

Chapter XVI

MEDICAL AND PUBLIC HEALTH SERVICES

While knowledge of the period is scanty, before the advent of the British, apparently two systems of medicine flourished. Hindus patronised the Ayurvedic system and Muslims favoured the Unani. In surgery, barbers gave simple incisions for removing infection. Medical facilities in rural areas were almost unknown. People even believed in and got themselves treated from persons known for practising magic and witchcraft and dispensing charms. The allopathic system of medicine was introduced during the British rule. It gradually carried conviction. While the British did open hospitals and dispensaries to provide medical facilities, these were at no time adequate to meet needs. According to the *Hisar District Gazetteer*, 1892¹, there was a dispensary at Bhiwani which had been opened in 1865.² It was situated just inside Dinaud Gate. It contained accommodation for 21 male and 10 female indoor patients and had four wards. The staff consisted of an Assistant Surgeon, a Compounder, a Dresser, an Apprentice and menials. It was attended annually by some 12,000 patients, of whom some 300 were indoor patients. The dispensary was supported entirely by the municipal committee. Almost the same staff position has been recorded in the subsequent *Hisar District and Loharu State Gazetteers* (Hisar District) of 1904³ and 1915.⁴ However, in 1915, the Bhiwani dispensary though maintained by the municipality, was also aided by contribution from the district funds. The two Gazetteers speak very highly about the work done. It was freely resorted to by poorer classes and to a larger extent by the well-to-do middle classes. Operations performed were mainly for stone and cataract and the people (except in outlying villages) realized the benefits of European methods of treatment for these diseases. Other operations such as removal of tumours, amputations for necrosis, etc., were also performed with good results.

1. Ibid, p. 226.

2. Amin Chand, *Tawarikh-i-zila Hisar*, 1866, p. 58. According to him, this dispensary was constructed at a cost of Rs. 1,419.

3. Ibid, p. 313.

4. Ibid, p. 242.

The *Gazetteer of Phulkian States (Patiala, Jind and Nabha)*, 1904¹, mentions that there was one dispensary at Charkhi Dadri established by Raja Raghubir Singh of Jind who ruled from 1864 to 1887. It was under a Hospital Assistant with one Compounder and two menials. Formerly medical aid was only afforded to the people by the *hakims* and *vaid*s located at the tahsils and big villages.

There was also a dispensary at Loharu which was built in 1900.² It was under the charge, first of all, of a Hospital Assistant and thereafter of a Sub-Assistant Surgeon. It had accommodation for 4 inpatients, which was increased to 8.³ It was well supplied with instruments and medicines; a Unani *hakim* or physician was also employed in it. There was also a *vaid* paid by private subscription.

By 1947, in the areas under the British Rule, rural allopathic dispensaries were functioning at Chang, Bawani Khera, Siwani, Tosham and Bahl, in addition to the Ayurvedic dispensaries at Jhumpa, Mandholi and Bamla. A female hospital had been established at Bhiwani in 1929. Another women's hospital was started in 1930⁴ and named the Lady Hailey Hospital, after the wife of Sir Malcolm Hailey, the Governor of Punjab. It was constructed by Sir Chhajju Ram of village Alakhpura in the Bhiwani district. In the erstwhile Loharu State, besides the State dispensary, there were 2* so called hospitals manned by unqualified allopathic practitioners. In the Dadri tahsil, where the former rulers patronised the Ayurvedic system of medicine, Ayurvedic dispensaries were functioning in Charkhi Dadri, Satnali, Badhara and Baund.

In this difficult terrain, with scanty means of communication, these few inadequately equipped rural dispensaries, of either of the systems of medicine, did not play any significant role to promote public health or to ameliorate suffering. The district suffered from various diseases which appeared off and on in an epidemic form and took a heavy toll of human life. The medical services in the district remained at a primitive stage. The people had to undergo much hardship even in availing of these services and often there was no alternative but to face death. The old ladies generally provided maternity and child health services.

1. Ibid, pp. 331-32.

2. *Hisar District and Loharu State Gazetteer (Loharu State)*, 1904, p. 18. The subsequent Gazetteer of 1915, at page 20, mentions that the dispensary at Loharu was built in 1910. It seems to be a printing error.

3. *Hisar District and Loharu State Gazetteer (Loharu State)*, 1915, p.20.

4. *Hisar District Gazetteer, Statistical Tables*, 1935, Table 53.

However, the state of medical care in the Bhiwani town was slightly better. This place had in the course of years, become famous for good medical facilities. A large number of patients also came from the neighbouring Rajasthan area. The Civil Hospital, Lady Hailey Women Hospital and the Farrer Mission Hospital¹ had gained much popularity. These hospitals provided allopathic treatment. A few Ayurvedic dispensaries had also been opened by the philanthropists of the area. The Kishan Lal Jalan Free Eye Hospital, Bhiwani, attained country-wide fame for its efficient service and high proficiency.

After Independence, the national Government was much concerned about extending medical and health services to the people. Medical institutions on modern lines were opened and provided with the necessary equipment and other facilities. Many new programmes to control and eradicate diseases were undertaken. However, not much progress was made in this backward area. At the time of creation of the new State of Haryana in 1966, there were 43 allopathic and Ayurvedic institutions within the bounds of the present district. It was only after May 1968 that this area started receiving appropriate attention. On December 31, 1976, the number of allopathic and Ayurvedic institutions stood at 118 which provided medical coverage for the entire area. Further, a mobile dispensary has also been set up to cater to the medical needs of the more distant villages. With the increasing medical aid and the availability of life-saving allopathic drugs, most of the fatal diseases now no longer remain a source of fear. Consequently, mortality has decreased considerably.

MEDICAL AND HEALTH SERVICES

The medical and health services in the district are controlled and looked after by the Chief Medical Officer. At district level, he is assisted by a Deputy Chief Medical Officer (Health), Malaria Officer, and District Family Planning and Maternity Child Health Officer. He functions directly under the Director, Health Services, Haryana, Chandigarh. In urban areas, the General Hospital, Bhiwani, and the two E.S.I. Dispensaries at Bhiwani and Charkhi Dadri, function directly under the supervision of the Chief Medical Officer; while the Civil Hospital, Charkhi Dadri is under the charge of its own Medical Superintendent-cum-Senior Medical Officer. The Civil Hospitals, Tosham and Loharu have their own Medical Officers. At block level, the Block Medical Officer is in charge of the primary health centres and supervises various health schemes,

1. This hospital was closed some years ago. It is reported that it was started during 1898 for maternal and child services with a provision of 100 beds and it was managed by the Baptist Mission Trust. The first Lady Doctor was Miss Farrer.

family planning work, and programmes for the control and eradication of malaria, smallpox, tuberculosis, trachoma, etc. Primary health sub-centres, rural dispensaries and Government Ayurvedic dispensaries at village level also function under him.

Medical service is essentially a hospital organization for rendering medical relief to the public. This organization embraces all allopathic and Ayurvedic institutions, which on December 31, 1976, numbered 118, viz., 12 allopathic hospitals (including 2 T.B. clinics), 7 urban dispensaries (including one mobile dispensary), 15 rural dispensaries, 7 primary health centres, 51 primary health sub-centres, 1 Ayurvedic circle hospital and 25 Ayurvedic dispensaries (2 urban and 23 rural) in the district. The details of these institutions are given in Table XLVI of Appendix and the more important ones are described here.

General Hospital, Bhiwani.—This hospital is situated on the Railway Road. Previously known as the Civil Hospital with male and female wings and managed by the local Municipal Committee, it was raised to provincial status on April 1, 1953. Lady Chhajju Ram Women Hospital¹ was merged with it during 1969-70 and it was re-christened General Hospital. Initially the bed strength of the Civil Hospital was 63 whereas the Lady Chhajju Ram Women Hospital was provided with 56 beds. Now the bed strength of the General Hospital is 200 beds (100 each for male and female patients).

It is under the charge of the Chief Medical Officer who is also the Medical Superintendent for this hospital. He is assisted by 17 Medical Officers. All the facilities of a general hospital like outpatients and indoor treatment, X-ray, maternity services, laboratory tests, blood transfusion, family planning, dental, eye and ear, nose and throat treatment are available. Specialist services are available in surgery, medicine, eye and ear, nose and throat treatment, paediatrics, gynaecology and obstetrics, child-diseases, pathology, radiology, anaesthesia and dentistry. The Emergency Department, which offers round the clock service, has been provided with 3 Casualty Medical Officers. The services of Specialists are made available to them as and when needed.

A Nursing Training School was attached to the hospital in 1952 with a provision for 20 trainees. The number of trainees was increased to 40 and now it is proposed to be further increased to 90. A matron (Principal Nursing Tutor) is in charge of the school and is assisted by 2 General Tutors and 2 Public Health Tutors. This school is affiliated to the Haryana State Nursing

1. Originally started as Lady Hailey Women Hospital in 1930, it was provincialised on April 1, 1948, and re-named as Lady Chhajju Ram Women Hospital in 1968.

