CHAPTER XVI

MEDICAL AND PUBLIC HEALTH SERVICES

THE district has a notable heritage of Ayurveda, the indigenous system of medicine. Many herbs and the like needed for practising this system are easily available in the *malnad* parts. In some cases, the knowledge of theory and practice of Ayurveda was handed down from father to son and it became the traditional profession of such families. Royal patronage helped the system to flourish in the past. But precise information about medical institutions in the district that existed in the old days is not availabe. An epigraph of 1165 A.D. (Sorab) 277—records that three dispensaries were being run at Balligave (modern Belagavi in Shikaripur taluk) "for the promotion of Dharma". The Ayurvedic practitioners (called *Pandits* or *Vaidyas*) were capable of affording relief to their patients with the help of herbs commonly available in the area without having to depend on costly drugs. Knowledge of several Ayurvedic medicines was common and many household remedies were fairly efficacious for common ailments. In many of the villages, there were at least one or two families knowing medicinal properties of herbs. The Muslims brought the Unani system of medicine practised by *Hakims*, but its practice has been very limited and it did not penetrate into the rural areas. The Ayurvedic *Vaidyas*, some of whom have received institutional training, have continued to carry on their practice both in the urban and rural areas, and the common people have considerable faith in the system. There are several Ayurvedic dispensaries in the district.

Advent of allopathic system

It was after the Fourth Mysore War in 1799 that the Allopathic system was introduced in the old Mysore area. After the assumption of the Government of the State by the British in 1831, the Surgeon to the Mysore Commission was in general control of vaccination work. A little later, with the establishment of hospitals in the divisions, a Civil Surgeon was appointed in each divisional headquarters and this officer was also the Superintendent of local jails and Inspector of all the medical institutions

within the limits of the division. The medical set-up of the State underwent a complete change after the Rendition (re-transfer of power to the royal family) in 1881. In May 1884, a new scheme for the establishment of a medical service, composed of duly qualified personnel, was introduced. The head of the Medical Department, who was the senior-most among the covenanted medical officers, was designated as the Senior Surgeon. There were Surgeons, Assistant Surgeons, Sub-Assistant Surgeons and Hospital Assistants. In 1887, the Senior Surgeon to the Government was made *ex-officio* Sanitary Commissioner. In 1907, with the introduction of a separate sanitary service, the Sanitary Department was reorganised. The State was divided into three divisions, viz., western, eastern and southern, and a Divisional Sanitary Officer was appointed for Shimoga and some other districts. Between 1909 and 1910, the posts of Divisional Sanitary Officers were abolished and a new cadre of District Sanitary Officers was created. They were placed under the control of the Deputy Commissioners of the districts. The District Medical Officer of Shimoga was also the *ex-officio* District Sanitary Officer. In 1923-24, a new cadre of Chief Sanitary Inspectors was created to take the place of District Sanitary Officers.

District Health Officer

In the year 1944, a post of District Health Officer was sanctioned for the Shimoga district. However, the District Medical Officer continued to hold the additional charge of the sanitary office till 1953. In the beginning, a few Junior Health Inspectors were posted to assist the District Health Officer in his work. Later, the strength of personnel of the establishment was augmented from time to time to cope with the increase in the volume of work consequent on the undertaking of several developmental schemes under the successive Five-Year Plans. Because of the great importance that is being attached to the family planing programme in recent years, the District Health Officer has been designated since 1966 as District Health and Family-Planning Officer.

Re-organisation of department

The Medical and Public Health Departments of the State were amalgamated in 1965. An officer designated as Director of Health Services was appointed as the head of the re-organised department at the State-level. At the district-level, there are two wings under two independent district officers, *viz.*, the District Surgeon who is in charge of the District Headquarters Hospital at Shimoga, Urban Family-Planning Centre and Auxiliary Nurse-Midwives Training Centre and Compounders Training Centre, and the District Health and Family-Planning Officer. Both these officers are directly responsible to the Director of Health Services in Karnataka, Bangalore. The District Health and Family-Planning Officer, Shimoga, is in overall charge of the administration of matters relating to public health and family-planning in the district. He is both a technical and administrative officer and

deals with various aspects such as control of epidemics, malaria and filaria eradication, maternity and child welfare, control of Kyasanur Forest Disease, vital statistics, sanitation, health education and laboratory work associated with public health. His functions as the Family-Planning Officer include propaganda on family-planning, supply of contraceptives, conducting of camps for vasectomy and tubectomy operations, loop insertions, etc. He is also in overall charge of all medical institutions at the taluk-level in the district.

Under the Family-Planning Programme, the District Health and Family-Planning Officer is assisted by a Medical Officer of Health, a Lady Medical Officer, a District Mass Education and Information Officer, two District Extension Educators (one male and one female), two Para-Medical Assistants, a Nursing Supervisor and a Statistical Assistant. In addition, he is assisted at the Headquarters by an Assistant District Health Officer, a District Tuberculosis Officer, an Assistant Surgeon at the District Tuberculosis Centre and a Medical Officer of Health at the District Laboratory. Besides these officers and other members of the staff at the district-level, several other technical and other staff at the block-level, and the medical officers and staff of the several medical institutions at the taluk-level, such as Primary Health Centres and Units, Combined Dispensaries and Local Fund Dispensaries are also under the administrative control of the District Health and Family-Planning Officer. The statement given hereunder shows the number of sanctioned posts as in 1973-74 under the control of the District Health and Family-Planning Officer, Shimoga, in the various medical institutions of the district :—

1	No. of Doctors	.. 109	5	Para-Medical Staff	.. 425
2	No. of Pharmacists	.. 86	6	Ministerial staff	.. 48
3	No. of Staff Nurses	.. 23	7	Class IV Staff	.. 389
4	No. of Auxilliary Nurse Midwives	.. 262			

Vital Statistics

Births, deaths and other related statistics are registered by the village *patels* in rural areas and sent to the Registrar-General of Births and Deaths through the Tahsildars of the taluks concerned. In the urban areas, the municipal authorities collect these statistics and send them to the Registrar-General. The Health Inspectors collect the statistics in respect of health-unit areas, and during their visits to villages, opportunity is taken to verify the figures registered by the village *patels*. The rise or fall in population of an area can be directly attributed, to a great extent, to the conditions of health of the people, and there may be factors also like dreaded diseases, famine and distress conditions and unemployment problems which cause migration of persons from one area to another. Variations in total population of the district for the first seven decades of this century have been given

in chapter III. It may be mentioned here that in the decade 1951-1961, the net increase in populattion was 3,54,053, which was the highest during the period of 70 years.

