

## CHAPTER XVI

### MEDICAL AND PUBLIC HEALTH SERVICES

#### Early history

A PRECISE assessment of the medical and public health facilities available in early times in the district is not possible for want of adequate source material. It is well-known that the Ayurvedic system of medicine was practised all over the country from the very early times. The system of medicine had its roots in the vegetation, climate and culture of the country, and it seems to have formed a part of Sanskrit learning. The Ayurvedic doctors (*Vaidyas*) were noted for their knowledge of the medicinal properties of herbs and plants. A good Ayurvedic *Vaidya* was capable of affording relief to his patients with the help of herbs and plants commonly available in the rural areas, 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 well-versed in the Ayurvedic system of medicine. The Muslims brought the Unani system of medicine practised by the *Hakims*. They did not, however, penetrate into the rural areas, their practice being generally confined to the urban areas. They enjoyed not only the patronage of the Muslim population but also that of a considerable section of the Hindus. The Ayurvedic *Vaidyas* continued to carry on their practice both in the urban and rural areas. Even to-day, it is found that a considerable number of people in the rural as well as urban areas are being treated by practitioners of the indigenous systems of medicine.

#### Advent of Allopathic system

With the increasing contact with the East India Company and the British officers, the Western or the Allopathic system of medicine came into vogue in India. The system was ushered in Mysore State after the Fourth Mysore War in 1799, when the British established themselves in the State. 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. With the establishment of district hospitals in the several divisions a little later, a Civil Surgeon was appointed in each divisional headquarters. This officer was also the Superintendent of local jails and Inspector of all the medical institutions

within the limits of his division. Besides, the medical institutions in the districts were also being inspected by the Deputy Surgeon-General of the Indian Medical Department for Mysore and the Ceded Districts. In addition to this inspection work, he also performed the duties of the Sanitary Commissioner and Registrar of Vital Statistics. In 1880, the Deputy Surgeon-General was withdrawn and his duties, in so far as Mysore was concerned, were transferred to the Surgeon to the Mysore Commission.

The medical set-up of the State underwent a complete change after the rendition. In May 1884, a scheme for the establishment of a local medical service, composed of duly qualified personnel, was introduced. The head of the Medical Department, being the senior-most of the covenanted medical officers, was designated as the Senior Surgeon. The other local medical officers were designated as Surgeons, Assistant Surgeons and Hospital Assistants. In 1888, a new grade of Sub-Assistant Surgeons was created.

After  
Rendition

The public health administration of the State was also reorganised so as to make it more useful and efficient. In 1887, the Senior Surgeon to the Government was made *ex-officio* Sanitary Commissioner and was entrusted with the responsibility of scrutinising and compiling births and deaths returns, supervision of vaccination work and control of epidemics like plague, cholera and small-pox. Between 1898 and 1902, a special Plague Commission was appointed to check the spread of this deadly disease. The year 1907 saw the re-organisation of the Sanitary Department, when a separate sanitary service was introduced. The State was divided into three divisions, *viz.*, western, eastern and southern, and the Tumkur district was included in the eastern division. A Divisional Sanitary Officer was appointed for each of the divisions. The District Medical Officer in Tumkur was the *ex-officio* District Sanitary Officer. During 1909-10, these posts 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. In 1917, a full-time Sanitary Commissioner was appointed as the head of the department. Again in 1923-24, in order to effect retrenchment, the post of full-time Sanitary Commissioner was abolished. The Senior Surgeon was again entrusted with the duties of the Sanitary Commissioner, and a new cadre of Chief Sanitary Inspectors was created to take the place of District Sanitary Officers. The latter were made to work directly under the orders of the presidents of District Boards.

It was in 1944 that the post of District Health Officer for Tumkur district was sanctioned. However, the District Medical Officer continued to hold the additional charge of the sanitary office till July 1953. In the beginning, a few Junior Health

District Health  
Office

Inspectors were posted to assist the District Health Officer in his work. 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 development schemes under the successive Five-Year Plans. With the great importance that is attached to the family planning programme in recent years, the designation of the District Health Officer has been changed into District Health and Family Planning Officer since 1966.

**Re-organisation  
of department**

The Medical and Public Health Departments of the State were amalgamated in 1965 and 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, however, there are two wings under two independent district officers, *viz.*, District Surgeon (who is in charge of the District Headquarters Hospital at Tumkur) and the District Health and Family Planning Officer. Both these officers are directly responsible to the Director of Health Services in Mysore, Bangalore.

The District Health and Family Planning Officer, Tumkur, is in charge of the public health and family planning wing of the department at the district-level. He is both a technical and administrative officer and deals with matters relating to public health, such as control of epidemics, malaria eradication, maternity and child welfare, vital statistics, sanitation, health education and laboratory work associated with public health. His functions as Family Planning Officer include propaganda on family planning, advice to couples on the methods and facilities of family planning, supply of contraceptives, conducting of camps for vasectomy and tubectomy operations, loop insertions, etc. Since 1st June 1960, he has been also in overall charge of all the 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 Assistant Surgeon, two District Extension Educators (one male and one female), two Health Assistants (one male and one female), a Nurse, a Statistical Assistant and a Projectionist. Under the Malaria Eradication Programme, he is assisted by an Assistant District Health Officer, two Health Supervisors, a Senior Microscopist and a Basic Health Worker. Under the Maternity and Child Health Programme, there is a District Nursing Supervisor to assist the District Health Officer. There are also three Reserve Junior Health Inspectors, one Reserve Compounder and some ministerial and class IV staff assisting him and other officers in the district headquarters. Besides these officers and 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, Health Unit-Type Dispensaries, Maternity Hospitals,

Combined Dispensaries and Local Fund Dispensaries are also under the administrative control of the District Health and Family Planning Officer.

