasectomy,And Laproscopy)	122	110	106
2)	IUD insertions	101	110	99
3)	Nirodh users	64	111	83
4)	Oral contraceptive users	48	81	82
III Mother and Child Health Programme				
1)	D.P.T vaccine	311	340	332
2)	Polio drops	311	340	332
3)	B.C.G	299	317	312
4)	Measles	308	313	306
5)	D and T	276	268	350
6)	TT for mothers	339	358	316
7)	TT for 10 year olds	335	367	354
8)	TT (16 yrs)	202	436	462

Source: Community health Centre, Shirva

Community Health Centre, Hebri (Karkala taluk)

This centre started as a subsidiary Health Centre in 1955 and was later converted to a Primary Health Centre in 1993. In 1994-95 the Government promoted this to a higher level Community Health Centre of 30 beds. There are 12 sub-centres under this hospital. There are three medical officers working here including one lady doctor. A senior health worker and 25 other staff are engaged in work here. The hospital has a maternity division, laboratory and operation theatre. Eye treatment is taken up once a week. Communicable diseases such as Typhoid, Cholera, Malaria, Tuberculosis etc have been reported in the surrounding areas for which special treatment facilities are available. See table 15.14

Table 15.14: Details of services provided by Community Health Centre, Hebri, 2003-06

	Details of services	2003-04	2004-05	2005-06
I General services				
1)	Out patients treated	41,342	40,854	42,631
2)	In patients treated	188	417	458
3)	Surgeries conducted	-	-	5
4)	Obstetrics (delivery treatments)	29	36	31
5)	Tuberculosis patients treated	21	24	26
6)	Leprosy patients treated	3	4	2
7)	'X'Rays and Screens	-	-	-
II Family Welfare Programme				
1)	Sterilisation Operations(including Tubectomy, Vasectomy,And Laproscopy)	155	160	145
2)	IUD insertions	98	119	112
3)	Nirodh users	143	137	168
4)	Oral contraceptive users	133	128	151
III Mother and Child Health Programme				
1)	D.P.T vaccine	388	406	401
2)	Polio drops	388	406	401
3)	B.C.G	388	400	398
4)	Measles	385	397	400
5)	D and T	463	377	455
6)	TT for mothers	403	418	430
7)	TT for 10 year olds	482	491	484
8)	TT (16 yrs)	238	395	465

Source: Community Health Centre, Hebri

Community Health Centre, Nitte (Karkala taluk)

This health institution was started in 1960 and was later converted to a Primary Health Centre in 1993. The Government later promoted this to a higher level of a 30 bed capacity Community Health Centre. This health centre has a maternity division, X Ray unit, laboratory and operation theatre. There are 7 sub-centres functioning under this centre. Facilities such as Eye treatment, dental treatment and gynaecological treatment are available in this hospital. The total staff strength is 20 including a general medical officer, a senior specialist doctor, a lady doctor and a dental doctor. Generally communicable diseases such as Malaria and Filariasis are reported in the surrounding areas. These diseases have been treated in this hospital.

Details of blood smear examination conducted for detection of Malaria are as follows.

Year	Malaria P.V	Cases P.F	Total
2003	49	9	58
2004	7	1	8
2005	4	1	5

Table 15.15: Details of services provided by Community Health Centre, Nitte, 2003-06

	Details of services	2003-04	2004-05	2005-06
I General services				
1)	Out - patients treated	29,731	29,104	30,294
2)	In - patients treated	385	263	287
3)	Surgeries conducted	38	39	45
4)	Obstetrics (delivery treatments)	10	-	01
5)	Tuberculosis patients treated	22	20	38
6)	Leprosy patients treated	01	00	02
7)	X'Rays and Screens	297	201	-
II Family Welfare Programme				
1)	Sterilisation Operations(including Tubectomy,Vasectomy, And Laproscopy)	112	107	104
2)	IUD insertions	106	102	108
3)	Nirodh users	55	59	58
4)	Oral contraceptive users	49	50	52
III Mother and Child Health Programme				
1)	D.P.T vaccine	271	275	278
2)	Polio drops	271	275	278
3)	B.C.G	280	275	278
4)	Measles	260	262	272
5)	D and T	295	285	301
6)	TT for mothers	304	310	306
7)	TT for 10 year olds	354	331	336
8)	TT (16 yrs)	186	337	333

Source: Community Health Centre, Nitte

Primary Health Centres

The Government has opened Primary Health Centres in rural areas in order to provide basic health services to the rural population and is taking care of their medical needs. Protection of public health, taking preventive measures against the spread of communicable

diseases, taking up Intensive Vaccination Programmes and implementing the National and State Health Programmes formulated by the Government from time to time are the responsibilities of these centres. The Health Centres also take up control and eradication programmes for communicable diseases such as, Cholera, Malaria, Tuberculosis and Leprosy.