Council and offers a 3-year training course. The trainees are paid a stipend of Rs. 115, Rs. 125 and Rs. 135 in the 1st, 2nd and 3rd year respectively and are provided practical training in the General Hospital as also at the primary health centres in the district.

The figures of patients, as shown below, who attended the General Hospital for treatment during 1966 to 1976, highlight its rapidly increasing popularity:

Year	Outdoor patients	Indoor patients
1966	32,827	5,534
1967	34,838	5,464
1968	58,464	5,451
1969	50,992	7,239
1970	76,480	7,676
1971	86,661	7,783
1972	1,16,229	9,053
1973	1,40,136	10,583
1974	1,91,633	11,366
1975	1,06,392	12,014
1976	1,07,884	12,290

A well designed and equipped outpatient block was added to the General Hospital in 1971. It has separate male and female wings. Besides the usual departmental facilities, the special characteristics of this block are the day-light cinema shows on various ailments/medical subjects, Health Education Cell for the general education of the patients on health and family planning problems, and the inter-communication system in the whole building. This block will become a part of the new hospital complex described hereafter.

The General Hospital is spread over an area of 10 acres (4 hectares). Most of the buildings in this complex were old and therefore deteriorating and crumbling. The requirements of the tract are expanding. Consequently, a new and modern hospital with a capacity for 500 beds¹ is under construction

1. It has now been decided to restrict the bed strength to 250.

in the campus of the General Hospital. It is estimated to cost Rs. 6 crore. This new hospital has been designed keeping "service to the patients" as the main theme. It is a five-storey structure. This will have separate male and female wings for indoor patients, but will have a common central services department. There will be 8 operation theatres and 44 special wards.

The outpatient department which will encompass the outdoor block added in 1971, will be able to cater to about 800 to 1,000 patients daily. It will have an X-ray department and a laboratory of its own, so that diagnostic facilities are quickly made available to the patients. A casualty department with latest equipment will render service to emergency patients. This department will have an intensive therapy unit for serious patients.

The hospital will be provided with specialised clinics like cardio-thoracic, cardiac, neuro-surgery, E.N.T., paediatric surgery, paediatric medicine, skin, general medicine and general surgery, and orthopaedics. It is likely to have a radio-therapy department where a cobalt plant will be installed for the treatment of patients suffering from cancer. In addition, it will have a Central Sterilization Department.

The accommodation for the indoor patients has been so designed that efficient service, i.e. nursing and medical care, can be provided to the patients without any difficulty or delay. Arrangements have been made for reception of the relatives of the patients.

The hospital will have a mechanized kitchen and mechanized laundry of its own. It will also have a modern workshop for repairing all types of hospital instruments and equipment. Horizontal ducts have been laid so that the whole building can be centrally air-conditioned.

Civil Hospital, Tosham.—In place of an old type rural dispensary Tosham now has a well-equipped hospital. It is situated just outside the town on the Hisar Road but within the limits of the notified area committee. It is under the charge of a Medical Officer who is assisted by one Doctor and one Dental Surgeon besides other technical and ministerial staff. There are 25 beds for indoor patients, i.e. 13 for male and 12 for female patients. In addition to the general medical, surgical and family planning facilities, special facilities like laboratory, X-ray and dental treatment are available. The number of outdoor and indoor patients attending this hospital for treatment shows

its popularity :

Year	Outdoor patients	Indoor patients
1972 (Since June 25)	19,964	857
1973	23,366	1,244
1974	37,517	1,491
1975	17,074	555
1976	16,749	728

Civil Hospital, Charkhi Dadri.—Started on July 31, 1954, this hospital is situated opposite the Government Higher Secondary School for Boys, Charkhi Dadri. It is under the charge of a Senior Medical Officer who is assisted by 6 Doctors including one Lady Medical Officer, and one Assistant Dental Surgeon besides other technical and ministerial staff. In addition to the general medical, surgical and family planning facilities, special activities like laboratory, X-ray and dental treatment are available. There are 50 beds for indoor patients, i.e. 25 each for male and female patients. The following figures show attendance of outdoor and indoor patients during 1966 to 1976 :

Year	Outdoor patients	Indoor patients
1966	29,274	1,567
1967	28,436	1,656
1968	25,526	1,788
1969	31,725	1,992
1970	32,644	2,079
1971	26,597	1,605
1972	30,228	1,803
1973	30,527	983
1974	55,326	11,366
1975	33,940	2,127
1976	31,181	2,444

Civil Hospital, Loharu.—Situated to the south of Loharu town, this hospital was started in July 1972. It is under the charge of a Medical Officer who is assisted by a Lady Doctor and a Dental Surgeon besides other technical and ministerial staff. In addition to the usual facilities provided at a general hospital, laboratory, X-ray and dental treatment are available. A Tuberculosis Unit was started in October 1975. The hospital has been provided with 25 beds for indoor patients, i.e. 13 for male and 12 for female patients. The outdoor and indoor patients, as shown below, attended the hospital for treatment since its inception in 1972 :

Year	Outdoor patients	Indoor patients
1972 (Since July)	12,191	393
1973	14,515	402
1974	12,512	292
1975	19,456	213
1976	19,316	362

Shri Sohan Lal Civil Hospital, Deorala.—Situated in Village Deorala on Bhiwani-Jhumpa Road, about 38 kilometres from Bhiwani, this hospital was constructed by a resident of the same village and was named after him. It was started in 1959. Before its take over by the State Government on July 1, 1973, the hospital was run by the Zila Parishad.

It is a small hospital with two doctors, a minor operation theatre and accomodation only for 8 indoor patients (4 males and 4 females). The following figures show attendance of outdoor and indoor patients during 1966 to 1976 :—

Year	Outdoor patients	Indoor patients
1	2	3
1966	2,781	2
1967	2,398	2
1968	2,439	17
1969	3,917	56

1	2	3
1970	2,912	69
1971	4,891	70
1972	5,536	45
1973	5,385	32
1974	8,044	62
1975	4,435	66
1976	4,947	90

Ganpat Rai Matri Seva Sadan, Bhiwani.—Started in 1956, this hospital is situated on the Circular Road, Bhiwani. It is run by the Ganpat Rai Luhariwala Charity Trust, 7-A, Clive Row, Calcutta.

This hospital specializes in maternity cases and also offers general treatment facilities to women and children. The hospital staff consists of 3 Lady Doctors (2 Physicians and 1 Surgeon), 1 Nursing Superintendent, 1 Lady Health Visitor, 1 Public Health Nurse, 6 Staff Nurses and 1 Dispenser, besides the ministerial staff. There are 66 beds for indoor patients, i.e. 60 for female patients and 6 for children. The following figures show the outdoor and indoor patients who attended the hospital for treatment during 1966 to 1976 :—

Year	Outdoor patients	Indoor patients
1966	20,406	1,482
1967	17,111	1,163
1968	32,045	2,145
1969	24,666	1,583
1970	28,085	20,92
1971	29,593	2,132
1972	23,321	1,901
1973	18,195	1,604
1974	21,232	1,963
1975	11,959	1,941
1976	13,739	2,520

Kishan Lal Jalan Free Eye Hospital, Bhiwani.—This hospital was founded by the late Seth Kishan Lal Jalan, a philanthropist of Bhiwani and a business magnate of Bombay. It is situated inside Maham Gate, Bhiwani, and is now run by the Seth Kishan Lal Jalan Charity Trust, Bombay. Jalan was the first philanthropist to realize the acute need for opening an eye hospital in this part of the country where heat, dryness and dust caused numerous eye diseases. The general public specially among the rural population being extremely poor, illiterate and backward, suffered much from these diseases. It was in 1931 that Jalan selected Dr. P.D. Giridhar, an enthusiastic young man of 25 years, for his proposed hospital and got him trained under Dr. D.S. Sardesai, a prominent Eye Surgeon of Bombay. After the completion of training of Dr. Giridhar, this hospital was started in 1933¹ in a small building comprising 3-4 rooms with only 6 beds.

The hospital soon became very popular and a new ward was added to it in 1936. Further extensions of the hospital building continued to be made vertically because there was no scope for expansion horizontally. All the wards are now double-storeyed but there is need for further expansion. A big plot of land has been purchased for constructing a new modern building for the hospital and residential quarters for the staff. It is also intended to equip the hospital with a photocoagulator.²

The hospital staff, besides Dr. P.D. Giridhar, consists of 2 Surgeons, 10 Dispensers and Dressers, 2 Opticians and other ministerial staff. There are 500 permanent beds. During rush season, the number of indoor patients on an average increases to 700 a day and beds are arranged for them temporarily under *shamianas* and tents.

It is worth mentioning that Dr. P.D. Giridhar has been with this hospital since its beginning, i.e. for over 44 years, and has been serving the patients with sincere missionary zeal. It was the result of his hard work and efficiency that this hospital gained country-wide fame and the name of Bhiwani became synonymous with the treatment of eye diseases. The number of eye operations performed by Dr. P.D. Giridhar in the very first year (1933) was 576 which rose to 13,904 in 1966. Similarly, the number of indoor patients admitted in the hospital which was 526 in 1933 rose to 11,722 in 1966. As time passed Dr. Giridhar became very proficient at eye operations. He performed 12 operations

1. The opening ceremony of the hospital was performed on January 30, 1933 by Dr. Miss E.M. Farrer, the then in charge of the Farrer Mission Hospital, Bhiwani. Dr. Farrer truly was a noble soul who devoted the whole of her life in serving the poor and suffering humanity.

