CHAPTER XV

MEDICAL AND PUBLIC HEALTH SERVICES

Public Health and Medical Services in Early Times.

As in all primitive societies, *Ojhas* and witches, who are credited with powers to control evil spirits, ghosts, etc., which are supposed to cause physical ailments to human beings, it may be imagined that in early times people, by and large, should have resorted to them for cure of their diseases. In fact *Ojhas* and such other agencies are not altogether extinct in the district even now. In course of time, however, when intelligent people observed the efficacious effects of herbs on human diseases, by trial and error, they evolved some method of cure which, later came to be known as *Ayurveda*. The Muslims brought the *Unani* system to India. The physicians known as *Hakims* specialised in medicine while *Jurrahs* took to surgery. Early in the 19th century there were 150 *Jurrahs*, or surgeon-barbers in Patna district who cupped, bled and treated sores. *Chamains* acted as midwives*. The British rule introduced the allopathic system of medicine and encouraged it. Buchanan, however, says, "I have heard that some Europeans have been silly enough to employ them (*i.e. Malis*) to repeat their spells, even when an European surgeon had performed the operation"**. Towards the close of the 19th century, homoeopathic system also appears to have come to this district, but received no official recognition. However, on account of cheap treatment and practically no advers reactions on patients, this system appealed to common man. Later, as a reaction against medication of human system, some sections of people also took to nature-cure, *e.g.* sun-bath, etc. to cure their diseases.

Ayurvedic System.

The Indians had made more progress than any other people of antiquity in many sciences, including medicine, which is said to have been originally transplanted from India to Persia. The *Ayurveda* or knowledge of life or science of longevity comprised in the works of some of the greatest Indian authorities, such as Charaka, Sushruta, Madhavacharya (author of Madhava Nidana), Vogabhatta (author of Ashtanga Hradaya)†, is said to have been a gift of God, Indra or Brahma revealed to the Indian physicians through Dhanwantari, a sage prince of Banaras.

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*Francis Buchanan: *An Account of the Districts of Bihar and Patna in* 1811-12, published by the Bihar and Orissa Research Society, p. 303.

**Ibid*, p. 304.

†As mentioned by Abul Hasa' Ali bin Rabbani Tahari in his medical compendium, 'Firdaus-u-Hikmat', compiled in 236—850 A.D.
cf. Askari, S.H.: *Medicines and Hospitals in Muslim India*, published in the Journal of the Bihar Research Society, Patna, Vol. XLIII, March-June, 1957, Parts I and II, p. 15.

The Buddhists, with their love and sympathy for all suffering creatures, did more than any other people for the development of medical science in India. Acharya Jivaka, who had his home at Rajgir*, was the physician and surgeon of Lord Buddha. He had attained great fame as a surgeon so much so that people from far and wide are said to have come to him for treatment. The Vaishali *Bhikshus* had their *Ganshala* where they received free treatment. During the Mauryan regime, dispensaries were established throughout the country and achieved greater perfection during the reign of Ashoka. Herbariums were raised in many places to provide raw materials for the preparation of medicines. Ashokan inscription on Rock Edict II refers to such an institution as '*Chikitsa*'. Recent excavation at Kumhrar has brought out a seal of '*Vihar Arogyashala*'. The Chinese Buddhist pilgrims refer to the houses of the sick that they found in various parts of India. Regarding the people of Pataliputra, Fa-Hien says, "The nobles and householders have founded hospitals within the city, to which the poor of all countries, the destitute, the crippled and the diseased may repair. They receive every kind of requisite help gratuitously. Physicians inspect their diseases and, according to the cases, order their food and drink and medicine, or decoction, everything in fact which may contribute to their case. When cured they depart at their conveniences". This tradition continued long afterwards. The "*Chikitsa Vidya*" or medical science formed one of the principal subjects of study in the University of Nalanda and Vikramshila in Bihar†. Hiuen Tsang (630—43 A.D.) tells of the rest houses where physicians were stationed "with supplies of medicines to the necessitous without stint"††. In post-Mauryan period, it appears, the science of surgery declined, probably because in absence of anaesthesia patients could not stand the knife of surgeons comfortably. Kautilya in his *Arthasastra* has referred to *post-mortem* examination**. During the Gupta regime, Patna was a great centre of Ayurvedic treatment. Dhanwantari, the famous royal physician who lived at the court of Chandragupta Vikramaditya, had a nursing home at Patna known as 'Dhanwantari Vihar'§. The Nalanda University had elaborate laboratories for preparation of medicines‡.

Throughout Magadha, Sun worship is very popular and appears to have come down since the hoary past. Tradition has it that Shambe, son of Lord Krishna was afflicted with leprosy and was cured of this ailment through propitiation of the Sun-god by the Mug Brahmanas, who later settled in different parts of Magadha. They are Shakadwipis, who traditionally follow the profession of *Vaidyas*.

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*This site on way to Griddhakuta Hill is preserved by the Archaeological Department, Government of India.

†Askari, S.H. : *Medicines and Hospitals in Muslim India* (supra).

††*Ibid.*

**See, Chapter IV, Prakaran 82, *Ashumritak Pariksha, Kautilya Arthasastra*, Mysore Government Press, 1919, pp. 217—19.

§This has been corroborated by the excavations at Kumhrar.

‡This has been corroborated by excavations at Nalanda.

John Marshall* has referred to Nilkanth, a doctor of Hugli, Baijnath and Sheogobind, the Hindu doctors of Patna. He has also mentioned the remedies for many ailments such as dropsy, gout, stone, French-pox or syphilis which were prescribed by the Hindu doctors at Patna in November, 1671 A.D.

Writing at the turn of the 19th century, Francis Buchanan says that Ayurvedic medicine was taught in the districts of Bihar and Patna (now Patna and Gaya) by several of the Pandits, some of whom though grammarians, also practised this art. Udawanta of Bihar, a priest of the Jain and well-versed in grammar and other books of his sect, instructed one pupil. Besides the professions of medicine, about 700 families of Brahmans, almost all of Shakadwip, practised this art, and were the only Hindu physicians, who possessed anything like science except three of the medical tribe from Bengal, who had settled at, Patna, and about 60 Muhammadans, chiefly at Patna and Daudnagar (now in Gaya district). It was only in a few places that there were many of those who practised medicine without some sort of learning, and without books. In the whole of the Patna and Gaya districts there might be of such 30 or 40 families, mostly in the town of Patna, where they were called *Itai-Vaida*, or pretended doctors. The books on medicine chiefly studied in this district were *Sarangadhar*, *Babhat* and *Chakradatta*†.

W. W. Hunter gives an account of indigenous drugs and system of treatment used by the native doctors, *Kaviraj* or *Vaidyas* as reported to him by Dr. Simpson, the Civil Surgeon of Patna**. He gives a list of the contemporary principal drugs as: (1) Ginger, *adi* (*Zingiber officinable*), (2) Opium, *Afiun* or (*Papaver somniferum*), (3) *Ajwain* (*Ptychotis ajowan*), (4) *Asgand* (*Calotropis gigantea*), (5) *Alubakhara* (*Prunus bokhariensis*), (6) *Amiki-Guthli* (*Mangifera Indica*), (7) *Amalta'sh* (*Cassiafistula*), (8) *Anar* (*Punica granatum*), (9) *Anisun* (*Pimpinella anisum*), (10) *Anwala* (*Emblica officinalis*, (11) *Amarlata*, (12) *Arrowroot* (*Maranta arundinacea*), (13) *Babuitulshi* (*Ocimum basilicum*), (14) *Babul* (*Acacia Arabica*), (15) *Bahera* (*Teminalia belerica*), (16) *Banafshah* (*Viola odorata*), (17) *Bakas* (*Adhatoda Vasica*); (18) *Bel* (*Ægle marmelos*), (19) *Babuna* (*Anthemis nobilis*), (20) *Bhang* (*Cannabis Indica*), (21) *Bhent* (*Clerodendron viscosum*), (22) *Bhela* (*Semecarpus anacardium*), (23) *Reri* (*Ricinus communis*), (24) *Bhidi* (*Abelmoschus esculentus*), (25) *Bach* (*Acorus calamus*), (26) *Banjwain* (*Lingusticum*), (27) *Burigopan* (*Ruellia latebrosa*), (28) *Baghrera* (*Jatropha curcas*), (29) *Banada* (*Curcuma zedoaria*), (30) *Brahmdandi* or *Bahman hati*, (31) *Bhunrli*, (32) *Bhangariya*, (33) *Banarl* (*Lussa echinata*), (34) *Bhatkawen*, (35) *Champa* (*Micheliachampaca*), (36) *Chirchiri* (*Achyranthes aspera*), (37) *Chakundah* (*Cassia tora*), (38) *Chita* (*Plumbago*

*See, his journal edited by Sir Shafaat Ahmad Khan. cf. Askari, S. H. (supra).
†Francis Buchanan (*supra*).
** W. W. Hunter: *A Statistical Account of Bengal*, Vol. XI, Districts of Patna and Saran, 1877, p. 215.