Crude Birth and Death rates

The most common measures used for measuring fertility and mortality are the crude birth-rates and crude death-rates. The crude birth-rate is defined as the number of live births per thousand of mid-year population in any given year. Similarly, the crude death-rate is defined as the number of deaths per thousand of mid-year popuatlion in any given year. The sub-joined table indicates the number of births and deaths as also the birth and death-rates per mille* for the period from 1960 to 1973 :—

Year	*No. of registered births*	*Birth-rate per mille*	*No. of registered deaths*	*Death-rate per mille*
1960	16,670	33	3,917	23
1961	19,287	35	3,896	22
1962	11,302	28	2,353	19
1963	14,173	31	2,887	22
1964	24,390	38	4,211	23
1965	18,065	33	3,681	23
1966	18,001	34	3,615	27
1967	22,101	37	4,266	22
1968	20,030	35	3,656	20
1969	21,315	36	4,362	23
1970	20,976	34	4,034	20
1971	23,246	37	5,066	19
1972	21,135	36	4,490	18
1973	20,012	34	4,217	18

Note :—The birth and death rates were calculated to the total population where vital statistics were collected.

* The registration of vital events could not be said to be complete. The figures furnished were stated to be deficient to a varying degree.

From the above table, it can be seen that the registered death-rate has been generally falling since 1961. The fall in the death-rate is, to a large extent, due to the intensive preventive and curative measures carried out and a better standard of living. There has been a systematic drive to control epidemics. The fall in the birth rate may be attributed, to a certain extent, to the intensive family-planning drive that is being carried on in the district since recent years; there is a growing consciousness among the people, especially among the educated classes, to limit their families.

Infant and maternal mortality

Still-birth rate, pre-natal rate, neo-natal rate and post-natal rate are the components and other related indicators of infant mortality. Infant mortality was considerably high in the district in the early decades of this century. The main causes for such deaths are pre-maturity, bronchitis, diarrhoea, dysentery, fevers, convulsions sepsis and respiratory diseases. The infant-mortality

rate has, however, been considerably reduced in recent years with the introduction of modern system of midwifery and rapid implementation of maternity and child welfare services under the plan programmes. The following table indicates the number of registered still-births and infant deaths as also the rates of still-births and infant deaths per mille* for the years from 1960 to 1973 :—

Year	*No. of still births*	*Still birth rate per mille*	*No. of infant deaths*	*Infant death rate per mille*
1960	325	19	978	60
1961	310	16	1,059	64
1962	290	18	597	54
1963	306	21	708	57
1964	315	23	763	33
1965	296	10	888	49
1966	298	16	677	39
1967	312	14	948	45
1968	326	30	846	43
1969	294	12	859	40
1970	299	14	873	43
1971	383	16	1,064	42
1972	290	14	609	29
1973	270	14	587	30

*(The registration of vital events could not be said to be complete. The figures furnished were stated to be deficient to a varying degree).

1. Still-birth rate is defined as the number of still-births to 1,000 live-births and still-births.

2. Pre-natal rate is defined as the sum of still-births and infant deaths occurring within seven days of life to 1,000 live-births and still-births.

3. Neo-natal rate is defined as the number of deaths occurring to infants within 28 days of life to 1,000 live-births.

4. Post-natal rate is defined as the number of deaths occurring to infants after 28 days of life to 1,000 live-births.

The main causes for maternal deaths are anemia, haemorrhage, eclamsia and difficult labour. As in the case of infant mortality, the rate of maternal mortality, which was considerably high in the earlier decades, has been greatly reduced in recent years. This is mainly due to increased facilities provided for the pre-natal and post-natal treatment in the several hospitals and health centres in the district. As per the statistics furnished by the Bureau of Economics and Statistics, Bangalore, the maternal mortality rate in the district was between 1 to 7 per mille during the period from 1960 to 1973 as could be seen from the following table :—

Year	*No. of maternal deaths*	*Maternal death-rate per mille*
1960 ..	84	5
1961 ..	90	5
1962 ..	84	7
1963 ..	51	4
1964 ..	42	2
1965 ..	23	1.5
1966 ..	73	4
1967 ..	97	4
1968 ..	110	5
1969 ..	106	5
1970 ..	92	4
1971 ..	68	3
1972 ..	70	3
1973 ..	52	2

Common diseases

There are insanitary environmental conditions and use of unprotected water, especially in the rural areas. The poorer sections of the people are affected by under-nutrition and malnutrition. The common diseases for which a majority of patients are treated in health centres and dispensaries in the district are fevers, diarrhoea and dysentery and respiratory diseases. The other diseases from which the people often suffer are pneumonia, malaria, typhoid, digestive diseases, and gastroentritis, worms, ulcers, anaemia, skin diseases, etc. The statement given hereunder shows the number of deaths caused by various diseases in the district during the years 1955-1960 and 1971 :—

Causes	1955	1956	1957	1958	1959	1960	1971
Cholera	145	27	15	226	5	6	28
Fever	1,072	1,194	1,519	1,142	1,217	..	..
Small-pox	15	41	84	63	109	41	89
Plague	2	8	7	5	8	3	..
Dysentery and Diarrhoea	521	461	689	477	621	..	..
Respiratory diseases other than T.B. Lungs.	321	378	502	513	451	..	..
Malaria	694	674	686	508	580	314	219
T.B. of Lungs	153	149	153	158	169	42	..
Typhoid	..	..	..	..	..	..	5

Source :—The State Bureau of Economics and Statistics. (District-wise break-ups from 1961 to 1970 are not available).

Cholera control

Cholera is one of the most dreaded communicable diseases. In recent years, there has been a considerable decrease in the incidence of cholera in the district. Whenever there is an outbreak of cholera, the authorities rush groups of necessary health staff to the places for mass anti-cholera inoculations. It is found

to be very difficult to eradicate cholera because of lack of good environmental sanitation and use of unprotected water. Frequent incidence of cholera is encountered in this district. The following table gives the number of cholera attacks and deaths and the number of persons inoculated during the years from 1965 to 1973 :—

Sl.No.	*Year*	*Attacks*	*Deaths*	*Anti-cholera Inoculations done*
1	1965	504	112	2,42,259
2	1966	nil	nil	nil
3	1967	38	20	14,472
4	1968	36	15	6,702
5	1969	43	12	4,317
6	1970	35	11	4,595
7	1971	70	18	24,979
8	1972	71	13	34,487
9	1973	489	57	1,81,834

National Small-pox Eradication Programme

Small-pox is persisting in the district. The incidence was high during the years 1966 and 1967 with a gradual decrease in the following years. The Government set up an expert committee in 1959 to suggest ways and means of eradicating both small-pox and cholera in the State. Based on the recommendations of this committee, large-scale efforts were made through primary vaccinations and subsequent planned periodical vaccinations to bring the disease under control. The attack phase of N.S.E.P. was completed between October 1963 and March 1964 covering about 80 per cent of the population. The district entered the maintenance phase in 1965. The vaccination work is being conducted by Vaccinators, Basic Health Workers and Auxiliary Nurses and Midwives. Efforts are made to do hundred per cent primary vaccinations and re-vaccinations once in four years. The vaccination figures for the district from 1965 to 1973 were as follows :—

Sl.No.	*Year*	*Primary vaccinations*	*Re-vaccinations*	*Total*	*Attacks*	*Deaths*
1	1965 ..	36,500	1,33,478	1,69,978	9	2
2	1966 ..	35,056	2,19,616	2,54,672	40	12
3	1967 ..	62,139	2,37,843	3,19,982	50	13
4	1968 ..	53,093	2,25,861	2,78,954	3	..
5	1969 ..	51,323	2,30,546	2,81,869	8	1
6	1970 ..	41,682	2,10,724	2,52,406	8	..
7	1971 ..	54,803	2,39,018	2,93,826	1	..
8	1972 ..	82,328	3,71,029	4,53,357	4	..
9	1973 ..	75,214	2,81,785	3,56,999	..	..