2. A costly apparatus costing more than one lakh rupees.

in a day in 1936. This figure went on increasing every year and in 1966, he performed 296 operations in a day.¹ Similarly, the maximum number of indoor patients which was about 50 in a day in 1933, gradually went up to 853 per day in 1968. The Surgeons have to work on 6 tables simultaneously to cope with the high number of operations. The figures of surgical work done in the hospital are the highest compared to any other eye hospital in the country. This is testified by the Indian Year Book of Ophthalmology and other reports.

All types of eye operations are performed in this hospital. Squint patients are accurately corrected with surgery. The number of eye operations performed in this hospital now varies between 10,000 and 15,000 per year and the number of indoor patients between 10,000 and 12,000. The hospital is well equipped with modern instruments and an air-conditioned operation theatre. It receives grant-in-aid for equipment and for extension of the building from the Government of India. It is the biggest eye treatment centre in Haryana and one of the biggest in the country.

The number of outdoor and indoor patients as shown below, attending this hospital for treatment, highlights its ever increasing popularity :

Year	Outdoor patients	Indoor patients	Eye operations performed
1933	26,963	526	576
1935	31,074	1,019	1,306
1946	74,460	8,455	9,756
1950	67,761	7,833	9,158
1955	95,669	10,295	12,455
1960	53,694	8,980	10,144
1965	53,246	10,583	12,373
1966	55,124	11,722	13,904
1967	50,057	10,739	12,845
1968	51,045	11,295	13,808
1969	51,768	10,353	12,368
1970	50,699	10,354	12,290
1971	56,420	10,471	12,315
1972	49,670	9,662	11,292
1973	49,437	9,554	10,847
1974	51,743	9,013	10,071
1975	25,110	8,642	9,656
1976	25,381	8,535	9,296

1. Every year Dr. Giridhar is invited by the Nagarik Swastha Sangh, Calcutta, to hold eye camps, where he performs more than 1,000 eye operations in 2 days. This he has been doing for the last 16 years. It is noteworthy that Dr. Giridhar performed record number of operations (708) in one day (on August 24, 1970) and more than 1,300 in two days at one of his Calcutta Camps.

Kanhi Ram Free Eye Hospital, Bhiwani.—This hospital is situated in Birwan Pana, Halu Bazaar, Bhiwani. It was started by Late Gudan Mal Aggarwal, a businessman by profession, and named after his father, Kanhi Ram Aggarwal. Gudan Mal donated all his property for this hospital which is now run by the Gudan Mal Charitable Trust.

The hospital is under the charge of a Medical Superintendent who is assisted by an Eye Specialist and other Technical and ministerial staff. Primarily it renders ophthalmic cover to the eye patients from all over India. It has been provided with 500 beds for indoor patients, i.e. 300 for male patients and 200 for female patients. It also provides general medical and surgical treatment to local outdoor patients. A maternity wing with a provision of 50 beds for indoor patients including facilities for obstetrical operations is proposed to be added soon. The hospital is properly equipped with instruments required for diagnosis, treatment and eye operations of cataract, glaucoma, squint surgery, measurement of the error of refraction, prescription and preparation of spectacles. The following figures show attendance of outdoor and indoor patients during 1966 to 1976 :—

Year	Outdoor patients	Indoor patients	Eye operations performed
1966	21,631	5,847	7,315
1967	21,945	6,062	7,594
1968	24,967	7,146	8,897
1969	22,354	6,379	5,623
1970	19,735	4,704	5,413
1971	13,690	2,665	2,927
1972	12,380	2,295	2,035
1973	12,292	2,493	2,209
1974	11,943	2,097	2,247
1975	13,126	2,056	2,271
1976	12,383	1,457	2,647

Adarsh Eye Hospital, Bhiwani.—Started in 1970, this hospital is located on the Circular Road, Bhiwani. It is a private enterprise and is run by Dr. M.M.Gupta. The other staff of the hospital consists of 6 Dispensers, 2 Nurses, 1 Optician and ministerial staff. The hospital provides free medical and surgical treatment to patients suffering from eye diseases. Like the other two charitable eye hospitals in the town, viz. Kishan Lal Jalan Free Eye Hospital and Kanhi Ram Free Eye Hospital, an admission fee of Rs. 11 is charged from the indoor patients. However, there are 12 private wards also where a rental of Rs. 10 per day is charged. In all, the hospital has 150 beds and arrangements also exist for providing 200 temporary beds to cope with the rush of patients. The following figures show attendance of outdoor and indoor patients since its inception in 1970 :—

Year	Outdoor patients	Indoor patients	Eye operations performed
1970	4,109	1,336	1,407
1971	26,030	6,447	6,935
1972	18,001	5,305	5,312
1973	17,941	5,596	5,926
1974	16,050	5,292	5,684
1975	14,713	4,461	5,410
1976	14,308	3,898	5,386

Seth Shree Mulchand Seva Sadan Free General & Eye Hospital, Birhi Kalan (Tahsil Dadri).—This hospital is situated in village Birhi Kalan, 12 kilometres away from Charkhi Dadri, on Dadri-Loharu Road. It was started in 1939 and is run by Seth Shree Mulchand Seva Sadan Free General and Eye Hospital Society. It also receives grant-in-aid from the State Government.

This hospital is under the charge of a Medical Officer. All the general hospital facilities are available for outdoor and indoor patients. However, patients requiring specialized treatment are referred to the General Hospital, Bhiwani. The hospital has been provided with 25 beds for indoor patients, 15 for male patients and 10 for female patients. The following figures show the outdoor and indoor patients who attended the hospital for treatment during

1966 to 1976 :—

Year	Outdoor patients	Indoor patients
1966	33,040	911
1967	30,083	847
1968	30,216	962
1969	32,639	1,289
1970	31,440	1,476
1971	34,972	1,559
1972	36,846	1,608
1973	34,610	1,451
1974	36,423	1,802
1975	44,487	2,109
1976	48,647	1,682

Tuberculosis Clinic, Bhiwani.—Changing concepts in the treatment of tuberculosis (T.B.) have brought clinic/domiciliary service to the forefront. Accordingly, one T.B. clinic with 10 beds was started in the premises of the Civil Hospital, Bhiwani in about 1967. It was originally run by the Anti-Tuberculosis Association, Bhiwani, with financial assistance from the Red Cross Society, Municipal Committee and the State Government. It was provincialised on April 1, 1974. The work of this clinic is supervised by one of the Medical Officers of the General Hospital, Bhiwani. The Laboratory Technician-cum-Dispenser of the clinic also works as a Radiographer. The beds are meant for cases in advanced stages of T.B. Free medicines and diet are given to poor indoor patients besides free X-ray and screening facilities. The number of indoor and outdoor patients who attended this clinic during 1974 was 418 and 100 respectively. Over the past years, the clinic has provided the following nature of services to the community :—

Year	Total T.B. cases	Infective	Non-infective	Sputum	X-ray	Screening
1	2	3	4	5	6	7
1967	491	86	405	189	74	170
1968	588	109	479	80	196	612

MEDICAL AND PUBLIC HEALTH SERVICES

479

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
1969	610	355	255	210	186	276
1970	394	231	164	105	77	421
1971	371	141	230	100	100	167
1972	251	131	150	120	32	266
1973	404	179	225	100	87	254
1974	492	404	88	492	—	492
1975	774	702	72	774	—	774
1976	1,516	1,024	492	1,516	—	1,516

This clinic has been upgraded into a District Tuberculosis Centre during 1975-76 with 25 beds and the following staff was provided according to the Government of India norm :—

1. District T.B. Officer	1
2. Medical Officer	1
3. T.B. Health Visitors	2
4. Laboratory Technicians	2
5. X-ray Technician	1
6. Statistical Assistant	1
7. Clerks	2
8. Driver	1
9. Ward Servants	2
10. Sweeper	1

BCG TEAM

1. Team Leader	1
2. B.C.G. Technicians	6
3. Driver	1
4. Peon	1

As Bhiwani district does not have a District T.B. Centre of its own at present, it is being covered by the staff of the District T.B. Centre, Hisar.

Tuberculosis Clinic, Loharu.—A separate Tuberculosis Clinic was set up at Loharu in 1974-75. It is provided with 8 beds for indoor patients. The staff of the clinic includes : Medical Officer 1, T.B. Health Visitor 1, Statistical Clerk 1, Laboratory Technician 1, Clerk 1, and Class IV employees 2.