zeylanica), (39) *Dadmardan* (*Cassia alata*), (40) *Dhanian* (*Coriandrum sativum*), (41) *Dhak* (*Butea frondosa*), (42) *Dudhia*, (43) *Dathura* (*Datura stramonium*), (44) *Digrotha* or *salpani*, (45) *Gambhir*, (46) *Gabh* (*Diospyros embryopteris*), (47) *Dhikwarka patha* (*Aloe Indica*), (48) *Gokhru* (*Asteracantha longifolia*), (49) *Gurich* (*Cocculus cordifolius*), (50) *Guma*, (51) Carrot, *gajar*, (52) *Gulkhairi*, (53) *Gundah barozah* (*Pinus longifolia*), (54) *Hakuch* (*Psoralea corylifolia*), (55) *Hati sunra* (*Tiaridium indicum*), (56) *Hur-hur* (*Polanisia icosandra*), (57) *Haldi* (*Curcuma longa*), (58) *Hura* (*Teminalia chebula*), (59) *Hinguwa*, (60) *Harchikar*, (61) *Indrajab* (*Wrightia antidysenterica*), (62) *Ishar mul* (*Aristolochia indica*), (63) *Zira* (*Carum gracile*), (64) *Jaint* (*Eschynomene sesban*), (65) *Jangli piaj* (*Urginea indica*), (66) *Kaladana* (*Pharbitis nil*), (67) *Kawa thunthi* (*Clitorea ternatea*), (68) *Kiwanch* (*Mucuna prurita*), (69) *Kokraundah*, (70) *Kulfa*, (71) *Kamach*, (72) *Kakri-ka-bij* (*Cucumis utilissimus*, (73) *Kaint* (*Feronia elephantum*), (74) *Khira-ka-bij* (*Cucumis sativus*), (75) *Kanghaya*, (76) *Kanail* (*Nerium odorum alba*), (77) *Lal chitra* (*Plumbago rosea*), (78) *Litiyam* (*Mangifera indica*), (79) *Makhal* (*Cucumis pseudo-colocynthis*), (80) *Mutha* (*Cyperus hexastachyus*), (81) *Munsasij* (*Euphorbia ligularia*), (82) *Musina* (*Linum usitatissmum*), (83) *Mulli* or *mahua* (*Bassia latifolia*), (84) *Nagar mutha* (*Cyperus pertenuis*), (85) *Nagesar* (*Mesua ferrea*), (86) *Narikel* (*Cocos nucifera*), (87) *Katkarej* (*Caesalpinia bonduc*), (88) *Nilophar*, another name for *bhent* (no. 21, mentioned above), (89) Indigo, *nil* (*Indigofera tinctoria*), (90) *Nim* (*Azadirachta indica*), (91) *Nuxini*, (92) *Papita* (*Carica papaya*), (93) *Nebu-ki-pati* (*Citrus limonum*), (94) *Pudina* (*Mentha sativa*), (95) *Post dana* (*Papaver somniferum*), (96) *Pasa* (*Butea frondosa*), (97) *Palwal* (*Trichosanthes dioica*), (98) *Patal hurhur*, (99) *Patal nim*, (100) *Ritha* (*Sapindis emarginatus*), (101) *Rengni* (*Solanum jacquini*), (102) Soap, *Sabun*, (103) *Safaid Zira* (*Carum alba*), (104) *Sij* (*Euphorbia nivulia*), (105) *Singhara* (*Trapa bispinosa*), (106) *Somraj* (*Vernonia anthelminitica*), (107) *Sanpt*, (108) *Satmul* (*Asparagus sarmentosus*), (109) *Sahajana* (*Moringa pterygosperma*), (110) *Sarsun* (*Sinapis*), (111) *Shahatra* (*Oldenlandia biflora*), (112) *Saharphonka*, (113) *Aniseseed*, *sonf* (*pimpinella anisum*), (114) *Samandra sukh*, (115) *Samalu* (*Vitex trifolia*), (116) *Sudarsan* (*Crinum toxicarium*), (117) *Sonth* or dried ginger (*Zingiber officinale*), (118) *Tamaku* (*Nicotana tabacum*), (119) *Til* (*Sesamum orientale*), (120) *Tarbui* (*Ipomcea turpethum*), (121) *Tutiya* or vitiol, (122) *Tisi* (*sinum usitatissimum*), (123) *Tahakar*, (124) *Imli* or tamarind (*Tamarindus indica*), (125) *Piyaj* or onions (*Allium cepa*), (126) *Lahsun* (*Allium sativum*).

He says: "The pharmacopoeia of the *Vaids* contains all the medicines comprised in the list, but it chiefly uses compounded preparations, of great traditional antiquity, composed principally of the salts of gold, silver, white pearl, coral, iron, copper, mica, mercury, antimony, sulphur and musk. A number of the above ingredients, differently combined, form their well known pills and powders. Their principal preparations are: (1) ***Mahajarankus***, containing sulphur, aconite, *dhatura*, and

mercury ; (2) *Brihat makardhuj*, containing pearl, coral, gold, silver, iron, pewter, mica, mercury, bell metal, musk, cloves and camphor ; (3) *Bishn jarantukras*, containing mercury, *sarno mukhi*, iron, mica, gold, and antimony ; (4) *Jai mangal ras*, containing *ras gandak*, a preparation of mercury, borax, copper, pewter, *sarno mukhi*, common salt, pepper, gold, iron and silver ; (5) *Sarno pathati*, containing gold and *ras gandak;* (6) *Chandra ode makardhuj*, containing *sarno sindu*, a compound of gold and mercury, camphor, nutmeg, pepper, cloves and musk ; (7) *Basant tilak*, containing gold, mica, iron, *ras gandak*, coral, pearl and pewter; (8) *Basant kusmakar ras* containing gold, silver, pewter, iron , mica, coral, pearl and lead ; (9) *Kanchan abro*, containing gold, *ras sindu*, a compound of mercury and sulphur, pearl, coral, iron, mica, silver, mensil and musk ; (10) *Saral ang sundar*, no. 1, containing *ras gandak*, borax, aconite and nutmeg ; (11) *Saral ang sundar*, no. 2, containing *ras gandak*, arsenic, gold, borax, pearl and coral ; (12) *Suchika bharn*, containing cobra poison, lime juice, musk and gold. Other medicines are principally used as anupan or adjuvants of the above, or they may be used alone". He further says : "The *Vaids* are more or less Humoralists, and believe in the existence of three humors : *bai* (the air) ; *pit*, (the bile); and *kaf* (the phlegm). According to them any change in the quantity or quality of these humors produces disease. The *Vaids* said that a correct diagnosis as to what humor was at fault could be made from the pulse of the patient, which was felt by the tips of the index, middle and ring fingers of the right hand. Most of the drugs in use amongst the *Vaids* were, according to their notion, either antibilous, alterative, or cooling, expectorant, and febrifuge. In treating acute case, the *Vaids* prescribed low diet and perfect abstinence from food for a certain period, as a lowering measure ; and *pachan karah* which was decoction of several vegetable drugs*".

The Sanskrit Sanjivan Samaj, Patna started examinations in *Ayurveda* which was taken up later by the Bihar-Utkal Sanskrit Samiti. A faculty of *Ayurveda* was opened in the Dharma Samaj Sanskrit College, Muzaffarpur. In 1914, the first All-Bihar Vaidya Conference was held at Mustafapur (Patna), which made efforts for the propagation of *Ayurveda*. A Government Ayurvedic School was established at Patna in 1926, which later attained the status of a college†. Among the leading *Ayurvedic* physicians of Patna in the present century, the late Pandit Braj Bihari Chaturvedi, popularly known as "Chaubeji", commanded universal respect for his erudition**.

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*W.W. Hunter : *A Statistical Account of Bengal*, Vol. XI; Districts of Patna and Saran (1877), pp. 213—216.

†*See, Patna Municipal Souvenir*, 1965, pp. 9—11.

**See, Chapter on Education and Culture, *Men of Letters*.

Unani System.

The influences of the Greek, Persian and Indian systems of medicines contributed to the evolution of what is generally known as *Unani* system*. The researches of Greek Philosophers, Plato, Aristotle and others contributed considerably to the foundation of this system, which in course of time, came to Egypt through translations of the Greek authors and medical institutions like Madrasa Askandraia grew up to give theoretical and practical training in this discipline. Subsequently this system was introduced in India by the Muslim rulers, but only a few of the practitioners understood Arabic and the rest had to contend themselves with Persian translations of Arabic texts on the subject.

Francis Buchanan, writing about the Patna district early in the 19th century, says, "Among the Muhammadans, the practitioners of medicine, who study Arabic, are usually called *Yurani*. They are in general educated as private pupils, attaching themselves to some practitioner; but Moulavi Mosafar, who was formerly the Mofti of the Court of appeal, teaches medicines to several pupils, although he professes all other branches of Arabic Science, and is not a practical physician"**.

Among the leading *Hakims* of Patna in the 19th century mention may be made of Md. Nasir Saheb, Mehdi Hasan Saheb, Shah Shoib Saheb of Phulwarisharif, Moulana Abdul Hamid Saheb 'Parishan' and Maulana Abdul Hakim Saheb, the last two of Sadikpur (Patna City).

There is a Government Tibbia College located at Kadam Kuan, Patna, which teaches *Unani* system of medicines and awards degrees. There are some reputed *Hakims* even in present times at Patna. There is a herbarium called Nooranibagh at Alamganj, Patna City which produces fresh herbs for use in *Unani* medicines. Many of the *Unani* practitioners manufacture their own medicines, though the district receives such medicines even from standard manufacturing firms outside.

Allopathic System.

This was introduced by the British administration and with their patronage took firm roots by the latter half of the 19th century.

Early Allopathic Physicians†—Khan Bahadur Dr. Asdar Ali Khan and Dr. Ram Kali Gupta were perhaps the earliest allopathic physicians at Patna,

*Askari, S.H.: *Medicines and Hospitals in Muslim India* (*supra*), p. 8.
**Francis Buchanan: *An Account of the Districts of Bihar and Patna in* 1811-12, (supra), p. 302.
†Based on information given by Dr. A. K. Barat, Superintendent, Patna Medical College Hospital, Patna.

who did pioneering work in their line during the last quarter of the 19th century. The following physicians, who are no more, are remembered for having advanced the allopathic science in Bihar during the present century :—

Dr. Sanat Kumar Barat (1878—1947).—After having been a lecturer in Sanskrit College, Calcutta in 1905, he took to teaching medicine in Medical School, Cuttack during (1908—11) and then came as a teacher to Temple Medical School, Patna in 1911 and made Patna his home. He became lecturer in medicine in P. W. Medical College, Patna in 1925 from which post he retired in 1935. He was widely known in contemporary medical world and commanded respect from all classes of citizens.

Dr. Wali Ahmad (died 1939).—After a short spell as a teacher in physiology in Temple Medical School, Patna, he resigned his post and took to private practice as a physician and rose high in his profession.

Dr. Tridib Nath Banerjee (died 1966).—Popularly known as Dr. T. N. Banerjee, he made great contribution to allopathic science, both as a teacher and a practitioner and was held in high esteem by medical profession as well as general public. He graduated in Medicine in 1915 and took up an appointment as a Civil Assistant Surgeon of Bihar, at Ranchi. He joined the Cuttak Medical School as a teacher of medicine (1918—24) and in 1924 went on study-leave to England and came out successful in the M. R. C. P. examinations, both of London and of Edinburgh. On return, he was appointe d Professor of Pharmacology in the P.W. Medical College at Patna; in 1932 he became the Professor of Medicine; and in 1939 its first Indian Principal and continued in the post till his retirement in 1946. He was recognised as one of the foremost physicians in Asia. During the British regime he received the title of Rai Bahadur in 1936 and was decorated with C. I. E. in 1944. He had been a member of Bihar Legislative Council since 1951.

