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43 L.S.S. O'Malley and Monmohan Chakravarti-op. cit. p. 237.
44 Source: District Inspector of Schools, Hooghly.
45 L.S.S. O'Malley and Monmohan Chakravarti--op. cit. p. 236.
46 W. W. Hornell-The Progress of Education in Bengal, 1902-03 to 190607; Third Quinquennial Review. Calcutta, 1907.
47 Hornell-The Progress of Education in Bengal, 1912-13 to 1916-17; Fifth Quinquennial Review. Calcutta, 1918. pp. 85-7.
48 L.S.S. O'Malley and Monmohan Chakravarti-op. cit. pp. 240-1.
49 ibid. pp. 239-40.
50 Quinquennial Review on the Progress of Education in West Bengal, for the period 1942-43 to 1946-47. Calcutta, 1951. p. 84 .
51 "Youth Clabs under the supervision of the District Youth Welfare Councils did excellent work in the districts of Bankura and Hooghly." ibid. p. 61.
52 Source: District Social Education Officer, Hooghly.

## Appendix

# KAVIWALLAS AND COMPOSERS OF HOOGHLY DISTRICT 

BY
Asutosh Bhattacharyya
The mediaeval Bengali Vaisnava lyric poetry lost its vitality and favour with the common people by the end of the 17th century. It ${ }^{-}$ became secular in spirit and content and the rigidity of its form relaxed in utter disregard of the existing poetics due to the development of a new pattern of urban life hitherto unknown in Bengal. Hooghly, Chandernagore and Serampore had already developed into important trade centres and an urbanized social life existed over this area even before Calcutta came into being. An atmosphere congenial to the development of an urban type of literature helped the growth and development of a new type of music in this region known as the songs of the Kaviwallas from the beginning of the 18 th century. The vacuum in the literary field of Bengal created by the death of Bharatchandra in 1760 continued almost till the second quarter of the 19th century when gifted writers of the new age like Isvarchandra Vidyasagar (1820-1891) and Akshay Kumar Dutta (1820-1886) appeared on the literary horizon of Bengal. During this interregnum the Kaviwallas carried on the literary traditions of the land and being the only representatives of the age exercised considerable influence on the general populace.

Though it is not known whether the earliest writer of Kavi poetry appeared in the Hooghly district, it is certain that some of the early Kaviwallas were born within the area now covered by the district. Gonjla Guin, who must have been born before 1760, is regarded as the earliest writer of Kavi poetry. Very little is known about him. But from the accounts of his disciples Raghunath Das and Lalu Nandalal, both of whom belonged to the Hooghly district, it seems probable that he could not have belonged to a far off place. More definite information is, however, available about his two disciples.

Raghunath Das was born at Chinsura where he lived during the first quarter of the 18th century. He had three distinguished disciples -Rasu (1734-1807), Nrisimha (1738-1809) and Haru Thakur (17381824), all of whom made their mark in the field of Kavi poetry as composers and musicians. Raghunath was born in a weaver's family and had two sons Madhabram and Nilambar. Descendants of the family are still living at Chandernagore.

Lalu Nandalal is also believed to have been born at Chinsura though definite information on this point is lacking. But like Raghunath he was also a direct disciple of Gonjla Guin and it is, therefore, reasonable to presume that he also appeared at the same place. It is
sometimes doubted that Lalu and Nandalal were two different persons. Besides one or two of his songs collected by Isvar Gupta, nothing is known about Lalu Nandalal.

Rasu and Nrisimha, two brothers, were important figures in the field of Kavi songs during the latter part of the 18th century. One of them composed the songs and the other set tunes to them. They were born in a Kayasthă family of Gondalpara near Chandernagore in 1735 and 1738 respectively. Indranarayan Chaudhuri, the Dewan of the French Government of Chandernagore was their great patron and it is generally believed that they came in contact with Bharatchandra Roy, the celebrated poet of the time, which seems likely as Indranarayan was also the patron of Bharatchandra. The two brothers took their training as members of the party of Raghunath Das and then formed their own. Both lived long and developed their art under continued patronage of Indranarayan. They excelled in Sakhi-samvad and Viraha themes and from the small number of their songs collected so far it is not known whether they had also composed songs on other subjects.

Nityananda Das Bairagi (1751-1822), son of Kunja Bairagi, was born in Chandernagore in a traditional Vaisnava family. He was popularly known as Nite or Nitai Bairagi and became famous more for his musical rather than his composing talents. He became very popular among all sections of people as he used to sing both Kavi songs, dear to the elite, and Kheur, a class of song of inferior taste liked by common listeners. He had a number of talented composers in his party most of whom belonged to the Hooghly district. Nitai popularized their songs throughout West Bengal by his sweet and melodious presentation. It was largely due to him that Kavi songs reached artistic levels and came to be recognized as a form of musical expression.

The most widely known Kaviwalla Bholanath Nayak, popularly known as Bhola Mayra, though a resident of Baghbazar in Calcutta, is believed to have been born in 1775 at Guptipara, a village in the Balagarh police station of Hooghly district. Like most of the Kaviwallas he had very little education but he used to listen to the recital of the Ramayana and the Mahabharata during his stay in Calcutta with his father. As a matter of fact the songs of the Kaviwallas were the popular reaction against the orthodox Hindu and Vaisnava literature in Bengal during the 18th and the 19th centuries. Bhola's songs were no exceptions to this but he possessed other merits also. Besides composing songs on traditional themes in the customary manner, he was an expert in composing songs extempore on topical matters. Possessed of a strong personality, his versified attacks on opponents through extempore compositions used to be sharp and bitter. With a strong common sense, presence of mind and a devastating wit he used to make his songs entertaining to a degree. He was an upright
man not afraid to speak the plain truth which endeared him to all except, perhaps, his opponents.

During the latter half of the 19th century Sarvananda Parial, a minor Kaviwalla, lived at Rajhati-Senhat in the Hooghly district. He was a Brahmin by caste, an instance not very common among the Kaviwallas. He had in his party a composer who was a woman named Mohini Dasi belonging to Midnapur district. About the same time Kaviwalla Ishan Samanta and composer Sashimukhi lived at Kaknam in the Arambagh subdivision. Sashimukhi used to take active part in Kavi's ladāai (competition of extempore versification) against Mohini Dasi.

Ramnidhi Gupta, popularly known as Nidhu Gupta or Nidhu Babu, was the greatest figure in the 19th century musical world of Bengal. He introduced the Tappa style of singing and was both a talented composer and an able musician. He was born in 1741 at Champta, a village near Triveni. His father's name was Harinarayan who normally lived in Calcutta but during the depredations of the Marathas moved for safety to Champta when Ramnidhi was born. Harinarayan returned in 1747 to Calcutta where Ramnidhi had his early education. But he entered service comparatively early in his life first in Calcutta and then at Chhapra in Bihar. While at the latter place he imbibed the Hindusthani style of music as also folk-music of that area. On his return to Calcutta he devoted himself wholeheartedly to the development of the new style of music known as Tappa which is believed to be based on a form of folk-music of Upper India. Ramnidhi founded his own school of music in Calcutta in 1804 and for nearly a century Nidhu Babu's Tappas continued to be very popular among the sophisticated music lovers of Bengal. His songs, collected and published in a book named Gita-ratna, are characterized by 'intense realism of passion' without being 'offensive or immoral'. They deal more with mundane love than love sublime and are the natural consequence of the mediaeval Vaisnava Padavalis. Shorn of unnecessary verbiage, they are pointed and simple in composition having the characteristics of folk-songs.

Sridhar Kathak, born at Bansberia (Magra P.S.) probably in 1816 was neither a Kaviwalla nor a writer of Tappa songs but a lyricist and singer. Instead of secular love themes as in Tappa, his songs were based on a devotional approach and the manner of presentation resembled the age-old Kathakata which was a lucid verbal exposition of Puranic themes to common listeners. In order to make the lessons of the Puranas attractive, Kathakata drew upon narration of interesting stories interspersed with songs sung in popular style. Sridhar used to compose his own songs and sing them in his own way, occasionally in Tappa style as well (because of its great popularity), in the course of his religious discourses. He soon earned renown in

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his own select field and made his marrk in composing devotional songs. He composed a number of Tappa songs also.

Kalidas Chattopadhyaya, popularly known as Kali Mirja, was born at Guptipara in 1750 . With a natural bent for music, he became a keen student of different languages including Sanskrit. In order to learn Hindusthani classical music properly he visited Delhi, Lucknow and Banaras and learnt Hindi, Persian and Urdu. The appellation 'Mirja' was attributed to him because of his skill in Hindusthani chassical music and knowledge of the Persian and Urdu languages. His wide scholarship enabled him to compose many songs on a variety of themes, both religious and secular. He composed Tappa songs closely imitating Nidhu Babu, devotional songs in the traditional way following Ramprasad, the father of Sakta Padavali and love-songs in his own way on the theme of Radha and Krishna.

## CHAPTER XIV

## MEDICAL AND PUBLIC HEALTH SERVICES

Survey of Public Health and Medical Facilities in Early Times

Ayurvedic medicine

Any survey of public health and medical facilities in early times against an Indian perspective is apt to lead one to two systems of medicines-the Ayurvedic and the Unani-commonly called the Hindu and the Muslim systems of medicine. Bharatkosh, the Indian Encyclopaedia, stresses that the growth of the Unani system, although mainly influenced by Hippocrates and Galen, borrowed a fairly large amount of its methodology from the Chinese and the Ayurvedic systems of medicine. ${ }^{1}$ Lord Ampthill in his opening speech at the Kings Institute of Preventive Medicine at Madras in 1905 went a step further when he said, "Down to the close of the 17th century, European physicians learnt the science from the works of Arabic doctors while the Arabic doctors, many centuries before, had obtained their knowledge from the works of great Indian physicians such as Dhanwantari, Charaka and Susruta." ${ }^{2}$

Acharya Prafulla Chandra Ray in his monumental work, the History of Hindu Chemistry, places the Ayurvedic period in Indian chemistry between 600 B.C. and A.D. 800. This period appears to have been dominated by the abstract theories of the Upanishadas which were developed as systems of various philosophies in the post-Vedic age, one of them branching out to be the Ayurveda. In the Brahmabaibarta Purana, Ayurveda has been extolled as the cream of the four Vedas constituting a fifth Veda by itself. It appears that knowledge of the human body and its illnesses were scattered all over the four Vedas. ${ }^{3}$ Ayurveda means science of longevity and it is believed that Atharva Veda, which deals with the recipes for prolonging life, has given birth to it. But "there is little evidence of any notable addition to the knowledge and practice of chemistry since the days of Ayurveda to the time of Gautama Buddha. ${ }^{\prime}{ }^{4}$ Kautilya's Arthasastra refers to certain authentic records relating to the knowledge of chemistry, metallurgy and medicine in those days (321-296 B.C.). Thereafter, the Hindu system of medicine was arranged more or less on a rational basis and with a scientific terminology in the treatises Charaka Samhita and the Susruta Samhita dealing respectively with medicine and surgery.
"There is much controversy about the age of the Charaka and the Susruta. According to the Chinese version of the Tripitaka a physi-
cian named Charaka was attached to the court of the Indo-Scythian King Kanishka who reigned in the second century A.D. According to certain authorities, particularly M. Sylvain Levi, the authorship of the treatise Charaka Samhita is attributed to this Charaka. But it should also be noted that the appellation of Charaka occurs in Vedic literature as a patronymic one. The theories and discussions in the Charaka and the Susruta, particularly in the Charaka, are based on the doctrines of the Samkhya system of philosophy, combined with a methodology derived from the Nyaya-Vaiseshika system. The Charaka, however, is not so systematic as the Susruta....This indicates that of the two, the Charaka is by far the more ancient. ...Agnivesa, whose work formed the basis of the Charaka Samhita, was the disciple of Atreya, who, according to a Buddhist Jataka, was a teacher of medicine in the University of Takshasila (Taxila) during the age of Buddha.
"From the considerations set forth above, it might be concluded that there should be little hesitation in placing the original work of Charaka in the early Buddhistic era, though P. C. Ray in his History of Hindu Chemistry prefers to place it in the pre-Buddhistic era.
"As regards the age of Susruta, the evidences are, however, comparatively definite. Its terminology and technique in general do not differ much from those of the Charaka. ...The extant Susruta is generally believed to be a comparatively modern recension by the celebrated Buddhist chemist, Nagarjuna (8th century A.D.) who is said to have added the Uttaratantra or the Supplement. ...According to a Buddhist Jataka, Susruta was a teacher in the University of Kasi (Banaras) during Buddha's time and was a younger contemporary of Atreya. Hence, though the original Susruta was composed somewhat later than the Charaka, there cannot be a great interval between the two. It should also be borne in mind that the extant Charaka and Susruta represent not only the chemical and therapeutical knowledge of the time of their final redaction, but they are also repositories of informations, accumulated on the subject, during the earlier periods dating back to the Vedic age." ${ }_{5}$

The Bower manuscript (second half of the 4th century A.D.), the Astangahridaya by Vagbhata (A.D. $800-850$ ), works of Vrinda and Chakrapani (A.D. 975-1050), the Tantric School of Hindu medicine (A.D. 700-1300), and the revolutionary 'philosophy of mercury' invented in what has been called the Iatrochemical period (A.D. 1300-1550) bring the development of the Ayurvedic system to a well documented period of Indian history.

In course of time three distinguishable schools of Ayurveda came into existence: a purely intellectual school led it to a philosophical plane, a particularly religion-based branch gave birth to the Tantric school and a third, the latest, became the 'Kaviraji' wing. The Tantric school, which appears to have flourished in Hooghly district, was led
by the Natha Yogis who believed that human physiology played an important role in the Tantric practices. They attributed certain functional qualities to the human nerve system of their own conception. A knowledge of 'Shariratatwa' or physiology was a 'must for every member of the sect. ${ }^{6}$ The areas of concentration of the Natha Yogis in the district were Mahanad and Dwarbasini. Shri Binay Ghosh in his work, Paschim Banger Samskriti, has fairly elaborately dealt with the characteristics of this school of Yoga and the importance of the use of mercury and sulphur in medicine.*

Hunter in his Statistical Account of Bengal has given a fairly exhaustive account of the kaviraji system of treatment followed in the then Hooghly district which, however, was not materially different from the practice obtaining elsewhere in the Province. To quote Hunter, "The drugs in the pharmacopoeia of the kabiraj, are derived alike from the vegetable, animal, and mineral kingdoms. Vegetable medicines are procured from the bark, root, leaves, flowers, fruit, seeds, juices, gum and wood of plants. Their effects are said to vary with the period at which they are gathered...and lucky days and hours are generally consulted by the kabiraj in collecting them. Medicines derived from the animal kingdom are prepared from skin, hair, nails, blood, flesh, bones, fat, marrow, bile, milk, and dejections such as urine and dung. ...Medicines derived from the mineral kingdom consist of metals and salts. Of the latter, rock salt, borax, bitlaban and an impure soda are the principal. In former days, iron and tin were the only metals used in medicine by native physicians, but in more modern times, mercury, gold, silver, copper, lead and zinc have come more or less into general use. ...Of the minor minerals, talc, shells, diamonds, precious stones, sulphur and ammonia, enter largely into the preparations of the kabiraj. The forms in which medicines are administered by native physicians are as powders, pills, infusions and decoctions." ${ }^{7}$ Hunter enumerates many of these preparations and mentions their supposedly curative effects. Regarding the basic diagnostic processes he comments, "The Hindu physicians compare the human body to a small universe, and maintain that, like the great universe, it has a creative, a preservative, and a destructive agency, in the shape of air, bile, and phlegm. The superabundance or diminution of these elements constitutes disease; and all maladies, according to them, arise from one of these causes. The therapeutic actions of me-

[^0]dicines are also classed under the same three heads, according as they are supposed to cure defects of air, bile, or phlegm in the system. ...In the diagnosis of diseases, the kabiraj is guided by touch, observation, and questioning. He examines the pulse very minutely, and according to its beatings determines whether the air, bile or phlegm is at fault. ...He is very particular about diet, and never allows cold water to drink. Patients are generally made to abstain from food and from water, even when parched with thirst. Air is rigidly excluded from the sick chamber, and cleanliness is no object." ${ }^{8}$ The last observation appears to be at variance with a report compiled at a much later time and recorded in the Hooghly Medical Gazetteer by Lt. Col. D. G. Crawford which says, "The Hindus, with the exception of the lowest castes, are cleanly in their habits..." ${ }^{\prime 9}$ and then goes about recording such habits both at normal times and during illness.