DISEASES COMMON TO THE DISTRICT

The common diseases which occur now in the Bhiwani district are the typhoid group of fevers, tuberculosis, chest infections (other than tuberculosis), Gastro-enteric diseases and trachoma. Epidemic diseases, viz. cholera, plague and smallpox are the three notified diseases under the Epidemic Diseases Act, 1897. Of these three, plague is not endemic whereas the other two are endemic but the incidence of these diseases is also dependent largely on the chance of importation of infection and laxity of preventive measures to check them.

Plague has become non-existent. Gastro-enteric diseases, cholera and smallpox have been effectively contained. Incidence of malaria has increased, but the challenge is being met. Facilities for treating tuberculosis and trachoma are being expanded. Leprosy is completely alien to this area. Medical care is more than adequate to take care of all other ailments and more and more sophisticated institutions are being set up. Indeed the picture is far different from what it was even a few years ago.

Cholera.—Cholera used to occur in an epidemic form before 1947 and there was always high rate of mortality. It was occasionally imported from outside the district especially after the dispersal of gatherings at fairs and festivals of all-India fame, viz. the periodical Kumbh fairs at Hardwar (U.P.), solar and lunar eclipse fairs at Kurukshetra and similar gatherings at other places. But generally, cholera epidemic cropped up by infection from water. There has remained chronic scarcity of water. Human beings and cattle used to drink in most cases from the same village pond, and both bathed in it promiscuously. Although some of the better villages reserved one tank or partitioned off a part of the tank for drinking and bathing purposes and no cattle were allowed to enter it or drink from it, the water used to get contaminated and consequently spread the disease.

The number of cholera cases has not been large in recent years because of the strict prophylactic and other anti-cholera measures like medical ins-

pection posts and mass inoculation in hospitals and dispensaries. But the most important measure necessary to obviate the incidence of this diseases was arranging the supply of safe and secure potable water. To this, special attention has been paid lately. Effective steps have been taken to make arrangements for the supply of piped water-supply for both urban and rural areas. This has been one of the most outstanding recent achievements of the State Government. Of the 471 villages in the district, piped water-supply has been made available to 240 villages and 45 *dhanis* by March 31, 1977. More schemes are underway to cover the remaining villages of the district.

The result of these measures has been beneficial and the disease is now under complete control. It would appear from the fact that although during 1972 and 1973, 2 and 3 deaths respectively due to cholera were reported, there was no death in 1974.

Plague.—The *Hisar District and Loharu State Gazetteer* (Hisar District), 1915¹, mentions that plague first appeared in the district in 1903 and thereafter it showed itself with greater or less severity every year. This epidemic was the most feared and always resulted in a loss of a big number of human lives. Between October 1904 and May 1905, the epidemic was particularly violent and carried off no less than 16,762 persons. In 1910, another severe epidemic visited Hisar district, killing 11,018 persons. Most of the people killed were at reproductive ages. There was recurrence of plague again in 1925 and also in 1926. Thereafter, it has completely subsided. Fortunately, this horrible disease has now become an occurrence of the past. The factors determining its disappearance have been the spraying of houses with insecticides to kill rat fleas and systematic de-ratting measures.

Smallpox.—One of the most contagious and killer diseases of mankind, smallpox, in this area frequently occurred in an epidemic form and many people became disfigured, lost their eyes or other organs or died of it. In the beginning of the 20th century, vaccination was not compulsory. According to the *Hisar District and Loharu State Gazetteer* (Hisar District)², the optional system was in vogue. The people were averse to it, though its good effects had been repeatedly explained to them. They resorted to many subterfuges to avoid it, in some cases even leaving their homes till the tour of the Vaccinator was over. The work was done under difficulty and only with great exertion on the

1. Ibid, p. 51.

2. Ibid, (i) 1904, p. 313.
(ii) 1915, p. 243.

part of the local authorities, *zaildars* and *lamdardars*. Notwithstanding this, the work was carried on. Animal lymph was used and the people did not object to its use. The season's work was begun with glycerinated lymph obtained from the office of the Deputy Sanitary Commissioner about the end of September, and vaccination was carried on throughout the winter till about the first April following.

Since successful primary vaccination and re-vaccination in a scientific and systematic manner is the only solution to meet the challenge, vaccination teams of trained vaccinators have been formed. The Deputy Chief Medical Officer (Health) under the guidance of the Chief Medical Officer (Health) supervises the Smallpox Eradication Programme which is a Government of India sponsored and aided programme. He is assisted by an Assistant Unit Officer who actually organizes this programme. In the rural areas, Smallpox Supervisors and Vaccinators carry out the vaccination work under direct supervision of the Block Medical Officer. Health staff workers like Sanitary Inspectors, Lady Health Visitors and A.N.M.s (Auxiliary Nurse Mid-wives) also assist in this work. In the urban areas, the municipalities engage requisite staff for vaccination work.

The following figures show the work done under the Smallpox Eradication Programme during 1973 to 1976 :—

	1973	1974	1975	1976
Primary vaccinations	31,472	39,056	40,132	1,11,977
Re-vaccinations	62,606	96,465	32,754	74,738

Special care is taken to vaccinate all the new born children. As a result of mass vaccination and re-vaccination, this disease has been brought under control. No smallpox case was reported in the district in 1973. However, in 1974, a few cases occurred in the following two villages as a result of infection imported from outside the district :—

Tahsil	Village	Cases	Deaths
Dadri	Sanwar	1	—
	Charkhi	15	4

The block-wise¹ position of malaria positive cases for the years 1973 to 1976 is also shown below :

Block	Tahsil	1973	1974	1975	1976
Bhiwani	Bhiwani	354	1,387	2,330	5,979
Tosham	Bhiwani	522	1,451	4,224	6,258
Dadri	Dadri	266	660	3,200	6,027
Baund	Dadri	185	1,215	2,893	6,587
Badhara	Dadri	238	985	1,672	3,076
Loharu	Loharu	209	736	4,513	6,027
Bawani Khera	Bawani khera	218	1,400	3,655	5,692
Bhiwani town	Bhiwani	225	1,606	3,479	6,942
Dadri	Dadri	50	89	306	1,416

Tuberculosis.—This is common in the district and poses a major public health problem. It has been persisting because of the spread of infection and less resistance among the people. Since the cure of T.B. (tuberculosis) requires a sufficiently long time domiciliary treatment is being carried out in the district. After diagnosis, medicines are prescribed and necessary precautions are explained to the patients so that they could continue their treatment while staying at home. Previously the stress had been on treatment of cases both at sanatoria and in the hospitals but now treatment is given to make the cases non-infectious and thereafter the patients are advised to continue treatment at home. This new arrangement has improved the situation.

The National T.B. Control Programme was already under way when the new district of Bhiwani was formed on December 22, 1972. Institutional services are provided at every level in the district. At village level, sub-centres and rural dispensaries give simple treatment to the patients. At block level, besides medicines, facilities have been provided at each primary health centre for sputum test. However, all the requisite facilities have been made available at all civil hospitals. These include diagnosis, sputum test, screening, X-ray and medicines. The patients are treated in the outpatient department and no arrangement exists for indoor patients. The functioning of the T.B. Clinic at the district level has already been described. Indoor patients are treated only in that clinic.

1. These blocks are not co-terminus with community blocks.

Trachoma.—To eradicate this common disease of the area, Trachoma Eradication Programme, a centrally sponsored scheme, stands launched in the Bhiwani Sub-Division. Children below the age of 10 years are given application with antibiotic eye-ointment twice a day for 5 days in a week extending over a period of 6 months. The work is supervised by three Trachoma Supervisors stationed at the Primary Health Centres of Kairu, Tosham and Naqipur. 9,457 Resticycline Eye Ointment tubes were distributed to trachoma cases during October 10, 1974—May 1975. Other trachoma cases are attended to in primary health centres and civil hospitals.

Leprosy.—Judging from the number of cases brought on record, the incidence of leprosy is not a problem in this district. Only two cases were reported for treatment in 1974, and these too had come from outside the district.

GASTRO-ENTERIC DISEASES

The most common infectious diseases are typhoid and enteric group of fevers, dysentery and diarrhoea, disease of 5 F's—flies, fingers, faeces, fomites and food. These diseases have been well under control since the formation of the district as a result of organized preventive measures like protection and disinfection of drinking water wells, chlorination of drinking water and general sanitation measures taken by the public health staff at primary health centres/sub-centres and the supervisory staff at the district headquarters.