For the first time in the annals of P. W. Medical College, Patna Dr. Banerjee introduced many scientific, diagnostic and curative methods, *e.g.*, Fractional Test Meal, Blood transfusion, Blood sugar test, Insulin Medication for diabetes, Blood urea test, Basal Metabolic Rate, Lumber Puncture of varieties of brain disorders, Cerebro-spinal Fluid test including Lange's Colloidal gold test, extensive diagnostic X-ray photography, Artificial pneumothorax (A.P.) treatment of phthisis (Lung Tuberculosis), etc*.

*SOURCE.—*A Short Life Sketch of Dr. T.N. Banerjee on his 75th Birth-day* (March, 1964), pp. 2—4.

Rai Bahadur Dr. Surendra Nath Ghosh (died 1953).—He was an eminent surgeon and a famous eye-specialist and worked in Patna General Hospital during 1917—1931.

Dr. Akhil Nath Sarkar (died 1952).—He joined P. W. Medical College in 1925 as a lecturer in Obstetric and Gynaecology and was a pioneer in this field and due to his untiring efforts patients came to flock in the vacant wards. For his meritorious work he was elected an honorary member of the Royal College of Obstetric and Gynaecology, London.

Captain Dr. M. Husnain (died 1943).—He became the first Professor of Ophthalotomy in P. W. Medical College; was a surgeon of repute and administrator; but died prematurely.

Homoeopathic System.

This has been in vogue in this district for over half a century. In the beginning there was no regular institution in this district for teaching this system of medicine as compared with Allopathic, *Unani* or *Ayurvedic* systems, which had their own institutions for imparting training in the respective sciences. In early times homoeopaths were all self-made through study of books on the subject and any literate person could claim to have become one by simply reading such books privately. This situation somewhat damaged the profession; but due to the lack of medical services in early part of the present century, particularly in rural areas, poorer sections of people did come to them for treatment. Later some of the homoeopaths, *e.g.*, Dr. Habibul Haque, began regular classes in homoeopathy at their clinics and granted degrees in this system after some sort of examination. However, there were some notable exceptions who having qualified for allopathic system had taken to homoeopathy, *e.g.*, the late Dr. N. C. Ghosh of Patna. Among the early homoeopaths, Parasnath Chatterjee, Mohan Baboo, M. Bashir, Kesho Baboo, S. M. Anjalo and Dr. Sanyal may be mentioned. An Act (Bihar Act XXIV of 1953) for the development of homoeopathic system of medicine was passed in 1953. Under this Act a Board was constituted in 1953 and has been functioning since then. Under this Board, there are five recognised Homoeopathic Medical Colleges at Patna, *viz.* (*i*) Patna Homoeopathic Medical College (1962), (*ii*) Bihar Homoeopathic Medical College (1964), (*iii*) Universal Homoeopathic Medical College (1968), (*iv*) National Homoeopathic Medical College (1968) and (*v*) Dalver Homoeopathic Medical College (1968). None of these colleges receive any grant-in-aid from Government. They prepare students for diploma in medicine and surgery and the diploma-holders may get themselves registered under section 22 of the aforesaid Bihar Act XXIV of 1953. The registered homeopathic practitioners are authorised to grant medical certificate to patients. At present (1969) there are 2,000 registered homoeopathic practitioners in Patna district.

History of Common Diseases.

The diseases most prevalent in this district in early part of the present century were fever (which included malaria, pneumonia, enteric and influenza), Kala-azar, dysentery, cholera, plague, ankylostomiasis, trachoma and cataract*.

Plague.

It appeared to be less virulent and there were fewer epidemics than formerly. Since late 1920s there has been no occurrence of this disease.

Cholera.

Since the introduction of municipal water-supply the incidence of water-borne diseases such as cholera and dysentery had much decreased in the area of the distribution. Cholera in epidemic form was common in the rural areas, even about two decades ago due to contaminated water-supplies. It has since been controlled all over the district, as indeed elsewhere in the State, due to improved supply of drinking water in countryside.

Small-pox.

This used to occur in epidemic form in the last century. With the popularisation of vaccination measures since early decades of the present century and small-pox eradication schemes in post-1960 period, the incidence of small-pox has reduced to sporadic cases scattered here and there.

Kala-azar.

It was endemic throughout the district. Since the introduction of new methods of treatment ninety per cent of the cases recovered, whereas formerly about ninety-five per cent were fatal.

Ankylostomiasis or *Hook-worm.*

This was exceedingly common throughout the district. It had been estimated that seventy per cent of the village population would on examination have showed their infection. In the majority of cases, however, few, if any, symptoms were present, or they were not noticed. A very great improvement in the general health and output of work was observed when these cases were properly treated. Cases in municipal areas were fewer. The reason lay in the insanitary habits of villagers,

Patna District Gazetteer (1924), p. 76.

who defecated in the fields around the villages and infected the earth. Until that practice ceased there was no possibility of eradicating this disease, because the hook-worm gained entrance to the body through the skin, especially the skin of the feet.

Malaria.

The marshy and low-lying areas of this district were the usual breeding grounds for the malaria epidemic. The anti-malaria measures in post-1950 period have now completely eradicated it.

Influenza.

It occurred in an epidemic form in 1918-19 and took a heavy toll of human lives*. Since then it has not visited this district as an epidemic though as usual it has its seasonal incidence.

Eye Diseases.

The most common diseases of the eye were trachoma (granular lids) and cataract. The former was attributable to dust and flies combined with ignorance and poverty. The latter although common was much less, probably owing to the fact that the longer rainy season provided more green vegetation and therefore less glare.

The diseases most prevalent now in the district are fever, dysentery (mostly during rains), diseases of the eyes, tuberculosis and venereal diseases. The incidence of hook-worm has considerably gone down in the district†.

Epidemics and their Control.

The Medical Officers of the National Extension Service Blocks are carrying out public health measures in the rural area. Mass inoculation and vaccination against cholera and small-pox are carried out by the staff of the health centres and curative measures are also taken up. Besides, the District Medical Officer of Health of the Patna District Board is responsible for the preventive measures of the epidemics in the rural areas of the district and the Health Officer of the Patna Corporation for the Patna urban areas, and the Health Officers of the Municipalities in mofassil towns in their respective jurisdiction. The Medical Officers of hospitals and dispensaries also attend to curative aspects of these cases. The Civil Surgeon, Patna is in overall charge of the epidemic control as well as the curative side.

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*See, the Census figures of 1921.

†Source.—Civil Surgeon Office, Patna.

Vital Statistics.

A comparison of vital statistics for any lengthy period is rendered impossible by the changes in the system of registering births and deaths which have taken place from time to time. In 1869 the duty of reporting deaths was imposed on the village *chaukidars*, and in 1876 the system was extended to births; but the returns received were so incomplete that they were soon discontinued, and, except in towns, deaths alone were registered until 1892, when the collection of statistics of births as well as of deaths was ordered. Under this system vital occurrences were reported by the *chaukidars* to the police, and the latter submitted monthly returns to the Civil Surgeon, by whom statistics for the whole district were prepared*.

The vital statistics are now collected in Bihar under the Bengal Births and Deaths Registration Act, 1873 which makes the registration of births and deaths compulsory. This Act extends over the whole of Patna district. Since 1959-60, this work has been entrusted to *Gram Sevaks* who are now the registering authority. Before 1965, the relevant data used to be compiled by Junior Statistical Supervisors at the *anchal* level and by the District Statistical Officer at the district level ; but are now directly transmitted to the State headquarters from the *anchal* level for further processing. In urban areas the municipal body maintains the necessary record and transmits the information. Compilation and analysis of data for the State is done by the Directorate of Statistics, Bihar.

*Patna District Gazetteer, 1924, pp. 75-76.

TABLE I.

VITAL STATISTICS (1901—1911).

Year.	Population under registration.	Births.		Deaths.		Death per 1,000 from—							
		No.	Ratio per 1,000.	No.	Ratio per 1,000.	Plague.	Cholera.	Small pox.	Fever.	Dysentery and Diarrhoea.	Respiratory disease.	Injury.	All other cause.
1901 ..	16,24,985	71,613	44.06	92,291	56.79	16.86	1.46	.51	29.33	5.06	..	·70	19.71
1902 ..	16,24,985	69,873	42.99	67,410	41.48	1.71	3.37	3.05	14.93	3.48	·27	·70	13.94
1903 ..	16,24,985	73,627	45.30	76,001	46.77	7.19	3.08	1.19	16.23	3.55	·37	·68	14.45
1904 ..	16,24,985	69,424	42.72	82,221	50.59	16.00	·79	·32	15.17	3.46	·62	·74	13.45
1905 ..	16,24,985	66,198	40.73	95,456	58.74	14.72	5.00	·27	18.28	4.19	1.25	·78	14.21
1906 ..	16,24,985	66,907	41.17	77,217	47.57	9.15	3.81	·47	15.81	3.14	1.28	·78	13.05
1907 ..	16,24,742	67,448	41.51	78,805	48.50	13.45	1.97	1.05	15.86	2.48	1.37	·77	11.51
1908 ..	16,24,742	59,151	36·40	59,055	36.34	1.25	1.66	3.11	15.98	1.83	1.04	·74	10.70
1909 ..	16,24,742	58,446	35.97	68,284	42.02	1.03	1.52	1.85	24.28	1.74	1.09	·77	9.71
1910 ..	16,24,742	57,393	35.32	74,972	46.12	5.22	8.38	·30	18.30	2.12	·95	·72	10.11
Average of 1901—1910.	..	66,008	40.617	77,171.2	47.486	8.658	3.104	1.212	18.417	3.105	·824	·738	13.048
1911 ..	16,09,631	68,461	42.53	79,175	49.18	12.46	4.10	·14	16.74	2.64	1.10	·80	11.18

*SOURCE—*Patna District Gazetteer*, Statistics, 1900-1901 to 1910-1911, p. 10, (1915.)

From the above statistics (table I) it appears that the ratio of deaths per 1,000 population was higher than that of births per 1,000 population in the decade 1901—1911. This trend may be attributed to toll of frequent epidemics as also unsatisfactory economic condition of the masses.