In both the Hooghly Medical Gazetteer by Lt. Col. Crawford and the District Gazetteer, Hooghly by L. S. S. O'Malley and Monmohon Chakrayarti published in 1903 and 1912 respectively, the Ayurvedic practices in this district have been dealt with in broad terms. Nevertheless, Lt. Col. Crawford listed 85 commodities which were in use as 'indigenous drugs' in the then Imambara Hospital and prepared a classified list of as many as 340 items of organic and inorganic materials in medicinal use and available in the Hooghly market. ${ }^{10}$

Regarding the popularity of the kaviraji system, it is somewhat surprising to note that Crawford, writing in 1903, had said, "The Hindu system of medicine is, in Bengal, to all intents and purposes dead and gone. Whatever interests it may have as a subject of antiquarian study, it has none as a living science. ${ }^{י 11}$ But writing about a decade later O'Malley and Chakravarti made the contradictory observation-"the bulk of Hindus and Mohammadans have not yet lost faith in old systems of medicine, Kabiraji and Yunani." ${ }^{12}$

Like Ayurveda, the Unani system of medicine also went by the three fundamentals, air, bile and phlegm (ruh, safra and bulgum) and collected its drugs from the mineral, vegetable and animal kingdoms. Originating in Central Asia, it naturally picked up those plants to choose its medicine from which were common in that region. Basically, this system also depended on outer physical symptoms for its diagnosis. In Arabic ancient Greece was known as Unan and Hippocrates ( $460-357$ B.C.), who practised and taught medicine in Athens, being the early originator of this system, it came to be associated with the name of his country as the Unani system. Writing about its popularity in Hooghly district, Lt. Col. Çrawford remarked in 1903, "The Yunani or Musalman system of medicine is now, I believe, little practised in this district. There is a large well-equipped Yunani dispensary in the Imambara buildings, at Hughli, under the charge of a skilled practitioner of the system from Lucknow, which is resorted to by the Musalmans of Hughli town." ${ }^{13}$ It is pertinent to

The Unani system
point out in this connexion that as early as in April 1837, some 66 years before Mr. Crawford published his well-known work, a letter ${ }^{14}$ was published in one of the journals of that time, Samaj, which praised the efforts of Dr. Wise in starting a hospital for both Hindus and Muslims out of the Imambara Trust created by Hazi Mohammad Mohsin and gave a list of the medical practitioners serving there which was as below.

| $\quad$Character of the Medical <br> Practitioner | No. <br> Employed | Monthly <br> Pay |
| :--- | :---: | :---: |
| Muslim Hakim | 1 | Rs. 75 |
| Hindu Kaviraj | 1 | Rs. 30 |
| Assistant Kaviraj | 1 | Rs. 8 |
| Compounder | 2 | Rs. 12 |
| Mohori | 1 | Rs. 5 |

Other systems

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This, coupled with the excerpts from the Bengal District Gazetteers, Hooghly, quoted earlier, does not seem to substantiate Crawford's statement.

Both Crawford and Hunter have referred to eye operations for removal of cataracts prevalent in the district in their times and undertaken by uneducated but skilled practitioners, generally from the rank of barbers. Another form of treatment $\tau$ which can hardly be called a system of medicine and was designated the 'religious system' by Crawford-was to seek benedictions of the gods for effecting magical cure of ailments. This popular and comparatively inexpensive practice resorted to by the credulous gave rise to various deities supposed to preside over special diseases, e.g. Sitala who could prevent and cure small-pox and Olabibi who could similarly deal with cholera. The Tarakeswar temple has been a historical seat for such miraculous cures and continues to be one till today.
"The climate of Hugli, like that of the neighbouring Districts, may be divided into three seasons, the cold, hot and rainy. During the cold season, the wind invariably blows from either the north or west; in the hot months, the prevailing winds are from the south; and in the rainy season, from the east." ${ }^{15}$ According to O'Malley and Chakravarti, "The climate is hot, moist and relaxing. The surface is but little above sea-level, and many of the rivers have silted up to such an extent that, after the rains, they are represented by a series of stagnant pools or have only an attenuated sluggish stream. During the monsoon, from July to September, vegetation is rank, and the water becomes thick and muddy. The result of such unfavourable conditions is that in September fever, with bowel complaints, breaks out in an epidemic form and continues to be more or less virulent till the middle of January. The general health then improves till March.

During the hot weather the sources of water-supply are apt to dry up, producing epidemics of cholera and dysentery. Towards the end of May and the beginning of June the weather becomes oppressive, hot and sultry heralding the approach of the monsoon. May to July are, on the whole, the healthiest months, and then the period from the middle of January to the middle of March. November and December are the two worst months when the mortality is heaviest. The least unhealthy area is the Arambagh subdivision, especially the floodswept tract east of Dwarakeswar and the west of the Damodar. ...The most unhealthy part of the district is the Hooghly subdivision, especially Balagarh thana and the inland thanas of Dhaniakhali, Polba, and Hooghly (rural)." ${ }^{16}$

Things have obviously changed with the progress of medical science and the adoption of health measures both at public and private initiative. The chief determinants of the medical geography of the district in recent times have been the topographical changes, silting up of river channels, occasional droughts and the periodic floods which were of frequent occurrence until very recently.*

It is significant that the malarial epidemic which ravaged parts of Hooghly district for several years since 1861 (better known as the 'Bardwan' or 'Nadia' fever in the parlance of medical history), was very closely associated with geographical changes in the district. Dr. J. Elliot, Civil Assistant Surgeon of the district, in submitting his now famous reportt on the 'Nadia fever' in the beginning of January 1863, classified the causes of the disease under 9 categories, 5 of which were geographical in nature. They were (1) the sites of villages: the worst hit being those on the banks of stagnant rivers filled with vegetation and weeds; (2) nature of adjoining lands: want of cultivation on them led to the growth and decay on such lands of thick vegetation; (3) overcrowding of houses: this obstructed paths and drains and prevented ventilation; (4) bad water: insufficient supply of pure drinking water caused by the paucity of good tanks and the indiscriminate bathing of animals and washing of clothes in them; (5) complete absence of drainage.

In March, 1869 Shri Joykissen Mokherjee ${ }^{17}$ of Uttarpara submitted to the Government of Bengal a memorandum on behalf of the zemindars of the two adjoining districts of Hooghly and Burdwan wherein the following geographical factors were mentioned, inter alia, as the causes of the malarial epidemic: "(1) The silting up of all the rivers which formerly drained the country, much increased by the

[^1]construction of the bund along the east side of the Damudar, and the consequent prevention of the scouring of the old river-beds by the floods from that river. ...(2) The impregnation of the soil by human excreta for centuries; the villages which have suffered most being usually the oldest, and those which have been longest inhabited. (3) Want of good drinking-water, tanks excavated in former days having mostly silted up and become shallow, and their water impregnated with decomposing animal and vegetable matter.' ${ }^{18}$

The foregoing observations found technical support from Dr. D. B. Smith, Sanitary Commissioner, Bengal, who submitted two reports on the epidemic in March, 1868 and May, 1870. He said: "In an alluvial tract like the Hughli district, changes are continually occurring in the physical features; rivers and watercourses of all kinds and sizes are in a state of constant variation. Khals, bhils, and tanks silt up. Streams become sluggish, natural drainage channels are altered or become altogether obstructive, levels of water and even of soil are greatly modified; the subsoil, from being normal, becomes water-logged; animal and vegetable decomposition increases." ${ }^{19}$ Dr. Smith also quoted the then Magistrate of the district who had observed elsewhere that "the aggravated sickness in the district commenced within a yeãr or two of the final closing of the Damudar khals," and recommended a comprehensive survey with pointed attention to "the influence of the bund on the eastern bank of the Damudar, as compared with what obtains beyond its western bank; the condition of the Kana and Kunti Nadis, and of the Saraswati, Magra, Bali and Baidyabati khals; the level of the beds and of the surface water of all rivers and main water-courses in the district; general or local obstructions of drainage, how produced, the best means of rectifying them; the position, state and level of roads, railway embankments, bridges, bunds, and drainage outlets; how the vicinity of village sites might be improved; how the depletion of bhils, swamps and the like could best be effected; and in what direction catch-water drains might be useful, and where escape channels are required. ${ }^{20}$ These recommendations, pre-eminently of a geographical nature and coming from an expert on public health and sanitation, lend great importance to the medico-geographical aspect of the district. A very significant tabulation based on an official report was prepared in 1873 correlating epidemic mortality with the geographical location of the affected areas in Hooghly district which established that of the 28 recorded villages where the epidemic was at its worst almost all were either in the vicinity of silted up rivers or khals or suffered from acute scarcity of drinking water. ${ }^{21}$

The socio-geographic history of the district over the last several decades has largely diminished the incidence of malaria in the district. Large scale urbanization, proper control of the Damodar through the agency of the Damodar Valley Corporation, the opening up of
a wide network of roads throughout the district, not to speak of much better public health and sanitary measures, have considerably altered the conditions from what they had been towards the close of the preceding century. Epidemics are now a rarity. Regional variations of the nutritional level still exist but they are more related to economic rather than territorial (i.e. geographical) factors.
"After the rainy season of 1806 an epidemic prevailed in the neighbourhood of Hooghly, which carried off a great many of the natives. it was probably, ... a severe outbreak of malarious fever. Except this and the outbreaks of sickness and disease which generally followed the numerous floods, the Hooghly district appears to have been remarkably free from epidemics, and to have had a high reputation for the salubrity of its climate. ${ }^{2}{ }^{22}$ This rather complacent picture of health conditions in the district was sadly undermined by the great malarial epidemic which ravaged the Nadia, Burdwan and Hooghly districts subsequently.
"The malarious fever, which since 1861 has been raging in Hugli and Bardwan, is the principal endemic disease in the District. This fever is reported to have made its first appearance in 1824 or 1825 at Muhammadpur, then a thriving village in Jessore District. It broke out as an epidemic among a body of prisoners employed in road-making. After ravaging Muhammadpur, and completely desolating that once prosperous little town, the fever gradually spread over the whole of Jessore; subsequently, in 1856, it appeared in Nadiya, and in 1861 in 24 Parganas, carrying death and destruction along with it. In the same year it crossed the Hugli, and first showed itself in the populous and thriving villages of Bansbaria, Tribeni and Naya Sarai in Hugli District. In the following year it extended its ravages westward, and appeared at Pandua. ...Since the first outbreak, the fever has been continually extending its ravages from village to village and there is now hardly a spot in the entire District which has not been visited by the plague., ${ }^{23}$ The nature of the disease was described by the Inspector General of Hospitals in his Report on the Charitable Dispensaries of Bengal for 1871, as "an aggravated form of the ordinary malarious fevers of the country and season. The symptoms are indeed more violent, the prostration more rapid and grave, the complications earlier in their appearance and more severe in their character, and the sequelae more common and serious. Still there is nothing to show that either symptoms, complications, or sequelae differ in any other respect than in degree from the usual autumnal malarious fever of the province. ...Another peculiarity of the severe form of fever is that, under whatever circumstances or after whatever interval these repetitions occur, the subsequent attacks partake of the malignity of the original seizure. The disease is therefore a doubly formidable one,-severe in its primary incidence and in its secondary manifestations, and life is imperiled both by the

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Burdwan or Nadia fever
violence of the first attack and the sapping effects of repeated seizures. The amount ${ }^{\text {e }}$ of sickness and mortality thus caused has been such that neither description nor statistics fully represent it. ...The loss of health and life which a community, subjected during successive seasons to the influences causing this fever, undergoes, must be very appalling. The estimate that three-fourths of a village population has been prostrated and disabled by the onset of the malady is a very common one; and the mortality of a recent outbreak is said to amount in a few months to one-third of the original strength of the community, and in the long run amounts to one-half or more." ${ }^{24}$

Both Mr. Hunter and Lt-Col. Crawford have given detailed lists of affected villages and the mortality figures for each. Crawford's list* included as many as 136 villages of which the more prominent are mentioned below citing against each the respective total populations and casualties: Keota(Hooghly town) (1,940 and 468); Pandua ( 6,961 and 5,222 ); Rajhat ( 2,500 and 1,400 ); Dwarbasini ( 2,743 and 1,959 ); Balagarh ( 9,755 and 2,271); Dwarhatta (4,182 and 3,045); Sonatikri (900 and 700); Baligari (1,937 and 1,284); Paramba (3,125 and $2,169)$; Shahbazar $(3,519$ and 2,176$)$ and Somaspur ( 3,859 and 2,737 ).

A number of steps were taken to fight the scourge. "Government relief has been granted to the sufferers on an extensive scale. Fever dispensaries were established at the larger centres of population, and an itinerant dispensary in the rural tracts, moving about from village to village, wherever the fever was severe. In 4869,14 dispensaries were in operation, at which 48,744 persons received gratuitous medical aid, at a total cost to Government of $£ 700$. ... $\dagger$ With regard to
$\left.\begin{array}{llllll}\hline \text { * Crawford-op. cit., pp. 155-9. } \\ \text { t The following table is taken from the Hughli Medical Gazetteer (p. 164) } \\ \text { which enumerates the epidemic dispensaries at work in Hooghly district in }\end{array}\right)$
the mode of treatment, the Civil Surgeon of the District reports that quinine, although it does much to check the accession of fever as an anti-periodic, is ill-suited to the constitution of the ill-fed labouring population. He is of opinion that the poorer classes are more amenable to treatment by native than by European medicines. He states that the former, if prepared strictly after the directions given in Hindu medical works, are of equal value with the costly European remedies.' ${ }^{25}$
"The total duration of this epidemic of fever in the Hooghly district may be said to have been 20 years, viz., from 1857 to 1877 , though its ravages did not last for so long in any one place, the usual duration of the fever in each of the villages attacked being from three to seven years. The mortality was enormous, being estimated by various observers at from one-third of the whole population up to nine-tenths in certain very severely affected places.'" ${ }^{26}$ The Epidemic Commissioner of the time, making an on-the-spot study, was reported to have seen "scores of corpses, mangled and dis̊membered by dogs, jackals and vultures, lying in the streets of Dwarbasini and other villages, in which the ravages of the epidemic had then but newly commenced.' ${ }^{27}$

Cholera visited the district in an epidemic form from March to May in 1884 and again from November to May in 1884-85. The areas affected were mostly riverine and lay in the Hooghly, Serampore, Uttarpara, Khanakul and Balagarh police stations. Its visitations were repeated in 1891 (January to April) and 1895 (November to July 1896). In 1900 and 1901 the disease hit the Hooghly-Chinsura town severely.

It appears from old records that the first medical officer stationed at Hooghly was Ralph Harwar who was succeeded in 1676 by Robert Douglas. Crawford gave a list of Civil Surgeons of Hooghly from 1813 to $1900 .{ }^{28}$ Prior to this period the Civil Surgeons were designated 'Surgeon to the Collector' and, by inference, possibly attended only to the Collector and the Britishers living in the district. The first man so catalogued by Crawford was a Henry Stuart who served for a term up to 1787 .

Among the most notable of the early Civil Surgeons was Dr. T. A. Wise, M.D., F.R.C.S. (1829-39), the founder of the Imambara Hospital and one of the founders of the Hooghly College, of which he was also the first Principal from 1836 to 1839 . His works-A Commentary on the Hindu System of Medicine (Calcutta, 1845); Cholera: Its Symptoms, Causes and Remedies (Cork, 1864) and Review of the History of Medicine (two Volumes, London, 1876) were valuable contributions. It appears that the early Civil Surgeon of Hooghly occasionally discharged non-medical responsibilities attached to the post of a principal of a college, a Presidency Surgeon at Calcutta, even a Post Master or a Registrar besides serving the fighting forces. But their main duties centred round the Imambara Hospital and the slite of the Hooghly township. The first Indian Assistant

Cholera

Medical organization

Surgeon at Hooghly was Badan Chander Chaudhuri who served from 1853 to 1863.

There was another post of a Civil Medical Officer at Serampore and the first British incumbent to hold it between 1857 and 1865 was Dr. T. Bray. He was succeeded by Sub-Assistant Surgeon, Dr. Dwarkanath Chatterjee, the first Indian to act as Civil Medical Officer at Serampore for nearly 5 years.

The functions of Civil Surgeons being limited only to the curative side of public health its preventive aspect was entrusted, under BengalAct III of 1885, to the District and Local Boards and later to the Union Boards established under Bengal Act V of 1919.* A District Health Officer, whose establishment costs were shared by the District Board and the Provincial Government, was appointed under the District Board for this purpose. Such was the state of public health administration in the district till the attainment of independence in 1947. In 1946 the Provincial Government had appointed the Bhore Commission to go into the structure of public health organization and on its recommendation both the curative and preventive sides of public health in a district were unified and entrusted in 1958 to the Chief Medical Officer of Health who replaced the erstwhile Civil Suregon. The C.M.O.H. is now assisted by two key officers for the two branches-the District Medical Officer looking after the curative and the District Health Officer the preventive aspects of public health.

Vital Statistics

Demography

The decade beginning with 1901 saw a marginal increase of 1.4 per cent in the population of the district, the impact being most marked in the Serampore and Sadar subdivisions. During this decade no cholera or small-pox epidemic was on record and the malignant Burdwan fever had disappeared. The following table ${ }^{29}$ shows the decennial variations of population in the district since 1901. The marginal growth recorded between 1901 and 1911 is believed to be mainly due to immigration. The numerous factories and brick-fields coming up along the Bhagirathi created a constant demand for upcountry labour and the average number of operatives in registered factories rose by about 10,000 between 1901 and 1911 while the increasing wealth of the cultivators enabled them to employ outside labour.

| DECENNIAL VARIATION OF POPULATION IN HOOGHLY DISTRICT <br> Year <br> Population | Decennial <br> variation | Decennial <br> percentage <br> variation |  |
| :--- | :---: | :---: | :---: |
| 1901 | $10,75,872$ | - | - |
| 1911 | $11,15,390$ | $+39,518$ | +3.7 |
| 1921 | $11,05,565$ | - | 9,825 |
| 1931 | $11,41,517$ | $+35,952$ | -0.9 |
| 1941 | $14,16,013$ | $+2,74,496$ | +24.3 |
| 1951 | $16,04,229$ | $+1,88,216$ | +13.3 |
| 1961 | $22,31,418$ | $+6,27,189$ | +39.1 |

[^2]During the next decade the district suffered a population loss of about 0.9 per cent chiefly due to an outbreak of influenza which affected other parts of West Bengal also. The rural areas, west of the Serampore industrial belt and especially the Arambagh subdivision, suffered more than the industrial areas. Birth-rates fell considerably and death-rates rose to 47.2 per cent in 1918 but went down to 36.1 per cent in 1919 and 35.6 in 1920.