VITAL STATISTICS

The statistics about births and deaths are the most important for the planning and working of the health programmes. In towns, the municipal committees keep the record and in the villages this duty is carried out by chowkidars who report the day to day statistics at the police station of their area. After compilation, the statistics are passed on by the Station House Officer to the Chief Medical Officer. There was a time when deaths and births in various parts of the present district almost vied with each other. This is evident from the following table in which the available data regarding deaths and births in Bhiwani town for the period 1891 to 1932 and of Charkhi Dadri town for the period 1901 to 1911,¹ have been exhibited :—

1. (i) *Hisar District and Loharu State (Gazetteer, Statistical Tables (Hisar District), 1912, Table 34.*
- (ii) *Hisar District Gazetteer, Statistical Tables, 1935, Table 13.*
- (iii) *Phulkian States Gazetteer, Statistical Tables (Jind State), 1913, Table 13.*

Year 1	Bhiwani		Charkhi Dadri	
	Births 2	Deaths 3	Births 4	Deaths 5
1891—195 (Average)	1255	1438		
1896—1900 (Average)	1070	2132		
1901	1071	1319	38	100
1902	1537	1573	80	87
1903	1249	3279	71	89
1904	1301	2610	96	93
1905	1426	2124	214	51
1906	1118	2542	78	110
1907	1098	1865	108	37
1908	1298	1703	32	234
1909	1274	1045	69	66
1910	1306	1379	125	172
1911	1433	1281	112	100
1911—15 (Average)	1508	1248		
1916—20 (Average)	1442	1720		
1921	1032	1306		
1922	1337	990		
1923	1493	1273		
1914	1435	1341		
1925	1361	1516		
1926	1340	2179		
1927	1404	1293		

1	2	3	4	5
1928	1424	1249		
1929	1445	1435		
1930	1371	1355		
1931	1619	1182		
1932	1708	1163		

Similarly, the table below shows the births and deaths per annum per thousand from 1897 to 1931 for the erstwhile Loharu State¹ :

Year 1	Births 2	Deaths 3	
1897	11.3	16.5	
1898	7.8	8.0	
1899	3.6	9.7	
1900	3.1	55.1	(There was a serious out - break of cholera in this year)
1901	6.7	12.4	
1902	15.8	10.0	
1903	10.0	8.3	
1904	9.0	7.4	
1905	10.7	9.6	
1906	10.9	8.3	
1907	15.4	12.1	
1908	6.8	13.1	

1. (i) *Hisar District and Loharu State Gazetteer, Statistical Tables* (Loharu State), 1912, Table 11.
(ii) *Loharu State Gazetteer, Statistical Tables*, 1936, Table 11.

1	2	3
1909	12.5	7.9
1910	18.0	13.8 (There was an outbreak of plague in this year)
1911	14.3	5.04
1911—15 (Average)	9.1	5.2
1916—20 (Average)	8.3	8.3
1921	..	..
1922	10.1	4.2
1923	5.9	9.3
1924	6.9	2.7
1925	8.1	3.1
1926	9.2	9.0
1927	6.7	4.5
1928	8.1	2.2
1929	9.6	2.5
1930	8.7	3.3
1931	7.9	4.9

The overall figures of Hisar district were no better as will be observed from the following table¹:—

Year	Births	Deaths
1	2	3
1886—1890 (Average)	35.0	26.7
1891—1995 (Average)	40.2	30.3
1896—1900 (Average)	39.2	46.3

1, *Hisar District Gazetteer, Statistical Tables, 1935, Table 11,*

1	2	3
1901—1905 (Average)	40.6	41.2
1906—1910 (Average)	44.6	40.3
1911—1915 (Average)	49.4	29.8
1916—1920 (Average)	44.5	43.5
1921	38.4	33.9
1922	35.1	22.7
1923	42.8	33.6
1924	40.4	32.7
1925	43.2	36.7
1926	40.4	44.2
1927	43.0	29.0
1928	47.8	25.6
1929	53.7	27.4
1930	43.6	27.9
1931	39.9	24.51
1932	38.9	25.19

The following table indicates births and deaths per thousand of population for the areas comprising the Bhiwani district during the last 76 years :—

Year	Births	Deaths
1	2	3
1901	41.2	40.5
1911	41.7	40.3
1921	41.8	40.1
1931	41.2	39.7

1	2	3
1941	40.9	35.4
1951	40.1	26.6
1961	38.5	14.7
1971	36.4	11.4
1972	35.8	10.9
1973	34.5	10.2
1974	33.2	9.5
1975	29.06	8.08
1976	28.28	8.56

The following table gives the infant mortality (under 1 year of age) per thousand live births for the same period :—

Year	Infant mortality (under 1 year of age)
1901-06	237
1906-11	242
1911-16	246
1916-21	253
1921-26	232
1926-31	232
1931-36	211
1936-41	198
1941-46	185
1946-51	147
1951-60	123
1971	92
1972	89
1973	82
1974	34
1975	55.78
1976	49.67

The total number of deaths and the causes thereof are given in the table below :

Year	Deaths due to						Total
	Cholera	Smallpox	Plague	Malaria/ Filariæ	Dysentery/ Diarrhoea	Others	
1910	200	315	150	70	360	451	1,546
1920	190	415	130	55	310	440	1,540
1930	135	265	270	50	290	410	1,420
1940	115	115	—	40	240	350	860
1950	90	118	—	35	150	210	603
1960	70	55	—	—	15	115	255
1970	50	36	—	—	10	290	386
1971	3	2	—	—	8	245	258
1972	2	2	—	—	7	340	351
1973	3	—	—	—	66	4,808	4,877
1974	—	—	—	—	61	3,911	3,972
1975	—	—	—	—	65	6,630	6,695
1976	—	—	—	—	59	7,177	7,236

The satisfactory results achieved by the Health Department are reflected in the reduced incidence of diseases, lower mortality—both infant and adult, longer expectation of life and all round better health. The population has increased. The variation in population during the last 76 years is shown in the following table :—

Year	Total population (in lakhs)	Variation	Males (in lakhs)	Vari- ation	Fema- les (in lakhs)	Vari- ation
1	2	3	4	5	6	7
1901	2.76		1.49		1.27	
1911	3.04	+.28	1.65	+.16	1.39	+.12
1921	3.10	+.06	1.72	+.07	1.38	+.10
1931	3.78	+.68	2.11	+.07	1.67	+.29

1	2	3	4	5	6	7
1941	4.02	+ .24	2.18	+ .07	1.84	+ .17
1951	4.92	+ .90	2.68	+ .50	2.24	+ .40
1961	5.96	+1.04	3.32	+ .64	2.64	+ .40
1971	7.56	+1.60	3.98	+ .66	3.68	+ .94
1972	7.80	+0.24	4.20	+ .22	3.60	+ .02
1973	7.90	+0.10	4.21	+ .01	3.69	+ .09
1974	8.09	+0.19	4.31	+ .10	3.78	+ .09
1975	8.28	+0.19	4.42	+ .11	3.86	+ .08
1976	8.46	+0.18	4.51	+ .09	3.95	+ .09

GENERAL STANDARD OF HEALTH

Looking at the dreary physical appearance of the areas within the confines of the district ; keeping in view the hopeless inadequacy of medical care facilities in the not too distant past as described earlier and the inability of rural people even to avail of those facilities due to the absence of means of communications, it was but natural that mortality in this area was so high till the thirties of the 20th century. The depth of water level was well over 100 feet 30.5 metres and the water frequently bitter and brackish. It lacked rain and sources of sweet water. A capricious and scanty rainfall was the only source of water for human beings and animals. If there was no rain, there was no crop—not even a blade of grass, and tanks and wells also dried up. The village pond which was the only water supply in most villages was used as buffalo wallow and a vat to steep hemp, and the water in it was used to the last drop. People usually suffered from water-borne diseases. When rains failed, there were mass migrations to areas where water for human beings and fodder for cattle were available. In the course of these migrations, many died and thousands of cows and buffaloes perished. The main diet of the people consisted of *bajra* and *jowar*. It was a poor and unbalanced diet. The health of the masses was just average. They easily succumbed to diseases and death. Things began to improve somewhat after the achievement of Independence. The pace of development accelerated after the formation of Haryana in 1966 and more particularly after the creation of the separate district of Bhiwani in December 1972. All the villages of the district have since been supplied with electricity and linked with roads. The villagers are shaking of old inertia as

a result of the communications thus established and their contact with the outside world. Preventive and prophylactic measures against diseases and rapidly expanding medical care facilities have saved them from hazards. With advancement in agriculture, trade and industry, their economic condition has improved and their living standards have markedly changed for the better. Next to good food, safe drinking water is of the greatest importance for communal health and the bulk of villages have already been provided with this and the remainder are being covered. All this has been instrumental in a big way in changing the outlook of the masses and in improving health.

The decrease in the death rate clearly shows that there is positive improvement in health, noticeable due to the launching of various public health programmes¹ and better medical care. The general standard of health of inhabitants of the district is now much better. The people are generally tall and possess a good physique.

From a layman's point of view, the people of the district may be taking sufficient protein in the form of *lassi* and fat in the form of *ghi*. But a closer analysis would show that the diet of the common man, although rich in carbohydrates, is deficient in protein and to some extent in fats and vitamins. There is more mal-nutrition than under-nutrition. By and large, people are vegetarian and usually consume *chapatis* or rice with *dals*; a few take vegetables. Only a small section of them takes body building proteins (meat, eggs, fish and milk) and other protective foods (green leafy vegetables, salad, fresh fruit, etc.); but even they do not seem to be regular in their food habits and are rarely conscious about the need for a balanced and nutritive diet. The large-sized families, especially among the poorer classes, suffer both from under-nourishment and malnutrition. The family planning services have still to make an effective impact on family budgets and nutrition.