To begin with, one Health Centre was opened for an area of 30,000 population, and as population increased, the Government has upgraded several Health Units to the status of primary Health Centres. When Health Centres were started, every Centre had a medical officer, 4 nurses, a health interviewer, a medicine dispenser, a junior health examiner and 6 beds. But, nowadays as the number of health programmes increased, the number of doctors has been raised to two and of them one is a lady doctor.

Primary Health Centres take over the supervision of all the Health Units that come under their jurisdiction. They provide their support for effective implementation of all National and State programmes. Details of the Taluk-wise Primary Health Centres: 1) Udupi Taluk: Kota, Padubidri, Hiriyadka, Petri, Avarse, Pernamshila, Barkuru, Kapu, Kokarne, Manipura, Kolalagiri, Saligrama, Mudarangadi, Syabrakatte, Malpe, Kukkehalli, Noustaana, Kemmannu, Hirebettu, Moodabettu, Kodibengre and Mandarti. 2) Kundapura Taluk: Siddapura, Bidkulkatte, Kolluru, Baiduru, Maravante, Shiruru, Haladi, Gangolli and Shankaranarayana, Belpe, Vandse, Kumbhasi, Nada, Basruru, Kirimanjeshwara, Keduru, Aluru and Kurdi. 3) Karkala Taluk: Ajekaaru, Belmannu, Palli, Hirgana, Mol, Bajagoli, Donderangadi, Bailuru, Saccheripete and Irvatturu. The details of the medical facilities provided by Padubidri Primary Health Centre in Udupi, is given representatively relating to the medical facilities given by all the Primary Health Centres listed above.

Primary Health Centre - Padubidri

This started as a model Primary Health Centre of the Government of India in 1962 and is housed in its own building with 6 beds. It has a maternity division, laboratory and light operation theatre and 9 sub-centres under it. The centre has a total staff strength of 20 including 2 medical officers. Communicable diseases such as Malaria, Filariasis, Tuberculosis and Gastroenteritis are generally reported in the surrounding areas and are being treated in this centre. The number of blood smears collected and examined for detection of Malaria in this Primary Health Centre in the years 2004-05 and 2005-06 were 3,437

and 3,472 respectively and confirmed cases were 7 and 19 respectively. Similarly, the number of blood smears examined for detection of Filaria were 500 and 1,100 respectively and the number of confirmed cases were 12 and 3 respectively. For details see table 15.16

Table 15.16: Details of services provided by Primary Health Centre, Padubidri, 2003-2006

	Details of services	2003-04	2004-05	2005-06
I General services				
1)	Out - patients treated	52,207	49,808	38,534
2)	In - patients treated	589	683	612
3)	Surgeries conducted	-	-	-
4)	Obstetrics (delivery treatments)	70	69	52
5)	Tuberculosis patients treated	14	20	22
6)	Leprosy patients treated	3	4	4
II Family Welfare Programme				
1)	Sterilisation Operations(including Tubectomy, Vasectomy,And Laproscopy)	113	125	131
2)	IUD insertions	110	100	118
3)	Nirodh users	97	89	107
4)	Oral contraceptive users	63	63	65
III Mother and Child Health Programme				
1)	D.P.T vaccine	390	380	415
2)	Polio drops	390	380	415
3)	B.C.G	357	385	397
4)	Measles	382	378	393
5)	D and T	454	378	418
6)	TT for mothers	374	367	423
7)	TT for 10 year olds	503	460	451
8)	TT (16 yrs)	434	467	550
9)	Malaria blood smear	4,032	3,477	3,472