Vaccinations of babies under the age-group of 0-1 month is also undertaken by the medical and para-medical staff of the medical institutions.

Plague

The district is almost free from the ravages of plauge. This disease has been completely under control and the incidence has been almost nil in recent years.

Typhoid

Typhoid has been prevalent in the district causing some deaths every year. As and when typhoid cases are reported, T.A.B. inoculations are given to the infected persons in the affected areas. During the years 1965, 1966 and 1967, the incidence was high and there was a decrease in the following years. The health authorities undertook preventive measures such as administering of T.A.B. inoculations, chlorination of sources of drinking water and disinfection of infected houses. The patients were treated on the spot and the epidemic was brought under control.

Control of Communicable Diseases : Malaria

The National Malaria Eradication Programme is considered to be the biggest programme of the type in the world directed against a single communicable disease, namely, malaria. This national programme is envisaged to be completed in 1975. The incidence of malaria is now very low in many parts of the country. More than three-fourths of the country is free from malaria transmission. Hence, the programme to-day has pinpointed two specific responsibilities, *viz.*, how to keep such areas free from infection and secondly how to liquidate the infection in the residual areas.

The malaria control work was in progress in old Mysore area even much before the inception of the Five-Year Plans. The State Government started a programme of research and training for eradication of malaria as far back as 1928. In the beginning, the malaria control operations were confined to the *malnad* areas (hilly and forested areas with heavy rainfall) which were highly endemic for malaria. The National Malaria Control Programme in the new Mysore State was switched over to the National Malaria Eradication Programme during the year 1958, with 19.13 units covering the entire State. The Units started entering the Maintenance Phase of the Programme in 1964-65. Formerly, the malaria control operations were being carried on by the Malnad Improvement Dispensaries which were later converted into Primary Health Units. To combat the problem of malaria and to restore rural health, Primary Health Units of Mysore Government type were established in the district in 1942. Prior to this, a Malnad Improvement Scheme was being implemented and under it, six dispensaries (Malnad Improvement Dispensaries) had been opened in addition to the other existing dispensaries in the district.

During the years from 1948 to 1950, the Rockefeller Foundation did malaria investigation work in Sagar taluk, and the World Health Organisation conducted investigations at Sagar, Bhadravati and Lakkavalli areas. Malariagenic conditions in the different areas (heavy rainfall, intermediate rainfall and low rainfall areas),

vector species found in them and their development of resistance to various insecticides were studied. Scientific studies made on different aspects in the area were published in the Indian Journal of Malariology.

With the launching of the National Malaria Control Programme (N.M.C.P) in the State, all the parts of the district were taken up for D.D.T. spraying. The N.M.C.P. was switched over to the N.M.E.P. (National Malaria Eradication Programme) in 1953. As a result, the entire district was covered with intensive D.D.T. spraying and surveillance work was introduced from the year 1964-65, when the area entered the maintenance phase. The Malaria Surveillance Workers paid fortnightly visits to all the houses in their areas, investigated fever cases, took blood-smears and treated the cases with anti-malaria drugs. Now, the work is entrusted to basic health workers. Every year, nearly one lakh blood-smears are collected by 160 basic health workers and 125 dispensaries. All the fever cases, irrespective of diagnosis, are blood-filmed and examined for malaria parasites. If a positive case is detected, immediate action is taken for radical treatment of the case, mass and contact blood survey and D.D.T. spraying in order to check the spread of the disease. The following table gives the relevant figures from 1965 to 1972 :—

Sl. No.	*Year*	*No. of blood-smears drawn*		*Mass and contact and follow-up action*	*Total*	*Positives detected*
		Active	*Passive*			
1	1965 ..	54,858	45,248	1,915	1,02,021	1
2	1966 ..	39,962	38,813	2,283	81,058	nil
3	1967 ..	42,712	36,137	443	79,293	nil
4	1968 ..	41,979	39,836	..	81,515	1
5	1969 ..	46,266	37,951	..	84,217	1
6	1970 ..	48,181	42,520	781	91,482	1
7	1971 ..	54,351	43,541	10,199	1,08,091	166
8	1972 ..	64,097	48,951	6,632	1,19,680	556

As there was danger of import action of malaria infection due to the influx of a large number of workers from other districts and States in the projects and because of drought, special and intensive measures were taken and D.D.T. spraying was done in each labour colony to prevent the spread of malaria.

Kyasanur Forest Disease

What is called the Kyasanur Forest Disease, which is a new clinical entity, appeared first in 1956 in the *malnad* areas, especially in the areas of Sagar, Sorab, Shikaripur and Hosanagar taluks of Shimoga district, and Sirsi and Honnavar taluks of North Kanara district. This disease is caused by a virus known as the Kyasanur Forest Disease virus which is antigenically related to Russian Spring Summer Encephalitis complex group. Though this is essentially a disease of forest animals, man is accidentally

involved in it. This disease has been prevalent in the district causing some deaths ; it is seasonal occurring mostly in summer. Its incubation period is three to eight days normally and sudden onset, continuous fever, extreme prostration and dehydration, systemic involvement with haemorrhages and menigismus are the main features of this disease. Sometimes, paresis of extremities, photophobia and irritation of eye, ear, nose and throat occur. It is suspected to be transmitted by the tick belonging to the genus haemophysalis. During the years from 1956 to 1973, it spread to as many as 378 villages attacking 4,539 persons of whom 121 died. It was estimated that 2,202 monkeys died of this disease during that period.