In January, 1900 plague* appeared in epidemic form, and by the close of the year the number of deaths reported as due to it was 23,022. The disease continued to rage throughout the early years of the present century, carrying off 1,14,000 persons during the first five years, and evidently being largely responsible for the decrease of population which appeared at the census of 1911. The Table II below shows the birth and death rates per 1,000 in the district and in the principal towns, during the decade (1913 —1921):—

TABLE II.

VITAL STATISTICS

Year.	District.		Patna City.		Bihar Town.		Danapur Town.		Barh Town.	
	Births.	Deaths.	Births.	Deaths.	Births.	Deaths.	Births.	Deaths.	Births.	Deaths.
1913 ..	41.18	33.94	23.24	29.33	42.67	26.34	32.97	21.01	28.56	26.59
1914 ..	40.47	34.52	19.95	34.46	37.23	27.31	35.26	28.62	30.97	30.86
1915 ..	41.79	35.84	24.63	23.07	37.58	33.14	35.52	26.62	36.44	35.78
1916 ..	40.92	33.51	23.99	24.94	39.00	33.23	36.00	33.58	37.64	35.34
1917 ..	40.96	43.42	24.98	30.86	33.62	35.50	36.52	41.57	39.72	37.31
1918 ..	37.42	63.07	24.10	32.83	31.06	37.11	31.71	31.33	34.14	38.80
1919 ..	31.76	31.17	23.26	23.84	26.03	18.36	31.65	24.50	31.73	29.76
1920 ..	35.19	34.39	27.12	26.08	26.43	22.67	36.94	28.17	29.22	29.22
1921 ..	37.36	23.40	31.75	22.52	18.71	18.68	33.71	22.21	42.76	28·94

**District Census Handbook, Patna*, 1954, p·iv·

The high mortality of 1918, when 1,01,526 deaths were registered, is to be attributed to the influenza epidemic of that year, which principally affected the rural districts. The mortality of that year was higher than in 1905 (58.74) when plague was raging in the district. In 1921 there was an epidemic of cholera which alone caused 18,745 deaths. The decennial period (1913—1922) is generally marked throughout by comparatively low death-rates in the towns, by comparison with the earlier years of plague epidemics. During the quinquennium 1901—1905 the average death-rate in the four towns was 61 per mile.

The Census of India, 1941, gives the following figures of vital statistics for Patna district*:—

1931—1941.		Per 1,000 of 1931 population.	
Births.	Deaths.	Births.	Deaths.
6,15,096	4,04,507	333	219

Plague did appear in the decade 1921—30, but not in epidemic form. There were mild epidemics of cholera in 1930 and 1934 and a further fall in the fever death-rate. Generally, economic conditions were satisfactory throughout the decade (1931—41). When we compare the death-rate of 1931 with the death-rate of 1922 it appears that the figure falls in 1931 by 2.31 per cent.

TABLE III.

VITAL STATISTICS (1941—1950)†

Year.	Births (Registered).			Deaths (Registered).		
	Persons.	Males.	Females.	Persons.	Males.	Females.
1941 ..	44,134	22,551	21,583	34,953	17,818	17,135
1942 ..	39,227	30,268	18,959	28,608	14,879	13,729
1943 ..	35,622	18,195	17,427	25,097	13,146	11,951
1944 ..	49,361	25,586	23,775	44,095	22,915	21,180
1945 ..	65,166	33,826	31,340	42,956	21,923	21,033
1946 ..	50,116	25,903	24,213	29,507	15,528	13,979
1947 ..	39,773	20,678	19,095	31,666	16,424	15,242
1948 ..	42,406	22,208	20,198	36,323	18,940	17,383
1949 ..	36,811	18,675	18,136	32,568	17,110	15,458
1950 ..	39,802	20,728	19,074	26,587	14,063	12,524

Census of India, 1941, Volume VII, Bihar, Tables, p. 13, 1942.

†*District Census Handbook, Patna*, 1954, p. 120.

The above statistics (Table III) for the decade (1941—1950) show rather intriguing fluctuations and may be attributed to faulty collection. The highest incidence of births was in 1945 while the lowest was in 1943 and the variation is of more than 30,000 births in the year. So far as deaths are concerned the highest incidence was in 1944 and the lowest in 1943 and the variation is more than 17,000. For reasons of violent fluctuations of deaths we have to look to epidemics. Cholera and small-pox have had a big toll while 'fever' was another cause of high incidence of death.

TABLE IV.

VITAL STATISTICS (1951—61).

Year.	No. of births registered.			Ratio of births per 1,000 of population.			Excess of births over deaths per 1,000 of population.	No. of deaths registered.		
	Males.	Females.	Total.	Males.	Females.	Total.		Males.	Females.	Total.
1951* ..	20,256	19,085	39,341	8.01	7.55	15.56	5.18	13,448	12,807	26,255
1952** ..	20,160	18,738	38,898	7.97	7.41	15.38	7.12	10,691	10,182	20,873
1953† ..	26,736	24,608	51,344	10.57	9.73	20.31	10.25	13,310	12,121	25,431
1954‡ ..	26,704	24,625	51,329	10.56	9.74	20.30	9.49	13,967	13,376	27,343
1955§ ..	24,518	21,912	46,430	9.70	8.67	18.36	9.48	11,547	10,896	22,443
1956§§ ..	29,173	26,377	55,550	11.54	10.43	21.97	10.87	14,179	13,898	28,077
1957£ ..	18,929	17,015	35,944	7.49	6.73	14.22	6.32	9,289	8,923	18,212
1958£ ..	18,946	17,715	36,661	7.49	7.00	14.49	5.47	10,809	10,239	21,048
1959£ ..	13,974	12,388	26,362	5.53	4.90	10.43	4.90	6,894	5,258	12,152
1960£ ..	13,421	12,199	25,620	5.31	4.82	10.13	4.08	7,614	6,118	13,732
1961@ ..	15,799	14,277	30,076	5.33	4·82	10.15	4.07	9,498	8,517	18,015

*Condensed Annual Vital Statistics Report for the Years 1950 and 1951 (1957), pp.4—7 and 19—23, 1958, pp. 6-7 and 28-29, 1960, pp. 6-7 and 24-25, 1962, pp. 6-7 and 30-31 and 1965, pp. 6-7.

**Ibid, years 1948—1952, published by the Directorate of Economics and Statistics, Bihar (1957), pp. 4—7 and 19—23.

†Annual Vital Statistics of Bihar for the year 1953 (1956). pp. 6-7 and 24-25.

‡Ibid, (1958), pp, 6-7 and 28-29.

§Ibid, (1960), pp. 6-7 and 24 25.

§§Ibid, (1962), pp. 6-7 and 30-31.

£ District Census Handbook, Patna (1966), pp. 137—139.

@Condensed Annual Vital Statistics Report for the years 1960-61 (1965), pp. 6-7.

TABLE IV—*contd.*

VITAL STATISTICS (1951—61) *contd.*

Year.	Deaths rate 1,000 of population.					Deaths rate 1,000 of population—*contd.*		All causes.			
	Cholera.	Small pox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	Males.	Females.	Total.
1951 ..	0.49	0.57	Nil	7.27	N.A.	N.A.	N.A.	2.05	10.37	10.40	10.38
1952 ..	0.40	0.15	Nil	5.91	N.A.	N.A.	N.A.	1.79	8.24	8.27	8.25
1953 ..	0.51	0.08	Nil	6.76	0.18	0.23	0.15	2.15	10.27	9.85	10.06
1954 ..	0.26	0.06	Nil	7.47	0.19	0.27	0.12	2.44	10.77	10.87	10.81
1955 ..	0.58	0.21	Nil	5.55	0.20	0.19	0.06	2.09	9.90	8.85	8.88
1956 ..	0.78	0.22	0.01	7.05	0.17	0.18	0.03	2.66	10.93	11.29	11.11
1957 ..	0.31	0.11	Nil	4.50	0.09	0.12	N.A.	1.57	6.48	6.50	6.49
1958 ..	0.21	0.20	Nil	5.11	0.10	0.10	N.A.	1.86	7.42	7.38	7.38
1959 ..	0.31	0.03	Nil	1.95	0.11	0.13	N.A.	1.90	4.66	3.70	4.19
1960 ..	0.16	0.03	Nil	2.63	0.13	0.14	N.A.	1.87	5.05	4.33	4.70
1961 ..	0.18	0.01	Nil	2.57	N.A.	N.A.	N.A.	2.69	6.21	5.94	6.08

During the period 1951—60, 2,12,817 male and 1,94, 662 female births were registered. The number of deaths recorded during the same period was 1,11,748 males and 1,03,818 females. Thus, the net addition to the population of the district on account of natural accrual was 1,01,069 males and 90,844 females*.

The Table IV shows the highest incidence of births in 1956 while the lowest was in 1960 and the variation was of 29,930 births in the year. So far as deaths are concerned, the highest incidence was in 1956 and the lowest in 1959 and the variation was 15,925. The highest incidence of deaths in 1956 is mainly due to the outbreak of cholera and small-pox epidemics in the district.

General Health.

A review of the vital statistics shows a steady improvement in the general standard of health of the people. Both birth and death rates have been showing a downward tendency in recent years. Malaria has now been almost completely eradicated, in view of the measures taken under the National Malaria Eradication Programme. Cholera and small-pox are also under control. The mortality from cholera in the district has not exceeded 1,648† in any year of the decade (1951—60) and the casualty in 1960 was only 467**. Small-pox claimed 4,307 lives during the decade 1951—60. The number of deaths from small-pox in 1960 was only 78 as against 1,434 in 1951. The next largest number of deaths due to small-pox in any one year of the decade was 580‡ in 1958, coming down to 91§ in 1959††. The incidence of tuberculosis has also much reduced. Apart from the B.C.G. campaign, T.B. Centres and Wards have been opened at Patna, Barh and Biharsharif. Patna has a T. B. Demonstration Centre also as a part of UNICEF Health Programme. The incidence of leprosy in the district is negligible. Filaria is still a common affliction, mostly in urban areas, though its incidence is on decline.