In the early days, there was no special agency for the registration of births and deaths in the district other than the village patels. These village officers were required to send monthly returns to the Taluk Office from where they were transmitted to the District Office to be later forwarded to the Sanitary Commissioner's Office. With a view to securing better registration of details regarding births and deaths, rules were revised in 1915-16 by which Inspecting Officers were required to scrutinise the entries in the actual registers. Again, in 1918 a new regulation was introduced to improve the system of collection, compilation and publication of vital statistics. According to this regulation, the entries regarding births and deaths had to be certified by a technical officer after a sample check-up in the area concerned. This proved helpful in correcting the deficiencies to a certain extent. The registration of vital statistics was later made compulsory in a Government Order issued in 1946. Births, deaths and other related statistics are, at present, registered by the village patels in rural areas and sent to the Registrar-General of Births and Deaths through the Tahsildars 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.

#### Vital Statistics

The rise or fall in population of an area can be directly attributed, to a great extent, to the condition of health of the people. There may be other causes like famine and distress conditions, migration of persons from one area to another, etc. The following table gives the variations in the total population of the district for the first six decades of this century :—

<i>Census year</i>	<i>Total population</i>	<i>Increase or decrease</i>	<i>Net variation for sixty years</i>
1901	6,71,953	..	..
1911	7,39,276	+ 67,323	
1921	7,76,971	+ 37,695	
1931	8,63,227	+ 86,256	
1941	9,55,809	+ 92,582	
1951	11,51,362	+1,95,553	
1961	13,67,402	+2,16,040	+6,95,449

From the above figures, it is seen that in the decade 1951-61, the net increase in population was 2,16,040, the highest during the 60-year period. This increase is, by and large, attributable to a falling death rate and a higher birth rate. The subjoined table indicates the number of births and deaths as also the birth and death rates per mille, for the period from 1960 to 1965:—

Year	No. of births	Birth rate per mille	No. of Deaths	Death rate per mille
1960	14,503	10.8	5,989	4.4
1961	13,645	10.08	4,850	3.5
1962	13,398	9.9	4,715	3.3
1963	10,348	7.29	3,424	2.41
1964	10,634	7.3	4,444	3.09
1965	10,592	7.2	4,492	3.0

From the foregoing table, it can be seen that in recent years the death rate has been generally falling; so also the birth rate. 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 and a large number of people have been vaccinated or inoculated. The fall in the birth rate may be attributed, to a certain extent, to the intensive family planning drive that is being carried out in the district in recent years and the growing consciousness among the people, especially among the educated classes, to limit their families. It may, however, be pointed out that the birth and death rates, as recorded in the district, fall far short of the known rates for India. This evidently shows that there are certain omissions in recording the vital events. (See also Chapter III).

Infant mortality was considerably high in the district in the earlier decades of this century. The main causes for these deaths are prematurity, bronchitis, diarrhoea, dysentery, fevers, convulsion, 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 the rapid implementation of maternity and child welfare services under the Plan programmes. The following table gives the number of still-births, infant deaths and the infant mortality rate per mille in the district for the period from 1960 to 1965:—

<i>Year</i>	<i>No. of still births</i>	<i>No. of infant deaths</i>	<i>Infant mortality rate per mille</i>
1960	.. 321	715	49.3
1961	.. 351	524	38.4
1962	.. 333	504	37.6
1963	.. 235	342	33.05
1964	.. 277	432	40.62
1965	.. 174	N.A.	N.A.

N.A.—Not available.

The main causes for maternal deaths are anaemia, 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 the increased facilities provided for the pre-natal, natal and post-natal treatment in the several hospitals, maternity homes and health centres in the district. As per the figures furnished by the Registrar-General of Births and Deaths for Mysore, Bangalore, the maternal mortality rate in the district was fluctuating between 8.5 and 5.8 per *mille* during the period from 1960 to 1965 as could be seen from the following table :—

<i>Year</i>	<i>No. of maternal deaths</i>	<i>Maternal mortality rate per mille</i>
1960	.. 127	8.5
1961	.. 90	6.4
1962	.. 103	7.6
1963	.. 60	5.8
1964	.. 84	7.9
1965	.. 90	8.0

The common diseases for which the majority of patients were treated in the health centres and dispensaries in the district are respiratory diseases and fevers; gastro-intestinal infections, diarrhoea and dysentery are also prevalent to a certain extent. This is largely due to insanitary environmental conditions and the unprotected water supply, especially in the rural areas. Under-nutrition and mal-nutrition also affect the poorer sections of the people, as the district is often subject to scarcity conditions owing to the failure of monsoon. The other diseases from which the people generally suffer in the district are pneumonia, typhoid,

**Common diseases**

digestive diseases, anaemia, worms, ulcers, skin diseases and the like.

#### Epidemics

Cholera and small-pox are the two diseases which, at times, assume epidemic proportions in the district. The district has been free from plague in recent years. But small-pox and cholera may be said to be still persisting with sporadic outbreaks in some or the other parts of the district. When an epidemic breaks out, the Health Inspectors and other health workers are alerted to work in close co-operation under the general guidance of the District Health Officer. The Health Inspectors tour in the area in order to gain first hand knowledge of the extent and severity of the epidemic. All the drinking water sources in the area are thoroughly disinfected and the villagers are advised to isolate the sick persons and to evacuate the houses. People living in the infected area are vaccinated or inoculated and are advised against entertaining any relatives or friends. It is the duty of the Health Inspectors to enquire into and ascertain the causes of origin and spread of the epidemic within their jurisdiction and furnish periodical reports to the nearest Medical Officer and also to the District Health Officer. Various conditions injurious to public health are systematically removed so as to minimise the incidence. Special attention is paid to water supply sources and to the disposal of refuse. During the time of fairs and festivals, special staff is requisitioned to control any out-break of epidemics.