By 1931 there was a population increase of 3.3 per cent in the district -and in the urban areas at least it can be ascribed partly to better public health and sanitation measures including supply of pure drinking water. The new rice mills in Magra and Pandua police stations led to some immigration the incidence of which was the heaviest in Uttarpara P.S. due to an increase in the number of brick-fields and the construction of the Willingdon Bridge and the Howrah-Burdwan Chord line of the Eastern Railway.

The 1931-41 decade was a period of steady increase in population, the growth being ascribable to natural causes as also to immigration following rapid industrialization consequent upon the Second World War. In the next decade (1941-51) the growth rate was maintained although it fell by about 6.7 per cent in relation to that in the immediately preceding one. Shri A. Mitra, the then Superintendent of Census Operations, West Bengal, by contrasting the percentage of children to total married women of the 15-40 age-group had observed that the percentage 95.1 plainly bears the stamp of the epidemics of 1944 following the Bengal famine of 1943. The partition of the province came in 1947 resulting in a colossal movement of migrants from East Pakistan which continued in the following decade (1951-61) showing a record growth rate of 39.1 per cent.

A significant picture of this overall demographic mobility emerges when the subdivisions and police stations experiencing the highest impact of both plus and minus mobility are picked out for observation. The following table ${ }^{30}$ is prepared on that basis:

[^3]| Period | Area | Decennial <br> Percentage <br> Variation |
| :--- | :--- | :---: |
| $1901-11$ | Chandernagore subdivision | +11.8 |
|  | Arambagh subdivision | -3.2 |
|  | Uttarpara police station | +98.2 |
|  | Pursura police station | -6.0 |
| $1911-21$ | Chandernagore subdivision | +7.3 |
|  | Arambagh subdivision | -10.8 |
|  | Bhadreswar police station | +127.7 |
|  | Goghat police station | -15.2 |

SUBDIVISION AND POLICE SİATIONWłSE DECENNIAL MINI-MAXIMAL PERCENTAGE VARIATION.-contd.

| Period | Area | Decennial <br> Percentage <br> Variation |
| :---: | :--- | :---: |
| 1921 -31 | Serampore subdivision | +5.1 |
|  | Arambagh subdivision | +2.0 |
|  | Uttarpara police station | +104.8 |
| $1931-41$ | Serampore police station | -18.6 |
|  | Serampore subdivision | +28.6 |
|  | Arambagh subdivision | +19.6 |
|  | Serampore police station | +91.3 |
|  | Uttarpara police station | -34.4 |
| $1941-51$ | Chandernagore subdivision | +17.3 |
|  | Arambagh subdivision | +7.5 |
|  | Uttarpara police station | +85.6 |
|  | Chanditala police station | +4.7 |
| $1951-61$ | Sadar subdivision | +45.6 |
|  | Chandernagore subdivision | +31.2 |
|  | Magra police station | +58.3 |
|  | Singur police station | +18.6 |

It is significant to note that since 1941 both the minimum and maximum variations are in plus terms and in the decade 1931-41, although Uttarpara police station showed a minus figure, the subdivision to which it belongs, Serampore, showed the maximum plus figure, possibly the decrease in Uttarpara being offset by the remarkable increase in the Serampore P.S. Another notable point is the 50 -year old tradition of the Arambagh subdivision's virtually maintaining the minimum mobility figure (both in plus and minus terms) all through 1901 to 1951 .

While total demographic mobility in a given area is governed both by internal and external factors, the birth and death-rates can be more precisely attributed to internal factors alone. The following table ${ }^{31}$ giving intrinsic figures of births and deaths as also their rates per thousand are based on a 20-year period from 1941 to 1960.
birth and death-rates in hooghly district : 1941-60

|  | Births <br> $(1941-50)$ | Birth- <br> rate per <br> thousand <br> $(1941-50)$ | Deaths <br> $(1941-50)$ | Death- <br> rate per <br> thousand <br> $(1941-50)$ | Births <br> $(1951-60)$ | Birth- <br> rate per <br> thousand <br> $(1951-60)$ | Deaths <br> $(1951-60)$ | Death- <br> rate per <br> thousand <br> $(1951-60)$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Male | $1,61,969$ | 11.8 | $1,21,129$ | 16.4 | $1,87,081$ | 11.66 | 70,356 | 8.26 |
| Female | $1,46,894$ | 10.7 | $1,12,077$ | 17.5 | $1,70,509$ | 10.63 | 59,135 | 7.86 |
| Total | $3,08,863$ | 11.25 | $2,33,206$ | 16.95 | $3,57,590$ | 11.15 | $1,29,491$ | 8.06 |

A steady growth of births over deaths duing these two decades is apparent from the table. The female birth and death figures are smaller than those of males. ${ }^{\circ}$ While during the 1941-50 period there were 906.9 female births and 925.3 female deaths per 1,000 male births and deaths, in 1951-60 there were 911.42 female births and 840.26 female deaths in the district for every 1,000 male births and deaths.

The table ${ }^{32}$ below shows the birth and death-rates at the turn of the century. Although they are not accurate according to current standdards, they nevertheless provide an interesting contrast with the present conditions.

| Period | Area | Birth-rate per <br> thousand | Death-rate per <br> thousand |
| :---: | :--- | :---: | :---: |
| 1893 | Hooghly-Chinsura <br> Municipality | 28.42 | 50.43 |
| to | Bansberia Municipality | 26.89 | 50.02 |
| 1902 | Arambagh | 27.89 | 38.30 |

The preponderance of death-rates over birth-rates compares very unfavourably with what obtains now underlining perhaps the development of the public health organization meanwhile.

In Hooghly district, as also elsewhere, children constitute the largest single component of the total population as will be evident

Infant mortality from the following table classifying the 1961 population of the district $(22,31,418)$ under various age-groups. ${ }^{33}$

| DISTRIBUTION OF THE |
| :---: |
| POPULATION OF HOOGHLY DISTRICT ACCORDING <br> TO AGE-GROUPS |
| Age-Group <br> (Years) |
| $0-5$ |
| $6-10$ |$\quad$ Number

$11-15$
$16-20$
$21-25$
$26-30$
$31-35$
$36-40$
$41-45$
$46-50$

Because of their physical immaturity and large numbers, the mortality hazards of children are much greater than those of people in higher age-groups. The following table ${ }^{34}$ brings out the relative
proportions between death and infant mortality in the district for the 1951-60 decade.

INFANT MORTALITY IN HOOGHLY DISTRICT: 1951-60

| Year | Total <br> deaths | Infant <br> mortality | Infant <br> death-rate <br> per thousand |
| :---: | ---: | :---: | :---: |
| 1951 | 16,280 | 2,719 | 86.52 |
| 1952 | 14,126 | 2,730 | 80.44 |
| 1953 | 13,865 | 3,012 | 83.6 |
| 1954 | 12,358 | 2,572 | 69.2 |
| 1955 | 12,377 | 2,572 | 68.12 |
| 1956 | 11,892 | 2,337 | 55.86 |
| 1957 | 13,706 | 2,383 | 63.95 |
| 1958 | 12,649 | 2,152 | 60.74 |
| 1959 | 9,723 | 1,581 | 47.62 |
| 1960 | 12,516 | 1,886 | 56.19 |

The table shows an unmistakable decrease in infant mortality during the period under review. In 1961, 1962, 1963 and 1964 the infant mortality figures were $1,669,1,599,1,882$ and 1,286 respectively confirming more or less the same downward trend. The old Hooghly District Gazetteer (1912) recorded: "Infant mortality is high, and it is estimated that more than a third of the children die within five years of birth." ${ }^{35}$ Four decades later the Hooghly District Handbook lamented: "Infant mortality as well as death at child birth are high. ${ }^{" 36}$ Yet from 1912 to 1951, infant mortality per thousand did improve from 333 to 86 .

Compilation of vital statistics
"Prior to 1892 there were so many changes in the system of registering vital statistics, that it is unsafe to draw any inferences from the figures compiled before that year. ... The returns now (1912) prepared are also, it is true, not so reliable as could be desired, but they are sufficiently accurate for calculating the comparative growth of the population and for gauging the relative healthiness and unhealthiness of different years." ${ }^{37}$ One is apt to doubt this finding inasmuch as the compilation of vital statistics has long been an entirely casual and voluntary affair both on the part of the informants as also on the part of the collecting agencies, viz. the village chowkidars, the local self-government institutions and Government hospitals. It was, therefore, no wonder that as late as in 1952 A. Mitra observed: "Vital statistics . . . continue to be unsatisfactory. As a result, it is not possible to recount with certitude the diseases in the order in which they take the highest tolls." ${ }^{38}$

With a view to strengthening the compilation machinery, a scheme was taken up in January 1959 for setting up Model Health and Ideal Registration Units in selected Unions of the district where Health Centres were functioning, recording of vital statistics by the teaching medical institutions and half-yearly censuses of births and deaths in selected urban and rural areas. The main defect of the scheme was that it covered only a fraction of the total area rendering the collected data no more accurate or reliable than those obtained in sample suziveys. The Annual Administrative Report on the State of Health in West Bengal for 1963 published by the State Directorate of Health classifies 7 types of registration units: (i) Registrars of births and deaths in municipal areas, (ii) Sanitary Inspectors, (iii) Medical officers of rural health centres, (iv) Officers in charge of police stations, (v) Railway Station Masters, (vi) Staff of the Basic Public Health Units and (vii) others. Of these, the 4th, 5th and 7th categories did not have sufficient experience of the work during 1961, 1962 and 1963. The official report, therefore, had to conclude that even in 1963 the system of registration of vital statistics did not attain optimum efficiency. In fact, the area covered by these agencies leave out extensive tracts where compilation of vital statistics is still the responsibility of Gram Adhyakshas and their chowkidars. Since 1963 pilot projects have been initiated jointly by the Directorates of Health and of Panchayats under which Gram Adhyakshas have been supplied with 'hathchitas' for recording of all births and deaths within their respective areas independent of any official registration system. This project is still in an experimental stage. All this will tend to show that health statistics have still to be taken with a grain of salt.

Another method of analyzing mortality is to study the causes of death. The following table ${ }^{39}$ sets forth the actual number of deaths (as also the corresponding rates) from various diseases during the decennial periods, 1941-1950 and 1951-1960. DEATHS FROM SELECTED CAUSES IN HOOGHLY DISTRICT: 1941-60

| Cholera |  | 1941-50 |  | 1951-60 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual deaths | Deathrate | Actual deaths | Deathrate |
|  |  |  |  |  |  |
| Male |  | 3,738 | 0.5 | 1,222 | 0.13 |
| Female |  | 3,905 | 0.6 | 1,163 | 0.16 |
| Fever |  |  |  |  |  |
| Male |  | 47,015 | 6.4 | 16,855 | 1.84 |
| Female |  | 47,938 | 7.5 | 16,281 | 1.84 |
| Smallpox |  |  |  |  |  |
| Male |  | 2,668 | 0.4 | 1,279 | 0.14 |
| Female | $\pm$ | 2,848 | 0.4 | 1,203 | 0.14 |

Deaths from selected causes

DEATHS FROM SELECTE ${ }_{\mathrm{G}} \mathrm{J}$ CAUSES IN HOOGHLY DISTRICT: 1941-60.-contd.

|  | 1941-50 |  | 1951-60 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Actual deaths | Deathrate | Actual deaths | Deathrate |
| Dysentery, Diarrhoea \& Enteric group of Fevers |  |  |  |  |
| Male | 14,378 | 1.9 | 7,032 | 0.77 |
| Female | 14,525 | 2.3 | 7,122 | 0.8 |
| Respiratory diseases other than T.B. of lungs |  |  |  |  |
| Male | 17,477 | 2.4 | 8,139 | 0.89 |
| Female | 10,228 | 1.6 | 3,902 | 0.44 |
| Suicide |  |  |  |  |
| Male | 582 | 0.1 | 701 | 0.08 |
| Female | 672 | 0.1 | 744 | 0.08 |
| Child birth |  |  |  |  |
| Female | 2,283 | 0.4 | 1,483 | 0.2 |
| Malaria |  |  |  |  |
| Male | 25,331 | 3.5 | 3,835 | 0.42 |
| Female | 26,548 | 4.2 | -3,590 | 0.41 |
| Kala-azar |  |  |  |  |
| Male | 1,210 | 0.2 | . 401 | 0.04 |
| Female | 861 | 0.1 | 350 | 0.04 |
| T.B. of lungs |  |  |  |  |
| Male | 3,151 | 0.4 | 2,615 | 0.28 |
| Female | 1,135 | 0.2 | 914 | 0.1 |
| Snake-bite |  |  |  |  |
| Male | 739 | 0.1 | 613 | 0.07 |
| Female | 664 | 0.1 | 412 | 0.05 |

The first conclusion that may be drawn from the above table is that incidence of all the listed diseases has perceptibly gone down during the second decade, the most marked decrease being in the case of cholera, smallpox, malaria, the enteric and the respiratory groups of diseases and fever. It should be pointed out that 'fever', which claims the largest number of deaths in both the decades, is a generic term covering a number of diseases either not diagnosed or not more closely recorded. ${ }^{40}$ It has, therefore, a greater incidence than single-
cause diseases like cholera or smallpox. In 1941-50 malaria was the second most prevalent disease followed by the enteric group, the respiratory group, cholera, smallpox and T.B. of lungs whereas in 1951-60 malaria was rather in the background occupying the fourth position after the enteric group and the respiratory group and was followed by T.B. of lungs, smallpox and cholera. This tends to prove that malaria had been fairlly effectively controlled during the second decade. The table also establishes that certain modern afflictions of urban origin like T.B. of the lungs and suicide and rural mortality due to child birth and snake-bites show only a marginal decrease.

Although not strictly accurate, the mortality figures for the district recorded at the end of the last century may provide an interesting contrast with those of recent times. In the comparative table below, the earlier figures are taken from the Hughli Medical Gazetteer by Crawford who had tabulated figures relating to births, deaths and specific causes of death from 1879 to $1898 .{ }^{41}$


This table also demonstrates the great improvement effected in controlling malaria, cholera and the enteric group of diseases. Smallpox does not seem to be on the wane and this point will be discussed later. It should, however, be pointed out that the visitation of the 'Burdwan fever' epidemic fell within the earlier period inflating the malarial mortality abnormally. On the other hand, it is more than probable that due to the comparative inadequacy of the machinery compiling vital statistics the figures recorded in the earlier period were less than what they had actually been.

Between 1961 and 1964 (incidentally, figures for 1964 are the latest available with the Bureau of Health Intelligence, West Bengal) a steady progress was recorded in general health conditions. The following table compiled from different annual reports ${ }^{42}$ of the Health Directorate, Government of West Bengal shows the mortality from specific causes in absolute numbers as also the rates calculated on the annual death-rates per 1,000 population according to the 1961 censuc.

Statistics brought up-to-date

DEATH FROM SELECTED CAUSES IN HOOGHLY DISTRICT: 1961-64


| Metabolic and Nutritional Diseases | 1,087 | 0.5 | 1,193 | 0.5 | 1,289 | Ca5 | 1,031 | 0.4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Anaemia | 132 | 0.1 | 204 | 0.09 | 230 | 0.1 | 198 | 0.08 |
| Influenza | 32 | 0.01 | 45 | 0.02 | 25 | 0.01 | 18 | - |
| Pneumonia | 493 | 0.2 | 507 | 0.2 | 551 | 0.2 | 373 | 0.2 |
| Gastritis etc. | 255 | 0.1 | 240 | 0.1 | 298 | 0.1 | 222 | 0.09 |
| Child birth | 83 | 2.6 | 132 | 3.6 | 116 | 2.9 | 91 | 2.4 |
| Early Infancy diseases | 1,114 | 0.5 | 884 | 0.4 | 953 | 0.4 | 644 | 0.3 |
| Senility etc. | 5,105 | 2.3 | 6,424 | 2.8 | 6,380 | 2.7 | 5,069 | $2.1^{-}$ |
| Suicide | 119 | 0.05 | 112 | 0.05 | 94 | 0.04 | 82 | 0.03 |
| Accidents | 350 | 0.2 | 400 | 0.2 | 401 | 0.2 | 335 | 0.1 |
| Snake-bite | 88 | 0.04 | 92 | 0.04 | 91 | 0.04 | 81 | 0.03 |
| Total from all Causes | 11,904 | 5.3 | 13,416 | 5.8 | 14,478 | 6.1 | 11,130 | 4.6 |

The earlier deductions from tables relating to previous periods almost hold good here as well. The causes claiming the highest number of victims are senility etc., metabolic and nutritional diseases and diseases peculiar to infants. Tuberculoses of different descriptions are largely attributable to maladjusted urbanization from
which an industrial district like Hooghly obviously suffers. Diabetes, again, is an urban disease and though marginal, is growing in incidence. Typhoid, dysentery and cholera originate primarily from insanitation, another scourge of congested urban life. Incidence of smallpox, although heavy in 1963 appears to be of temporary nature and malaria seems to have been definitely controlled. Deaths from suicide and accidents have also an urban background and they continue to take their toll side by side with such rural afflictions as snake-bites etc.