PREVENTIVE MEASURES TO PROMOTE PUBLIC HEALTH

The modern conception of good health lays greater emphasis on prevention of disease. This necessitates various kinds of measures. The younger generation at school must be given health education which is perhaps the most important activity for any effective preventive measure. The importance of good health habits formed in the earlier years cannot be over-emphasized. Health education is equally necessary for older persons. Like-wise, family

1. National Malaria Eradication Programme, National Smallpox Eradication Programme, Trachoma Eradication Programme, School Health Programme, Population Explosion Control Programme (Family Planning), Community Development Programme, etc.

planning and maternity welfare require the greatest attention if the problem of over population has to be satisfactorily dealt with. It is equally necessary to take suitable measures to prevent adulteration of food, promote desirable knowledge and the practice of nutritive articles of food, make supply of clean and safe drinking water possible for even those living in rural areas and to take other such steps as will improve environmental hygiene.

School health services.—Since 1973, the school health services have been made an integral part of all hospitals, primary health centres and rural dispensaries. Previously, the system was not well regulated. Under this scheme, school children studying in Classes I, VI and IX are thoroughly checked up and arrangements are made for the treatment of those found suffering from any disease.

Health education.—In the present concept of community health, health education has come to play a significant role. Its aim is to provide integrated curative and preventive service for better health of the citizens. Therefore, proper health education is the main pre-requisite for the success of all health programmes.

Health education has been made an integral responsibility of all medical and para-medical personnel in the district. It is mainly carried out through the staff of the health centres. The knowledge of the subject is provided through mass and group education. Besides the departmental efforts of various wings of Government, like Social Welfare, Education, Development, Revenue, etc., local leadership (political, social and religious) is also involved to create favourable attitudes and health consciousness among the younger as also the older members of the community. Much attention is paid in imparting health education to children in schools.

Family planning.—The family planning programme which has acquired a big and crucial significance for the future of India, was of no importance in this area in the past. The masses in general were illiterate, orthodox and backward. As everywhere else, they believed that children were the gift of God; so the result was large families both in rural and urban areas. On close analysis, large families would seem to be the need of those times. This area has had to pass through a dark period of history when there were famines and droughts resulting in large number of deaths due to dreadful epidemics. Not to speak of families, even whole villages were decimated. Society had to provide itself with maximum births for survival. The birth rate of this area in the beginning of the present century was about 42 per thousand per annum while the death rate was also about the same. But now the expectation of

life has risen to 56 years which is more than double the pre-Independence figure of 26 years. The death rate which has come down to 8.56 per thousand, is a natural corollary to health education, prevention of diseases and medical relief. In the process, population has been increasing and a stage has reached when this has rendered desperate need for controlling the birth rate.

The family planning programme in this area was started in the late fifties through clinical approach with the help of Red Cross centres. The first clinic was opened at Loharu in 1961. Though mass camps were also organized by this voluntary body, the movement was not sufficient to arrest the unwanted population growth. The target of the programme now is to reduce the birth rate to 25 per thousand per annum in the shortest possible time. Scientific educational methods are employed so that the people adopt the planning of their families as a way of life. This is being done with the cooperation and coordination of official and non-official agencies including the local leadership. The strategy of work employed is bio-social and bio-medical. On the bio-social side, the object is to motivate the people for family planning. This is done through family planning education by which knowledge of the people is increased in regard to all aspects of the population problem and also of the need to adopt family planning. An attempt is made to change their attitude so that they come out of traditional grooves of orthodoxy and prejudice and appreciate and adopt family planning practices. On the bio-medical side, it is intended to achieve reduction in the growth rate of the population which can be done by reduction in fertility rate, decrease in average family size and increase in average spacing of children.

For successful implementing of the family planning programme, a three dimensional approach of education has been formulated, viz. the mass approach, the group approach and the individual approach. The mass approach implies creating awareness among the public and building opinion against the population explosion and in favour of small family. For this, all available modern mass communication media are employed. Teams from district headquarters, State headquarters, Directorate of Audio Visual Publicity (Government of India) and other departmental district agencies like Public Relations, Agriculture, Education, etc., engage themselves in a number of activities. These include film shows (even in daylight), exhibitions, dramas, *bhajan* parties, *kirtan mandalis*, puppet shows, indigenous media of drum beating, visual publicity through wall paintings, bus boards, hoardings, cinema slides, banners, kiosks and pasting of posters, mass meetings attended by ministers, V.I.P.s and local leaders, printed educational material, press (local and national), radio and television and mike publicity.

The group approach, which is considered the best tool for community education, is carried out in a number of ways, viz. group meetings by peripheral workers, debates, question-answer programmes, group lectures, seminars, and also through organized social groups in the society like Youth Forums, Mahila Mandals, Farmers' Groups, Cooperative Societies, Panchayats and Panchayat Samitis.

It is the individual approach which ultimately leads to motivation of cases. The general awareness created and the group education imparted can only meet the needs of this target oriented programme if proper motivational activities are carried to the homes through visits by the workers. Thus a lot of stress is laid on efforts in this direction. The whole area is surveyed to find out the attitude of people. Couples in the child bearing age-group are selected and those with similar opinion for small family norm and the number of children in a family are grouped together. They are then paid follow-up visits to motivate them to adopt suitable methods of conception control depending upon the need and the status of the family. In the Bhiwani district, there are 1,18,435 such couples and the success of this programmed depends upon the way these couples practise family planning. The efforts of local leaders, social workers and the users of family planning methods are utilized in motivating people.

Policies and decisions for successful implementing of the programme are discussed in the District Family Planning Action Sub-Committee at the district level under the chairmanship of the Deputy Commissioner. These are also discussed at block level and village level health committees so that a co-ordinated effort is made to successfully carry out the programmes.

All activities of family planning programmes in the district are carried out under the guidance and supervision of the Chief Medical Officer. Under him, the District Family Planning and Maternity and Child Health Officer is actually responsible for this programme and heads the District Family Planning Bureau. At block level, a Rural Family Planning Unit is attached with each primary health centre and is under the charge of a Medical Officer. He is assisted by an Extension Educator, Family Planning Field Workers, Lady Health Visitors, Auxiliary Nurse Midwives and trained Dais. At each health centre usually there are 4 Male Workers and 8 Auxiliary Nurse Midwives under the Lady Health Visitor and the Family Planning Extension Educator. At village level, services are rendered by sub-centres, Field Workers and rural dispensaries.

For urban area, there is an Urban Family Planning Unit at the General Hospital, Bhiwani; and in Charkhi Dadri the work is carried out through a

unit of the Red Cross Society. The industrial areas are served by the Employees State Insurance Dispensaries at Bhiwani and Charkhi Dadri. The Ganpat Rai Matri Sewa Sadan, Bhiwani, has also been doing exceptional work in this field.

The family planning practices cover methods for limitation of families as also for spacing of children. The former include sterilization of males and females and the insertion of Copper T and I.U.C.D. (Intra Uterine Contraceptive Device, popularly known as the "loop"). The latter include the insertion of I.U.C.D. Copper T, use of condom (Nirodh), passary, diaphragm, jelly, foam tablets, oral pills, etc. The oral pills are used both for spacing and limitation but these have not been introduced on mass scale except in the Pilot Project at the General Hospital, Bhiwani. The conventional contraceptives such as, condoms, foam tablets, jellies, diaphragms, etc., are distributed through contraceptive depots/centres including rural post offices. The following figures show year-wise distribution of conventional contraceptives in the district during 1966-67 to 1976-77 :—

Year	Conventional contraceptives distributed (pieces)
1966-67	5,172
1967-68	31,983
1968-69	15,400
1969-70	69,637
1970-71	1,82,251
1971-72	2,54,498
1972-73	2,45,799
1973-74	8,05,501
1974-75	11,27,540
1975-76	24,34,612
1976-77	24,45,080

Among the methods of contraception, Nirodh is most widely accepted. In 1976-77, 24,45,080 Nirodh pieces were distributed through 119 Nirodh depots¹ spread over the district.

1. These depots are the private agencies which include shops, local leaders, etc.

Besides free medical and surgical services, transport and diet are arranged for sterilization cases. Cash incentives are also offered. Three categories of the acceptors of sterilization, persons having 2 or less living children, 3 living children and 4 or more living children, are paid differently. A vasectomy/tubectomy case is given Rs. 120, Rs. 70 and Rs. 40 respectively. An I.U.C.D. case is given Rs. 4 as incentive money.

A Government employee is granted 6 days' special leave in case of vasectomy and 14 days in case of tubectomy. One week's special leave is given to an employee whose wife undergoes tubectomy. Some of the industrial concerns like Technological Institute of Textiles and Birla Textile Mill at Bhiwani and the Cement Factory at Charkhi Dadri allow paid leave and also award cash incentives even up to Rs. 100 in each case.