#### Plague

Plague was prevalent in the district almost every year upto 1964. The incidence was high during the years 1961-62 and 1962-63. Cyano-fumigation of rat-burrows and anti-plague inoculations were undertaken to control the disease. Insecticidal spraying of houses by hexidol was also resorted to as a control measure. As a result of the concerted efforts made by the district health authorities to combat this epidemic, the incidence was brought down considerably by 1963-64. The subjoined table shows the number of plague attacks and deaths and the number of anti-plague inoculations done in the district during the period from 1960-61 to 1965-66 :—

<i>Year</i>	<i>Attacks</i>	<i>Deaths</i>	<i>No. of anti-plague inoculations done</i>
1960-61 ..	155	27	N.A.
1961-62 ..	470	69	23,652
1962-63 ..	562	61	48,672
1963-64 ..	30	2	4,221
1964-65 ..	6	Nil	N.A.
1965-66 ..	Nil	Nil	Nil

N.A.—Not available

Small-pox has been a major health problem all along in the district and there is no year in which the disease was completely absent. The incidence was heavy during the year 1949 with a gradual decrease in the following six or seven years. But it rose up again in 1957 and 1958. The Government, therefore, 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 vaccination and subsequent planned periodical vaccination to bring the disease under control. During 1962, a unit under the Small-pox Eradication Programme was started in the district and the vaccination programme was intensified throughout the district. The district was brought under maintenance phase in 1964. As a result of these concerted efforts, the incidence of small-pox in the district has been greatly reduced in recent years. The following figures indicate the number of small-pox attacks and deaths in the district from 1965 to 1967 :—

<i>Year</i>	<i>Attacks</i>	<i>Deaths</i>
1965	82	18
1966	301	62
1967	55	18

Small-pox particularly affects children. Vaccination, being the only preventive, is done with a phased programme by the health staff. The vaccinations are done by trained vaccinators who are stationed in the headquarters of each taluk. The vaccination work is carried on after a verification of birth registers. Systematic door-to-door inspection of the entire town or village is conducted for detection of unprotected cases. Each vaccinator is generally required to carry out not less than 3,000 vaccinations in a year. When small-pox breaks out in an epidemic form, the vaccinators have to rush to the infected area and vaccinate all unprotected children and adults. All available staff are mobilised to do intensive vaccination work in that area. Re-vaccination, though not compulsory, is essential for protection against small pox, and hence due attention is paid to re-vaccination work also. The subjoined table shows the number of primary and re-vaccinations done in the district during the years 1965 to 1967 :—

<i>Year</i>	<i>No. of primary vaccinations</i>	<i>No. of re-vaccinations</i>	<i>Total</i>
1965	62,345	2,22,631	2,84,976
1966	63,785	10,13,635	10,77,420
1967	67,372	2,72,728	3,04,106



**Cholera**

The district is not altogether free from the incidence of cholera also, though it was not very high for several years in the recent past. The incidence was said to be heavy in 1953, as near-famine conditions were then prevalent in the district. Subsequently, the infection was brought under control to a considerable extent by resorting to mass inoculations, by blocking all contaminated sources of water and by treating with chemicals all such water-sources to destroy the infectious germs. The figures given below indicate the number of cholera attacks and deaths in the district during the years 1965, 1966 and 1967 :—

<i>Year</i>	<i>Attacks</i>	<i>Deaths</i>
1965	137	57
1966	92	29
1967	142	50

To bring the incidence under control, as many as 1,39,739 persons were given anti-cholera inoculations during 1965 and all the drinking water sources in the district were chlorinated. The number of persons inoculated during 1966 and 1967 were 12,119 and 42,597 respectively.

**Typhoid**

Typhoid has been prevalent in the district in a sporadic form. As and when typhoid cases are reported, TAB inoculations are given to the infected people in the affected areas. During 1967-68, the typhoid infection spread in an epidemic form in three villages of Tumkur taluk and a village each in Koratagere and Tiptur taluks. In all, about 250 persons were affected, of whom six persons died. The health authorities undertook prompt preventive measures, such as administering of TAB 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.

**Malaria**

Malaria control work was in progress in Mysore State even much before the inception of the Five-Year Plans. The State, which is a pioneer in this field, started a programme of research and training for eradication of malaria as far back as 1928. However, in the beginning, the malaria control operations were confined to the *malnad* areas which were highly endemic for malaria. Gradually, the services were extended to other areas also, including the district of Tumkur. In Tumkur district, the malaria control work was first started in the year 1937. In that year, the State Government sanctioned a scheme for taking up malaria survey work in the Marconahalli Project area in Kunigal taluk. A blanket treatment, with atebirin, of all the labour and

staff for five days, combined with larvicidal measures, was undertaken. The malaria control work with parisgreen and malariol, which was started in 1937, lasted till 1941. In 1942, a scheme for control of malaria by pyrethrum spraying was sanctioned for a group of seven villages in and around Tavarekere. The spraying work was continued till 1943. In 1945, a Health Unit was established at Marconahalli, covering Marconahalli and the 27 villages situated around it. In 1946, kerosene pyrethrum spraying was taken up in 32 villages. With effect from September 1951, kerosene pyrethrum was changed to residual spraying with D.D.T.