Source: Primary Health Centre, Padubidri

Primary Health Units

Some composite hospitals, municipal dispensaries, local fund hospitals and taluk mandal clinics which have been providing health care in the district in the past, have been designated as Health Units by the government in 1978. These Health Units, undertake programmes such as public health education and management, prevention of communicable diseases and Intensive Vaccination programmes in addition to catering to the medical needs of the rural population. Generally there is one Health Unit functioning for 15 to 20 thousand population. These Units have the responsibility of sending

the report of the health programmes conducted in their field areas to the concerned Primary Health Centres. Every Unit has a medical officer and a medicine dispenser for his help, nurses and other supporting staff. Every Unit has a maternity division. At present, there are 9 Primary Health Units in the district, and the details are as follows. The Units are at Kodi, Koteshwara, Hallihole, Hakladi and Kundluru of Kundapura taluk, and in Kukkunduru, Durga, Nandlike and Inna of Karkala taluk. The details of the medical services provided by Primary Health Unit, Kukkunduru (Karkala taluk) is given below by way of introduction. All the other Primary Health Units in the district are providing health care in the same way.

Primary Health Unit, Kukkunduru: This Primary Health Unit was started in the year 1976, and has two sub-centres under it. It has a staff of 7 including medical officers, and the number of active staff members at present is 5. The annual service details of this Primary Health Unit is given below.

Table 15.17: Details of services provided by Primary Health Unit, Kukunduru 2003-2006

	Details of services	2003-04	2004-05	2005-06
I General services				
1)	Out - patients treated	5,023	4,012	5,776
2)	In - patients treated		No facilities (beds not available)	
3)	Surgeries conducted			
4)	Obstetrics (delivery treatments)			
5)	Tuberculosis patients treated	-		
6)	Leprosy patients treated	3	2	2
7)	'X'Rays and Screens	No facilities (beds not available)		
II Family Welfare Programme				
1)	Sterilisation Operations(including Tubectomy, Vasectomy,And Laproscopy)	53	45	58
2)	IUD insertions	33	38	36
3)	Nirodh users	25	20	30
4)	Oral contraceptive users	26	24	26
III Mother and Child Health Programme				
1)	D.P.T vaccine	140	140	122
2)	Polio drops	140	140	122
3)	B.C.G	135	111	131
4)	Measles	121	112	142
5)	D and T	130	132	138
6)	OT for mothers	144	111	151
7)	OT for 10 year olds	142	144	149
8)	OT (16 yrs)	50	52	62

Source: Primary Health Centre, Kukkunduru

Family Welfare

In India, Family Welfare programmes began officially in 1952. Before that, the India Family Planning Association was established in Bombay in 1949. This is a policy of National importance and is a useful project for achieving economic and social development of our country. Family Welfare Planning was incorporated in the 2nd Five Year Plans and intensive Family Welfare programmes were brought into effect. This plan has a goal of reducing birth rates and improving the quality of life. The government hopes to reduce the birth rate from 27.7 to 21, death rate from 20 to 16 (for every 1000) and increasing the rate of protection of eligible couples from 47.6 to above 60. The purpose of this project is to create a healthy society through Family Welfare, Mother and Child Health Programmes and rural health services and to make people realize the importance of a small family for a happy life and ensure that they accept Family Planning measures voluntarily. Family Welfare services are provided in all local hospitals and health institutions and also educate newlywed couples about contraceptives. In the third Five Year Plan, this programme was taken from house to house with a view of expanding the base. From 1966, Family Planning department came into being in order to provide full fledged service. Since 1928, the responsibility of all District Health Programmes rests on the District Health and Family Welfare Officers.

These Family Welfare Officers have the responsibility of ensuring that the National and State Health Programmes are effectively implemented by the various Health Institutions in the district. The Government is providing Family Welfare services through Primary Health Units, Primary Health Centres-subcentres, Post-natal centres and City Family Welfare Centres. Mother and Child health services have also been included under Family Welfare project. All the government, quasi-government and private health institutions in the district are participating actively in the Family Welfare Programmes. The Government is giving prizes and funds to encourage the public to involve themselves actively in these projects and thereby cooperate and help to prevent population explosion. The City Family Welfare Centre, Udupi and City Family Welfare Centre, Karkala are both functioning as city family welfare centres. The progress achieved in the last five years in the district in Family Welfare programmes is given in the table 15.18.