The family planning services are provided through a number of institutions details of which are given in Table XLVII of Appendix. The progress of family planning work in the district during 1966-67 to 1976-77 is known below :

Year	Sterilizations	Intra Utrine Contraceptive Device	Conven- tional Contra- ceptive Users
1966-67	516	1,141	72
1967-68	1,245	1,974	444
1968-69	706	1,454	214
1969-70	1,046	1,247	967
1970-71	1,367	578	2,531
1971-72	1,964	1,801	3,535
1972-73	3,450	877	3,414
1973-74	1,345	1,733	11,187
1974-75	3,634	3,171	15,648
1975-76	3,401	3,206	13,600
1976-77	11,722	10,116	33,814

The following data show the population covered per thousand by different methods of family planning up to March 1977 :—

	Total cases	Coverage per 1,000
Sterilizations	30,396	40.1
Intra Utrine Contraceptive Device	27,298	36.2
Conventional Contraceptive Users	85,425	112.0

Over the years, the family planning programme has gained momentum. Its message of spacing and limitation has reached every nook and corner of the district. The masses in general now approve of this policy of population control and even the orthodox among them not only appreciate the efforts of Government but also advocate it. But the problem of population explosion is still acute and requires constant vigil and efforts. It is expected that the recent development of roads and electrification of villages will further boost the propaganda of this programme.

The following year-wise expenditure has been incurred on this programme during 1973-74 to 1976-77 :—

Year	Expenditure (Rs. in lakhs)
1973-74	2.89
1974-75	6.84
1975-76	7.91
1976-77	13.35

Maternity and child health.—A considerable number of women used to die as a consequence of child-birth; many more who survived suffered from lasting ill-health. The work for attending to maternity services had, therefore, to be taken in hand on priority basis.

Considerable progress has been made in the expansion of maternal and child services. It has been made an integral part of the family planning programme. When the idea of the small family is advocated, it is obligatory on the part of the Government to provide due coverage to maternal and child health. The care and service in this regard start as soon as a woman conceives.

Special trained staff and necessary strategy is employed for pre-natal, post-natal infant and toddler care through domiciliary and clinic visits. The required medicines and immunization of mothers and children against various diseases are aimed at. The maternity and child health work in rural areas is carried by Lady Health Visitors, A.N.M.s (Auxiliary Nurse Midwives) and trained Dais. Arrangements are made to train the Dais who already practise in villages. These services in urban areas are provided by all the health and medical institutions including urban family planning units and E.S.I. dispensaries.

Primary health centres.—The modern concept of health promotion lays basic stress on prevention of disease through measures of health education and community involvement. So far as the rural area is concerned, these activities, besides medical care and family planning programme, are carried out by the trained and skilled staff of the primary health centres. All available resources of these centres are mobilized against the particular infection prevalent in a specific area. There are 7 primary health centres in the district. These are located at Miran, Kairu, Naqipur, Gopi, Satnali, Jhoju Kalan and Baund Kalan. Each primary health centre is manned by 3 Medical Officers one of whom is also the Block Medical Officer, 1 Family Planning Extension Educator, 4 Family Planning Field Workers, 1 Lady Health Visitor, 1 Staff Nurse, 8 Auxiliary Nurse Midwives, 4 Family Planning Attendants, 1 Sanitary Inspector, 3 Vaccinators, 1 Smallpox Supervisor, 1 Health Inspector and 4 Basic Health Workers besides ministerial staff. One Trachoma Supervisor each has been provided at three of the 7 primary health centres at Kairu, Naqipur and Tosham while one T.B. Multi-Purpose Worker has been provided at each of the other 4 Health Centres, Viz. Baund, Jhojhu, Satnali and Gopi.

Thus these centres take care of preventive and curative programmes. These include treatment of outdoor and indoor cases, maternity and child health, family planning, environmental sanitation, nutrition, school and industrial health services, immunization programmes and control of communicable diseases.

Prevention of adulteration in food stuffs.—Adulteration in food stuffs is checked under the Prevention of Food Adulteration Act, 1954. Besides the five Food Inspectors in the district, specially appointed and authorized under the provisions of the Act, all the Medical Officers have been invested with the powers of a Food Inspector.

Samples of food stuffs are seized in routine as well as through specially

organized raids. The following table shows the work done during 1973 to 1976:—

	1973	1974	1975	1976
Samples seized (number)	204	228	287	248
Samples found adulterated (number)	75	54	55	66
Prosecutions launched (number)	61	54	55	66
Fines realized (Rs.)	17,025	44,650	31,950	36,250
Persons sent to jail (number)	22	33	11	14

The Drug Inspector, Hisar (Hissar) looked after the work relating to drug adulteration in the Bhiwani district prior to the appointment of an independent Drug Inspector at Bhiwani in 1974-75.

Nutrition.—The primary health centres/sub-centres deal with oral nutrition, particularly at maternity and child welfare centres by organizing milk feeding programme, providing vitamin A and D capsules, iron and multi-vitamin tablets/B-complex tablets received by them from the UNICEF. They also help in arranging nutrients and medicines under school health services to the needy school children with the cooperation of the Education Department and the Red Cross Society. With the assistance of the Government of India and UNICEF, the Applied Nutrition Programme is being carried out in Tosham and Bawani Khera blocks. It aims at educating people in taking a balanced and nutritive diet from among the available food items.

Environmental hygiene.—After personal hygiene and domestic cleanliness, environmental hygiene is equally important. The sanitation of town and village streets and lanes, the disposal of kitchen wastes and human excreta are some of the other health problems.

With the coming up of development blocks, there has been an all-round activity for the improvement of villages in regard to link-roads, pavement of streets, pakka drainage and clean water-supply by providing hand pumps, tube-wells and clean wells. It is advised that the cattle excreta be deposited in dung pits located outside the villages; that sullage water is disposed of either in ponds or drained off in open fields. The checking of food adulteration, sanitation, school health services, and measures to control communicable diseases are some of the other factors which have contributed towards the improvement

of environmental hygiene in the rural areas. The villagers themselves are required to pay attention to environmental sanitation. Legal action can also be taken against defaulters. However, the staff of primary health centres/sub-centres carried out environmental sanitation activities in their areas. The co-operation of village panchayats is also sought to keep habitations clean and tidy. The Block Medical Officer, the Sanitary Inspectors and other health workers guide the people. The villagers are advised to maintain manure pits and use public or individual laterines. But on the whole the position cannot be called satisfactory and there remains much to be done. The position is a bit better in the urban areas. Sullage water is disposed of in fields and the cattle and human excreta is deposited in pits away from the residential areas where it is converted into compost and sold to agriculturists. These arrangements are looked after by the municipalities with the help of health and scavenging staff.

The description of programmes, functions and activities shows undoubtedly that a great deal has been done, a great deal more is planned, and objectives and methods have been defined. It would be wrong, however, to conclude that all is well. The fact is that the aim of good health has to become part of the social and environmental habit of the individual, and particularly the family. The practice of meticulous work in health and medicine has to become the habit of the individual employee. A great deal of ground has to be covered to make these habits part of the air we breathe in Bhiwani—or indeed, elsewhere.

UNICEF work and other preventive programme.—UNICEF is aiding promotion of public health in the district in many ways. In addition to providing vehicles for various health programmes and also to the primary health centres, it supplies to the latter, medicines and equipment including microscopes and refrigerators. All the primary health centres in the district are getting UNICEF assistance.¹

The programmes being aided by UNICEF include malaria, trachoma, nutrition, school health clinics, milk distribution, maternal and child health and B.C.G.

WATER-SUPPLY (RURAL)

Village ponds, percolation wells and *kunds* provided the only source of water in this district in the past. The rain water used to be

1. To qualify for such assistance, a primary health centre must fulfil certain conditions, e.g. the staff must consist of at least one Medical Officer, one Pharmacist, one Lady Health Visitor and one Sanitary Inspector.

collected in exposed ponds which were used both by human beings and animals. The percolation wells were located mostly by the side of ponds so that water could find its way into these wells through seepage. The *kunds* were small pakka covered storage tanks where rain water could be collected. These were too expensive to become the general practice.

During continuous drought conditions, water in these ponds, wells and *kunds* used to get exhausted. Human beings and cattle were exposed to great hardship and many resorted to temporary emigration. Some were forced to sell their animals. This resulted in complete dislocation of village activities. Famine relief measures carried out by the Government cost money almost every second or third year. All such measures were too inadequate to take care of the plight of human beings and cattle. It created most insanitary conditions within the villages. The health of the inhabitants was adversely affected and they invariably became a victim to water-borne diseases and death.