The following table is compiled from the annual administrative reports ${ }^{43}$ of the Health Directorate, Government of West Bengal and gives the number of outdoor and indoor patients treated in various medical institutions of the district and their respective mortality rates. Admittedly, the number of patients surveyed here is smaller than that in the whole district who may seek other means of treatment. Nevertheless, the figures being based on a fairly large population may be taken as representative.


Diseases
COMMON TO THE
District

PATIENTS TREATED in HOSPIrALS OF HOOGHLY DISTRICT AND DEATHS FROM SPECIFIC CAUSES: 1961-1964.-contd.

| Name of Disease | 1961 | 1962 | 1963 | 1964 |
| :--- | :--- | :--- | :--- | :--- |

Cholera

| Outdoor | 321 | 361 | 443 | 316 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor $^{\prime}$ | 79 | $17 \epsilon$ | 532 | 295 |
| Death | 37 | 35 | 113 | 89 |

Dysentery

| Outdoor | 32,099 | 78,347 | $1,00,443$ | 98,280 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 200 | 844 | 970 | 1,186 |
| Death | 37 | 51 | 38 | 59 |

Leprosy

| Outdoor | 321 | 476 | 377 | 124 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 1 | 7 | 3 | 10 |
| Death | - | - | 1 | - |

Smallpox

| Outdoor | 121 | 63 | 47 | 258 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | - | 2 | 27 | 4 |
| Death | - | - | 16 | 2 |

Malaria

| Outdoor | 1,642 | 1,866 | 2,067 | 799 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 7 | 41 | 36 | 19 |
| Death | - | - | - | - |

Kala-azar

| Outdoor | 7 | 171 | 115 | 157 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 2 | 2 | 5 | 3 |
| Death | - | - | 1 | - |

Typhoid

| Outdoor | 2,269 | 4,450 | 4,961 | 5,583 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 88 | 598 | 878 | 739 |
| Death | 11 | 17 | 13 | 8 |
| Neoplasm Group of <br> Diseases |  |  |  |  |


| Outdoor | 10,548 | 13,098 | 13,921 | 11,628 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 26 | 73 | 113 | 81 |
| Death | 13 | 15 | 24 | 13 |

PATIENTS TREATED IN HOSPITALS OF HOƠGHLY DISTRICT AND DEATHS FROM SPECIFIC CAUSES: 1961-1964.-contd.

| Name of Disease | 1961 | 1962 | 1963 | 1964 |
| :--- | :--- | :--- | :--- | :--- |

Diabetes

| Outdoor | 398 | 1,082 | 1,959 | 1,524 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 5 | 31 | 33 | 35 |
| Death | - | 4 | 5 | 1 |
| Metabolic \& Nutritional <br> Diseases |  |  |  |  |


| Outdoor | 21,011 | 27,190 | 36,098 | 38,663 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 46 | 192 | 161 | 156 |
| Death | 13 | 12 | 14 | 21 |
| Anaemia |  |  |  |  |


| Outdoor | 15,928 | 18,746 | 22,435 | 24,308 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 154 | 617 | 692 | 714 |
| Death | 39 | 49 | 42 | 83 |

Influenza

| Outdoor | 97,162 | 13,214 | 18,732 | 10,135 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 70 | 514 | 375 | 363 |
| Death | - | 2 | 3 | 2 |

Pneumonia

| Outdoor | 5,172 | 6,071 | 6,391 | 6,154 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 65 | 339 | 446 | 371 |
| Death | 30 | 40 | 51 | 71 |

Gastritis etc.

| Outdoor | 19,070 | 16,684 | 14,982 | 14,243 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 30 | 198 | 282 | 232 |
| Death | - | 1 | - | 3 |

Diseases during Childbirth

| Outdoor | 15,310 | 17,821 | 11,079 | 10,954 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 515 | 3,314 | 3,860 | 3,929 |
| Death | 63 | 41 | 77 | 73 |

Early Infancy Diseases

| Outdoor | 716 | 394 | 537 | 868 |
| :--- | ---: | ---: | ---: | ---: |
| Indoor | 5 | 170 | 154 | 121 |
| Death | 4 | 101 | 110 | 53 |

PATIENTS TREATED IN HOSPITALS OF HOOGHLY DISTRICT AND DEATHS FROM SPECIFIC CAUSES: 1961-1964.-concld.

| Name of Disease | 1961 | 1962 | 1963 | 1964 |
| :--- | ---: | ---: | ---: | ---: |
| Senility etc. |  |  |  |  |
| Outdoor | 4,628 | - | 704 | 29 |
| Indoor | 4 | 14 | 11 | 16 |
| Déath | 2 | 4 | 3 | 4 |
| Effects of Poisons |  |  |  |  |
| Outdoor | 911 | 1,104 | 814 | 648 |
| Indoor | 172 | 1,088 | 1,140 | 1,289 |
| Death | 38 | 63 | 55 | 73 |

In an organized medical system the number of patients treated for diagnosed causes reveals the incidence of those causes more correctly than mortality figures. Accordingly, the preceding table establishes that traditional diseases like cholera, smallpox and malaria, although still prevalent in the district, are under control except for sporadic epidemics. Dysentery continues to be one of the major diseases and maladies of the T.B. and neoplasm groups as also nutritional diseases including anaemias are on the increase.
Malaria
The present incidence of this one-time dreaded disease is much more on the rural areas of the district than on the urbait as would be evident from the following mortality table. ${ }^{44}$

DEATH FROM MALARIA IN RURAL AND URBAN AREAS OF HOOGHLY DISTRICT

|  | 1961 | 1962 | 1963 | 1964 |
| :--- | :---: | :---: | :---: | :---: |
| Rural | 73 | 41 | 21 | 71 |
| Urban | 5 | 4 | 5 | 1 |

From available statistics it appears that the annual malarial cycle reaches its ebb around the month of May and then grows in incidence reaching its peak towards November.

In 1952-53, 16 malaria control units under the National Malaria Control Programme started functioning in West Bengal with a plan for indoor and outdoor spraying of insecticides and distribution of control drugs. Of these one was stationed in Hooghly district covering $1,154.5 \mathrm{sq}$. miles inhabited by 11.77 lakhs of people. The programme was renamed Malaria Eradication Programme in 1958-59 and from 1963-64 it entered into what is known as the 'consolidation phase'. For assessing the results of this scheme, epidemiological indices, such as spleen and parasite rates, were collected every year during the non-spraying seasons. The cumulative spleen-rates (in percentages) in the district were 22.9 in 1952, 18.0 in 1953, 7.5 in 1954 and 4.6 in
$1955^{45}$ signifying a uniform decrease in thes rates from 1952 when D.D.T. spraying was started in this district. The consolidated blood survey reports for calculating' parasite rates show that ${ }^{\circ}$ while in 1952 it was 4.9 , it decreased to 1.2 in 1953, 0.8 in 1954 and 0.0 in 1955.

The malaria control unit in the district was under a medical officer assisted by 3 supervisors and 12 inspectors. Besides, field workers were appointed from time to time. Of the non-official organizations which helped the anti-malaria campaign, the Serampore municipality was specially commended, among others.

An intensive scheme was taken up in 1952 by the Rural Health Training Centre at Singur over an area of 32.98 sq. miles covering 68 villages and a population of 73,413 . Indoor residuary D.D.T. spraying of all houses, curative treatment of cases with anti-malarial drugs and prophylactic use of Paludrine resulted in the drop in spleen-rate from $0.5 \%$ in 55 villages, $6.1 \%$ in 8 villages and $11.2 \%$ in 1 village in 1950 to $1.5 \%$ in 37 villages within 1952 while the remaining villages became free from it altogether. The overall results achieved under the Malaria Eradication Programme have been so encouraging that in 1963 the Health Directorate, West Bengal, omitted for the first time malaria from a list of 6 leading causes of deaths in West Bengal. In fact, this dreaded scourge of the past is now only a marginal ailment.

The urban strip of the district along the Bhagirathi lies in the endemic belt of cholera running north from Calcutta. This industrial belt is characterized by poor environmental sanitation. The disease is generally endemic throughout the year reaching two peaks, in April (the major one) and July. Its urban character will be evident from the following table ${ }^{46}$ :
death from cholera in hooghly district: 1961-64

|  | 1961 | 1962 | 1963 | 1964 |
| :--- | :---: | :---: | :---: | :---: |
| Urban | 139 | 70 | 162 | 85 |
| Rural | 26 | 20 | 102 | 6 |

Commenting on the conditions obtaining at the turn of the century, Crawford had observed that the hard core of the disease was to be found among industrial labour residing in the slum areas.

Prior to 1958 anti-cholera drives were left to the local self-governing bodies, the Government supplying inoculation vaccines free of cost and running mobile medical units of their own. In 1953 Hooghly was bracketed with Howrah and Calcutta in having the maximum incidence of cholera and of the total $35,31,233$ anti-cholera inoculations performed during the year in West Bengal, it accounted for $2,54,116$. In the same year temporary regulations for prevention of cholera under the Indian Epidemic Diseases Act of 1897 were enforced in the district when the State Government gave financial aid to
municipalities for improving their drinking water supply and sewerage schemes and to the Civil Surgeons and the Executive Engineers of the Public Health Engineering Dizectorate for sinking and resinking tube-wells in the rural areas.

This virus borne disease prevails all over the district with an approximate periodicity of 3 to 5 years for visitations in epidemic form. The following table ${ }^{47}$ giving mortality. figures for two decades 66 years apart indicates the variation of the incidence of smallpox in the district as also its cyclical nature.

|  | 1889-98 |  | 1955-64 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Year | Death | Year | Death |
|  | 1889 | 30 | 1955 | 13 |
|  | 1890 | 158 | 1956 | 89 |
|  | 1891 | 49 | 1957 | 685 |
|  | 1892 | 35 | 1958 | 498 |
|  | 1893 | 9 | 1959 | 85 |
|  | 1894 | 63 | 1960 | 16 |
|  | 1895 | 400 | 1961 | 7 |
|  | 1896 | 81 | 1962 | 14 |
|  | 1897 | 234 | 1963 | $758^{\circ}$ |
|  | 1898 | 60 | 1964 | 64 |

The rural-urban break-up of the death figures ${ }^{48}$ for the period from 1961 to 1964 was as below:

|  | 1961 | 1962 | 1963 | 1964 |
| :--- | :---: | :---: | :---: | :---: |
| Rural | 4 | 9 | 475 | 38 |
| Urban | 3 | 5 | 283 | 26 |

It is apparent that in normal times smallpox is evenly distributed between the towns and the villages but during its periodic outbursts the impact is perceptibly more on the rural areas. The reasons may, possibly, be found in comparative lack of preventive measures anddearth of pure drinking water supply in the countryside.

Smallpox came to be recorded as an endemic disease in Hooghly district in 1865 when Hooghly town had a smallpox epidemic with a death-rate of 0.37 per thousand. The next epidemic occurred in 1895 when the three towns of Bansberia, Bhadreswar and Hooghly suffered most. Even as late as in December, 1966, the State Government promulgated regulations for control of smallpox under the Epidemic Diseases Act in all the 11 municipal areas of the district. ${ }^{49}$

It appears from several reports prepared by the Directorate of Health Services, West Bengal that more than $\mathbf{3 0} \%$ mortality from this disease occurs in the age-group of 0-10 years. The peak incidence of smallpox occurring around March each year has remained unaltered for more than six decades now. As an epidemic control measure, the State Government maintains 140 relief camps throughout West Bengal of which 17 are in Hooghly district. Besides vaccinating people against smallpox, these units also undertake prophylactic measures against other epidemic diseases.

- Smallpox vaccination appears to have been introduced in Hooghly district in 1869. In 1880-81 the vaccination department was placed under a Sanitary Commissioner and the Compulsory Vaccination Act of 1880 was extended to the Hooghly-Chinsura municipal area in July 1881 to be extended to Serampore in 1882-83 and to Bansberia, Bhadreswar, Baidyabati, Kotrung and Uttarpara in 1883-84. In 1892-93 vaccination work was transferred from the Sanitary Commissioner to the Civil Surgeon and since then it had remained under the dual control of the District Board and the municipalities on the one hand and the Health Department of the State Government on the other. From 1958 the primary responsibility in this behalf was withdrawn from the local bodies and placed under the Chief Medical Officer of Health. The following table ${ }^{50}$ will indicate the number of vaccinations done in the district since this change-over.

| SMALLPOX VACCINATIONS in HOOGHLY | DISTRICT: $1959-64$ |
| :---: | :---: |
| Year | No. of <br> vaccinations |
| 1959 | $3,04,865$ |
| 1960 | $5,29,830$ |
| 1961 | $2,91,195$ |
| 1962 | $6,53,219$ |
| 1963 | $7,42,134$ |
| 1964 | $4,43,580$ |

The vaccination programme was further extended into the rural areas from October 1962 covering a population of approximately 14.5 lakhs. An 'eradication unit' worked from November 1962 to October 1963 and the target date for a hundred per cent vaccination in the district was set at March 31, 1966.

Tuberculoses of several kinds which are compartively new in the
Tuberculoses public health scene of the district have now assumed grave proportions. The Chief Medical Officer of Health, Hooghly ascribes their origin to 'factors of rapid industrialization, congestion, undernutrition, excess of labour, lack of hygienic accommodation, etc.' The continued influx of displaced persons from East Pakistan since

Vaccination No. of
vaccinations

3,04,865
5,29,830
,

7,42,134
4,43,580

1947 appears to have aggravated the situation. The C.M.O.H. states that the precise incidence of the disease is yet to be assessed but it seems to correspond with the countrywide incidence rate of 15 to 30 per thousand of which 25 per cent are positive subjects. The following table ${ }^{51}$ shows the urban-rural distribution of the disease in the district according to its various categories.

DEATHS FROM TUBERCULOSES IN HOOGHLY DISTRICT : 1961-64

| , |  | 1961 | 1962 | 1963 | 1964 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pulmonary | Urban | 40 | 17 | 21 | 15 |
| occupational diseases of lung | Rural | 88 | 87 | 84 | 60 |
| T.B. of respira- | Urban | 116 | 124 | 111 | 111 |
| tory system other than pulmonary | Rural | 134 | 162 | 178 | 148 |
| without mention of occupational diseases of lung |  |  |  |  |  |
| T.B. of meninges | Urban | 294 | 3 | - | 2 |
| and central nervous system | Rural | 9 | 1 | - | - |
| T.B. of bones and | Urban | 26 | - | 1 | 1 |
| specified | Rural | 11 | 4 | 1 | 8 |
| T.B. of other forms | Urban | 13 | 1 | - | 2 |
|  | Rural | 1 | - | - | - |

The foregoing figures prove that more people died of tuberculoses in the rural and not in the urban areas of the district during the four years under review. This may not, however, be sufficient to establish that the virulence of the disease is less in the urban localities. The Hooghly countryside covers a much larger area than that is contained in the 11 municipal towns and this accounts for a huge difference in the respective populations which is sure to tip the scales in favour of the villages. Besides, the State Health Directorate admits that "the recorded figure of tuberculosis mortality cannot be regarded by any means as giving an actual idea of prevalence of this disease because many cases are not properly diagnosed and many deaths from this disease are not properly registered. ${ }^{5} 52$

There are altogether 197 beds in the different hospitals of the district especially reserved for the tubercular patients. In the rural areas the Health Centres arrange for only domiciliary treatment. There are 23 chest clinics in West Bengal under the Bengal T.B. Association of which one is located at Serampore. The State Government supplies anti-biotics free of cost to all indigent indoor patients in the T.B. hospitals and to other deserving T.B. patients from the outdoor sections of hospitals and during domiciliary treatment. In

1946 a mass B.C.G. immunization scheme was launched in the district in collaboration with the W.H.O. when a mobile team toured the district and inoculated susceptible individuals. Mass miniature radiography was also undertaken in some of the concentration areas.
It appears that enteric diseases were fairly widespread in the district during the 18 th $^{53}$ and the 19 th $^{54}$ centuries. In his recent report the Chief Medital Officer of Health, Hooghly states that "the mortality rate in respect of these diseases is still high. Excepting deaths from fever, these diseases take a heavy toll of life every year. With the rains the intensity of these diseases increases and continues till the month of January."
The rural-urban incidence of these diseases in the district is given in the following table: ${ }^{55}$

DEATH FROM DYSENTERY IN ALL FORMS IN H゚OOGHLY DISTRICT: 1961-64

|  | 1961 | 1962 | 1963 | 1964 |
| :--- | ---: | ---: | ---: | ---: |
| Urban | 190 | 263 | 253 | 206 |
| Rural | 281 | 376 | 341 | 291 |

It would appear that the incidence is evenly distributed between the urban and rural areas, the latter having a slight edge over the former. Discussing the death-rates from enteric diseases the Annual Report on the Health of the Population of West Bengal, 1949 (p. 7) published by the Directorate of Health Services stated: "Compared with the quinquennial average from 1938-42, the mortality rate was ... low in seven districts, namely Burdwan, Birbhum, Bankura, Hooghly, Howrah, West Dinajpur and Darjeeling."
"Incidence of eye diseases," reports the Chief Medical Officer of Health, Hooghly, "is rather high in the district. The cases are varied without special endemicity of any one of the ailments. This increased morbidity is thought to be due to the factors of rapid industrialization, poor hygienic conditions, malnutrition and ignorance of proper personal hygiene." In the following table ${ }^{56}$ giving statistics of people treated and deaths from eye diseases, the former figures are much more relevant for measuring the incidence of these maladies as mortality from eye diseases is very low.

|  |  | 1961 | 1962 | 1963 | 1964 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Inflammatory diseases of eye | $\left\{\begin{array}{l} \text { Outdoor } \\ \text { treatment } \end{array}\right.$ | 16,938 | 21,256 | 9,274 | 13,789 |
|  | Indoor treatment | 16 | 71 | 77 | 35 |
|  | ( Death | - | 1 | - | 1 |

Enteric diseases: diarrhoea, dysentery etc.