With the launching of the National Malaria Control Programme in the State in 1953, certain parts of the district were included, for D.D.T. spraying, in the Bangalore National Malaria Control Unit. In 1955, two sub-units of the National Malaria Control Unit were located in the district under the administrative control of the District Health Officer. One independent National Malaria Control Unit was sanctioned for the district in 1957 with four sub-units at Tumkur, Kunigal, Tiptur and Madhugiri. The National Malaria Control Programme was switched over to the National Malaria Eradication Programme in April 1958. As a result, the entire district was covered with intensive D.D.T. spraying, and surveillance work was introduced. From April 1962, the programme entered the consolidation phase and from October 1964, it entered the maintenance phase. The malaria surveillance workers paid fortnightly visits to all the houses in their areas, investigated fever cases, took their blood smears and treated them with anti-malaria drugs. The sub-joined table shows the number of positive cases encountered in the district by the surveillance workers, the number of blood surveys conducted and the preventive measures undertaken during the years 1965, 1966 and 1967 :—

<i>Year</i>	<i>No. of positive cases detected</i>	<i>No. of blood-surveys conducted</i>	<i>No. of houses sprayed with DDT.</i>
1965 ..	59	8,305	872
1966 ..	7	3,653	2,042
1967 ..	23	948	400

The incidence of malaria was slightly high in certain parts of the district during 1965 and 1967. The reason attributed for this increase was the importation of labour from outside the State and the movement of the people of the border taluks from and to the neighbouring States. However, prompt measures were taken by the district health authorities to arrest the spread of the disease and liquidate the source of infection.

Leprosy is another disease, which is prevalent to a little extent in the district, mostly in Madhuguri and Pavagada taluks. The cases recorded are being put on Aviosulphone treatment. There is no separate or special institution in the district for the treatment of leprosy. The cases noticed are being treated in the local dispensaries and hospitals. However, a survey to assess the prevalence of the disease in the above two taluks was being conducted by the staff attached to the Leprosy Control Centre at Gauribidanur in Kolar district.

**Leprosy**

In keeping with the Government policy of extending medical aid to more and more people, a number of primary health centres and units were established in the various rural parts of the district during the successive Five-Year Plan periods. There are, at present (1968), 24 primary health centres and units in the district. Of these, eight are of the erstwhile Mysore pattern and are called primary health units. The rest, *viz.*, 16, are of Government of India pattern and are called primary health centres. The health units of the Mysore pattern generally 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 in-patients.

**Primary Health Centres and Units**

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 workers. Besides, to look after the family planning aspect of the work, there is an Extension Educator, a Computer, a Health Assistant for every 20 to 30 thousand population and an Auxiliary Nurse-Midwife for every 10 thousand population, under the Medical Officer of Health. Similarly, to look after malaria maintenance work, there is a Senior Health Inspector, a Junior Health Inspector and a Basic Health Worker for every 10,000 population.

The staff attached to each of the Mysore-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. The main activities of the primary health units of Mysore pattern consist of preventive and curative services including clinical work, prevention and control of communicable diseases, improvement of environmental sanitation, collection of vital statistics, maternity and child health work, health education, health surveys, proper sanitary arrangements in connection with fairs and festivals and supply of drugs and diet supplements to the needy rural population. The functions of the Government of India pattern health centres are much the same as those of the Mysore-type units.

As already stated earlier, in accordance with a decision taken by the State Government, all the medical institutions in the district at the taluk-level were transferred to the control of the District Health and Family Planning Officer. Thus, in 1968, there were, in all, 45 allopathic medical institutions, mostly dispensaries, in the district, under the charge of the District Health and Family Planning Officer, apart from the primary health centres and units referred to above. Of these, one was a General Hospital, two combined dispensaries, five maternity hospitals, 30 local fund dispensaries, two reduced-scale local fund dispensaries and five health unit type dispensaries. Of these, the General Hospital at Tiptur is the biggest and it had a bed-strength of 50 in 1968. It was manned by a Medical Officer, assisted by a Lady Medical Officer and a staff consisting of three nurses, three midwives, two compounders, one X-ray technician and some class IV staff. The two combined dispensaries have separate women's sections for treating maternity cases. Of these, one is at Madhugiri and has a bed-strength of 14, while the other is at Koratagere with a bed-strength of nine. Each of these combined dispensaries is also manned by a Medical Officer assisted by a Lady Medical Officer, three midwives, two compounders and some members of class IV staff.

Allopathic  
Dispensaries

The five maternity hospitals are located at Gubbi, Kunigal, Sira, Turuvekere and Pavagada. Each of these hospitals consists of six to ten beds for treating maternity cases and is manned by a Lady Medical Officer who is assisted by three midwives, one compounder and two class IV workers. The local fund dispensaries, in most of the cases, have also been provided with beds, ranging from two to six, for treatment of in-patients in emergency cases. The reduced-scale dispensaries, however, do not have any beds. Usually, the staff attached to a local fund dispensary consists of a Medical Officer, a compounder, a midwife and two class IV workers. Many of these dispensaries are maintained by the local bodies. The health unit type dispensaries are also not provided with beds for treatment of in-patients. These institutions, which are also maintained by Taluk Development Boards, are headed by an Assistant Medical Officer of Health each. There are also one Junior Health Inspector, a compounder, three midwives or auxiliary nurse-midwives and two class IV workers attached to each of these institutions.

A statement showing the location and the number of patients treated in each of the above mentioned medical institutions, which are under the control of the District Health and Family Planning Officer, is appended at the end of the chapter. The total bed-strength of all these medical institutions (other than the General Hospital at Tumkur, which is under the control of the District Surgeon) in the district in 1967-68, was about 270 and the total number of patients treated by them during that

year was about 9.49 lakhs as against about six lakhs treated during 1966-67.