Virus Diagnostic Laboratory

In 1958, in collaboration with the Rockefeller Foundation, a Special Virus Diagnostic Laboratory was opened at Shimoga for purposes of field investigation, entomological study, treatment of cases and laboratory investigation. This is a new and unique investigation taken up by the Government of Karnataka in collaboration with the Indian Council of Medical Research and it is envisaged to be developed into a full-fledged organisation to tackle various problems of virus and other allied infections in the State for investigation, research and control. Tick control experiments were conducted in 1968, 1969 and 1970. Lindene 20% EC when sprayed by power sprayers in very small forest patches has been found to be effective in keeping the nymphal tick population in minimum level for a period of four to six weeks only. Spraying of big forest patches is impracticable and effect thereof also does not last long enough to meet the requirements of control of tick population. The Russian Spring Summer Encephalitis vaccine was used with a view to immunising the exposed population. It was found to be ineffective in either reducing the attack rate or in modifying the cause of the disease or in reducing the cases of mortality.

For the purpose of administration, the Virus Diagnostic Laboratory has been divided into two wings, one at Shimoga as the Virus Diagnostic Laboratory and another at Sagar as the Kyasanur Forest Disease Field Station. The main functions of the Virus Diagnostic Laboratory, Shimoga, are (1) isolation of infectious viral agents from human, monkey, arthropoid or any other specimens by mouse inoculation method, (the specimens are received mainly from the K.F.O. Field Station at Sagar and other medical institutions in the aera) ; (2) detection of specified K.F.D. neutralising antibodies in samples of survey ; (3) maintenance of a mouse colony ; (4) maintenance of an animal house : (5) administration and direction, review and guidance in the activities of the K.F.D. Field Station at Sagar by periodical visits ; (6) planning, implementation and research projects in the field to evolve control and preventive measures against K.F.D. with the technical collaboration of the Virus Research Centre, Poona and (7) training

in the field of K.F.D. medical and para-medical workers in the K.F.D. area.

K.F.D. Field station

The main activities of the K.F.D. Field Station, Sagar, are as follows :—(1) Surveillance for K.F.D. in particular and for other arthropoid-bone virus diseases in general; (2) the Medical Officer in charge is empowered to investigate the fever cases in his jurisdiction while on tour; (3) he also undertakes symptomatic treatment of the cases for the time being; (4) the specimens collected by the Medical Officer, along with the specimens collected by other medical institutions in the K.F.D. area, are pooled and despatched to the Virus Diagnostic Laboratory, Shimoga, through a courier.

Both the wings are under the control of an officer designated as the Assistant Director of Virus Diagnostic Laboratory, Shimoga. He is dirertly responsible to the Joint Director of Health and Family-Planning Services, Bangalore, the laboratory being a unit of the Department of Health and Family-Planning Services. The Assistant Director is assisted in his duties by two Medical Officers, a Research Assistant, two Senior Laboratory Technicians, three members of ministerial staff, seven Animal Attendants and three members of class IV staff. The Medical Officer of Health (Additional), who is in direct charge of the Kyasanur Forest Disease Field Station, Sagar is assisted in his duties bya Junior Health Inspector, one Insect Collector, two members of ministerial staff and two members of class IV staff.

Primary Health Centres and Units

In keeping with the Government policy of providing more and better medical facilities, primary health centres and units were established in the rural parts of the district during the successive Five-Year Plan periods. In 1972-73, there were 10 Primary Health Units (Karnataka type). The health units of the Karnataka-pattern geneally cover a population of 10 to 15 thousand each, while those of Government of India pattern cover a population of about 60 thousand each. On an average, there are six beds in each primary health centre and two beds in each primary health unit for the treatment of inpatients. The main basic health services that are being rendered to the rural people through these health centres and health units are: (1) curative services, (2) control of communicable diseases such as malaria, small-pox, cholera, plague, tuberculosis, etc., (3) family-planning, maternity and child health services, (4) health education, (5) school health services, (6) collection of vital statistics, and (7) environmental sanitation.

The staff associated with each of the Government of India pattern health centres consists of one Medical Officer of Health, a Health Visitor, a Junior Health Inspector, a Compounder and two class IV staff. Besides, for looking after the family-planning aspect of the work, there is an Extension Educator, a Pharmacist

and a Health Assistant for every 20 to 30 thousand of population and an Auxiliary Nurse-Midwife for every 10 thousand population under the Medical Officer of Health. Similarly, for looking after the malaria maintenance work, there is a Senior Health Inspector, a Junior Health Inspector and a Basic Health Worker for every 10 thousand of population. The staff attached to ach of the Karnataka type health units consists of an Assistant Medical Officer of Health, a Junior Health Inspector, a Compounder, three Midwives and three members of class IV staff. (Particulars of Health Centres and Units are given at the end of the Chapter.)

Family Planning

A State Family-Planning Board has been functioning since 1957. An extended family-planning programme was started in October 1965 when a separate District Family-Planning Bureau was established to took after, guide and co-ordinate the family-planning activities in the district. For purposes of better co-ordination and supervision, the District Health Officer was re-designated as District Health and Family-Planning Officer. There are ten Primary Health Centres, each of which has been provided with a vehicle to facilitate execution of the programme. Maternity-*cum*-sterilisation wards and residential quarters for the programme personnel, both at the P.H.C. level and Sub-Centre level, are being provided.

The Demographic Research Centre of the Institute of Economic Research, Dharwar, conducted a survey in twelve villages of the taluks of Hosanagar, Shikaripur and Bhadravati of this district in 1963. The Shimoga region was considered as an area of very high growth-rate of population since the population increased by 53.38 per cent in this district between 1951 and 1961, as against 21.6 per cent in Karnataka State during that period. This phenomenal rise of 53.38 per cent was found to be due to the measures taken for the eradication of malaria, which was the scourge of the *malnad* parts, and control of other fatal diseases, better medical amenities, improved communication facilities, immigration of labour attracted by development works, etc. The birth-rate during the year 1962-63 was fairly high, being over 45 per 1,000 persons per year, and the death-rate was fairly low being about 15 or less per 1,000 persons per year. The survey report said that the people of the area were in favour of having small families and that it would prove to be very encouraging one for the family-planning movement.

District Family Planning Bureau

Formerly, the family-planning programme was being implemented on the basis of clinical approach. Education and service were being provided to the couples interested in preventing further pregnancies in the limited fixed clinical centres,, most of which were in the major urban centres and a few selected clinical

places. The message of family-planning was not at all spread in length and breadth of the rural community. This approach was found to be inadequate for the rural areas. Hence, the clinical approach was switched over to the extension approach wherein the education and service facilities were extended to the door steps of the rural community and the entire population, both rural and urban, was brought under the extended re-organised family-planning programme in the year 1965. The District Family-Planning Bureau started functioning in the year 1965. An eligible couples survey was taken up and completed in the entire district. It was found that the number of eligible couples for practising family-planning methods was about one lakh. In 1965, there were ten Rural Family Welfare Planning Centres, one each at the ten Primary Health Centres in the district. In addition to these, now the many medical institutions in the district are co-ordinating the family-planning services. There are seven Urban Family-Planning Centres: (1) four are for 50,000 population each, out of which two are functioning at Shimoga and the other two at Bhadravati, (2) two are for 25,000 to 50,000 population each. They are functioning in Sagar and Tirthahalli towns, and (3) the third category is for a population of 15,000 to 25,000. This centre is functioning in Shikaripur town.