Eye diseases
incidence of eye diseases in hooghly district: 1961-64.-contd.

|  |  | $1961{ }^{\circ}$ | 1962 | 1963 | 1964 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cataract | $\left\{\begin{array}{l} \text { Outdoor } \\ \text { treatment } \end{array}\right.$ | 7,852 | 6,779 | 5,815 | 6,379 |
|  | Indoor treatment | 163 | 944 | 1,017 | 1,213 |
|  | Death | - | - | - - | 2 |
| Glaucoma | $\int \begin{aligned} & \text { Outdoor } \\ & \text { treatment } \end{aligned}$ | 534 | 1,177 | 1,264 | 1;218 |
|  | $\left\{\begin{array}{l} \text { Indoor } \\ \text { treatment } \end{array}\right.$ | 9 | 73 | 69 | 84 |
|  | Death | - | - | - | - |
| Other diseases of eye | $\left\{\begin{array}{l} \text { Outdoor } \\ \text { treatment } \end{array}\right.$ | 18,492 | 23,999 | 24,158 | 27,934 |
|  | $\left\{\begin{array}{l} \text { Indoor } \\ \text { treatment } \end{array}\right.$ | 34 | 152 | 158 | 150 |
|  | Death | - | - | - | - |

The table proves an increasing incidence of eye diseases. There are 37 beds in different hospitals of the district earmarked for patients suffering from eye diseases, besides the usual outdoor hospital facilities.

Hospitals and Dispensaries

Public hospitals

The following table, compiled from several official reports, gives the names and locations of various health institutions in the district and the number of patients treated and the annual death-rates in each of them for the years 1962, 1963, 1964 and 1965. The figures will elucidate the extent of hospital facilities available in the district as also the performance of the medical institutions in bringing those within the reach of the suffering public.

PERFORMANCE OF HOSPITALS IN HOOGHLY DISTRICT : 1962-65

| Name of Institution* | 1962 |  | 1963 |  | 1964 |  | 1965 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual death rate (\%) |
| 1 | 2 | - 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Sadar Subdivision |  |  |  |  |  |  |  |  |
| Imambara Sadar Hospital | 11,776 | 4.0 | 13,009 | 3.9 | Not av | vailable | $`$ Not ava | ailable |
| Bansberia R.C. Hospital | 119 | 2.5 | 118 | 0.8 | 100 | 1.0 | 58 | 1.7 |
| Hooghly Sadar A.G. Hospital | 714 | 14.8 | 866 | 20.5 | 801 | 20.2 | 599 | 22.5 |

[^4]PERFORMANCE OF HOSPITALS IN HOOGHLY DISTRICT : 1962-65.-contd.

| Name of Institution | 1962 |  | 1963 |  | 1964 |  | 1965 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual <br> death-s rate (\%) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Sadar Subdivision.-contd. |  |  |  |  |  |  |  |  |
| Dwarbasini A.G. Hospital | 140 | 2.5 | 136 | 1.08 | 160 | 3.1 | 157 | 2.5 |
| Balagarh A.G. Hospital | 259 | 0.8 | 264 | Nil | 256 | 2.3 | 271 | 2.5 |
| Magra P.H.C. - | 1,796 | 3.3 | 2,008 | 2.8 | 1,588 | 3.0 | 1,551 | 3.6 |
| Makalpur P.H.C. | 444 | 2.2 | 480 | 1.5 | 438 | 1.3 | 498 | , 3.0 |
| Pandua P.H.C. | 1,656 | $3.0{ }^{\circ}$ | 1,614 | 3.0 | 1,572 | 2.0 | 1,583 | 2.6 |
| Boinchi S.H.C. | 738 | 0.9 | 956 | 1.02 | 795 | 1.1 | Not av | ailable |
| Haraldaspur S.H.C. | 201 | 2.5 | 359 | 1.03 | 151 | 4.0 | 144 | 3.5 |
| Itachuna S.H.C. | 297 | 1.3 | 328 | 0.6 | 287 | 1.0 | 320 | 0.3 |
| Rameswarpur Gopalnagar S.H.C. | 408 | 0.08 | 507 | 0.9 | Not av | ailable | Not a | vailable |
| Palashee S.H.C. | 377 | 0.8 | 459 | 1.7 | 424 | 0.7 | 374 | 0.8 |
| Khejurdaha Milki ${ }^{\stackrel{\leftrightarrow}{\circ}}$.H.C. | 341 | 2.0 | 410 | 2.0 | 383 | 2.7 | 319 | 0.4 |
| Bagnan Chaitanyabati S.H.C. | 309 | 1.6 | 330 | 3.1 | 368 | 1.3 | 365 | 1.9 |
| Bhanderhati S.H.C. | 320 | 5.3 | 352 | 0.8 | 360 | 1.4 | Not av | ailable |
| Dhaniakhali P.H.C. | 859 | 3.7 | 351 | 2.1 | 1,010 | 2.1 | 1,818 | 2.3 |
| Guptipara S.H.C. | 302 | 0.3 | 363 | 0.8 | 589 | 0.7 | 499 | 1.8 |
| Dumurdaha-Nityanandapur S.H.C. | 293 | 1.0 | 268 | 1.5 | 268 | 1.1 | 235 | 1.2 |
| Bakulia P.H.C. | 352 | 2.5 | 374 | 1.6 | 443 | Nil | 483 | 0.8 |
| Daurpur S.H.C. |  |  |  | No in | indoor |  |  |  |
| Sugandha S.H.C. |  |  |  |  | do- |  |  |  |
| Chopa S.H.C. | 435 | 0.7 | 363 | Nil | 544 | Nil | 331 | 0.3 |
| Mahipalpur S.H.C. |  |  |  | No in | indoor |  |  |  |
| Sukharia S.H.C. |  |  |  |  | do- |  |  |  |
| Serampore Subdivision |  |  |  |  |  |  |  |  |
| Uttarpara Govt. Hospital | Not in | existence | 1,161 | 2.8 | 2,442 | 2.8 | 2,575 | 2.7 |
| Annexe to above | 793 | 6.6 | 1,024 | 7.8 | 1,545 | 4.7 | 6,342 | 1.3 |
| Walsh Hospital, Serampore | 7,561 | 3.2 | 7,198 | 4.0 | 8,516 | 3.6 | Not av | ailable |
| Uttarpara R.C. Dispensary |  |  |  | No in | ndoor |  |  |  |

PERFORMANCE OF HOSPITALS IN 'HOOGHLY DISTRICT : 1962-65.-contd.

| Name of Institution | $1962$ |  | 1963 |  | 1964 |  | 1965 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of ${ }^{\prime}$ patients treated | Annual deathrate (\%) | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual deathrate (\%) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Serampore Subdivision.-contd. |  |  |  |  |  |  |  |  |
| Bhadrakali R.C. Hospital | 357 | 0.8 | 222 | 1.0 | 190 | 0.5 | Not av | vailable |
| Bhattapur S.H.C. | 385 | 1.3 | 377 | 1.0 | 456 | Nil | 333 | 1.03 |
| Jangipara P.H.C. | 1,083 | 1.6 | 1,230 | 2.0 | 1,199 | 2 | 1,027 | 3.0 |
| S.C.C. |  |  |  |  |  |  |  |  |
| P.H.C. | 657 | 0.7 | 903 | 0.4 | 941 | 0.3 | 999 | Nil |
| Mundalika S.H.C. | 444 | 0.9 | 416 | 1.9 | 396 | Nil | 396 | Nil |
| Furfura S.H.C. | 63 | 1.6 | 25 | Nil | 27 | Nil | 26 | 4.0 |
| Aniya P.H.C. | 380 | Nil | 445 | 0.2 | 515 | 0.4 | 422 | 0.3 |
| Guti S.H.C. | No indoor |  |  |  |  |  |  |  |
| Begampur S.H.C. | -do- |  |  |  |  |  |  |  |
| Chandernagore Subdivision |  |  |  |  |  | : |  |  |
| Margain Hospital, <br> $\begin{array}{lllllllll}\text { Chandernagore } & 9,063 & 2.0 & 7,763 & 2.0 & 12,305 & 4.3 & 11,441 & 4.8\end{array}$ |  |  |  |  |  |  |  |  |
| Balarambati S.H.C. | 322 | 1.6 | 348 | Nil | 316 | 0.3 | 318 | 0.6 |
| Bora S.H.C. | 615 | 0.1 | 637 | 0.9 | 556 | 0.9 | 510 | 0.4 |
| Bajemelia S.H.C. | 363 | 0.3 | 399 | 0.2 | 406 | $\ldots$ | 376 | 0.6 |
| Bandipur S.H.C. | 679 | 1.3 | 615 | 0.8 | 618 | 0.9 | 610 | 0.3 |
| Tarakeswar P.H.C. | 952 | 4.4 | 1,115 | 4.5 | 1,082 | 4.6 | 1,014 | 3.4 |
| Haripal P.H.C. | 592 | 3.4 | 852 | 2.2 | 628 | 3.3 | 816 | 3.0 |
| Singur P.H.C. | 1,680 | 2.0 | 1,587 | 3.3 | 1,095 | 6.0 | Not ava | ailable |
| Nasibpur S.H.C. | Not ava | ailable | 637 | 0.3 | 509 | 0.2 | 198 | Nil |
| Anandanagar S.H.C. |  |  |  | No ind | door |  | . |  |
| K. R. Dey Chest Clinic |  |  |  | -do- |  |  | - |  |
| Arambagh Subdivision |  |  |  |  |  |  |  |  |
| Arambagh S.D. Hospital | 1,956 | 3.0 | 3,328 | 3.9 | 3,570 | 5.0 | 3,982 | 3.3 |
| Pursura A.G. Hospital | 48 | 2.0 | 48 | Nil | 10 | Nil | 51 | 4.0 |
| Badanganj A.G. Hospital | 294 | 3.4 | 171 | 2.9 | 136 | 2.1 | 1,506 | 0.4 |
| Goghat A.G. Hospital | 130 | 1.5 | 131 | Nil | 186 | 1.0 | 193 | Nil |

PERFORMANCE OF HOSPITALS IN HOOGHLY DISTRICT: 1962-65.-concld.

| Name of Institution | 1962 |  | 1963 |  | 1964 |  | 1965 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual deathrate (\%) | No. of patients treated | Annual deathrate (\%) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Arambagh Subdivision.--contd.

| Malaypur S.H.C. | 523 | 2.0 | 543 | 2.0 | 603 | 1.1 | 589 | 1.5 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rangtakhaha S.H.C. | 221 | 5.0 | 309 | 0.6 | 236 | Nil | 217 | Nil |
| Khanakul P.H.C. | 689 | 3.2 | 821 | 3.0 | 734 | 4.0 | Not available |  |
| Tantisal S.H.C. | 356 | 0.7 | 394 | 4.9 | 430 | 2.8 | 412 | 3.0 |
| Sabalsingpur S.H.C. |  |  |  | No indoor |  |  |  |  |
| Natibpur S.H.C. | 206 | Nil | 326 | 0.9 | 293 | 1.0 | 276 | 0.4 |
| Muthadanga S.H.C. |  |  |  |  | No indoor |  |  |  |

Special Govt. Hospitals

| Chinsura Jail Hospital | 721 | 0.3 | 964 | Nil | 1,367 | 0.08 | 1,244 | 10.08 |
| :--- | ---: | ---: | ---: | :--- | :--- | :--- | :--- | :--- |
| Chinsura Police Hospital | 938 | Nil | 1,017 | 0.1 | 1,124 | Nil | 1,242 | 0.08 |

While death-rates at different hospitals have varied for reasons which are not apparent, the overall fact remains that hospitals and health centres in the district are becoming more and more popular among the people they serve although the latest figures relating to some of them were not available.

The extension of medical facilities in the district, phased according to the Five Year Plans, are depicted in the following table. ${ }^{57}$

InSTITUTIONAL MEDICAL FACILITIES AVAILABLE IN HOOGHLY DISTRICT: 1947-64

| Period | No. of <br> medical <br> institutions | No. of <br> beds | Population <br> served <br> per bed |
| :--- | :---: | :---: | :---: |
| In 1947 | 70 | 659 | 2,251 |
| At the end of First Five Year Plan (as <br> on 31.3.56) | 81 | 693 | 2,695 |
| At the end of Second Five Year Plan <br> (as on 31.3.61) | 110 | 958 | 2,397 |
| During Third Five Year Plan (as on <br> 31.12.64) | 134 | 1,614 | 1,512 |

These figures do not include police, jail and railway hospitals as also those attached to mills and factories but include the hospitals maintained by local bodies. A study of the public medical institutions
reveals that in the Sadar subdivision there are 25 such units with a total of $46 \varepsilon$ beds, in Serampore subdivision 12 with 181 beds, in Chandernagore subdivision 11 with 247 beds and in Arambagh subdivision 11 with 164 beds. These are all Class I health institutions as defined by the Directorate of Health Services, West Bengal. In addition, there are two Class II Special State Hospitals, viz. the Chinsura Police Hospital with 98 beds and the Chinsura Jail Hospital with 27 beds. The Central Government runs three hospitals (Class IV) at Kodalia-Debanandapur, Bandel and Balarambati. The first two contain 5 beds each while the third is run only with an outdoor wing.

The list below ${ }^{58}$ gives available information regarding hospitals and dispensaries in the district run by the State Government and the local bodies. The institutions under the latter are mostly dispensaries which normally do not provide for indoor treatment.
government hospitals and health centres in hooghly district: 1965-66

| Name of Institution* P | Police Station | Anchal/Town | No. of Beds |
| :---: | :---: | :---: | :---: |
| Sadar Subdivision |  |  |  |
| Imambara Hospital | Chinsura | Chinsura | 200 |
| Bansberia R. C. Hospital | Magra | Bansberia | 10 |
| Hooghly A. G. Hospital | Chinsura | Chinsura | 40 |
| Dwarbasini A. G. Hospital | Polba | Dwarbasini | 15 |
| Balagarh A. G. Hospital | Balagarh | Sripur-Balagarh | 15 |
| Magra P.H.C. | Magra | Magra | 20 |
| Makalpur P.H.C. | Dadpur | Makalpur | 10 |
| Pandua P.H.C. | Pandua | Pandua | 20 |
| Bainchi S.H.C. | " | Bainchi | 10 |
| Haral-Daspur S.H.C. | " | Haral-Daspur | 4 |
| Itachuna S.H.C. | " | Khanyan | 10 |
| Rameswarpur Gopalnagar S.H.C. | C. " | Chandpur | 10 |
| Palashee S.H.C. | Dhaniakhali | Gurap | 10 |
| Khejurdaha Milki S.H.C. | " | Bhastara | 10 |
| Bagnan S.H.C. | " | Belmuri | 10 |
| Bhandarhati S.H.C. | " | Bhandarhati | 10 |
| Dhaniakhali P.H.C. | " | Somaspur | 20 |

[^5]government hospitals and health centres in hooghly district: 1965-66.

| Name of Institution | Police Station Anchal/Town | No. of <br> Beds |
| :---: | :---: | :---: | :---: |

Sadar Subdivision.-contd.
Guptipara S.H.C.
Nityanandapur S.H.C.
Bakulia P.H.C.
Danrpur S.H.C.
Sugandha S.H.C.
Chopa S.H.C.
Mahipalpur S.H.C.
Sukharia S.H.C.
Chandernagore Subdivision
Chandernagore Hospital
Balarambati S.H.C.
Bora S.H.C.
Bajemelia S.H.C.
Bandipur S.H.C.
Tarakeswar P.H.C.
Haripal P.H.C.
Singur P.H.C.
Nasibpur U.H.C.
Anandanagar U.H.C.
K. R. Dey Chest Clinic

Serampore Subdivision
Uttarpara General Hospital
Annexe to Uttarpara General Hospital

Walsh Hospital
Uttarpara R. C. Hospital (Dispensary)

Bhadrakali R. C. Hospital
Bhattapur S.H.C.
Jangipara P.H.C.
S.C.C. P.H.C.