**Ayurvedic  
and Unani  
Dispensaries**

There are also some Ayurvedic and Unani dispensaries in the district, located mostly in the rural areas and catering to the medical needs of the rural population. In 1968, there were 29 such institutions in the district, of which 26 were Ayurvedic dispensaries and the rest Unani dispensaries. These institutions are maintained by the Taluk Development Boards and are manned by qualified Ayurvedic and Unani physicians. The technical control of these institutions, which was with the District Surgeon, Tumkur, upto the end of March 1968, was thereafter transferred to the District Health and Family Planning Officer. A list showing the locations of these Ayurvedic and Unani dispensaries is given at the end of this chapter.

**Tuberculosis  
Centre**

A District Tuberculosis Centre has been functioning at Tumkur since February 1964. The object of this Centre is to find out and screen the tuberculosis patients throughout the district, and after necessary sputum and radiological examinations, to treat them at their houses. This Centre is aided by voluntary organisations like the Tuberculosis Association of India and the United Nations International Children's Emergency Fund (UNICEF). The District Tuberculosis Association, Tumkur, and the Mysore State Tuberculosis Association are also rendering help to this Centre in the fulfilment of its objectives. There are also a few in-patient wards attached to this Centre.

The District Tuberculosis Officer, Tumkur, is in charge of this Centre and he is assisted in his duties by an Assistant Surgeon, a Treatment Organiser, a Health Visitor, an X-ray Technician, two Laboratory Assistants, a Staff Nurse, a Compounder and a few ministerial and class IV staff. The administrative control of this Centre, which was with the District Surgeon until recently, was transferred to the District Health and Family Planning Officer in February 1968, so as to integrate more effectively the tuberculosis programme with the other national health programmes. However, the in-patient wards attached to the Centre continue to be under the control of the District Surgeon.

**Family  
Planning  
Programme**

The Family Planning Programme has assumed great importance in recent years, because of the very large increase in the growth of population and the consequent need for checking it. A State Family Planning Board has been functioning in the State since the year 1957. There is a District Family Planning Committee at Tumkur, consisting of both official and non-official members, for implementing the family planning programme in the district. The family planning activities comprise, mainly, family planning services, training of workers and educating the public about the needs and methods of family planning.

The Family Planning Programme was stepped up in the district in 1958-59. In 1960, a regular Urban Family Planning Centre was attached to the headquarters hospital at Tumkur and three rural family planning centres were started at Kunigal, Gubbi and Chiknayakanahalli. Thereafter, more and more rural family planning centres were opened in the various parts of the district, and there were, in all, 16 such centres in the district in 1968. All these centres are attached to the Government of India pattern primary health centres. All these institutions also now provide family planning facilities to the people in their respective areas. A special establishment to look after the family planning programme was created in the District Health Office in 1964.

Facilities have been provided in all bigger medical institutions in the district for conducting vasectomy and tubectomy operations. In order to popularise these surgical methods of family planning, the services of private medical practitioners are also utilised on payment of a subsidy of Rs. 25 per operation. Vasectomy camps are organised in the taluk headquarters, in the primary health centres and also in important village centres. Medical advice on the methods of family planning is given to married persons, who require such advice, and also to those women who, in the opinion of the medical officer, cannot undergo the strain of pregnancy and parturition without danger to their health. Besides, the primary health centres in the district also conduct couple surveys and selected couples are advised, through individual contacts, to adopt temporary or permanent family planning methods. A new device of family planning for women, popularly known as the loop (intra-uterine contraceptive device), was introduced in the district in 1965. Large quantities of contraceptives, such as jellies, diaphragms and *nirodhs* are supplied to all the family planning centres, hospitals and dispensaries in the district for distribution among the people. Intensive propaganda through lectures, film shows, exhibitions, publicity literature, etc., is done throughout the district to educate the public 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 in respect of family planning campaign. About 40 persons are trained at each such camp.

**Vasectomy and  
Tubectomy**

There has been a good response for family planning in the district. As against the set target of 2,920 loop insertions in 1965, as many as 5,154 women availed of this facility in the district, while in 1966, 7,837 women were covered under this programme; however, there was a shortfall in the number in 1967, in that only 4,771 loop insertions were done during that year. Thus,

in all, 17,762 women in the district were covered under this programme since its inception, upto the end of 1967. There are also some persons making use of contraceptives like *nirodhs*, jellies, etc., as a method of family planning. In 1966, there were 1,918 such persons in the district, the number for the subsequent year, *i.e.*, 1967, being 1,730. Similarly, during 1966, the target fixed for sterilisation operations in the district was 4,600; but as against this, as many as 10,581 persons underwent sterilisation operations, mostly vasectomy, thus exceeding the target by  $2\frac{1}{2}$  times. The district thus stood first in the State in respect of sterilisation operations during that year. The following table indicates the number of vasectomy and tubectomy operations performed in the district since the inception of the family planning programme :—

Year	Sterilisation operations for		Total
	Males (Vasectomy)	Females (Tubectomy)	
1957	2	..	2
1958	25	..	25
1959	45	..	45
1960	38	1	39
1961	139	..	139
1962	180	22	202
1963	479	22	501
1964	1,112	15	1,127
1965	1,469	20	1,489
1966	10,548	33	10,581
1967	9,377	42	9,419
Total	23,414	155	23,569

It can be seen from the above table that the awareness of the need for family planning is steadily growing among the people in the district, in that more and more persons are coming forward to adopt permanent family planning methods every year.