Table 15.18: Details of progress achieved in Family Welfare Programme in the district

	2000-01	2001-02	2002-03	2003-04	2004-05
Vasectomy	5	11	14	18	5,607
Tubectomy-Laprosopic	5,171	5,756	5,656	5,503	4,439
IUD insertions	3,643	4,528	4,540	4,365	3,023
Oral contraceptives	1,916	2,226	2,461	2,441	3,023
Nirodh users	2,051	2,226	2,461	2,441	-

Source: Office of the Family Welfare Officer and District Health Centre, Udupi

Legalised Abortion Service

Post-natal service, surgery beds plan and medical abortion are other services which are included under Family Welfare programmes. The implementation of these projects have helped population stability and fertility control. It is possible to prevent unwanted pregnancies through medical abortion. The details of Health Institutions, Primary Health Centres and government and private hospitals which have been permitted M.T.P(Medical Termination of Pregnancy) are as follows.

They are Government hospitals at Udupi, Kundapura and Karkala, public and private hospitals- Adarsha Hospital Udupi, Canara Health Care Centre, Udupi, N.R.Acharya Memorial Hospital, Kundapura, Amara Jyothi Clinic, Karkala, Anjali Hospital, Bainduru, Yadtare Hospital, Kundapura, Mahesh Hospital, Brahmavara, K.M.C.Manipal, Chandra Nursing Home, Kundapura, Mallya Nursing Home, Karkala, Ananda Nursing Home, Brahmavara, Gurukrupa Hospital, Karkala, Siddhivinayaka Hospital, Padubidri, Gandhi Hospital, Udupi, Dr.U.B.Acharya Nursing Home, Malpe, Dr. A.V.Baliga Memorial Hospital, Doddannagudde, Udupi, S.D.M. Ayurveda Hospital, Udupi, Sri Durga Maternity Hospital, Haladi, Kamat Nursing Home, Hidiyadka, Dr.T.M.A.Pai Rotary Hospital, Karkala, Spandana Hospital, Karkala, Dr.T.M.A.Pai Hospital, Udupi, Kamat Nursing Home, Udupi, Hitech Medicare Hospital, Udupi, Mitra Hospital, Udupi, Sonia Clinic, Manipal, Shri Manjunatha Hospital, Kundapura and Karkala Nursing Home, Karkala.

Mother and Child Health programme

Under this project, the Health Department has a goal of providing good health service when women conceive and during delivery and post-natal period and also provide health protection to newly born

babies. As a part of Mother and child health services, administering vaccinations as a preventive measure against the six fatal diseases which might affect pregnant women, mothers and children, giving proper medicine and vitamins for women suffering from anaemia and vitamin 'A' deficiency are being done. The health condition of mothers and children has been improved and the death rate has been considerably reduced.

In this direction, the State Government is taking up Intensive Vaccination Programme all over the district. In the district level, Vaccination Officers have been appointed in the office of the District Health and Family Welfare officer. Vaccinations are being given to protect children from fatal diseases such as, Diphtheria, Whooping cough, Tetanus, Polio, Tuberculosis, Measles and Typhoid. In Primary Health Centres, Units and General Hospitals, centres for pregnant women and child health have been opened. Under this programme, a training of 30 days is given to nurses in health centres and sub centres. The details of disease preventive vaccinations given under Mother and Child health programme in the past 7 years in the district is given in the table below.

Table 15.19: Details of progress in disease preventive vaccination programmes

Vaccinations	1998-99	1999-00	2000-01	2001-02	2002-03	20003-04	2004-05
D.P.T	14516	12907	12896	15414	15291	14723	14887
Polio	14516	11907	12896	15414	15291	14723	14887
D.T	12477	16565	17457	19137	17600	16685	14588
B.C.G	14486	12958	12498	15391	14961	14553	15016
Measles	13128	11867	12349	14849	14849	14350	14455
TT (mothers)	13092	13173	12858	16209	16216	15629	1808
TT (10 yrs)	12249	12182	11061	12776	13211	9750	13439
OT (16 yrs)	11287	12182	11061	12776	13211	9750	13439

Source: Office of the District Health and Family Welfare Officer, Udupi

School Children Health Programme

School Children Health Programme has been brought into effect in all primary and higher primary schools in rural areas. Medical examination and treatment for all school children and vaccination against Tetanus and Diphtheria has been included in the health programme. Providing health education to children is also a part of this programme. All Primary Health Centres and Health Units of the

district have taken up medical examination of school children and the number of children examined and the number treated is given in the table below.