The normal diet of common people in rural areas is of poor caloric value. It usually consists of rice, wheat, maize, vegetables and a little *dal*. The poorer classes usually live on coarse rice, maize flour and cheap grains like *marua*, *khesari*, etc. The middle classes generally consume more rice, some wheat, *dal* and vegetables, a little fish, meat and eggs and local fruits, *e.g.*, mango and guava. The people in higher income-groups consume rice, wheat, lintils, green vegetables, fish, meat, egg, milk and fruits. The diet of the people in upper income-groups is getting more balanced than in the past and thus provides them better resistance against diseases.

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*District Census Handbook, Patna, (1961), p. Li.
†Ibid, p. Lvi
**Ibid.
‡Ibid.
§Ibid.
††Ibid.

Present Medical Facilities.

At the time of the 1961 Census, this district had 198 allopaths, 1,339 homoeopaths, 648 *Vaidyas* and 87 *Hakims*. Thus there was one medical practitioner for every 1,298 persons in the district*.

The number of persons engaged in medical and public health work as returned in the 1961 Census was as indicated in table below**:—

Description.	Persons.	Males.	Females.
Physicians and Surgeons, Allopathic	733	672	61
Physicians, *Ayurvedic*	487	478	9
Physicians, Homoeopathic	779	771	8
Physicians, Other	240	234	6
Dentists	2	2	..
Physicians, Surgeons and Dentists, n. e. c.	401	379	22
Nurses	563	335	228
Midwives and Health Visitors	374	59	315
Nursing Attendants and Related Workers	334	199	135
Pharmacists and Pharmaceutical Technicians ..	780	761	19
Vaccinators	147	147	..
Physiotherasists, Masseurs and Related Technicians ..	21	19	2
Sanitation Technicians	489	487	2
Opticians	9	9	..
Medical Health Technicians, n.e.c. (excluding Laboratory Assistants).	352	346	6

Modern Hospitals and Dispensaries.

In early 1920s the Patna General Hospital and the hospitals at Gulzarbagn, Gardanibagh and Bikram were State institutions, while institutions supported from local funds were the hospitals at Patna City, Barh, Bihar and Danapur ; and the dispensaries at Maner, Punpun, Khusrupur, Karai-Parsarai, Mokameh, Rajgir, Bharatpura, Khagaul,

District Census Handbook, Vol. I, Patna (1961), p. LVII.
**Ibid.

Masaurhi, Chandi, Islampur, Fatwa, Bakhtiarpur, Haranaut and Paliganj. In 1895 the number of patients treated was 1,19,000 ; in 1905 it was 1,60,000 while by 1922 it rose to 2,57,000. 10,636 surgical operations were performed at the Patna General Hospital during the year. The number of surgical operations performed in other Government hospitals was 1,466 ; in hospitals supported from local funds 13,226 ; and in dispensaries 5,657. Expenditure on the Patna General Hospital during 1922 was Rs. 1,24,200 and on other Government hospitals Rs. 13,740. The expenditure during the year on hospitals and dispensaries supported from local funds was Rs. 1,01,700*.

As many as 1,760 beds are provided in hospitals and dispensaries of the district. This gives a proportion of one bed for every 1,676 persons in the district. Similarly, there is on an average one hospital or dispensary to serve an area of 31 square miles.

The Patna City, Biharsharif and Barh subdivisional hospitals and the Rajgir Dispensary have maternity and child welfare centres attached to them, to cater to the special needs of children and mothers.

Patna Medical College Hospital.

The Government of Bihar and Orissa in their letter, dated the 25th February, 1918 sanctioned the provincialisation of the Bankipore General Hospital with effect from 1st April, 1918 under the nomenclature of Patna General Hospital. The Civil Surgeon, Patna took charge of the hospital as the Superintendent from the Committee of Management.

On the 1st April, 1918 its bed capacity was 240 and the number of patients treated, both in and outdoors, were as follows : Indoor—2,614 ; Outdoor—33,736. The daily average of patients was: Indoor—134.81 ; Outdoor—220.33.

In 1925-26, the Patna General Hospital underwent a complete change as a result of the conversion of the Temple Medical School into a Medical College and the raising of the hospital to the standard suited to the training of medical graduates, and it then became known as Medical College Hospital. The number of beds in the hospital was increased to 366. From the 1st April, 1918 to 24th February, 1925 the Civil Surgeon, Patna was the part-time Superintendent of this hospital and had a Deputy Superintendent to assist him in its general administration.

In 1928, the Radium Institute, which was then at Ranchi, was brought to the campus of this hospital and put under the administrative control of its Superintendent. It is an All-India Institution.

**Patna District Gazetteer* (1924), pp. 79-80.

By 1930 this hospital had 513 beds and consisted of a large double storeyed main block and two operation theatres. This block contained four surgical wards, four medical wards, one female surgical ward and three cabins for electro-therapeutic department. Attached by a covered overhead passage are the eye, ear, nose and throat departments over the general out-patients' departments. This block consists of 86 beds and four cabins and an operation theatre. Out-patients' departments are for surgery, medicine, eye, ear, nose and throat and dental and are fully equipped with dark-rooms, operation theatres, dressing rooms, etc. In its close proximity is the 'Hospital for Women', a double storeyed building with 86 beds. It has a complete out-patients' department both general and gynaecological. There are gynaecological, obstetrical and labour wards with operation theatres on both the floors with six paying cabins, known as Wheeler Cabins. The Septic Block consists of two wards each consisting 12 seats for males and 12 for females—the latter being now used as 'prisoner's ward' for the accommodation of sick prisoners.

On the establishment of the Medical College, the Principal of the college was made part-time Superintendent of the hospital and he had to carry on dual duty, both of the college and of the hospital. The professors of the clinical subjects, *viz.*, medicine, surgery, ophthalmology and gynaecology were attached to the hospital as the heads of the respective units and the former Assistant Surgeons of the hospital for each unit began to function as lecturers on the college side and Assistant Surgeons in charge of the respective departments on the hospital side.

The Infectious Diseases Hospital consists of two parts—one part of five wards for infectious diseases, and the other part of three wards with open verandah for open pulmonary tuberculosis cases. This building is situated in an open space on the bank of the Ganga.

The electro-therapeutic department is fully equipped with up-to-date apparatus for skingraphy, deep X-ray therapy, ultra-violet therapy, etc. Above this department are clinical rooms for the hospital pathologists and students' clinical lecture theatre.

Till 1932, the general management of the hospital was under the administrative control of the Principal, Prince of Wales Medical College, but from 1933 this arrangement was changed and a professor of the Medical College was deputed to work as the Superintendent of the hospital in addition to his own duties. Since October, 1935, the hospital has a whole-time Superintendent.

In 1933 the bed capacity of the hospital was expanded to 539 including 25 beds of the Radium Institute. The number of patients in all its departments increased and all the medical and surgical wards were overcrowded and it was thought expedient to open another

70-bedded ward under the designation of 'Convalescent Department' in the old Pirbahore thana building. The opening of this ward was sanctioned by Government in 1940. Out of 70 beds 35 were allotted to medical unit and 35 to Surgical. The Convalescent Ward was converted into venereal diseases ward from April, 1949 which has now shifted elsewhere. On that site a new building has been constructed for Tuberculosis Demonstration and Training Centre by the joint efforts of the World Health Organisation, Government of India and the State Government of Bihar.

In 1948 a new Children's Hospital was opened which accommodates 40 medical and 38 surgical beds. A new Nursing Home with 18 rooms and a separate operation theatre has been constructed by the side of the old Cottage Hospital and is functioning since the 15th August, 1951.

Due to severe overcrowding the verandahs, etc. of the Children's Hospital (Medical) have all been converted into beds. On an average over 150 patients in the Children's Medical Wards are being treated. An emergency treatment room and Human Milk Bank has also been opened.

A set of 12 flats for Medical Officers has been built for residential purposes and are being utilised as such. Twenty-four paying wards have also been constructed. But for the present they are being utilised for residential purposes for Medical Officers.

A deep X-ray Block is functioning as such adjacent to the Radium Institute. Extension of the outdoor patient department has been completed and it is functioning. The Dental College is also accommodated in this building. A Cancer Hospital and a Blood Bank are also attached to Medical College Hospital.

The latest developments include the addition of a third storey over the 250-bedded double storeyed building of the Rajendra Surgical Block, which started functioning from 1956. On the third storey of this building are housed the Orthopaedic Department, Department of Plastic Surgery and the Chest Surgery Unit. The Physiotherapy unit has also been started under the Professor of Orthopaedic. It is at present housed in a separate building on the bank of the Ganga and has 30 sanctioned beds. There is a separate X-ray unit for this section.

The number of indoor and outdoor patients treated at the Patna Medical College Hospital from 1959 to 1963 are as follows*:—

	1959.	1960.	1961.	1962.	1963.
Indoor	4,72,675	4,98,590	5,13,190	5,78,495	5,60,643
Outdoor	4,24,297	4,83,856	4,82,451	4,91,683	4,59,992

* SOURCE.—Superintendent, Patna Medical College Hospital.

During the last few years the average number of indoor patients has been over 1,400 and the number of outdoor patients has been about 1,200 per day.

At present (1965) the sanctioned number of beds for the hospital is about 1,200 out of which 78 are paying beds. There will be a further addition of 108 beds on the 3rd storey of the Rajendra Surgical Block and about 30 beds on the second storey of the Radium Institute.

Following are the rough details of the sanctioned number of beds in the various sections of the hospital :—

	Beds.
(1) Medical Unit	170
(2) Surgical Unit	247
(3) Eye, Ear, Nose and Throat Unit	161
(4) Obstetric and Gynaecology	186
(5) Children Medical	143
(6) Children Annexie extra beds	44
(7) Skin and Venereal diseases	50
(8) Orthopaedic Unit	57
(9) Paying beds	78
(10) Radium Institute	24
(11) Non-paying other beds like University students, medical students, nurses' sick room and prisoners' ward.	40

Hospital for Cardio-Vascular Diseases.—The present Hospital for Cardio-Vascular Diseases of Patna Medical College Hospital opened on 15th January, 1956, is the only hospital in Bihar catering exclusively for the medical needs of the patients suffering from diseases of heart and circulation. Housed in a separate building of its own, it is a

thirty-bedded hospital, well equipped to carry out modern specialised investigation and treatment*. At present (1966) it treats about 5,000 outdoor patients and about 500 indoor patients annually.

Holy Family Hospital.