**Maternity and  
Child Health  
Services**

Domiciliary midwifery is attended to by the auxiliary nurse-midwives and midwives attached to the primary health centres and units, health unit type and local fund dispensaries. Institutional midwifery is attended to in the maternity hospitals at Pavagada, Gubbi, Kunigal, Sira and Turuvekere, as also in the general hospitals at Tumkur and Tiptur. The UNICEF has provided a vehicle each to the primary health centres at Gubbi, Pavagada, Turuvekere and Sira for attending to maternity and child health services in their respective jurisdictions. Besides, in

1967-68, there were also eight maternity and child health centres in the district aided by the UNICEF. They were attached to the medical institutions at Amruthur, Hulyurdurga, Nagasandra, Yedavani, Pavagada, Sira, Kunigal and Y.N. Hoskote.

During 1966, near-famine conditions prevailed in the district due to failure of rains. Among the taluks that were worst affected were Tumkur and Gubbi. Lack of nutritious food affected the health of many children, pregnant women and old people in many parts of the district. In order to provide relief to such people, the district health authorities supplied them with large quantities of vitamin tablets and tonics through the several primary health centres in the district. Only those, who were in an advanced state of malnutrition, were selected for treatment under this programme. The quantum of vitamin tablets and tonics supplied were as follows: Multi-vitamin tablets 2,71,000, Vitamin 'C' tablets 63,000, Vitamin 'B' tablets 13,000, Vitamin 'D' tablets 4,000, Polivito-flex 2,000 bottles and Aminaflex 48 bottles.

**Nutrition  
Programme**

Health education forms one of the important activities of the Department. The basic health workers, who primarily attend to this aspect of work in the district, utilise every opportunity, especially during village gatherings, to contact the rural populace and talk to them about various health subjects, sometimes giving practical demonstrations, with reference to personal cleanliness, environmental sanitation, chlorination of water, vaccination and 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 health subjects in the villages, towns and health unit areas in the district. The beneficial results of this sustained health education programme may be seen in the greater amount of health consciousness amongst the people in recent years and their greater co-operation with the departmental staff as compared to the earlier years.

**Health  
Education**

During 1967-68, only two primary health centres, viz., Amruthur and Holavanahalli, were attending to school health services in the district. One School Health Assistant had been attached to each of these centres to attend to the health problems of the school children within their respective jurisdictions. There was a proposal to extend this facility to all the primary health centre areas in the district in the coming years.

**School Health  
Services**

As stated earlier, the District Surgeon is the head of the district headquarters General Hospital at Tumkur. He is also directly responsible to the Director of Health Services in Mysore,

**District  
Surgeon**



Bangalore. He is both the professional and administrative head of this major medical institution in the district.

**General  
Hospital,  
Tumkur**

The General Hospital, Tumkur, which is the major medical institution in the district, had a humble beginning. It is said to have been first established as a dispensary in a small building near the present Deputy Commissioner's office, in the year 1906. The present spacious general hospital building, which was designed by Mr. Koeinsebergher, the then Government Architect, was completed and inaugurated on 30th January 1948 by His Highness Sri Jayachamaraja Wodeyar, the Maharaja of Mysore. This institution had, at that time, a bed-strength of 110, both for male and female patients and for maternity cases as well. It was gradually expanded, with the construction of additional wards, to its present strength of 235 beds. These beds have been distributed among the various sections in the hospital as follows : medical-89, surgical-61, gynaecological-11, maternity-50, paediatric-12 and isolation-12. The specialist services, which are now available in the hospital, are—medical, surgical, gynaecological, E.N.T., ophthalmic, dental and venereal. The total expenditure incurred on this General Hospital during 1967-68 was about Rs. five lakhs.

Besides the District Surgeon, who is the head of this institution, there are, at present (1968), a Resident Medical Officer, 22 doctors, a Nursing Superintendent, 27 nurses, one tutor for the Auxiliary Nurse-Midwives' Training Centre, 21 class III staff—including technicians and 68 class IV workers. The daily average number of out-patients and in-patients treated in this hospital has gradually increased over the years, the important common diseases for which the majority of patients treated being gastrointestinal and respiratory diseases. While the daily average number of out-patients treated in 1960 was 585.4, it had increased to 700 by 1968. Similarly, the daily average number of in-patients treated, which was 191.5 in 1960, had risen to 270 during 1968. Likewise, there has been a perceptible increase in the number of patients treated in all the sections of the hospital. For example, on the surgical side, 267 major operations were performed in the hospital during 1960 ; as against this, the number of major operations performed during 1967 was about 450, in addition to the 3,000 minor operations done during the year. Similarly, on the maternity side, as against 1,020 labour cases conducted during 1960, the cases conducted during 1967 had increased to 1,200. About 800 anti-rabic cases were also treated in the hospital during 1967. The number of X-rays taken, screenings done and the radiological and laboratory examinations conducted in the hospital during 1967 were as follows :—

Number of X-rays taken	..	1,500
Number of screenings	..	7,000
Number of other radiological examinations conducted	..	400
Number of laboratory examinations conducted		12,000

As an adjunct to the General Hospital, a School of Nursing **Nurses' Training Centre** was started in 1961 and, upto 1968, about 50 candidates had been trained in this school. Since more and better facilities are available for training of nurses in the other major hospitals in the State, the School of Nursing at Tumkur is, however, being closed from 1968-69. The hospital has also an Auxiliary Nurse-Midwives' Training Centre attached to it. The Centre, which was established in September 1966, has already trained the first batch of 30 candidates and the second batch of another 30 candidates was undergoing training during 1968. An Auxiliary Nurse-Midwife Tutor is in charge of this Centre.

*Family Planning Centre.*—An Urban Family Planning Centre was opened in the Hospital in September 1960, with part-time male and female doctors and a social worker. It was re-organised in 1964 and its activities were integrated with the Static Sterilisation Unit which was started in 1965. A Medical Officer is in charge of both these units and he is assisted in his duties by an Extension Educator, a nurse, three family planning workers and one or two members of the ministerial staff. The Centre has recorded appreciable progress in conducting vasectomy and tubectomy operations, loop insertions and distribution of contraceptives. During 1967, 300 vasectomies and 20 tubectomies were conducted in the Centre, besides 200 loop placements.