The District Family-Planning Bureau is managing the programme operations with the help of five functional components, *viz.*, (1) Mobile Sterilisation Unit, (2) Mobile I.U.D. Unit, (3) Education and Information Division, (4) Field Operation and Evaluation Division and (5) Administrative Division. These are directly responsible to the District Health and Family-Planning Officer who is the controlling officer and chairman of the District Mass-media Co-ordination Committee. All the key personnel in the organisation are progressively trained so as to enable them to act effectively in implementing the programme.

Vasectomy and Tubectomy

Facilities have been provided in all bigger medical institutions in the district for conducting vasectomy and tubectomy operations. Such operations are also being done at camps in the rural areas arranged for the purpose under the immediate supervision of the Medical Officer of Health (Family-Planning, Meternity and Child Health). In order to popularise these surgical methods of family-planning, the services of private medical practitioners are also utilised wherever possible. The authorised private practitioners, who render family-planning services at their own clinics or nursing homes, can claim Rs. 30 per case of vasectomy, Rs. 40 per case of tubectomy and Rs. 11 per case of I.U.C.D., provided they render service free of cost to the patients, give free pre-and post-operative follow-up treatment and attend to any complications noticed later on.

Medical advice on the methods of family-planning is given to married persons, who require such advice, and also to those

who, in the opinion of the medical officer, cannot undergo the strain of pregnancy and parturititon without danger to their health. The Primary Health Centres in the district also conduct couple surveys, and selected couples are advised through individual contracts to adopt temporary or permanent family-planning methods. A device of family-planning for women popularly known as loop (an intra-uterine contraceptive device) was introduced in the district in 1965-66. Services are rendered either at medical institutions or at clinics and a sum of Rs. 5 is paid per case as compensation to the acceptor for the first time, and the worker who motivates the case is paid a rupee per case.

Contraceptives such as jellies, foam tablets and *nirodhs,* etc., were supplied to all the family-planning centres, hospitals and dispensaries in the district for distribution. Since jellies and foam tablets were found to be more expensive, the supply of the same has been discontinued. *Nirodh* is being issued free of charge at the medical institutions or by the health workers during the domiciliary visits. In addition, it is being sold at subsidised rates at selected post offices at the rate of five paise for three pieces, while they cost 15 paise at commercial shops.

Intensive propaganda through lectures, film shows, exhibitions, publicity literature, etc., is being done throughout the district in order to educate the people concerned in respect of family-planning. In addition, family-planning fortnights are organised every year throughout the district, when as many people as possible are covered under the programme. Orientation training camps are also conducted at certain selected centres for providing training to village leaders. During the latter part of the Third Five-Year Plan and the subsequent annual plans, family-planning activities were accelerated.

The people in the district are evincing more interest than before in the family-planning programme. The sterilisation method (both male sterilisation and female sterilisation), I.U.C.D. placement and use of *nirodh* are becoming popular in the district. Relatively, female sterilisation is more popular than male sterilisation and gaining a momentum. The following table indicates the targets and achievements and expenditure incurred in respect of sterilisation, placements of I.U.C.D., use of contraceptives and percentage covered for the period from 1965–66 to the end of 1973–74 :—

Year	Sterilisation			I.U.C.D. placements		
	Target	Progress	Percentage coverage	Target	Progress	Percentage coverage
1965–66	2,000	403	20	2,000	5,392	269.6
1966–67	3,552	2,590	72.9	20,229	4,583	22.0
1967–68	4,920	7,768	157.0	9,840	870	8.8
1968–69	7,270	4,063	56.2	4,810	614	12.7
1969–70	6,340	2,742	43.2	1,490	320	21.7
1970–71	7,005	3,261	46.6	1,785	242	13.6
1971–72	3,160	4,429	140.2	1,350	325	24.0
1972–73	13,420	4,935	36.77	1,320	748	56.66
1973–74	7,140	4,589	64.3	1,375	537	39.0

Year	Contraceptive users			Expenditure (Rs.)
	Target	Progress	Percentage covered	
1965–66	NA	NA	N.A.	1,44,273
1966–67	4,935	2,068	41.9	2,76,946
1967–68	7,380	2,770	37.5	3,62,964
1968–69	7,220	2,020	27.9	4,02,921
1969–70	7,450	1,886	25.3	6,62,087
1970–71	10,315	1,958	18.9	5,92,676
1971–72	3,165	1,581	49.9	6,50,688
1972–73	6,900	1,331	19.28	8,02,319
1973–74	4,470	1,356	30.3	5,60,986

District-level Family Planning Action Committee

There is a District-level Family-Planning Action Committee which is headed by the Deputy Commissioner as the Chairman and it is responsible to the Divisional-level Family-Planning Action Committee at Bangalore. The District Health and Family-Planning Officer, the District Surgeon and several non-officials are nominated as its members. It meets once in a quarter and reviews the progress, examines administrative and operational problems faced in implementing the programme and chalks out the plan of action. Professional organisations like the Indian Medical Association, Shimoga Branch, merchants' and farmers' associations, social organisations like the Rotary and Lions Clubs and Junior Chambers, CARE, etc., have also been involved in the programme and are co-ordinating their services in organising mass sterilisation camps in the district.

India Population Project

Two areas in India, one in Karnataka and the other in Uttar Pradesh, were taken up for experimentation under a project called the India Population Project. This project is to run for a period of five years from 1st May 1973, with the assistance of the World Bank. It is being implemented by the State Government. In Karnataka, the urban district of Bangalore and four other districts of the Bangalore Division including the Shimoga district were chosen for the purpose. The aims of the project are to provide the necessary health infrastructure, training and retraining facilities and additional inputs by way of additional beds, vehicles, equipment and staff, besides execution of supplementary nutrition programme. The emphasis in this project is on implementation of a maternity-based family-planning programme both in urban and rural areas. A better system of management, information and valuation is being tried. The implementation of the field programme in Shimoga district is an optimal programme on the existing pattern. Under this Project, additional inputs in the form of construction of 121 sub-centre buildings, a 30-bedded tubectomy ward in the District Hospital and 24-bedded tubectomy wards in the selected taluk headquarters hospitals, training facilities, etc., will be provided to step up the tempo of the programme. In addition, the Population Centre, established at Bangalore under this Project, is designing a system of routine data collection and analysis on a feed-back system to guide the programme operations and to measure its effectiveness in reducing fertility.