It is located at Kurji (Patna) and was opened in 1940 by the Roman Catholic Mission. It has bed capacity of 160 and is equipped with modern medical appliances. This hospital has continued to grow popular.

Nazarath Hospital, Mokameh.

Sponsored in 1948, this is a well equipped hospital and renders valuable service to the locality. It has also a leper clinic, started in 1952 at which free treatment is given bi-weekly to nearly 1,500 lepers. It has started an orphanage for illegitimate children. In 1949 a nurses' training school was opened in the hospital in which 77 students are at present (1966) under training. In 1965 a midwifery training course was also started and the number of students under training in 1966 was 15.

The hospital has 175 beds for indoor patients. The staff consists of three male and one female doctors, one radiologist, two technicians and 65 other non-medical personnel. The hospital treats indoor patients (both free and at reduced charges) and also outdoor patients.

The total number of patients, both indoor and outdoor treated in this hospital from 1949 to 1964 is as follows :—

Indoor Patients Treated.

Year.	Number.
1949	1,091
1950	1,475
1951	1,281
1952	1,335
1953	1,565
1954	1,864
1955	2,805
1956	3,064
1957	3,729
1958	4,281
1959	4,412
1960	4,385
1961	5,071
1962	5,663
1963	6,411
1964	7,547

* *See,* Appendix I at the end of this Chapter.

Outdoor Patients Treated.

Year.	Number.
1949	15,199
1950	15,346
1951	12,936
1952	7,215
1953	22,126
1954	33,174
1955	26,408
1956	43,429
1957	31,680
1958	30,670
1959	38,976
1960	51,667
1961	39,381
1962	23,368
1963	25,004
1964	38,579

T. B. Patients treated.

1960	28
1961	72
1962	96
1963	74
1964	65

Delivery cases conducted in the hospital.

1949	88
1950	106
1951	92
1952	116
1953	152
1954	233
1955	445
1956	685
1957	643
1958	827
1959	708
1960	590
1961	734
1962	793
1963	952
1964	1,200

Employees' State Insurance Corporation Dispensaries.

There are six such dispensaries in this district, located at (1) Jamal Road, Patna, (2) Patna City, (3) Digha, (4) Phulwarisharif, (5) Mokameh and (6) Hathidah. The Jamal Road dispensary is a five-doctored unit. The Patna City, Digha, Phulwarisharif and Mokameh dispensaries are

each two-doctored units. The dispensary at Hathidah is one-doctored unit. At present (1965) the average daily attendance at all these dispensaries taken together in this district is 1,195 (398 new cases and 797 old cases). This figure includes insured persons as well as their dependent members. Seven general beds have been reserved for the Employees' State Insurance patients in Patna City and Danapur sub-divisional hospitals. Besides patients treated at these dispensaries, patients needing specialist treatment are admitted on general beds in Patna Medical College Hospital.

State Dispensaries in Rural Areas.

Many of the dispensaries in rural areas, formerly managed by the Patna District Board have since been provincialised and brought under control of State Health Department*. Some still continue under the District Board.

Block Health Centres.

The State has provided for medical facilities in National Extension Blocks of the district, each Health Centre having one Medical Officer of the rank of Civil Assistant Surgeon, one Lady Health Visitor, one Sanitary Inspector, Midwives and Health Workers. Besides, there are health sub-centres in each Block with a health assistant and a *dai*. The Medical Officer of the Block has been provided with a vehicle to enable him to move to different health sub-centres and also other parts of the Block to co-ordinate health activities.

Maternity and Child Welfare Centres.

A number of them are located in this district. In order to meet their requirements and also of Family Planning Centres, a Lady Health Visitors' School has been opened at Patna, which is functioning under the control of the Civil Surgeon, Patna.

A number of *dais* have been trained at Patna City Hospital, Biharsharif Subdivisional Hospital, Amawan Zenana Hospital, Rajgir State Dispensary and Datiana Maternity and Child Health Centre. Refresher courses have also been given to a number of *dais* and they have been provided with Maternity Kit-Boxes at the end of the training period.

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*See, Appendix II at the end of this Chapter.

Tuberculosis Training and Demonstration Centre.

It was opened at Patna in 1951. Approximately 32 to 34 thousand patients are being examined at this centre annually. At present (1968) treatment is given here to about 600 patients.

Municipal Dispensaries.

The Municipalities in this district have been maintaining their dispensaries in their respective jurisdiction since long*.

Institute of Pharmacy, Patna.

This Institute was started in 1960 and comprises three sections, *viz.*, (*i*) Bihar Drug Control Laboratory, (*ii*) Pharmacy School, and (*iii*) Drug Research Laboratory. The Bihar Drug Control Laboratory was started in 1947. It checks the genuineness of drugs and analyses them. It was functioning independently prior to 1960. It was then under the charge of a Director. It has now three officers, called Government Analysts, two technicians and two Laboratory Attendants. It has a full-fledged laboratory. The Pharmacy School was started in 1958 with one officer known as the Principal, four Lecturers, five Demonstrators, one Mechanic, one Pharmacist and four Laboratory Attendants. It imparts education in pharmacy for preparing students for an intermediate course for two years, at the end of which an examination is conducted by Government of Bihar. The successful candidates get Diploma in Pharmacy. The total number of seats in the school is 60 and matriculates with science or mathematics or chemistry, physiology and hygiene are admitted into it. Prior to 1960 it had been functioning independently. The Drug Research Laboratory was started in 1960 with one Director, one Assistant Director, three Research Fellows, three Senior Scientific Assistants, three Technicians, two Laboratory Assistants and two Mechanics. Its main function is to make researches in indigenous medicines. At present (1965) it is engaged in research on filaria and leucoderma. These three sections are now under one Director.

Hospitals for Indigenous Medicines.

Ayurvedic College Hospital, Patna.

The number of patients treated at this hospital for the four years ending 1963-64 was as follows† :—

Years.	Patient treated.	
	Indoor.	Outdoor.
1960-61 ..	16,518	2,29,024
1961-62 ..	10,508	2,26,781
1962-63 ..	11,613	2,31,726
1963-64 ..	11,734	2,18,938

*See, Local Self-Government Chapter.
†Source—Ayurvedic College, Patna.

At present (1965) Ayurvedic dispensaries are being maintained by the District Board, Patna at the following places* :—

(1) Pitwana ; (2) Sehra ; (3) Tiskhora ; (4) Lai ; (5) Raghopur Behta ; (6) Rampur ; (7) Nuam ; (8) Mohanpur Abgila ; (9) Fatehpur ; (10) Saksohra ; (11) Maranchi; (12) Baddopur ; (13) Salimpur ; (14) Sarfaraj Nagar Kehra ; (15) Soradih ; (16) Darbe Bhadaur ; (17) Khajurar; (18) Rupas ; (19) Chrora ; (20) Bhasimpur ; (21) Pawapuri ; (22) Binda ; (23) Badi ; (24) Hussainpur ; (25) Barara ; (26) Khodaganj ; (27) Rahui ; (28) Bhathar ; (29) Khohrampur ; (30) Mirchaiganj ; (31) Mohammadpur; and (32) Sahar Rampur.

Government Tibbi College Shefakhana, Patna.

The *Shefakhana* attached to the college has two wings (*i*) Medicinal and (*ii*) Surgical. The staff consists of three *Hakims*, one head *Attar* (Compounder), two Assistant *Attars*, one Dresser, three dispensary servants and one *dai* (maid-servant).

The number of patients treated in the *Shefakhana* for four years ending 1963-64 was as follows :—

Years.	Patient treated.
1960-61	1,28,550
1961-62	1,17,305
1962-63	1,20,599
1963-64	1,32,137

Homoeopathic Dispensary.

The District Board, Patna maintains a homoeopathic dispensary at Tarwan**.

Unani Dispensaries.

At present (1965), the District Board, Patna maintains Unani dispensaries at Desna, Sheikhpura and Gilani†.

*SOURCE—District Board, Patna.
**Ibid.
†Ibid.

Medical and Public Health Organisation.

Since 1952 both medical and public health services were amalgamated and placed under one Director of Health Services.

The Civil Surgeon-*cum*-Senior Executive Medical Officer is the head of the Government medical organisation in the district. He is Inspecting Officer for all the Government and the District Board hospitals and dispensaries. He is also expected to help the Missionary and the other private hospitals within the district.

The Civil Surgeon combines in him the dual functions of looking after the preventive and curative aspects of diseases. The District Medical Officer of Health, though independent in certain respects is to help the Civil Surgeon for the preventive side. Both of them have to work together to prevent outbreak of epidemics and take proper steps when there are epidemics. The Civil Surgeon is also the Official Drugs Inspector and has to see that spurious drugs are not introduced.

The District Medical Officer of Health is an employee of Health Department. He is deputed to the District Board and is responsible for public health organisation in rural areas. At subdivisional headquarters Assistant Health Officers are posted for health work under the District Medical Officer of Health. The Health Officers have also been posted in Patna Municipal Corporation, Bihar Municipality, Danapur Nizamat Municipality and Khagaul Municipality. At each thana headquarters there is one Health Inspector with two Disinfectors and for every three thanas there is one Sanitary Inspector. There are in all five Assistant Health Officers, five Sanitary Inspectors and twenty-two Health Inspectors. Besides, there are 80 vaccinators and 56 Disinfectors in the district. The Assistant Health Officer, Sanitary Inspectors and Health Inspectors supervise the work done by the Disinfectors and Vaccinators. With the setting up of the Community Development Blocks, the services of the District Vaccinators have been placed under the Medical Officer of the Block concerned.

Sanitation.

The medical profession, particularly in private sector, has tried to do its bit by sponsoring health week, exhibition for anti-fly and anti-malaria and other problems. The State Government in the Health Department has also a number of such schemes. The Community Development Blocks and the village *Panchayats* have been entrusted with village sanitation work.

There is a health education team for this district maintained by Government. It consists of one Sanitary Inspector and one Assistant Cinema Operator. Sometimes it visits rural areas and shows cinema films on health to villagers as to how they can protect themselves against

epidemics and diseases. The problems of urban sanitation, water-supply, slum clearance, underground drainage, etc. have already been discussed in the chapter on Local Self-Government.

Public Health Activities.

Anti-Malaria Measures.