*V. D. Clinic.*—A Clinic for the treatment of venereal diseases was started in the hospital in March 1967. An Assistant Surgeon-cum-Health Officer is in charge of this clinic. At an average, about 20 patients are being treated in the clinic daily.

*Dental Clinic.*—Facilities also exist for the treatment of dental diseases in the hospital. These facilities were first started in April 1961 when an honorary Assistant Medical Officer was posted to the hospital for dental treatment, and since July 1967, a regular Dental Clinic has been functioning in the hospital under the charge of a qualified Dental Assistant Surgeon. The daily average number of patients treated in the clinic is about 30.

*X-Ray Unit and Laboratory.*—There is a separate X-ray unit with a 200 M.A. X-ray apparatus in the hospital. Besides, a laboratory to provide facilities for the examination of serological and bacteriological examinations, as also examinations of urine, feces and sputum, is also attached to the hospital.

*T. B. Wards.*—As already stated earlier, the T.B. Wards at the Tuberculosis Centre at Tumkur are under the control of the District Surgeon. The Centre is located in the old hospital building near the Deputy Commissioner's office. There is accommodation for 30 in-patients, 15 for males and 15 for females, and also facilities for thorough investigation, treatment and follow-up of tuberculosis cases. A District Tuberculosis Officer is in charge of this centre and he is assisted by a staff consisting of a staff nurse, a compounder, two laboratory and X-ray attendants and three other class IV staff.

**Medical  
Practitioners**

There are no private hospitals and nursing homes in the district. The number of private medical practitioners is also not much. In 1940, there were only three allopathic private medical practitioners in the district and their number had increased to 33 by 1968 (including three lady doctors) of whom 13 were M.B.B.S. and 18 L.M.P. qualified doctors. Besides, there were two dental surgeons practising in Tumkur town. According to the census report of 1951, the total number of registered medical practitioners in the district was 80. Besides, there were also 171 *vaidyas*, *hakims* and other persons practising medicine without being registered. Thus, including a lone dentist, there were, in all, 252 medical practitioners of all categories in the district in 1951. This number had increased to 305 by 1961 as revealed by the census figures of 1961. This number included physicians, surgeons and dentists of Allopathic, Ayurvedic, Homeopathic and Unani systems of medicine, working in both Government, semi-Government and non-Government establishments. Of them, only 12 were women. About 140 of the medical practitioners lived in the urban areas and the rest in the rural areas of the district.

**Medical  
Association**

There is a well-organised branch of the Indian Medical Association at Tumkur. It had a total membership of 86 doctors in 1968. It has a building of its own, situated near the General Hospital, Tumkur. The general activities of the Association include organisation of periodical professional conferences of doctors, education of the public on matters of health, general medical check-up, conduct of ante-natal, pre-natal and child guidance clinics and family planning motivation.

Statement showing the location and types of medical institutions in Tumkur district under the control of the District Health and Family Planning Officer and the total number of patients treated by each of them during 1967-68.

<i>Sl. No.</i>	<i>Name and location of the institution</i>	<i>Total No. of patients treated</i>
<b>TUMKUR TALUK</b>		
1.	Primary Health Centre, Kyatsandra ..	31,308
2.	Primary Health Centre, Nagavalli ..	17,772
3.	Local Fund Dispensary, Urdagere ..	9,744
4.	Local Fund Dispensary, Honnudike ..	10,275
5.	Local Fund Dispensary, Hebbur ..	12,816
6.	Local Fund Dispensary, Bellave ..	5,426
<b>GUBBI TALUK</b>		
7.	Primary Health Centre, Gubbi ..	18,300
8.	Maternity Hospital, Gubbi ..	9,828
9.	Local Fund Dispensary, Muganayakanakote ..	11,234
10.	Local Fund Dispensary, Kadaba ..	11,364
11.	Local Fund Dispensary, Kallur ..	9,804
12.	Local Fund Dispensary, Chelur ..	10,876
13.	Local Fund Dispensary, Hagalvadi ..	7,374
14.	Local Fund Dispensary, Chandrashekharapura ..	5,688
15.	Local Fund Dispensary, Bidare ..	6,804
<b>SIRA TALUK</b>		
16.	Primary Health Centre, Sira ..	16,620
17.	Primary Health Centre, Baragur ..	17,508
18.	Maternity Hospital, Sira ..	7,632
19.	Local Fund Dispensary, Tavarekere ..	9,288
20.	Local Fund Dispensary, Bukkapatna ..	26,544
21.	Local Fund Dispensary, Kallambella ..	16,356
22.	Health Unit Type Dispensary, Pujarimuddanahalli ..	11,184
23.	Health Unit Type Dispensary, Dodda-Agrahara ..	7,944
24.	Health Unit Type Dispensary, Brahasandra ..	6,036
<b>MADHUGIRI TALUK</b>		
25.	Combined Dispensary, Madhugiri ..	28,908
26.	Primary Health Centre, Hosakere ..	13,524
27.	Primary Health Centre, Kodalapura ..	11,508
28.	Local Fund Dispensary, Kodigenahalli ..	11,080
29.	Local Fund Dispensary, Itakadibbanahalli ..	11,652
30.	Local Fund Dispensary, Midigeshi ..	10,234
31.	Local Fund Dispensary, Badavanahalli ..	7,020
32.	Reduced-Scale Local Fund Dispensary, Byalya ..	7,116