Mundalika S.H.C.
Furfura S.H.C.

| Balagarh | Guptipara | 6 |
| :---: | :--- | ---: |
| , | Nityanandapur | 10 |
| ", | Bakulia | 10 |
| Dadpur | Babnan | - |
| Polba | Sugandha | - |
| Dhaniakhali | Gurbari | - |
| Balagarh | Mahipalpur | - |
| ,, | Somra | 2 |

Chandernagore Chandernagore 115
Singur Balarambati 10
Bora 10
Singur 10
Haripal Bandipur 10
Tarakeswar Tarakeswar 20
Haripal Haripal 10
Singur Singur 50
Nasibpur 12
Anandanagar -
Singur -

Uttarpara Uttarpara 100
" ," 20
Serampore Serampore 76

Uttarpara Uttarpara -
Bhadrakali Kotrung 15
Chanditala Sheakhala 14
Jangipara Jangipara 20
Chanditala Chanditala 10
Jangipara Beganda 10
Furfura 4

| GOVERNMENT HOSPITALS AND HEALTH CENTRES IN HOOGHLY DISTRICT: | 1965-66. <br> -concld. |  |
| :---: | :---: | :---: | :---: |
| Name of Institution | Police Station Anchal/Town | No. of <br> Beds |


| Serampore Subdivison.-contd. |  |  |  |
| :---: | :---: | :---: | :---: |
| Aniya P.H.C. | Chanditala | Akuni | 10 |
| Guti S.H.C. | Jangipara | Guti | 2 |
| Begampúr S.H.C. | Chanditala | Begampur | ... |
| Arambagh Subdivision |  |  |  |
| Arambagh Subdivisional hospital | Arambagh | Arambagh | 72 |
| Pursura A.G. Hospital | Pursura | Pursura | 10 |
| Badanganj A.G. Hospital | Badanganj | Badanganj | 10 |
| Goghat A.G. Hospital | Goghat | Goghat | 10 |
| Malaypur S.H.C. | Arambagh | Malaypur | 10 |
| Rangtakhali S.H.C. | " | Salehpur | 10 |
| Khanakul P.H.C. | Khanakul | Khanakul | 10 |
| Tantisal S.H.C. | " | Balipur | 10 |
| Sabalsingpur S.H.C. | " | Sabalsingpur | 10 |
| Natibpur S.H.C. | " | Natibpur | 10 |
| Muthadanga S.H.C. | Arambagh | Mayapur | 2 |

LOCAL FUND HOSPITALS AND DISPENSARIES IN HOOGHLY DISTRICT: 1965-66
$\begin{array}{llll}\text { Sadar Subdivision } \\ \text { Bansberia Dispensary }\end{array} \quad$ Magra $\left.\quad \begin{array}{l}\text { Bansberia } \\ \text { Municipality }\end{array}\right)-$ -

LOCAL FUND HOSPITALS AND DISPENSARIES JN HOOCHLY DISTRICT: 1965-66. -contd.

| Name of Institution | Police Station | Anchal/Töwn |
| :--- | :---: | :---: | | No. of |
| :---: |
| Beds |

## Sadar Subdivision.-contd.

| Basna Zilla Parishad Dispensary | Balagarh | Ektarpur |  |
| :---: | :---: | :---: | :---: |
| Kodalia Debanandapur Charítable Dispensary | Chinsura | Kodalia Union | - |
| Digsui Koera Charitable Dispensary | Magra | Digsui | - |
| Polba Anchal Charitable Dispensary | Polba | Polba | - |
| Amnan Charitable Anchal Dispensary | " | Amnan | - |
| Akna Anchal Charitable Dispensary | " | Akna | - |
| Hariprasanna Charitable Dispensary | Dadpur | Dadpur | - |
| Haral-Daspur Charitable Dispensary | Pandua | Haral-Daspur | - |
| Panchgara-Bhotgram Charitable Dispensary | " | PanchgaraBhotgram | - |
| Simlagarh Bhitasin Anchal Dispensary | " | Simlagarh | - |
| Belun Charitable Dispensary | " | Belun | - |
| Jamna Charitable Dispensary | " | Jamna | - |
| Dhaniakhali Charitable Dispensary | Dhaniakhali | Dhaniakhali | - |
| Dumurdaha Charitable Dispensary | Balagarh | Nityanandapur | - |
| Mahanad Anchal Charitable Dispensary | Polba | Mahanad | - |
| Khejurdaha Milki Anchal Charitable Dispensary | Dhaniakhali | Bhastara | - |

## Chandernagore Subdivision

| Rajkissen Charitable Dispensary | Bhadreswar | Bhadreswar | - |
| :--- | :--- | :--- | :--- |
| Khalisani Zilla Parishad <br> Dispensary | ", | Bighati- <br> Khalisani | - |
| Champadanga Zilla Parishad <br> Dispensary | Tarakeswar | Champadanga | - |
| Jejur Zilla Parishad Dispensary | Haripal | Jejur | - |
| Ramhatitola Zilla Parishad <br> Dispensary | , | - | - |

LOCAL FUND hOSPITALS AND DİPENSARIES IN HOOGHLY DISTRICT: 1965-66.

Name of Institution $\quad$ Police Station Anchal/Town | No. of |
| :---: |
| Beds |

## Chandernagore Subdivision-contd.

Champdani Charitable Dispensary
Nalikul Anchal Charitable Dispensary

Talpur Charitable Dispensary
Ellipur Charitable Dispensary
Serampore Subdivision
Mahesh Charitable Dispensary
Baidyabati CharitableDispensary
Baidyabati Maternity \& Child Welfare Centre

Pitambar Charitable Dispensary
Bhandarhati Charitable Dispensary

Konnagar Maternity \& Child Welfare Centre

Kumirmora Zilla Parishad Dispensary
K.M. Saha Charitable Dispensary

Begampur Anchal Dispensary
Nawabpur Kumirmora Dispensary
Sheakhala Charitable Dispensary
Rajbalhat Charitable Dispensary
Arambagh Subdivision
Badanganj Zilla Parishad
Dispensary
Gaurhati Anchal Dispensary
Tirol Anchal Dispensary
Batanal Charitable Dispensary
Arandi Charitable Dispensary
Chilladangi Charitable Dispensary

Goghat Anchal Dispensary
Saora Anchal Dispensary
Raghubati Anchal Dispensary
Nakunda Charitable Dispensary

| Bhadreswar | Champdani | 6 |
| :--- | :--- | ---: |
| Haripal | Nalikul | - |
| Tarakeswar | Talpur | - |
| Haripal | Ellipur | - |


| Serampore | Serampore | - |
| :---: | :---: | :---: |
| , | Baidyabati | - |

,, " 44
Uttarpara Konnagar -
Jangipara Dilakash -
Uttarpara Konnagar -
Chanditala Janai -
Serampore -
Begampur -
Janai -
Sheakhala -
Rajbalhat -

| Badanganj | - |
| :--- | :--- |
| Gaurhati | - |
| Tirol | - |
| Batanal | - |
| Arandi | - |


| Pursura | Chilladangi | - |
| :---: | :--- | :---: |
| Goghat | Goghat | - |
| $"$, | Saora | - |
| $"$ | Raghubati | - |
| $"$ | Nakunda | - |


| LOCAL FUND HOSPITALS AND DISPENSARIES IN HOOGHLY DISTRICT: | 1965-66. <br> -concld. |  |
| :--- | :--- | :--- |
| Name of Institution | Police Station Ancbal/Town | No. of <br> Beds |



There are thirteen private hospitals in the district, six of which are aided by Government. Nursing homes, which have come into vogue

Private hospitals and nursing homes only recently, number six. Following is a list ${ }^{59}$ of the private aided hospitals showing their locations and respective bed capacities.

| Name of Institution | Police Station | Anchal/Town | No. of Beds |
| :---: | :---: | :---: | :---: |
| King George Silver Jubilee Maternity \& Child Welfare Centre | Chinsura | Chinsura | 22 |
| Mandra Unnayan Samsad | Dhaniakhali | Mandra | - |
| Gaurhati T.B. Hospital | Bhadreswar | Champdani | 65 |
| B.B.D. Chest Clinic-cum-T.B. Hospital | Serampore | Serampore | 38 |
| Janai Maternity \& Child Welfare Centre | Chanditala | Janai | - |
| Bishnu Chandra Dispensary and Maternity \& Child Welfare Centre | Jangipara | Furfura | - |

The list ${ }^{60}$ below gives details of private unaided hospitals and dispensaries in the district.

| Name of Institution | Police Station | Anchal/Town | No. of Beds |
| :---: | :---: | :---: | :---: |
| Tribeni K.K. Charitable Dispen? sary | Bansberia | Magra | - |
| Asutosh Smriti Mandir | Balagarh | Somra | - |
| Nabagram Co-operative Dispensary | Uttarpara | Makhla | - |


| Name of Institution | Police Station | Anchal/Town | No. of <br> Beds |
| :--- | :--- | :--- | ---: |
| Rampara B.L. Trust Fund Chari- <br> table Dispensary | Jangipara | Furfura | - |
| Rishra Seva Sadan | Serampore | Rishra | 26 |
| Mankundu Mental Hospital | Mankundu | Mankundu | 120 |
| Tarakeswar Hospital | Tarakeswar | Tarakeswar | 11 |

The six Nursing Homes ${ }^{61}$ are: Central Clinic and Serampore Clinic at Serampore, Republic Nursing Home at Rishra, Hooghly Nursing Home at Chinsura, Dasgupta Clinic at Bandel and Maternity Home at Chandernagore.
Taking all this into account the district has 3 State hospitals located at Chinsura, Serampore and Uttarpara with an annexe attached to the last-named one, 3 R.C. hospitals, 6 A.G. hospitals, 2 Subdivisional hospitals, 12 Primary Health Centres, 30 Subsidiary Health Centres and 2 Union Health Centres. A total number of 1,614 beds are available in these institutions of which 137 are in cabins, 191 in paying wards and the remaining 1,286 are free beds. Of these, again, 184 are medical beds, 138 surgical beds, 196 beds are reserved for tubercular patients, 176 for maternity and gynaecological cases, 120 for mental cases, 57 for cholera, 46 for smallpox, 37 for eye diseases, 8 for diptheria, 4 for venereal diseases and 4 for ear, nose and throat cases. The remaining 643 beds are 'open'.

The Bhore Committee had recommended for Primary Health Centres with 75 beds each for every 20,000 people, but paucity of funds and of trained personnel prompted it to recommend the setting up of Primary Health Centres with only 2 beds for maternity and 2 for emergency cases for every 40,000 people. In partial modification of the recommendation, therefore, the Government of West Bengal started establishing rural hospitals, known as Health Centres, since 1948. The idea was to have at least one Health Centre in every Union (which had approximately the same area now covered by an Anchal Panchayat) having 4 to 10 indoor beds. The Union Health Centres within each police station were to be affiliated to the Thana Health Centres having a minimum of 20 and an optimum of 50 beds. All Health Centres in a sub-division were, again, to be affiliated to the Sub-divisional Hospitals having 68 indoor beds each. The conditions for the establishment of a Union Health Centre were that the local people should donate 6 bighas of land and an amount of cash while for a Thana Health Centre 20 bighas of land plus a eash amount. This scheme continued till 1955 when, at the instance of the Government of India, it was decided to have Primary Health Centres with 10 beds at the headquarters of every Community Development Block
along with 2 or 3 Subsidiary Health Centres at suitable places within each block area. The Subsidiary Health Centres were to be in the nature of dispensaries with only 2 non-dieted emergency beds. The district now contains all these types of institutions set up from time to time. The Sadar subdivision has 5 Primary and 15 Subsidiary Health Centres, the Serampore subdivision 3 Primary and 5 Subsidiary Health Centres, the Chandernagore subdivision 3 Primary, 4 Subsidiary and 2 Union Health Centres and the Arambagh subdivision 1 Primary and 6 Subsidiary Health Centres.
The Chief Medical Officer of Health is in overall charge of medical and public health administration of the district. On the medical side he is assisted by a District Medical Officer, a Resident Medical Officer attached to the Sadar Hospital, a Subdivisional Medical Officer looking after each of the Subdivisional Hospitals, and Medical Officers in charge of Auxiliary Government and Relief Camp Hospitals as also Health Centres and Special Hospitals. An assistant C.M.O.H. supervises issue of drug licences and family planning and a Staff Officer attends to civil defence matters. On the public health side the C.M.O.H. has the assistance of the District Health Officer and the Subdivisional Health Officers besides others appointed to discharge specific duties like the Medical Officer for School Health, the Assistannt District Health Officer for the National Malaria Eradication Programme, the District Family Planning Officer for family planning, the Medical Officer for B.C.G. campaign and such others. The subdivisions are, again, divided into Public Health Circles supervised by Sanitary Inspectors while the Mobile Units are looked after by Medical Officers.

On the institutional side the district health administration has the District Hospital (Imambara Hospital) at the top having several wings like medical care, laboratory service, maternity and child welfare services, family planning, departments for eye, ear, nose, throat, tuberculosis, dental and venereal diseases, the Blood Bank, the X-ray unit and a cell for implementing the School Health Programme. The Auxiliary Government and Relief Camp Hospitals are functionally restricted to medical care alone while the Public Health services are entrusted with the collection and maintenance of vital statistics, improvement of environmental sanitation and immunization through vaccination, inoculation, health education and testing of food articles. The functions of the Health Centres are both preventive and curative. On the preventive side, they collect and maintain vital statistics, execute various nutrition and school health programmes and undertake immunization, maternity and child welfare, family planning, health education and improvement of environmental sanitation.

The results of all the aforesaid health measures are reflected in the hospital statistics of the district which show that in an average year 39
39.4 per cent of the patients treated are fresh cases with new ailments, each hospital bed serves for 37.3 persons, 9.4 per cent of the patients are surgically operated upon, 3.9 per cent are X-rayed, 14 per cent undergo clinical examination, 26.6 per cent are given blood transfusion while the mortality rate is as low as 3.4 per cent.
In December, 1965 the Government and private hospitals in the district employed (according to C.M.O.H., Hooghly) 199 Medical Officers of whom 81 were graduates. Nurses numbered 261 of whom 129 were trained. There were besides 17 lady health visitors (including public health nurses), 80 technical staff, 14 midwives, 145 compounders, 1 sanitary inspector, 2 vaccinators and 58 health assistants. There was one doctor, one nurse and one compounder for every 8.0, 6.2 and 12.5 hospital beds respectively. The specialists attached to State hospitals were 2 physicians, 2 surgeons, 5 opthalmologists, 4 gynaecologists, 2 E.N. T. specialists, 3 dentists, 4 T.B. specialists, 4 radiologists and 3 pathologists. The number of private medical practitioners in the district, classified according to the system of medicine practised by them, is shown in the following table: ${ }^{62}$

|  | Allopathy | Homoeopathy | Kaviraji | Unani |
| :--- | :---: | :---: | :---: | :---: |
| Urban | 136 | 56 | 19 | 9 |
| Rural | 234 | 218 | 14 | 9 |

Some Selected Medical Institutions

Imambara Hospital, Hooghly

The Hooghly Imambara Hospital derives its name from the fact that it originally formed a part of the Hooghly Imambara created out of the Trust Fund left by Haji Muhammad Mohsin. "The Imambara Hospital owes its existence to the energy, humanity, and public spirit of Dr. Thomas Wise, the first Civil Surgeon of Hooghly, and to the charity of Muhammad Mohsin. It was first established as an experimental measure in August 1836. ... For a series of years the sick inmates of the Imambara had received free medical advice, attendance, and medicines at a yearly cost of Rs. 2,280, but nothing had been done for the sick poor in the town and neighbourhood." ${ }^{\prime 63}$ In 1894 the hospital came to occupy its present site. ${ }^{64}$

Dr. Wise's first annual report on the hospital for 1837 stated that it treated in that year 5,024 cases of whom 3,413 were cured, 1,539 were relieved, 33 died and 39 stayed on in the hospital for the next year. In 1839 Dr. Wise was succeeded by Dr. James Esdaile, an enthusiast in medical mesmerism. Dr. Badan Chander Chaudhuri, who was appointed the first Sub-Assistant Surgeon of the Imambara Hospital in February 1842, gave an account of the mesmeric experiments of Dr. Esdaile from which it appears that between 1839 and 1846, 73 operations under what was called 'painless surgical methods' were performed in the Imambara Hospital. Since its inception the hospital had two fairly distinct departments for 'English treatment' and 'Musalman treatment'. ${ }^{65}$ The latter was fairly popular
among the Muslims of Chinsura and, according to Dr. Crawford, the dispensary was well-stocked with medicines of the Uneni system.