The district had no problem of malaria even before the National Malaria Eradication Programme was sponsored by the Central Government. Before commencement of the programme a survey was taken in the district which revealed that no malaria parasite was found in fever cases. However, as the eradication programme was introduced in Bihar on 1st April, 1958 this district also got a branch for the purpose. ×

From 1959 to 1961, each year one round of 5 per cent D.D.T. was sprayed in the houses and cattle sheds of the district giving a deposit of 100 mg. per square foot on the sprayed surface. In order to detect cases of malaria mechanism of active and passive surveillance was started in the latter half of 1960 simultaneously. By active surveillance those cases are meant which were taken in hand directly by the Anti-Malaria Department. By passive surveillance those cases are meant which were treated through hospitals, dispensaries and private practitioners. For active cases there were 100 Surveillance Workers and 25 Surveillance Inspectors. For passive cases assistance of all the hospital practitioners was taken. For this purpose fever cases were given preventive treatment and their blood slides were examined for detection of malarial parasites if any. The results of these examinations are incorporated in table below :—

Year.	Fever cases detected.		Blood slides taken and examined.		No. of blood slides detected.	
	Active.	Passive.	Active.	Passive.	Active.	Passive.
1961 ..	88,048	4,998	88,042	4,868	Nil	Nil
1962 ..	1,28,127	13,275	1,28,027	13,175	,,	,,
1963 ..	1,50,880	15,482	1,50,429	15,480	,,	,,
1964 ..	1,56,840	23,438	1,56,738	23,328	,,	,,

All the activities and achievements and progress made by the National Malaria Eradication Programme were scrutinised by an Independent Appraisal Team in 1964. Upon their recommendation the district passed into maintenance phase by 1st August, 1965 and their achievements are the direct responsibility of the Public Health Department of the State. The work in this phase consists of maintaining immunity of the district from malarial infections. All the malaria eradication units of Patna have since been abolished ; but to maintain immunity from malaria within the district there is an Additional District Medical Officer of Health with a staff of 92 Basic Health Workers only though there is an allotment of 102 Basic Health Workers. These Basic Health Workers are posted under the Medical Officers of different Blocks. The Basic Health Workers are also the staff of the health centres and sub-centres to make domiciliary visit once a month in search of fever cases. The staff and the officers are under the Chief Malaria Officer, Bihar, Patna and under the administrative control of the Senior Executive Medical Officer and Civil Surgeon of the district. Roughly 50 per cent expenditure under this head is met by the Central Government and the remainder by the State.

Anti-Cholera Measures.

The local bodies draw programme for anti-cholera measures before the on-set of epidemic season and follow it throughout its duration under the supervision of District Medical Officer of the Health and the Regional Deputy Director of Health Services, Patna Division.

Cholera.—The work in respect of cholera inoculation during the decade (1955—1964) was as follows in this district* :—

Years.	Total number of inoculation.
1955	4,29,997
1956	8,74,520
1957	6,90,420
1958	6,26,663
1959	6,88,161
1960	6,49,904
1961	8,77,947
1962	7,41,259
1963	12,46,861
1964	15,17,358

*SOURCE.—District Board, Patna.

The Food Adulteration Act, 1954 is in force all over the district. All those who sell food-stuff are licensed under the provision of this Act and have to conform to specifications of food standard. Samples of edible articles as *ghee*, mustard oil, *haldi*, *atta*, etc. are collected from time to time and sent for analysis.

Small-pox Eradication Programme.

An intensive drive has been launched for total eradication of small-pox in the State of Bihar as well as in this district. A Medical Officer of the rank of Deputy Director of Health is in charge of this programme.

The figures of work done to check small-pox during the decade (1955—1964) are as follows* :—

Years.	Total number of vaccination.
1955	2,96,743
1956	2,71,386
1957	2,91,694
1958	4,27,198
1959	2,45,763
1960	3,74,712
1961	4,16,299
1962	4,35,326
1963	6,02,749
1964	4,44,821

Red-Cross.

As elsewhere, it plays an important role in the relief of suffering of the people. Among its activities health exhibition, baby show, blood donation and milk feeding programme for children may specially be mentioned.

*SOURCE.—District Medical Officer of Health, Patna.

Family Planning Centres.

Family Planning has been taken up as a State policy since 1954. The reoriented Family Planning Scheme has been sponsored from 1st June, 1965. Under this scheme the posts of one Deputy Director and one Assistant Director for Family Planning were created at the State level. At district level a District Family Planning Bureau was also created under the charge of the Civil Surgeon. This bureau has two independent units : (1) Mobile Unit and (2) Static Unit. The Mobile Unit holds camps in all parts of the district and performs vasectomy and sterilization operations and in addition it educates people regarding the benefits and methods of Family Planning. The function of the Static Unit is to deal with cases voluntarily coming for the purpose of subjecting themselves to any of the Family Planning methods. The headquarters of the Mobile Unit in the district is located in the Rajendranagar Maternity Hospital and is under the control of a Medical Officer assisted by one female and one male extension educators. The Static Units in the district are located at Patna Medical College Hospital, Rajendranagar Maternity Hospital, Patna City Hospital, Gardanibagh State Dispensary, Barh Subdivisional Hospital and Bihar Subdivisional Hospital. Besides these, there is a Family Planning Centre for rural areas which is located at Rajgir Block. It is in charge of a Lady Civil Assistant Surgeon. The main function of this centre is to popularise among the masses the advantages of the use of contraceptives, etc. In order to study and survey the reactions and progress of the Family Planning Programme at all levels Government have started a demographic cell which is located at Patna.

Seventy-five per cent of the recurring cost and 100 per cent of the non-recurring cost of this scheme is met by the Central Government.

Field Demonstration Centre, Rajgir.

The Health Department maintains a field demonstration centre at Rajgir sponsored since April, 1958. It is under the direct control of the Director of Public Health Institute, Patna. The Centre is placed under a doctor who also holds a diploma in Public Health and is helped by a staff. The function of this Centre* is to give practical training to the medical and health staff detailed out for rural areas. Such health staff includes the Doctors posted at the Block, Post-graduate Doctors, Sanitary Inspectors, Health Inspectors, Lady Health Visitors and Auxiliary Workers. They are given separate integrated courses exclusively oriented in rural conditions and their field work is done entirely in villages. Usually a batch of 50 students is taken up and the courses run to one month for the different grades.

*There are four such other centres in India, *viz.*, at Nazabgarh (Delhi), Singur (West Bengal), Chandigarh and Madras.

The area covered by the centre is 100 square miles. About 50,000 population and 42 villages come under its jurisdiction. The centre is divided into four sub-centres, *i.e.*, Silao, Nalanda, Rajgir and Naipokhar. Each sub-centre is under the control of a Sanitary Inspector. The main duty of the Sanitary Inspectors is to give demonstrations to the villagers regarding the maintenance of proper sanitary conditions and to give training in first aid.

As regards the functions of the field demonstration centre, it generally organises exhibition on health, dramas on health and health week days. It also distributes leaflets on health matters.

So far as Maternity and Child Welfare are concerned, there is a provision for a Lady Doctor. Ante-natal and post-natal cases are done by the Lady Health Visitors of the centre. Delivery cases are also conducted by the centre. The centre also conducts health survey.

The centre is financed by the State Government with the help of World Health Organisations and UNICEF which are subsidiary organs of the United Nations Organisation. The World Health Organisation gives technical advice and UNICEF equipments.

There is also a hostel with an accommodation of 50 trainees in the centre. It is on the upper storey of the centre building.

State Health Stores, Bihar.

An emergent situation during the Second World War led to the establishment of Provincial Quinine Depot at Namkum (Ranchi) in 1943, when dearth of Anti-Malaria Drugs became acute in the market. In 1945, it was shifted to Gulzarbagh, Patna, as the Main Quinine Depot, and the Depot at Namkum was reduced to the status of a Sub-Depot and was subsequently abolished in 1950. The nomenclature of the Main Quinine Depot was changed in 1963 to State Health Stores, Bihar, Patna. It is now housed in the old opium godown at Gulzarbagh, Patna.

Since the amalgamation of the Medical and Public Health Services, this store is functioning more or less as the store house of both the Departments, although the Medical Department had its own store at Phulwarisharif (Panagarh Medical Store), which was subsequently abolished in 1959 and was amalgamated with this store. The store has in stock the anti-Malarial drugs (Quinine and its substitutes), Sulphonamides, Sulphones, Anti-biotics, Sera, Vaccine, Tonic and other Pharmaceuticals, Instruments and Appliances, many individual and smaller items of Maternity and Child Welfare Programme throughout the State, various types of medicine chests, fourteen temporary cholera hospital equipments, equipments for Civil Defence, Family Planning articles, posters, leaflets, forms and publicity materials and other items of articles

sent by the Directorate of Health Services, Bihar, Patna, from time to time for storage. The medicines and other goods are stored in the stores and sent to different hospitals, dispensaries, clinics, etc., at the instruction of the Director of Health Services, Bihar, Patna.

The head of the stores is the Superintendent, who is assisted by an Assistant Superintendent, a Laboratory Assistant and staff. They are under the administrative control of the Director, Health Services, Bihar, Patna.

Medical Association.

A Medical Association was first sponsored in the Temple Medical School at Patna in 1922, by the local doctors and was named Patna Medical Association. It had initially 32 members. The first President and the first Secretary of the Association were Lt. Col. H.R. Dutton and Dr. Rajeshwar Prasad respectively. Under its auspices the Patna Journal of Medicine with Professor Haider Ali Khan as editor was started in 1925. An All-India Medical Association was formed in 1928 and was named "Indian Medical Association" in 1930. The Patna Medical Association was affiliated as founder branch with the Indian Medical Association in 1931.

In 1939 the Bihar Provincial Branch of the Indian Medical Association was formed with six branches in Bihar under it and a total membership of 112. It has its headquarters at Patna and is housed in its own two storeyed building including a library, conference hall and an auditorium. The total membership at present (1965) is 3,100 distributed among 86 branches spread all over the State including Patna, Barh, Biharsharif, Bihta, Danapur, Khagaul, Mokameh, Masaurhi and Rajgir in Patna district. They are all independent of the Patna branch of the Medical Association and are affiliated directly to the Bihar State Branch of Indian Medical Association.