Allopathic Medical Institutions

All the medical institutions at the taluk-level in the district are under the control of the District Health and Family-Planning Officer. In 1973, there were 108 medical institutions, mostly dispensaries, including the primary health centres and primary health units referred to earlier, in the district, under the charge of the District Health and Family-Planning Officer. Of these 108 medical institutions, seven were general hospitals, six combined dispensaries, eight health-unit type dispensaries and two reduced scale local fund dispensaries. Of these, the McGann hospital, Shimoga, was the biggest with a bed-strength of 385 in 1973 with an X-ray unit attached to it. The general hospital at Sagar is also equipped with an X-ray unit. The Kanakamal hospital at Anandapuram, the combined dispensary S.V.P. Kargal and K.E.B. combined hospital, Jog Falls, have separate women's sections for treating maternity cases.

Ayurvedic Dispensaries

There are Ayurvedic dispensaries in the district mostly in the rural areas. As on 31st March 1973, there were 30 Ayurvedic medical institutions functioning in the district. They are maintained by the Taluk Development Boards and are manned by qualified Ayurvedic physicians. The administrative control of these institutions, which was with the District Surgeon, Shimoga, upto 1968, was thereafter transferred to the District Health and Family-

Planning Officer. Taluk-wise particulars of these Ayurvedic dispensaries are given at the end of this Chapter.

Applied Nutrition Programme

The Applied Nutrition Programme is multi-departmental in character; local social service organisations and international agencies like the UNICEF, FAO and WHO are also associated with it. Departments of Horticulture, Fisheries, Animal Husbandry, Health Services, Education, Social Welfare and *Panchayat Raj* and *yuvaka mandals, mahila mandals,* etc., co-operate in carrying out the programme. An integrated approach is brought to bear upon the work. Nutrition plays a vital role in laying the foundation for sound health of the individual if cared for during pregnancy and lactation, and upto five years primarily and during the stages of boyhood or girlhood, adolescence and early youth. Hence, much importance is attached to this work.

The UNICEF provides financial assistance for the training programme and for equipment, while the FAO and WHO provide technical assistance. The Applied Nutrition Programme has been in operation in Shimoga district since the year 1968-69. It was first started in the Hosanagar Community Development Block and subsequently, it was extended to the Shikaripur Block in 1969-70, to the Honnali Block in 1970-71 and to the Tirthahalli Block in 1973-74. Dietary and clinical nutrition surveys, which were conducted in the Hosanagar and Honnali Blocks, have revealed that in this district, where the staple food is rice and other cereals like jowar and ragi are also used to some extent, consumption of other protective foods is not of recommended quantities and that the average prevalance of vitamin-A deficiency among the vulnerable population (pregnant and nursing mothers and children) was 9.7 per cent in the Honnali Block and 3.8 per cent in the Hosanagar Block.

In order to improve the existing dietary pattern, several measures have been taken in the selected blocks. Education of the people about proper nutrition is being carried on through a net-work of health workers and the community development block staff who organise practical demonstrations, follow-up talks, discussions, film-shows and exhibitions and distribute educational material. The Mid-day Meals Scheme organised by the Department of Public Instruction is also closely associated with this programme. In 1973, there were 377 centres under this scheme, catering to 38,442 school children and 15,645 pre-school children in the district.

Special Nutrition Programme :—This programme is in operation in the urban slum areas. As in 1973, there were 27 centres in the city of Shimoga catering to 5,472 children and 287 mothers, 24 centres at Bhadravati feeding 6,030 children and 273 mothers, and 34 centres in the M.I.S.Ltd. area of Bhadravati benefiting 7,330 children and 678 mothers. The tribal localities of Channagiri and

Sagar taluks are also covered under this programme. In 1973, there were two centres for them with 151 beneficiaries (122 children and 29 mothers). The local foods like cereals are given to them in the form of gruel, *uppittu,* etc. The supplements given under the programme provide about 300 calories and 12 grammes of protein.

The World Food Programme, which is in operation in the district, provides mid-day meals to high school students. In 16 high schools of the district, 1950 students are provided with wheat preparations, skimmed milk powder and salad oil. About 865 inmates of hostels run by the Social Welfare Department are also benefited under this programme.

Health education

Health education forms one of the important activities of the Health Services Department. The basic health workers, who primarily attend to this aspect of the work, are required to utilise every opportunity, especially during village gatherings, to contact the rural populace and talk to them about various health subjects, sometimes giving practical demonstrations, in regard to personal cleanliness, environmental sanitation, chlorination of water, vaccination, D.D.T. spraying, etc. The Department also arranges for the observance of the World Health Day, Leprosy Day, Anti-Fly Week, Family-Planning Fortnight and the like in the district, so as to impart health education to the people. On such occasions also, the health services authorities make arrangements to give talks, organise exhibitions and screen films on various subjects in the villages and towns.

School health services

The aim of the School Health Programme is to provide comprehensive health care to the school children, comprising medical examination, treatment, correctional remedies and follow-up action, school sanitation, proper water supply and provision of play grounds, health education in schools, etc. The school children are also guided in forming habits and practices necessary to promote the best growth and health desirable for all citizens. The programme was inaugurated in the Shimoga district during the year 1968–69. Under it, children in the age-group of 6-11 are being also immunised against diseases such as diphtheria, tetanus and rheumatism. During the year 1968–69, only the Primary Health Centre at Konandur was attending to school health service in the district of Shimoga. The service was extended to two more Primary Health Centres at Kerebilichi and Tavarekere in 1969-70, to Talaguppa P.H.C. in 1972-73 and to Ayanur P.H.C. in 1973-74. The particulars of this aspect were as given in the following statement :—

Sl. No.	Name of Primary Health Centre	Date of starting	Number of children covered				
			1968-69	1970-71	1971-72	1972-73	1973-74
1	Konandur	6-6-1968	1,430	..	..	1,835	1,233
2	Kerebilichi	1-9-1970	..	400	..	1,877	2,033
3	Tavarekere	17-9-1970	..	4,144	..	2,110	2,110
4	Talaguppa	1-7-1971	..	..	1,400	1,600	1,567
5	Ayanur	4-4-1974	..	..	..	..	2,154

McGann Hospital, Shimoga

The McGann Hospital, Shimoga, which is one of the major hospitals in the State was started in 1880. It was named after Dr. McGann who was the Senior Surgeon with the Government of Mysore from 1885 to 1896 and also Durbar Surgeon from 1905 to 1906. The foundation stone for the present building which covers an area of about 70 acres was laid by Maharaja Krishnaraja Wadiyar Bahadur on 16th January 1932 and the building was opened in 1935. The bed-strength of the hospital at the beginning was 44 and periodical expansion took place raising the bed-strength to the present 385. Now (1973) the hospital has the following departments :—(1) Medical, (2) Surgical, (3) Maternal and Child Health, (4) Dental, (5) Orthopaedic, (6) Paediatrics, (7) Family-Planning, (8) Eye, (9) E.N.T. and (10) Venereal diseases. A T.B. isolation ward with 40 beds has been also constructed very recently. There is also provision for training nursing students, auxiliary nurse-midwives, lady health visitors and house surgeons. Besides the District Surgeon, who is the head of this hospital, there were, in 1973, 27 Assistant Surgeons, four Nursing Superintendents, 42 Nurses, two Midwives, four Tutors (for the Auxiliary Nurse-Midwives Training Centre), 18 members of class III staff and 102 class IV workers.