In times of epidemic and famine the hospital has undertaken medical operations in the affected areas. In July 1866, it opened two field stations, one at Hooghly and the other at Chinsura which functioned up to December of that year. Between 1872 and 1878 training in midwifery was imparted to women of the dhai class but this arrangement was later discontinued. It was subsequently revived on a modern scientific basis and at present an 'Auxiliary Nursing-cumMidwifery Training Centre' is running in the Hospital.

The Walsh Hospital at Serampore was established in 1836 through the efforts of Dr. Marshman who was in charge of it till 1870 when he was transforred elsewhere. Its name is derived from that of a former Commissioner of the Burdwan division. Previously, it used to be maintained partly from municipal funds, partly from subscriptions and partly from miscellaneous receipts. An outdoor patients' block was erected in 1906 at a cost of Rs. 11,000 donated by Shri Nandalal Gossain and his brothers, all residents of Serampore. The hospital was later re-built from public subscriptions supplemented by Government grants. The old Hooghly District Gazetteer, published in 1912, described it as containing " 34 beds for male and 8 beds for female. The number of out-door patients is the largest in the district, averaging 47.64 daily in 1907, while the daily average of indoor patients was $21.69 .{ }^{\prime \prime}{ }^{\prime 6}$ The hospital has now 76 beds and treats on an average 8,516 patients a year.
The mental hospital now located at Mankundu was originally started with only 5 beds at 140 Balaram Dey Street, Calcutta, by The Mental Society on June 30, 1933 with Sir Manmatha Nath Mukherjee as its founder-president and Dr. Haranath Basu as its foundersecretary. It received a large grant of land and buildings at Mankundu from a prominent Calcutta industrialist and shifted to its present site in 1939. The female block of the hospital, however, continued to function in Calcutta till October 1948. In November 1942, the Government of Bengal recognized the institution and granted a licence which expired in 1944 due to its poor financial condition. Even so, the organization did its best to serve its chosen cause as would be evident from the following table. ${ }^{67}$

PERFORMANCE OF THE MANKUNDU MENTAL HOSPITAL: 1955-60

| Year | No. of patients <br> treated | No. of patients <br> cured |
| :--- | :---: | :---: |
| $1955-56$ | 119 | 44 |
| $1956-57$ | 143 | 45 |
| $1957-58$ | 149 | 39 |
| $1958-59$ | 166 | 52 |
| $1959-60$ | 190 | 55 |
| $1960-61$ | 181 | 50 |

Walsh Hospital, Serampore

The Mental Hospital, Mankundu

In September 1963 the West Bengal Government re-issued the licence and in November 1965 a new children's block was opened for indoor treatment of children at the hospital.

At present the hospital, with 120 sanctioned beds, 60 for male and 60 for female patients, runs on the grants made by the State Government and the Calcutta Corporation supplemented by miscellaneous collections. It is equipped with modern apparatus including those required for electrotherapy and insulin shock therapy. Laboratory research is carried on at the institution in collaboration with the Indian Brain Research Association. In 1965-66 the hospital had 30 free beds, 28 concessional beds and had treated 254 cases, mostly drawn from the ranks of middle class people. A Chief Medical Officer is in direct charge of the hospital who works under the overall supervision of a Court of Governors consisting of 19 eminent persons.

Hooghly
District Tuberculosis Association

Rural Health Singur

Based upon a resolution of the Serampore Municipality of March 1936 and a survey of tuberculosis incidence at the place early in 1938, the Hooghly District Tuberculosis Association was formally inaugurated by Dr. B. C. Roy in December 1938. It was registered and affiliated to the Bengal Tuberculosis Association in March 1941. Initially its clinic was housed in the out-patients' ward of the Walsh Hospital, Serampore and was shifted in February 1947 to its present premises having arrangements for X-ray, pathological work, operations, dispensary and 6 observation beds. The Bhabendra Bala Devi Chest Clinic was opened in 1948 and a hospital section started functioning from July 1952. In 1956 its operation theatre was opened and the first thoracic surgery performed. The hospital at Gaurhati (Bhadreswar P.S.) was started with 50 beds in 1958. With generous grants from the State and the Central Governments a female ward at the Gaurhati Tuberculosis Hospital was opened in 1960 and it came to have 20 beds by March 1963. At present the hospital has 50 male and 20 female beds with a State Government reservation of 40 beds while another 15 beds are reserved under the Employees' State Insurance Scheme. 68
The Rural Health Unit and Training Centre, Singur ${ }^{69}$ was started in 1939 by the All-India Institute of Hygiene and Public Health, Calcutta with assistance from the International Health Division of the Rockefeller Foundation. The land was donated by Shri A. Burman, a local landlord, and Shrimati S. N. Mullick made a cash contribution of a lakh of rupees. The Foundation financed the scheme on a sliding scale and it became a part of the State Government's responsibilities since 1944. In July 1963 a chest clinic was opened with a generous donation made by Shri Kumud Ranjan Dey. The institution was originally conceived as an experimental base of the All-India Institute of Hygiene and Public Health for conducting practical research in problems of rural public health and evolving techniques to combat them. A Primary Health Centre with a 50 -bed hospital, 5 Subsidiary

Health Centres having 10 or 12 beds each, 2. Sub-Centres without beds, a hostel to accommodate 90 trainees and quarters for the staff have been built. The experiment area covers the Singur, Balarambati, Bora, Gopalnagar, Anandanagar and Nasibpur Unions within Singur police station having, according to the 1961 census, a population of $1,34,000$ in 105 villages.

Amongst the manifold activities of the institution are improved registration of vital statistics, control of communicable diseases, improvement of environmental sanitation, public health laboratory services, maternity and child welfare services, school health programme, family planning, and medical relief through specialized indoor and outdoor services. Experiments in registration of vital statistics led to the useful inference that between actual and registered events in births and deaths there might be a margin of error of 59.8 per cent in births and 27.5 per cent in deaths. The research wing of the Unit has devised an improved squatting plate for rural latrines which is being popularized throughout the State. It also studied the extent of pollution of tube-well water through underground seepage and worked out a better scheme of boring for drinking water supply in rural areas. As regards family planning, in 1956 the birth-rates in the Unit's control and experimental areas were 46.0 and 45.2 per thousand which were brought down to 42.9 and 36.9 respectively in 1961. Lasting benefit from family planning can accrue only when it is integrated with a wider maternity and child health programme which is worked by the Singur Health Unit through antenatal and postnatal care through clinics, home visits, institutional and domiciliary services as also paediatric attention. It is claimed that a reduction of 75 to 50 per cent in child-birth mortality has thus been brought about within the experimental area.

The training programmes of the Centre include those in midwifery, school health and health education. The paediatric wing is a recent addition which attaches great importance to the nutritional aspects of child health. In 1958 the 4-bed maternity ward was converted into an 8 -bed ward for treatment of children suffering from various nutritional diseases. Mothers were encouraged to stay with their children when they were given instructions in preparation of low cost nutritive diet from locally available foodstuff. Under the school health programme, local teachers are given a 6 -week training on a practical curriculum. 189 teachers were trained up to August 1966 and employed in 29 primary schools within the experimental area. The general health education programme aims at popularizing hygienic practices through posters and pamphlets supplemented by audiovisual propaganda and home visits by the health staff. The Centre also runs a programme for turning out personnel technically qualified in public health which requires the trainees to stay at the Centre from 3 to 6 months when theoretical studies and field curricula are gone
through. In the orientation training course, which lasts from 1 to 2 months, the different methods of environmental sanitation are made familiar to the participants. A regular school named Dr. H. C. Mookherjee Health School is run by the Centre where the staff of the Unit participate in a training programme for Health Visitors. Facilities are also afforded by this school for class room instructions and field experiences to general nurses who come for orientation training in rural health for 3 months. Four classes of health personnel, viz. midwives, village volunteers, teachers and health assistants are also taught at the Centre. In addition, a continuous education programme for all types of personnel attached to the Unit itself is carried out. The institution also provides for public health laboratory services for clinical diagnoses, bacteriological investigation of latent cases, bacteriological analysis of drinking water and entomological surveys. Research in problems of microbiological interest is an additional feature. Over the years the Singur Health Unit has come to occupy a very important place in equipping medical practitioners of the country with post-graduate public health teaching not merely as an academic exercise but also as a vocational and practical training as well.

Polio Research Centre, Singur

Leprosy
Control Units, Talandu and Haripal

A Polio Research Centre was started at Singur in 1964 by the Institute of Post-Graduate Medical Education and Research, Calcutta, in collaboration with the John Hopkins University, Baltimore, U.S.A. Its field of investigation covers the villages Dalaigacha, Jalaghata, Nasibpur and Purusottampur within Singur P.S. The research work of the Centre aims at isolation of enterovirus and respiratory virus and observation of their seasonal variations as also devising an effective oral polio vaccine. Financed jointly by the State and Central Governments, the Centre provides facilities to research workers from the Department of Pathology, S. S. K. M. Hospital, Calcutta, and the John Hopkins University to carry out the aforesaid research programme.

Of the two Government Leprosy Control Units at Nalikul (Haripal P.S.) and Talandu (Magra P.S.) the former is directly under the Department of Health while the latter is run by the Tribal Welfare Department under the overall supervision of the Directorate of Health Services. Established during the Second Plan period, the Talandu Unit is primarily meant for treatment of leprosy although it is open to general patients as well. Its activities are limited to outdoor treatment, case finding and health education. In October 1966, some 984 leprosy patients were receiving treatment from this centre. ${ }^{70}$ During the Third Plan period the State Government in collaboration with the Government of India launched a scheme for control of leprosy which envisaged a survey to detect cases, health education to foster a rational attitude towards the disease and treatment of all detected cases. The Haripal Leprosy Control Unit is one such centre which started func-
tioning from January 10, 1966 with two subordinate supervisory units at Serampore and Tarakeswar and 15 subsidiary units under them. The network covers 3 Community Development Blotks with an endemic population of about $2,22,000$. In October, 1966 some 95 leprosy patients were under treatment at these centres. A survey for locating vulnerable areas is now under progress in the 250 villages under the project. ${ }^{71}$

This centre was established in a building donated by a grandson of late Ruplal Nandi of Chandernagore on 1st February, 1965. It started as an experimental chemotherapy research centre and a biological station for breeding and rearing animals for cancer research on the animal tumour system. As cancer research largely depends on examination of human patients, a clinical chemotherapy wing with 25 beds was added to the centre in November 1966. Since its inception Rs. 2.5 lakhs have been spent on buildings and equipments for the centre which also functions as a field unit of the Chittaranjan National Cancer Research Centre, Calcutta. The out-patients' wing has since been expanded and a full-fledged cancer detection centre opened in November 1966 in a new wing where diagnoses of male and female patients and technical tests like the 'pap', 'fluorochrome' and 'biopsy' tests are performed. As an additional service, the centre collaborates with the State Government's family planning unit at Chandernagore extending its technical services in insertion of intra-uterine contraceptive devices. ${ }^{72}$
During the first two Plans, population control was based on a clinical approach to the problem with an increasing number of health institutions utilized as service centres which achieved little in bringing down the birth-rates. During the Third Plan, the State Government launched a comprehensive campaign of family welfare planning defined in Health Department's memorandum dated July 1, 1964. The scheme was initiated in collaboration with the Central Government with a 100 per cent central subsidy on non-recurring and 75 per cent on recurring outlays. It integrated within its sphere maternity and child health programmes and the approach was more to a social balance than to mere restraint in population growth inasmuch as it included within its scope investigation and treatment of sterility cases side by side with conception control. In rural areas contraceptives were supplied free to all while in urban areas their distribution was tagged to incomes-those with a monthly income of Rs. 300 receiving them free, between Rs. 300 and Rs. 500 at half price and above Rs. 500 at full price. The final year of the Third Plan saw the campaign stepped up to an emergency basis when the implementing set-up was also reorganized. Hooghly district was selected for a pilot project for intensive popularization of the intra-uterine contraceptive device (IUCD or 'loop'), a new addition to the range of contraceptives which was tested earlier in field experiments at Singur. Since September 1965

Ruplal Nandi Memorial Cancer Research Centre, Chandernagore

Family planning
a District Family Welfare Plaznning Bureau located at Chinsura coordinates the activities of 5 public and 3 private Urban Family Welfare Planning Centres each covering about 5,000 urban population and 10 public and 2 private Rural Family Welfare Planning Centres each commanding normally one Community Development block area. Besides, there were one mobile surgical unit for vasectomy, another for insertion of IUCDs, 6 public and 3 private contraceptive distributing units and 10 urban and 30 rural IUCD service centres for insertion of 'loops'. Beds are kept earmarked in the district, subdiviv sional and general hospitals and health centres for sterilization operations. Till the end of June 1966, 2,180 persons (1,560 males and 620 females) were sterilized and 18,108 women had received 'loops'. ${ }^{73}$

The programme entails service, education, training and research. The first has been described. For the second, there is a full-scale unit with audio-visual equipments to tour both urban and rural areas. The third consists of job orientation training for the personnel as also simple orientation training for outsiders. The research wing evaluates field experiences.

Proper nutrition, particularly of the expectant and nursing mothers and children below 10 years of age, is closely related to family welfare. With the assistance of the UNICEF and the Ford Foundation a rural nutrition programme was, therefore, launched in certain areas of the district in 1965. In its educative aspect the scheme taught and helped housewives in preparing meals with higher nutritional content from cheap and readily available ingredients while on the service side distribution of skimmed milk to mothers and children at the rate of $1 \frac{1}{2}$ ounces per head per day was taken up through the 13 maternity clinics in the district. In Dr. H. C. Mookherjee Health School at Singur research on this nutrition programme is being carried on and a fuller scheme is in sight to be launched in the Magra and Singur blocks. ${ }^{74}$

Among other medical institutions in the district the most notable are the Uttarpara General Hospital, Baidyabati Dispensary and Rishra Seva Sadan. Opened in 1851, the Uttarpara Dispensary owed its origin to the munificence of the local Mukherjee family and was taken over by the Government of Bengal in June 1896. Styled as the Uttarpara General Hospital it has now become one of the major health institutions of the district with 120 beds including 20 in an annexe. Crawford has traced its history in his Hughli Medical Gazetteer. ${ }^{75}$ The Baidyabati Dispensary was opened in March 1857 as a municipal dispensary. It shifted to its present site, a new building completed in November 1871, where it is still functioning. The Rishra Seva Sadan, a private organization, rose to its present eminence from very humble beginnings. It has now 26 beds and is fully equipped to render various specialized services. A special feature of the institution is the free 'eye camps' which it arranges since 1964 in collabora-
tion with the Rotary Club of Serampore. Recently the 'eye camp' has been accommodated in a new Eye Block attached to the Seva Sadan.

O'Malley and Chakravarti had mentioned as many as 14 medical institutions established in the district in the 19th century through private initiative. ${ }^{76}$ Many of these have been discussed by Crawford in his Hughli Medical Gazetteer. ${ }^{77}$

Public health and sanitation set-up in the district may be broadly divided into two parts, urban and rural. The former is under municipalities in municipal towns while the latter, until very recently, was under the control of the Chief Medical Officer of Health and the Executive Engineer, Public Health Engineering with the District Officer in overall charge. The municipalities generally have a Health Officer to attend to this specific work with the help of Sanitary Inspectors, Conservancy Inspectors, Saritary Assistants and Conservancy Assistants placed under him who look after conservancy, water supply, drainage, epidemic control, prevention of food adulteration and issuing of licences in this behalf, compilation of vital statistics, slum clearance, maintenance of burning ghats and burial grounds and administration of slaughter houses, markets and hats. The chief functionaries in the rural set-up are the District Health Officer, Subdivisional Health Officers and Sanitary Inspectors under them for looking after epidemic control, food adulteration, environmental sanitation and health education. With the establishment of Panchayati Raj, the rural set-up has been brought under the Zilla Parishad with functional devolution through the Anchalik Parishads, Anchal Panchayats and Gram Sabhas. A more detailed treatment of this subject is to be found in Chapter XII on Local Self-Government.

The details of the municipal water works functioning in the district under the supervision of the Directorate of Health Services, West Bengal prior to the introduction of the First Plan are given in the table ${ }^{78}$ below:

MUNICIPAL WATER WORKS IN HOOGHLY DISTRİCT (PRIOR TO 1951)

| Name of <br> municipality | Year when <br> started | Area served <br> (sq. miles) | Average daily <br> supply <br> (gallons) | Approxi- <br> mate <br> population |
| :--- | :---: | :---: | :---: | :---: |
| Hooghly-Chinsura | 1914 | 5.0 | $6,60,813$ | 49,081 |
| Uttarpara | 1918 | 0.3 | $1,32,547$ | 20,000 |
| Bhadreswar | 1926 | 1.95 | $4,71,863$ | 27,673 |
| Bansberia | 1931 | 3.1 | $2,30,000$ | 30,000 |
| Champdani | 1932 | 0.5 | 56,250 | 19,000 |
| Serampore | 1936 | 2.2 | $8,50,000$ | 73,550 |

Water works, drainage and sewerage

Sanitation

The Bhagirathi was the source of supply for the Hooghly-Chinsura, Uttarpara and Serampore water works while Bhadreswar's supply came from local mills and tube-wells arid Bansberia and Champdani's from $5^{\prime \prime}$ diameter tube-wells. Champdani had no filtering system at that time nor were pipes laid there for domestic consumption. Besides, a water works was in existence in the then French Chandernagore.