<i>Sl. No.</i>	<i>Name and location of the institution</i>	<i>Total No. of patients treated</i>
<b>KORATAGERE TALUK</b>		
33.	Primary Health Centre, Holavanahalli ..	17,144
34.	Local Fund Dispensary, Koratagere ..	17,508
35.	Local Fund Dispensary, Thovinakere ..	14,068
36.	Local Fund Dispensary, Kolala ..	8,088
37.	Health Unit Type Dispensary, Akkirampura.	8,428
<b>TIPTUR TALUK</b>		
38.	General Hospital, Tiptur ..	36,474
39.	Primary Health Centre, Nonavinakere ..	20,172
40.	Primary Health Centre, Biligere ..	11,628
41.	Local Fund Dispensary, Halkurike ..	6,468
42.	Local Fund Dispensary, Honnavalli ..	5,840
43.	Local Fund Dispensary, Hongelakshmi ..	12,360
<b>CHIKNAYAKANAHALLI TALUK</b>		
44.	Primary Health Centre, Chiknayakanahalli ..	25,776
45.	Local Fund Dispensary, Timmanahalli ..	10,144
46.	Local Fund Dispensary, Huliyaar ..	17,700
47.	Local Fund Dispensary, Settikere ..	8,684
48.	Local Fund Dispensary, Handanakere ..	7,462
49.	Reduced-Scale Local Fund Dispensary, Hoi-salakatte ..	3,468
<b>TURUVEKERE TALUK</b>		
50.	Primary Health Centre, Turuvekere ..	74,712
51.	Primary Health Unit, Mayasandra ..	10,284
52.	Primary Health Unit, Dandinashivara ..	10,426
53.	Maternity Hospital, Turuvekere ..	8,914
54.	Local Fund Dispensary, Banasandra ..	13,132
55.	Health Unit Type Dispensary, Thandaga ..	6,024
<b>PAVAGADA TALUK</b>		
56.	Primary Health Centre, Pavagada ..	26,088
57.	Primary Health Centre, Kotegudda ..	9,996
58.	Maternity Hospital, Pavagada ..	6,428
59.	Local Fund Dispensary, Y. N. Hoskote ..	22,224
60.	Local Fund Dispensary, Mangalawada ..	7,452

<i>Sl. No.</i>	<i>Name and location of the institution</i>	<i>Total No. of patients treated</i>
<b>KUNIGAL TALUK</b>		
61.	Primary Health Centre, Kunigal ..	46,332
62.	Primary Health Centre, Amruthur ..	24,648
63.	Maternity Hospital, Kunigal ..	8,808
64.	Primary Health Unit, Hutridurga ..	6,120
65.	Primary Health Unit, Yedavani ..	8,140
66.	Primary Health Unit, Nagasandra ..	8,592
67.	Primary Health Unit, Ujjani ..	7,020
68.	Primary Health Unit, Hulyurdurga ..	8,620
69.	Primary Health Unit, Kitlanagamangala ..	6,144
	<b>Total ..</b>	<b>9,49,283</b>

**List of Ayurvedic and Unani Dispensaries in Tumkur district  
as in 1967-68**

**TUMKUR TALUK**

1. Seethakal .. Ayurvedic Dispensary

**GUBBI TALUK**

2. Alalaghatta .. Ayurvedic Dispensary  
3. Doddaguni .. Ayurvedic Dispensary

**SIRA TALUK**

4. Hulikunte .. Ayurvedic Dispensary  
5. Vaddanahalli .. Ayurvedic Dispensary  
6. Chirthahalli .. Ayurvedic Dispensary  
7. Magodu .. Ayurvedic Dispensary  
8. Baragur .. Unani Dispensary

**MADHUGIRI TALUK**

9. Sajjehosahalli .. Ayurvedic Dispensary  
10. Chikkadalavatta .. Ayurvedic Dispensary  
11. Garani .. Ayurvedic Dispensary  
12. Kavanadala .. Ayurvedic Dispensary  
13. Mallanayakanahalli .. Ayurvedic Dispensary

## TIPTUR TALUK

- |                  |    |                      |
|------------------|----|----------------------|
| 14. Konehalli    | .. | Ayurvedic Dispensary |
| 15. Besige       | .. | Ayurvedic Dispensary |
| 16. Sugur        | .. | Ayurvedic Dispensary |
| 17. Baluvaneralu | .. | Ayurvedic Dispensary |

## CHIKNAYAKANAHALLI TALUK

- |                 |    |                      |
|-----------------|----|----------------------|
| 18. Melanahalli | .. | Ayurvedic Dispensary |
|-----------------|----|----------------------|

## TURUVEKERE TALUK

- |                     |    |                      |
|---------------------|----|----------------------|
| 19. Goni-Tumkur     | .. | Ayurvedic Dispensary |
| 20. Sampige         | .. | Ayurvedic Dispensary |
| 21. Mavinakere      | .. | Ayurvedic Dispensary |
| 22. Dabbehatta      | .. | Ayurvedic Dispensary |
| 23. Aremallanahalli | .. | Unani Dispensary     |

## PAVAGADA TALUK

- |                       |    |                      |
|-----------------------|----|----------------------|
| 24. Dommathamari      | .. | Ayurvedic Dispensary |
| 25. Channakeshavapura | .. | Ayurvedic Dispensary |
| 26. Ponnasamudra      | .. | Ayurvedic Dispensary |
| 27. Nagalamadike      | .. | Ayurvedic Dispensary |
| 28. Konethimmanahalli | .. | Unani Dispensary     |

## KUNIGAL TALUK

- |             |    |                      |
|-------------|----|----------------------|
| 29. Yedeyur | .. | Ayurvedic Dispensary |
|-------------|----|----------------------|
-