The daily average number of out-patients treated in this hospital in 1973 was 591 as against 380.6 in 1962. The daily average number of in-patients treated was 425 in 1972 as against 247.5 in 1962. On the surgical side, 1,144 major operations were performed in 1972, while the number of minor operations was 179. On the maternity side, 1,870 labour cases were attended to during that year. In the X-ray section, 12,499 screenings and 640 barium examinations were done during 1973. In the family-planning section, 334 vasectomy and 55 I.U.C.D. cases were attended to during 1972-73. The total expenditure incurred on the hospital during the year 1972-73 was Rs. 13,70,573.

General Hospital, Sagar

At Sagar, a dispensary was started in a small building during 1888 and it was gradually expanded. In 1958, it was made a General Hospital with several new blocks. A central block, with an out-patient department, administrative block, specialist consultation rooms, operation theatre and labour room have been

constructed. Now, this is one of the biggest taluk-level hospitals. It has medical, surgery, maternity and dental sections and major operations are being done by specialists. In 1974–75, the bed-strength of the hospital was 50. The State Government accorded sanction for another 24 beds and construction work is being completed.

The daily average number of out-patients treated in this hospital during 1974 was 223, while the daily average number of in-patients treated was 104. The number of major operations performed during 1974 was 365, while minor ones numbered about 1,578. During 1973-74, in the X-ray section 5,094 screenings were done and 951 X-rays were taken. In all, 826 labour cases were attended to in 1972. There is an urban family-planning centre attached to this hospital where, during 1974, 175 sterilisation cases and 12 I.U.C.D. cases were handled. As in 1974, the staff consisted of five Assistant Surgeons including a dentist and seven members of nursing staff besides some technicians, ministerial staff and class IV officials. The total expenditure incurred on this hospital during the year 1973-74 was Rs. 2,19,101-79.

Sri Jayachamarajendra Hospital, Tirthahalli

A model combined hospital was started at Tirthahalli in the early part of 1920s, for which donations were given by philanthropists. It was run by two doctors. The hospital was housed in the building now occupied by the Taluk Development Board Office. Later, after 1947, the awareness of the need for better medical aid made the people to come forward to contribute a further sum for developing this institution into a general hospital. The expanded hospital was named after the ex-Maharaja. The bed-strength in the hospital was 40 in 1964 which was increased to 68 by 1973. A new family-planning ward and a children's ward were opened in 1961 and in 1962 respectively. A maternity wing, and isolation ward and a dental section are being developed. The daily average number of out-patients treated in 1973 was 300 as against 219.3 in 1964, while the daily average number of in-patients treated was 72.6 in 1973 as against 37 in 1964. On the maternity side, 459 labour cases were attended to in 1973. In the family-planning section, 25 vasectomy, 275 tubectomy and 25 I.U.C.D. cases were handled during the year 1972–73. In 1973, the staff consisted of a Medical Officer, an Assistant Surgeon, two Lady Assistant Surgeons and one Assistant Dental Surgeon, eight Staff Nurses, three Midwives, two Family-Planning Welfare Workers, two Surgical Attendants, one X-ray Attendant, one Senior Laboratory Attendant, two Pharmacists, one O.T. Attendant and three Ward *Ayahs* and other necessary class IV staff. A sum of Rs. 1,82,388.00 was expended on this institution in 1972-73.

M.I.S.L. Hospital

Formerly, only a dispensary was being run by the Mysore Iron and Steel Ltd., Bhadravati. Now a full-fledged hospital is being maintained by the management. There are five dispensaries

attached to this hospital, *viz.*, Hutha Colony Dispensary, Mines Dispensary at Bhandigudda and Kemmangundi, Bilikal-Betta Dispensary and Tanigebyle Dispensary. The hospital has blood bank and X-ray facilities, a laboratory and an operation theatre. In 1973, the bed-strength of the hospital was 150. The daily average number of in-patients and out-patients treated was 155.5 and 1,315 respectively in 1972-73. The number of major operations performed during 1972-73 was about 308, while minor operations numbered about 168. During that year, in the X-ray department, 1,755 screenings were done and 2,400 X-rays were taken. The management sanctioned in 1972-73 Rs. 5,50,000 for purchase of medicines, equipment, X-ray films and laboratory chemicals in addition to other materials drawn inside the factory. As in 1973, the staff of the hospital consisted of one Chief Medical Officer, 17 Assistant Surgeons, one Nursing Superintendent, 20 Staff-Nurses, nine Midwives, three Laboratory Technicians, 15 Pharmacists, one X-ray Technician, five members of ministerial staff and 81 other workers.

P.W.D. Combined Dispensary

The Public Works Department opened a combined dispensary in 1950 for the people working in the Bhadra Reservoir Project There is at present no facility for treatment of in-patients here. The daily average number of out-patients treated was 35 and the number of minor operations performed was 45 in 1972-73 and 121 labour cases were attended to in the same year. There is a family-planning section attached to the dispensary since 1968-69, where tubectomy and vasectomy operations and loop insertions are done. In 1973, the staff of the dispensary consisted of a Medical Officer (Assistant Surgeon), a Pharmacist, a Junior Health Inspector, a Midwife, a Surgical Attender, a Ward Attender, a Health *Maistry* and 16 members of class IV staff. During the year 1972-73, a sum of Rs. 73,328 was expended on this dispensary.

General Hospital, Bhadravati

Formerly, there was a Combined Dispensary at Bhadravati; subsequently, it was up-graded into a General Hospital in 1971. There is an Urban Family-Planning Centre attached to this hospital. In 1972, the staff of the hospital consisted of a Medical Officer, a Lady Medical Officer, three Staff-Nurses, a Senior Laboratory Technician, an X-Ray Technician, two Pharmacists, a Basic Health Worker, four Auxiliary Nurse-Midwives, two ministerial and fourteen other class IV staff. The daily average number of in-patients treated in 1973 was 4.5 and out-patients 207. On the maternity side, 600 labour cases were attended to in 1973. In the family-planning section 277 vasectomy, 175 tubectmoy and 120 I.U.C.D. cases were handled . During the year 1972-73, a sum of Rs. 75,132 was expended on this institution.