Year	Children examined	Children treated
2003-04	1,97,340	17,424
2004-05	1,93,260	16,578
2005-06	1,71,751	15,212

I.C.D.S project has been in effect in the district since 1976, and the number of children who benefitted from this is 70,627.

Infant protection centres in the district are in the following hospitals.

1) Government Hospital, Udupi 2) General Hospital, Kundapura 3) K.M.C. Manipal 4) T.M.A. Pai Rotary Hospital, Karkala 5) Dr. T.M.A. Pai Hospital, Udupi 6) Adarsha Hospital, Udupi 7) Hitech Hospital, Udupi 8) Mission Hospital, Udupi and 9) Sonia Clinic, Manipal. I.C.D.S project has been in effect in the district since 1976, and the number of children who benefitted from this is 70,627.

Pulse Polio Programme

Since incidents of Polio were high in India, there was a need for intensified action against the disease. In this direction, Pulse Polio Programme was taken up throughout the country as a top priority project. With the background of a slogan from the World Health Organisation for the complete eradication of Polio, the Government of India took up a nationwide programme of giving two rounds of Polio vaccine to all children below five years and started it from 1995 itself. On two definite days in a year, the programme of giving polio drops to all children from 0-5 years age is taken up by the department all over the district. All the Health Institutions, hospitals, Primary Health Centres, Primary health Units and sub-centres of the district have been taking an active part in the immunisation programme. The progress in giving polio drops to children from 0-5 years in the last two years in Udupi district is as follows.

Years	In numbers
April 2005	89,597
May 2005	90,622
April 2006	87,496
May 2006	90,326

Rehydration Programme

When young children suffer from vomiting and diarrhoea due to consumption of polluted food and water, such children suffer severe dehydration which may even lead to death. In such situations, emergency medical treatment is making them drink electrolytes frequently and then taking them to the hospital for medical treatment. This solution with salts dissolved in it which is given as a presumptive treatment is known as O.R.S (Oral Re-hydration Solution) This is a mixture prepared by adding a definite amount of salt and sugar to boiled water. Packets of these salts prepared for this purpose is available at all Government Hospitals and Health Centres free of cost.

Indian Medical Association

The Indian Medical Association was established in the year 1942. As a self service association of professional doctors, it has branches all over the country. At present there are two such branches of this association in the district. These branches are located in Udupi and Kundapura and have 147 and 83 members respectively. This association arranges special lectures and discussions and debates for professionals and encourages them to take part in public health service programmes. In addition, it organizes free health checkup camps, free specialist doctor services periodically and also motivates its members to take active part in the State and National Health Programmes such as, Family Welfare, Intensive Vaccination programme and other group health programmes. As a cultural activity, the association also celebrates 'Doctor's Day'.

Drug control

The aim of the Drug Control Department is to ensure that medicines of good quality are available to the public at controlled rates. The department has three divisions such as, 1) Administration and Enforcement; 2) Drug testing laboratory and 3) Pharmacy Education. By implementing Drug and cosmetic Act 1940 and its regulations, the department is taking strict control measures regarding the drugs and cosmetics being manufactured and distributed for sale in the state and is taking care to see that drugs which are manufactured and sold are of standard quality.

In order to make good quality medicines available to the people of the district, the government has started the office of the Drug

Supervisor in Udupi and this has districtwide control. Giving marketing license to all drug and cosmetic units in the district, warning those indulging in manufacturing fake drugs, testing the quality of medicines manufactured by them, examining models which fall below standards are the activities of this office.

The department enforces the following Central Legislations through administrative machinery.

1. Drugs and Cosmetics Act, 1940, and Rules there under,
2. Drugs (Price Control) Order, 1995.
3. Drugs and Magic Remedies (Objectionable) Advertisements Act, 1954 and Rules there under,
4. The Pharmacy Act, 1954 and Education Regulations there under,
5. Narcotics and psychotropic Substances Act, 1985 in relation to drugs covered by the Drugs and Cosmetic Act, 1940 and Rules thereunder.

The inspection staff subject fake drug manufacturers to punishment as per law. In the year 2003-04, in the district, there were 232 licensed and registered medical shops and pharmacists with required educational qualification and there were two blood banks in the district. In 2008, by the end of March, there were a total of 389 (Udupi taluk- 226, Kundapura taluk – 120 and Karkala taluk -40) druggist shops and four blood banks functioning in the district.