The aims and objects of the Association are—

(*i*) to promote and advance medical and allied sciences in all their different branches and to promote the improvement of public health and medical education in India ;

(*ii*) to maintain the honour and dignity and to uphold the interests of the medical profession and to promote co-operation amongst the members thereof ; and

(*iii*) to work for the abolition of compartmentalism in medical education, medical services and registration in the country and thus to achieve equality among all members of the profession.

Periodical medical conferences, scientific meetings, seminars on socio-medical problems, etc., are organised by the Medical Association with a view to improve the medical relief offered to society on the one hand

and to guard the interest of the medical profession on the other. The Bihar Health Week started in 1954, is an annual event in which mass inoculation against small-pox, cholera, typhoid and other diseases, check-up of health of school children, baby show, health education and family planning propaganda are taken up by the medical profession as a part of voluntary social service. To carry on these activities the association receives reasonable financial assistance from the State Government. It is represented in the State Health Council, State Family Planning Committee, etc. The Patna Medical Association publishes a quarterly medical journal, named, 'Patna Journal of Medicine'.

APPENDIX I.

MEDICAL RESEARCH.

In various medical branches research work is being done by doctors. Over the past decade, some of them have also been invited to international conferences to read their papers.

Cardio-Vascular Diseases.—Dr. Shreenivas, Head of the Department of Cardio-vascular Diseases has done research on electro-cardiography, which has introduced new basic concept in the field of cardiac physiology. He has traced the individuality of the electro-cardiograms and its value in personal identification. He has also worked on radiological (X-ray) aspects of establishing human identity and also researched and outlined a practical method for the classification of electro-cardiogram for purposes of indexing and filling and for their inter-continental transmission by wireless telegraphy. His published paper include personal identification by the Dermatoglyphics and E-V Methods.

Skin and V.D. Department.—The following research work has been done in Skin and V.D. Department of the P.W. Medical College, Patna* :—

Year.	Scholar.	Subject of research.
1961	.. Sinha, Dr. J.N. ..	Clinical observations on Psoriasis.
1962	.. Lal, Dr. R.L.P. ..	Clinical observations on Lichen Planus.
1962	.. Sahu, Dr. K.C. ..	Clinical observations on the incidence of dermal manifestations in intestinal parasite and bacterial diseases.
1963	.. Prasad, Dr. B.N. ..	Vit. A deficiency and its estimation in blood plasma in dermatological condition phrynoderma.
1964	.. Sinha, Dr. P.K. ..	Observation on Atopic Dermatitis.
1965	.. Sinha, Dr. S.P. ..	Observation on Herpes Zoster.
1966	.. Pailey, Dr. P.P. ..	Estimation of Vit. C in allergic disorders.
1967	.. Upadhyay, Dr. R.P.	Observation on Lupus Erythmatosus.
	Singh, Dr. K. ..	Observation on Lepra reaction.
	Singh, Dr. K.P. ..	Observation on Lupus Vulgaris.
1968	.. Prakash, Dr. A.P.S.	Vitiligo.
	Gangadharan, Dr. C.	Dermatophytosis.
	Sahay, Dr. K.B. ..	Cutaneous Manifestations of Diabetis Mellitus.
	Sinha, Dr. L.N. ..	Observation on cutaneous manifestations in seborrhoic diathesis.

* SOURCE—Dr. J. N. Sinha, M. D. (Pat.), Lecturer in Skin and Venereal Diseases, Patna Medical College Hospital.

Besides, the members of this department have contributed a number of papers which have appeared in different Medical Journals—Dermal leishmanoid associated with systemic Kala-azar (*Ind. Jour. Derm.* and *Vener*-34-July-August, 1968) ; Clinical aspect of serological tests (*Patna Journal of Med.* 39 :2 February, 1965) ; Drug eruption (*Patna Jour. Med.* 37 :4 April, 1963); Diagnosis, Social aspect and prevention of Leprosy (*Patna Jour. Med.* 35: 6 June, 1961) ; Corticosteroid therapy in common diseases in general practice (*Patna Jour. Med.* 32 : November, 1958); and Cutaneous diptheria (*Patna Jour. Med.*: April, 1949).

APPENDIX II.

Serial no.	Name of the hospitals and dispensaries.	Date of opening.	Date of provincialisation.	Bed capacity.
1	Patna Medical College Hospital	1864 ..	.. ..	1,200
2	Bikram State Dispensary ..	1912 ..	15th July, 1955 ..	6
3	Gulzarbagh State Dispensary, Patna.	1913 ..	.. ..	..
4	Patna Police Hospital . ..	..	.. ..	52
5	Gardanibagh State Dispensary	1916 ..	.. ..	..
6	B. M. P. (V) Hospital ..	1949 ..	.. ..	12
7	Bihar State Phulwarisharif Hospital.	1869 ..	1st April, 1947 ..	62
8	Patna City Hospital ..	1864 ..	15th July, 1955 ..	78
9	Danapur Subdivisional Hospital.	1st May, 1860 ..	15th July, 1955 ..	40
10	Barh Subdivisional Hospital	1870 ..	15th July, 1955 ..	33
11	Amawan Zenana Hospital ..	1927 ..	15th July, 1955 ..	13
12	Bowstead Zenana Hospital ..	..	15th July, 1955 ..	25
13	Holy Family Hospital, Kurji	2nd February, 1940	.. ..	160
14	Nazarath Mission Hospital, Mokameh.	19th July, 1943 ..	.. ..	100
15	South Bihar Sugar Mills Dispensary, Bihta.	1934 ..	.. ..	..
16	Amirganj Dispensary ..	12th July, 1925 ..	.. ..	..
17	Asthawan State Dispensary	1st August, 1924 ..	1st February, 1957	6
18	Amawan Dispensary ..	25th August, 1928..	.. ..	..
19	Chandi State Dispensary ..	10th December, 1901	1st February, 1960	6
20	Ekangarsarai State Dispensary	29th September, 1941	1st February, 1957	6
21	Giriak State Dispensary ..	1944 ..	1st January, 1960 ..	6
22	Hilsa State Dispensary ..	25th August, 1928..	1st December, 1960	6
23	Islampur State Dispensary ..	1st January, 1906 ..	1st December, 1960	6
24	Karaipersurai Dispensary ..	1892 ..	.. ..	..

APPENDIX II—*contd.*

Serial no.	Name of the hospitals and dispensaries.	Date of opening.	Date of provincialisation.	Bed capacity.
25	Kosiwan Dispensary ..	1st August, 1925 ..	.. ..	..
26	Nagarnousa Dispensary ..	1st September, 1945	..	..
27	Rajgir State Dispensary ..	7th September, 1892	1st April, 1956 ..	6
28	Silao Dispensary ..	27th August, 1928	..	..
29	Parwalpur Dispensary ..	1st October, 1954 ..	..	..
30	Noorsarai State Dispensary..	1954 ..	1st September, 1959	6
31	Bharathpura Dispensary ..	1898 ..	..	..
32	Bihta State Dispensary ..	1944 ..	15th February, 1957	6
33	Lalbigha Dispensary ..	31st December, 1954	..	..
34	Khagaul Dispensary ..	20th June, 1900 ..	..	12
35	Koraitha Dispensary ..	1945 ..	1st July, 1965 ..	6
36	Maner State Dispensary ..	1st August, 1892 ..	1st December, 1960	6
37	Naubatpur State Dispensary	23rd July, 1923 ..	1st September, 1959	6
38	Neora Dispensary ..	1st January, 1914 ..	..	..
39	Paliganj State Dispensary ..	1st September, 1922	15th February, 1957	6
40	Gopalpur Dispensary ..	1st January, 1946 ..	..	..
41	Sadisopur Dispensary ..	27th January, 1947	..	..
42	Arap Dispensary ..	1951 ..	..	..
43	Masaurhi State Dispensary	9th December, 1901	1st January, 1960 ..	6
44	Punpun State Dispensary ..	1897 ..	1st December, 1960	6
45	Sabalpur Dispensary ..	21st March, 1927 ..	..	..
46	Shorampur Dispensary ..	30th February, 1930	..	..
47	Simhari Dispensary ..	18th November, 1947	..	..
48	Bir Dispensary	1st January, 1926 ..	..	..
49	Bakhtiarpur State Dispensary	24th July, 1924 ..	15th February, 1957	6
50	Fatwa State Dispensary ..	19th July, 1925 ..	1st January, 1960 ..	6
51	Gonwan Dispensary ..	1st August, 1892 ..	..	..

APPENDIX II—*concld.*

Serial no.	Name of the hospitals and dispensaries.	Date of opening.	Date of provincialisation.	Bed capacity.
52	Harnaut State Dispensary ..	21st March, 1922 ..	15th February, 1957	6
53	Khusrupur Dispensary ..	1st August, 1892 ..	.. ..	..
54	Mokameh State Dispensary	1st November, 1892	1st February, 1957	6
55	Sarmera State Dispensary ..	10th March, 1922 ..	1st September, 1959	6
56	Sameyagarh Dispensary ..	1st January, 1926	.. ..	..
57	Saidanpur Masarhi Dispensary.	22nd January, 1947	.. ..	..
58	More Dispensary ..	16th August, 1948	.. ..	..
59	Pundarak Dispensary ..	20th June, 1953 ..	15th February, 1965	6
60	Bihta Home Guards Dispensary.	14th June, 1948 ..	.. ..	..
61	Jalpura Dispensary ..	..	.. ..	..
62	Waiso Dispensary ..	..	.. ..	..
63	Tetrawan Dispensary ..	..	.. ..	..
64	Sampatchak State Dispensary	22nd January, 1957	.. ..	6
65	Phulwari Thana Dispensary (State).	15th February, 1955	.. ..	6
66	I. D. Hospital, Patna ..	25th June, 1953 ..	.. ..	150
67	Maranchi Dispensary ..	6th June, 1955 ..	.. ..	..
68	Bajidpur Dispensary ..	..	.. ..	..
69	Gona Dispensary ..	..	.. ..	..
70	Jalalpur Dispensary ..	..	.. ..	..
71	Rajendranagar State Maternity Hospital, Patna.	1960 ..	.. ..	50
72	Gardiner Road State Dispensary, Patna.	1956 ..	.. ..	..
73	Marufganj State Dispensary..	1960 ..	.. ..	..
74	Dhanaura State Dispensary	1959 ..	.. ..	6
75	Eastern Railway Hospital, Danapur.	..	.. ..	..
76	Eastern Railway Health Unit, Circle II, Patna.	..	.. ..	..