Nirmala Hospital, Bhadravati

The Nirmala Hospital, Bhadravati, was started in 1955 by the late Rev. Mother Virginy. To start with the bed-strength was 20 which was increased gradually to 52 by 1973. The hospital

organises mobile clinics in the villages once in a week. There is also a clinical laboratory attached to this institution. As in 1973-74, the staff of the hospital consisted of one Lady Medical Officer, five Nurses and Midwives, five Auxiliary Nurse-Midwives and twelve others. The daily average number of in-patients treated in 1973 was 45 and out-patients 130. On the materniy side, 795 labour cases were attended to in 1973. It was stated that during the year 1972-73, a sum of Rs. 66,163 was expended on this institution.

Kanakammal Hospital, Anandapuram

This hospital was first started as a local Fund Dispensary during the year 1944. It was upgraded into a Secondary Health Centre, and then into a Combined Dispensary in 1949. The bed-strength in the hospital was 20 in 1972-73. The staff of the hospital in that year consisted of two Medical Officers, three Staff-Nurses, two Pharmacists, a Midwife and 13 members of class IV staff. The number of in-patients treated in 1973 was 1,144 and out-patients 38,390. A sum of Rs. 89,851 was spent on this institution in 1972-73.

Electricity Board Hospital

A small combined hospital was started at Jog in 1954 by the then Electricity Department and subsequently it was transferred to the Karnataka Electricity Board. It has been now developed, and modern amenities like X-ray therapy and radium treatment, a testing laboratory and spacious wards for men and women are provided. The hospital is being maintained with the help of deputed staff of the Health Services Department assisted by subordinate staff recruited directly by the Board. Its bed-strength in 1973-74 was 45. The staff of the hospital consisted of two Medical Officers (including a Lady Medical Officer), three Staff-Nurses, two Pharmacists, a Junior Laboratory Technician, a Midwife and 22 class IV Officials. The daily average number of in-patients treated in 1974-75 was 25.71 and out-patients 188.79. During the year 1974-75, a sum of Rs. 1,52,447-00 was expended on this institution.

Medical Personnel

According to the 1961 census, there were 366 physicians, surgeons and dentists in the Shimoga district. Of the 366 persons 346 were men and the rest were women; 199 men and 17 women were working in the urban areas. Of the physicians, 121 were Ayurvedic physicians, 45 of whom were working in towns. There were, in 1961, 747 persons working as nurses, pharmacists and other medical and health technicians.

Chemists and Druggists

According to the figures furnished by the State Drugs Controller, there were, in 1793, 51 chemists and druggists and 115 qualified pharmacists in the licensed establishments in the district.

Medical Association

There is a well-organised branch of the Indian Medical Association at Shimoga, which was started in 1948. It had a total

membership of 175 in June 1974, consisting of doctors of modern medicine in Government service and private practice including specialists working in the district of Shimoga. It has a building of its own in the McGann Hospital compound, constructed in 1964. The branch hosted the State Medical Conference twice in 1955 and 1968. The branch donated a rolling trophy to the State Medical Association for awarding it to the best branch in the State. The activities of the Association include organisation of periodical professional conferences of doctors, education of the public on matters of health, conducting of ante-natal, pre-natal and child guidance clinics and family-planning motivation.

Under the school health programme, health of about 1,000 children is being looked after by the Association. Refresher courses are arranged for doctors every year. These courses are very useful for doctors working in the mofussil areas to get their knowledge refreshed periodically. The Government of Karnataka encourages such courses by deputing doctors to attend them and by giving substantial grants for conducting the courses. The Association meets generally once in a month and some times holds meetings at the taluk headquarters also. It invites eminent doctors to address the members on important topics connected with medical and public health services.

Taluk-wise particulars of Primary Health Centres and Units and other Dispensaries in Shimoga District for the year 1972 and the amounts of expenditure relate to 1972-73.

Sl. No.	Name of taluk	*Primary Health Centres*				*Primary Health Units*				*Health Unit-type Dispensaries*			
		No. of Centres	*No. of in-patients treated*	*No. of out-patients treated*	*Total expenditure incurred in Rs.*	*No. of Units*	*No. of in-patients treated*	*No. of out-patients treated*	*Total expenditure incurred in Rs.*	*No. of Dispensaries*	*No. of in-patients treated*	*No. of out-patients treated*	*Total expenditure incurred in Rs.*
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Bhadravati	1	125	16,548	1,75,111	2	94	32,220	60,333	..	..	..	..
2	Channagiri	2	84	1,11,446	2,08,969	5	24	67,521	1,01,260	1	..	5,044	1,378
3	Honnali	1	..	26,001	1,32,818	4	149	74,315	97,786	1	..	10,571	26,612
4	Hosanagar	1	313	29,967	1,20,220	6	145	74,526	1,90,576	..	..	..	..
5	Sagar	1	298	31,533	1,58,777	7	856	73,197	1,66,265	..	..	..	..
6	Shikaripur	1	352	61,820	1,44,018	2	..	32,865	67,185	3	..	26,713	87,541
7	Shimoga	1	223	24,273	2,50,830	1	..	18,446	44,968	3	..	51,757	88,741
8	Sorab	1	377	30,638	1,50,205	8	205	92,300	2,53,301	..	..	..	..
9	Tirthahalli	1	134	34,554	1,56,588	10	..	1,55,857	3,29,189	..	..	..	..

Sl. No.	Name of taluk	Combined Dispensaries				Local Fund, R.S.L.F. and other Dispensaries				Ayurvedic Dispensaries			
		No. of Dispensaries	No. of in-patients treated	No. of out-patients treated	Total expenditure incurred in Rs.	No. of Dispensaries	No. of in-patients treated	No. of out-patients treated	Total expenditure incurred in Rs.	No. of Dispensaries	No. of in-patients treated	No. of out-patients treated	Total expenditure incurred in Rs.
1	2	15	16	17	18	19	20	21	22	23	24	25	26
1	Bhadravati	..	..	32,278	73,328	..	..	..	..	2	..	14,326	10,928
2	Channagiri	1	388	26,250	43,845	..	..	..	..	6	..	9,125	21,055
3	Honnali	..	..	..	..	1	..	11,726	17,960	3	..	30,515	44,344
4	Hosanagar	..	..	..	..	..	..	..	..	4	..	12,000	8,594
5	Sagar	2	1,144	38,390	89,852	..	..	..	..	1	..	14,650	5,687
6	Shikaripur	1	..	3,25,216	1,15,250	..	..	..	..	2	..	6,600	13,053
7	Shimoga	..	..	..	..	1	..	1,59,489	50,649	4	..	11,635	19,774
8	Sorab	..	..	..	..	..	..	..	..	4	..	8,918	81,472
9	Tirthahalli	1	..	1,08,000	2,08,007	..	..	..	..	4	..	600	9,480