In order to ameliorate the miserable plight of the people, the Government decided to provide drinking water facilities to these famine-prone areas. This was taken up under the National Water-Supply and Sanitation Programme. The problem of finding a source of good water was formidable. The northern zones of the district are served with partial irrigation facilities with the tail distributaries and minors of the Western Yamuna (Jumna) Canal and Bhakra Canals systems. For a start, these tail ends were tapped to draw raw water to be treated for further supply. The water in these courses runs for 7 days followed by long closure periods of 27 days. For successful operation of the schemes, 27-day storage has to be kept at each waterworks resulting in high cost of construction. The treatment consists of filtration through slow sand filters and disinfection. The villages which have benefited from these schemes, have been grouped together, details of which are :

	Estimated cost (Rs. in lakhs)
1. Water-supply for 'B' group of 59 villages with Head Works at Bapora	115.00
2. Water-supply for A/I group of 41 villages with Head Works at Sharwa	60.05
3. Water-supply for A/3 group of 17 villages with Head Works at Tosham	25.86

	Estimated cost (Rs. in lakhs)
4. Water-supply for A/2 group of 12 villages with Head Works at Talwandi Ruka	18.45
5. Water-supply for Mandholi group of 24 villages with Head Works at Ghikara (2 villages of Mahendragarh district have not been included)	64.95
6. Water-supply for a group of 7 villages with Head Works at Biran	21.25
7. Water-supply for a group of 6 villages with Head Works at Tigrana	18.72
8. Water-supply for a group of 3 villages with Head Works at Chang	12.00
9. Water-supply for a group of 5 villages with Head Works at Bamla	9.16
10. Water-supply for a group of 2 villages with Head Works at Paposa	7.63
11. Water-supply for a group of 5 villages with Head Works at Kaunt	8.73
12. Manheru group of 7 villages with waterworks at Manheru	22.03

The Bapora Waterworks is the biggest water-supply project in rural India. This project serves a population of about 80,000 in 59 villages and 15 *dhanis*. By March 31, 1977, work on 41 water-supply schemes covering 240 villages and 45 *dhanis* had been completed at a cost of about Rs. 5 crore. Work on 7 water-supply schemes covering 32 villages and estimated to cost Rs. 105.84 lakh was in progress. Schemes for the remaining villages were being processed.

As water is still in short supply, domestic and individual connections have not been given, only public taps have been erected at focal points. Beveies of young, gleeful girls in their traditional outfits cluster around these taps to take water home. The diminished incidence of water-borne diseases has resulted in decrease in other diseases. The working capacity of the labour classes has increased; innumerable man-hours previously wasted by people in finding water for their day to day needs, have been saved.

WATER-SUPPLY (URBAN)

Bhiwani.—After a *mandi* was established at Bhiwani in 1817, its rise to importance as a trade centre was rapid; so much so that it became necessary in 1878 to throw back its old enclosing wall for a considerable distance so as to allow room for extension. In the next 3 or 4 years, a new wall was constructed with 12 main gateways. Its streets, though metalled with kankar, had open festering drains on both sides. The situation of the town being lower than the surrounding country, great difficulty was experienced in organizing a drainage system. Most of the drainage found its way into tanks or *johars*, both inside and outside the town. These also formed almost the sole supply for drinking water. The greater part of them were merely irregular pits out of which the soil had been removed for making bricks. The water-supply position otherwise was also deplorably bad. The wells were 60 feet deep and the water in them was brackish and undrinkable. Of the 82 wells inside and outside the town, only 26 were fit for use; and in some of these also, the water became offensive and undrinkable in the hot weather, or ran dry altogether. The tanks were 9 within and 17 outside the town.

The extension of the Delhi Branch of the Western Yamuna (Jumna) Canal near the town at the close of the 19th century, gave some relief in drinking water. Even then, it was by no means good or adequate. In the Gazetteers of Hisar District of 1904 and 1915, it is mentioned that a system of waterworks was badly needed. The trade of the town was, however, by then declining and it was regarded as doubtful whether the finances of the municipal committee would be able to bear the heavy initial expense.

Ultimately, the first phase of waterworks was constructed in 1933 with a meagre capacity of 9 lakh litres a day, just enough to cater to a population of 34,000 persons at the rate of 27 litres per head per day. (According to the present norms of the P.W.D. Public Health Department, the per head requirement in a town having a population of 20,000 to 50,000 is 136 litres per day.) The population of Bhiwani in 1931 was 35,866.

Minor improvements were carried out from time to time and by 1958, when the population was nearing 58,000, the waterworks had developed a capacity of 36 lakh litres per day, i.e. 62 litres per head per day. The present norm for a town having a population exceeding 50,000 is however, 182 litres per head per day. By 1968, the capacity had been increased to 45 lakh litres per day but the population was also now nearly 69,000 and per head supply came just to 65 litres per day. From 1968 onwards, effective measures were taken

to overcome the shortage under the following schemes :—

Scheme	Estimated cost
	(Rs. in lakhs)
1. Extension Water-supply Scheme, Phase Ist to 3rd	20.37
2. Extension Water-supply Scheme, Phase 4th	3.75
3. Extension Water-supply Scheme, Phase 5th	47.33

The first two schemes have been completed and commissioned whereas 75 per cent of the third scheme has been carried out. Extra capacity has also been increased against the following schemes :—

1. Water-supply to Industrial Area (Estimated cost : Rs. 19.22 lakh)
2. Water-supply to Mandi Area (Estimated cost : Rs. 9.00 lakh)
3. Water-supply to individual Government institutions

The waterworks at present can safely supply about 108 lakh litres of water per day. After the Extension Water-supply Scheme 5th phase is completed, the capacity will increase to 135 lakh litres per day for the population of 73,086 persons (1971 Census), which will roughly conform to the accepted norm. The present head works of the water-supply schemes now consist of :

	Total capacity (in lakhs)	
	(Litres)	(Gallons)
(a) Old Waterworks :		
4 storage tanks	2,073.00	456.00
10 filter beds	76.37	16.80
	(per day)	(per day)
1 high level tank	4.55	1.00
2 clear water tanks	17.50	3.85
1 over head reservoir	2.27	0.50

(b) New Waterworks :

2 storage tanks	1,710.00	380.00
5 filter beds	85.24	18.75
	(per day)	(per day)
1 high level tank	6.14	1.35
3 Clear water tanks	24.54	5.40
1 rapid sand filter with pumping machinery	34.10	7.50
	(per day)	(per day)

(c) Inside the town :

2 over head reservoirs	(i)	4.55	1.00
	(ii)	1.37	0.30

Charkhi Dadri.—A water-supply scheme executed at a cost of Rs. 11.83 lakh for Charkhi Dadri town was commissioned in 1962. The population of the town was 11,000 persons and the scheme was based on 25 gallons (114 litres) per head per day, but due to limitation of funds the head works units were constructed for supplying 12½ gallons (57 litres) per head per day considering the 5-day canal closure period. Due to the fast development of the town, the water-supply had become meagre. Therefore, since 1973, a new augmentation scheme is being implemented which is estimated to cost Rs. 33 lakh.

Tosham.—This town was declared a Notified Area Committee in 1970. A water-supply scheme which had cost Rs. 9.60 lakh was commissioned in April 1974. The town is being supplied water at the rate of 20 gallons (91 litres) per head per day.

Loharu.—A skelton water-supply scheme was commissioned during the time of the British by installing motors on two wells. Water was stored in steel tanks and supplied through a battery of stand posts. After the creation of Haryana State, estimates for a regular water-supply scheme costing Rs. 7.98 lakh were prepared in June 1971. Work to the extent of 25 per cent has been completed. Presently water is being supplied through an over head reservoir into the partial distribution system which has been laid.

Notified Area Committee, Bawani Khara.—A village in 1971 Census, it was upgraded to Notified Area Committee in 1973. A water-supply scheme on rural pattern estimated to cost Rs. 9.69 lakh has been partly executed. On its becoming Notified Area Committee, a scheme for providing 20 gallons

(91 litres) per head per day and estimated to cost Rs. 20.23 lakh, is under consideration.

Notified Area Committee, Siwani.— A village at the time of 1971 Census, it was a Notified Area Committee in 1973. The water-supply scheme, based on rural pattern, is in existence and supplies daily allowance of 15 litres of water per head. The village is included in A-II group of 12 villages with waterworks at Talwandi Ruka.

SEWERAGE (URBAN AND RURAL)

No sewerage facility existed in the district prior to 1968. Since then, two schemes have been taken up in Bhiwani and one in Charkhi Dadri. In Bhiwani, sewerage scheme costing Rs. 28.35 lakh was completed in October 1971, while a major part of an extension sewerage scheme, estimated to cost Rs. 46.79 lakhs, has also been completed. The sullage water is utilized for land irrigation and this has become a revenue earning item for the municipality, which earned from its auction Rs. 7.6 lakh during 1974-75. In Charkhi Dadri, the first phase of a sewerage scheme costing Rs. 5.5 lakh was completed in January 1973 while the second phase, estimated to cost Rs. 12.78 lakh, has been taken in hand during 1976-77. For Tosham, Bawani Khera, Siwani and Loharu, master sewerage schemes costing Rs. 5.02 lakh, Rs. 21.68 lakh, Rs. 12.94 lakh and Rs. 12.17 lakh respectively, have been prepared.

In the rural area, a regular sewerage scheme estimated to cost Rs. 4 lakh was taken up only in one village, i.e. Bapora, during December 1971. This included surface drainage in streets, sewer along the periphery of the village and the disposal system. A part of internal work, sewer and the disposal system were completed and commissioned in August 1973.

In the rest of the villages, surface drainage is provided and looked after by the panchayats and the block authorities.