The details of drainage and sewerage facilities available before 1951 in some of the municipalities under the supervision of the Directorate of Health Services, West Bengal are given in the following. table: ${ }^{79}$
drainage and sewerage in hooghly district (prior to 1951)

| Name of municipality | Area served <br> (sq. miles) | Population <br> served <br> (approx.) | Annual cost of <br> maintenance <br> (in Rs.) |
| :--- | :---: | ---: | ---: |
| Champdani | 1.8 | 28,000 | 14,826 |
| Chandernagore | - | 55,000 | 24,074 |
| Uttarpara | 0.8 | 16,168 | 249 |
| Serampore | 6.05 | Not available | Not available |
| Bhadreswar | 0.66 | 20,000 | 5,602 |

With the inception of the Five Year Plans, the Public Health Engineering Directorate, West Bengal was entrusted with the task of planning and execution of various water supply proječts in the district of which the following may be especially mentioned.

Konnagar
Water Supply Scheme

Bansberia Water Supply Scheme

Champdani Water Supply Scheme

The scheme was taken up during the First Plan period at an estimated cost of Rs. $7,38,000$. Although the population of the town was then only 25,000 it intends to serve an ultimate population of 50,000 through the supply of 16,000 gallons of drinking water per day to 3,000 house connexions and $3,76,000$ gallons through street hydrants estimated to meet the requirements of another 47,000 persons. The scheme envisages the sinking of two $6^{\prime \prime}$ diameter tubewells with ancillary pumping machinery etc. and an elevated reservoir with a capacity of $1,50,000$ gallons complete with chlorination and distribution arrangements.

The scheme was taken up at an estimated cost of Rs. 2,46,100 during the First Plan period. To meet the growing requirements of the town having a population of 45,000 , it envisaged boring of 4 tube-wells of $6^{\prime \prime}$ diameter and construction of an overhead reservoir with a capacity of 60,000 gallons complete with a pumping house, distributary pipe connexions etc.

As there was no arrangement for piped water supply at Champdani, a scheme at an estimated cost of Rs. $9,66,000$ was taken up during the Second Five Year Plan to serve a population of 31,543 with a provision for a future growth up to 40,000 persons. The
scheme provided for an average per capita supply of 20 gallons of water per day entailing the boring of 4 tube-wells of $6^{\prime \prime}$ diameter and the construction of 2 overhead reservoirs with capacities of $1,00,000$ and 80,000 gallons respectively.

The scheme was taken up during the Second Plan period at an estimated cost of Rs. $9,20,882$ for providing the Rishra township piped water for its 33,000 inhabitants with an ultimate service capacity for 51,000 . The estimated average supply of 20 gallons of water per head per day, called for the sinking of 4 tube-wells of $6^{\prime \prime}$ diameter with 2 elevated reservoirs of $1,50,000$ and 40,000 gallons. The special feature of the project was the installation of bore hole pumping machinery and construction of a bore hole pumping house complete with chlorination and distribution arrangements.

The scheme was taken up during the Second Plan period at an estimated cost of Rs. $9,93,185$ for supply of water to a town of 37,000 with a projected service capacity to 50,600 persons. The distribution break-up per day was $1,20,000$ gallons to 6,000 consumers through house taps, $3,80,000$ gallons to 44,000 persons through street taps and an additional 12,000 gallons per day for street washing. It envisaged the boring of six $6^{\prime \prime}$ diameter tube-wells, construction of 3 elevated reservoirs with $60,000,80,000$ and 20,000 gallon capacities and installation of 6 bore hole pumping houses and 6 sets of bore hole pumping machinery complete with distribution and chlorination arrangements.

The project envisaged the sinking of a $6^{\prime \prime}$ diameter tube-well as an interim measure to relieve scarcity of drinking water in the Barasat locality till a complete remodelling of the Chandernagore Water Supply system could be undertaken. With a projected supply of 2,52,000 gallons of water per day, the scheme was taken up at an estimated cost of Rs. 61,000 along with another scheme to benefit the Haridradanga locality of the town which cost Rs. 58,500 and went into operation in March 1958.

This scheme was taken up at an estimated cost of Rs. 2,49,000 during 1964 with a view to providing the 25,000 residents of Uttarpara with $3,00,000$ gallons of water per day of which $2,50,000$ gallons were to be filtered for distribution through house connexions ( $1,17,000$ gallons) and 100 street hydrants ( $1,33,000$ gallons). There was an additional provision for 26,000 gallons of raw water for road washing etc. The head-works of the supply system were provided with highlift pumps with special valves, the existing jetties were repaired and rapid gravity filtration equipments with a capacity of about 12,000 gallons per hour were installed.

Besides the rural water supply projects financed by and executed under the community development, tribal welfare and rural water supply programmes as also from local funds and private donations (some of which have been discussed at appropriate places elsewhere),

Rishra Water Supply Scheme

Bhadreswar Water Supply Scheme

Chandernagore Water Supply Scheme

Uttarpara Water Works Remodelling Scheme

Rural services
many tube-wells were sunk ia the district by the Public Health Engineering Directorate before the Zilla Parishad took the field in 1965-66. ${ }^{80}$

## NOTES

${ }^{1}$ Bangiya Sahitya Parishad-Bhäratkosh (Vol. I). Calcutta, 1371 B.S. p. 443.
${ }^{2}$ Durgadas Lahiri-Prithibīr Itihās (Vol. II). Howrah, 1319 B.S.
${ }^{3}$ Bangiya Sahitya Parishad-op.cit. p. 327.
${ }^{4}$ P. Ray (Ed.)-History of Chemistry in Ancient \& Medieval India. Calcutta, 1956. p. 49.
${ }^{5}$ ibid. pp. 59-61.
${ }^{6}$ Kalyani Mallik-Näthasampradāyer Itihās, Darshan Ô Sädhan Pranāli. Calcutta, 1950. pp. 118-81.
${ }^{7}$ W. W. Hunter-A Statistical Account of Bengal (Vol. III). London, 1876. pp. 438-9.
${ }^{8}$ ibid. p. 439.
${ }^{9}$ Lt. Col. D. G. Crawford-Hughli Medical Gazetteer. Calcutta, 1903. p. 374. The Report referred to is the annual sanitary report for the year 1886 made by Dr. Lidderdale, the then Sanitary Commissioner.
${ }^{10}$ ibid. pp. 375-93.
${ }^{11}$ ibid. p. 370.
${ }^{12}$ L. S. S. O'Malley and Monmohan Chakravarti-Bengal District Gazetteers: Hooghly. Calcutta, 1912. p. 134.
${ }^{13} \mathrm{Lt}$. Col. Crawford-op.cit. p. 372.
${ }^{14}$ Brojendranath Bandyopadhyay-Sambādpatre Sekāler Kathā (Vol. II). Calcutta, 1356 B.S. p. 414.
${ }^{15}$ W. W. Hunter-op.cit. p. 417.
${ }^{16}$ L. S. S. O'Malley and Monmohan Chakravarti-op.cit. p. 125.
${ }^{17}$ A biographical sketch of Shri Mookherjee is given in Chapter XVI under the entry 'Uttarpara'.
${ }^{18}$ Crawford-op.cit. p. 120.
${ }^{19}$ Crawford-op.cit. p. 124.
${ }^{20}$ loc. cit.
${ }^{21}$ ibid. pp. 139-40.
${ }^{22}$ G. Toynbee (Magistrate \& Collector, Hooghly)-A Sketch of the Administration of the Hooghly District from 1795 to 1845. Calcutta, 1888. p. 144.
${ }^{23}$ W. W. Hunter-op. cit. p. 418.
${ }^{24}$ ibid. pp. 433-4.
${ }^{25}$ ibid. p. 435.
${ }^{26}$ L. S. S. O'Malley and Monmohan Chakravarti-op. cit. p. 128.
${ }^{27}$ W. W. Hunter-op. cit. p. 435.
${ }^{28}$ Crawford-op. cit. pp. 520-2.
${ }^{29}$ B. Roy-Census 1961, District Census Handbook, Hooghly (Calcutta, 1965). pp. xxvii-xxxi.
${ }^{30}$ ibid. pp. xxviii-xxix.
${ }^{31}$ A. Mitra-Census 1951, District Handbooks: Hooghly (Calcutta, 1952). p. 169 and B. Roy-op. cit. p. 354. (The birth-rates per thousand have been calculated on the total populations of 1941 and 1951 respectively while the deathrates are calculated on the populations of the same sex for the said years).
${ }^{32}$ Source: Chief Medical Officer of Health, Hooghly.
${ }^{33}$ There is an interesting discussion on this subject supported by a graph and data in the latest Census Handbook on Hooghly. pp. lviii-lix.
${ }^{34}$ Source: Bureau of Health Intelligence, Directorate of Health; Government of West Bengal.
${ }^{35}$ O'Malley and Chakravarti-op. cit. p. 126.
${ }^{36}$ Shri A. Mitra-op. cit. p. 26.
${ }^{37}$ O'Malley and Chakravarti-op. cit. pp. 125-6.
${ }^{38}$ A. Mitra-op. cit. p. 26.
${ }^{39}$ A. Mitra-op. cit. pp. 169-71 and B. Roy-op. cit. pp. 355-6. (Death-rate has been calculated on annual death-rate per 1,000 persons of the same sex on the basis of population of 1941 for the first decade and that of 1951 for the second. The rates for deaths from child birth for 1951-60 have been calculated per 1,000 of live and still births).
${ }^{40}$ This is corroborated by O'Malley and Chakravarti when they observe: "The registration of deaths caused by fever is notoriously inaccurate, as a
considerable number of deaths due to other diseases. . . are ascribed to fever. . ." (O'Malley and Chakravarti-op. cit. p. 126).
${ }^{41}$ Crawford-op. cit. pp. 179, $184-5,473,482$ and 492; A Mitra-op. cit. pp. 169-71 and B. Roy-op. cit. pp. 355-6. (The figures are in one-year averages calculated on the total of the 20 -year cumulative figures relating to the relevant 40 years).
${ }^{42}$ Directorate of Health Services, Government of West Bengal-Annual Reports on the State of Health in West Bengal (Part I), 1961, 1962, 1963 and 1964.
${ }^{43}$ Directorate of Health Services, Govt. of West Bengal-Annual Report on the State of Health of West Bengal (Part II), 1961, 1962, 1963 and 1964.
${ }^{44}$ Directorate of Health Services, Government of West Bengal-Annual Reports on the State of Health of West Bengal (Part I), 1961, 1962, 1963 and 1964. 'Urban' includes all municipal towns and 'rural' indicates all other areas of the district.
${ }^{45}$ Directorate of Health Services, West Bengal-Annual Report on the State of Health in West Bengal, 1952, 1953, 1954 and 1955.
${ }^{46}$ Directorate of Health Services, West Bengal-Annual Report on the State of Health in West Bengal, 1961, 1962, 1963 and 1964.
${ }^{47}$ Crawford-op. cit. p. 483; B.Roy-op. cit. p. 355 and Directorate of Health Services, West Bengal-Annual Reports on the State of Health in West Bengal, 1961, 1962, 1963 and 1964.
${ }^{48}$ Directorate of Health Services, West Bengai-Annual Report on the State of Health in West Bengal, 1961, 1962, 1963 and 1964.
${ }^{49}$ The Statesman. Calcutta, December 13, 1966.
${ }^{50}$ Source: Chief Medical Officer of Health, Hooghly.
${ }^{51}$ Directorate of Health Services, West Bengal-Annual Report on the State of Health of West Bengal (Part I), 1961, 1962, 1963 and 1964.
${ }^{52}$ Directorate of Health Services, West Bengal-Annual Report on the Health of the Population of West Bengal, 1949. p. 1.
${ }^{53}$ Stavorinus-Voyages. p. 451.
${ }^{54}$ Crawford-op. cit. pp. 492-3.
${ }^{55}$ Directorate of Health Services, West Bengal-Annual Report of the State of Health in West Bengal (Part I), 1961, 1962, 1963 and 1964.
${ }^{56}$ Directorate of Health Services, West Bengal-Annual Report on the State of Health in West Bengal (Part II), 1961, 1962, 1963 and 1964.
${ }^{57-62}$ Source: Chief Medical Officer of Health, Hooghly. There is a branch of the Indian Medical Association for the district.
${ }^{63}$ George Toynbee-A Sketch of the Administration of the Hooghly District (1795-1845). Calcutta, 1888. p. 140.
${ }^{64}$ Crawford-op. cit. p. 311.
${ }^{65}$ Crawford-op. cit. p. 307.
${ }^{66}$ O'Malley and Chakravarti-op. cit. p. 132.
${ }^{67}$ The Jugantar. Calcutta, February 2, 1962.
${ }^{68}$ Source: Honorary Secretary, Hooghly District Tuberculosis Association, Serampore.
${ }^{69}$ All information about the institution was supplied by the Officer-in-Charge of Administration, Rural Health Unit and Training Centre, Singur.
${ }^{70}$ Source: Assistant Director of Health Services (Leprosy), Directorate of Health Services, Government of West Bengal.
${ }^{71}$ Source: Assistant Director of Health Services (Leprosy), Directorate of Health Services, Government of West Bengal and Medical Officer, Leprosy Control Unit, Haripal.
${ }^{72}$ Source: Director, Chittaranjan National Cancer Research Centre, Calcutta.
${ }^{73-74}$ Source: Chief Medical Officer of Health, Hooghly. (correct up to 1965).
${ }^{75}$ Crawford-op. cit. pp. 320-8.
${ }^{76}$ O'Malley and Chakravarti-op. cit. pp. 132-4.
${ }^{77}$ Crawford-op. cit. pp. 298-354.
${ }^{78}$ Directorate of Health Services, West Bengal-Annual Report on the State of Health of West Bengal, 1955. pp. 460-73.
${ }^{79}$ ibid. pp. 474-5.
${ }^{80}$ Source: Executive Engineer, Public Health Engineering, Burdwan Division.

## CHAPTER XV

## PUBLIC LIFE AND SOCIAL SERVICE ORGANIZATIONS

Representation of the District in the Union and State Legislatures

Vidhan Sabha (Legislative Assembly)

During the first General Elections held in 1952, the Hooghly district was represented in the West Bengal Legislative Assembly by 14 members elected from 10 constituencies of which 4 were doublemembered. The 10 constituencies were Singur (double-membered), Uttarpara, Serampore, Bhadreswar, Goghat, Arambagh (doublemembered), Tarakeswar, Chinsura (double-membered), Dhaniakhali (double-membered) and Balagarh. Three seats were reserved for Scheduled Caste candidates, one each in the Singur, Arambagh and Chinsura constituencies and one seat was reserved for Scheduled Tribe candidates in the Dhaniakhali constituency.

Between the first and the second General Elections, Chandernagore, an erstwhile Union territory, became a part of the Hooghly district under the Chandernagore Merger Act, 1954. A by-election for this area alone was held in 1955 and Chandernagore has been a constituency during the succeeding General Elections.

In the second General Elections held in 1957, there were 12 constituencies in the district returning 15 representatives. The two new constituencies were Khanakul and Jangipara. The Khanakul constituency was similar in jurisdiction to the Arambagh constituency of the first General Elections consisting of the Khanakul and Arambagh police stations excluding the Arambagh municipal area. The erstwhile Goghat constituency was abolished and the Arambagh constituency of the first General Elections now comprised the Goghat police station and the Arambagh municipal area. The other new constituency, Jangipara, consisted of Jangipara, Chanditala (excluding Unions 4, 5 and 7) and Haripal (excluding Unions 2 and 3) police stations. The three double-membered constituencies were Khanakul, Dhaniakhali and Jangipara. Three seats were reserved for Scheduled Caste candidates, one each from the Khanakul, Dhaniakhali and Jangipara constituencies. There was no exclusive representation this time for Scheduled Tribes.

During the third General Elections held in 1962 (the latest when the present Gazetteer was being written), there were 15 constituencies in the district electing 15 representatives to the State Legislative Assembly. Double-membership from one constituency was done away with under the Two-member Constituencies (Abolition) Act,
1961. The three new constituencies were Chanditala, Pandua and another created by splitting the Arambagh constitueney into twoArambagh East and Arambagh West. The Chanditala constituency comprised the Chanditala police station (excluding Unions 4, 5 and 7) and the Haripal police station (excluding Unions 1, 4 and 5) and its entire area came out of the old Jangipara constituency which was left with only the Jangipara police station and three Unions (Nos. 1, , 4 and 5) of the Haripal police station. The new Pandua constituency was carved out of the old Dhaniakhali constituency and encompassed the Pandua police station (excluding Unions 7 to 12) and the Polba police station (excluding Unions 8 to 12). The existing Arambagh constituency was really re-named Arambagh West during the third Elections while the new Arambagh East constituency was formed with the Arambagh police station (excluding the Arambagh municipal area) and Unions No. 1 to 3 of the Khanakul police station of the erstwhile Khanakul constituency. Three seats were reserved for Scheduled Castes, one each from the Jangipara, Pandua and Khanakul constituencies. There was no exclusive representation for Scheduled Tribes this time as well.

During all the three General Elections there were two onemembered Lok Sabha constituencies in the district, namely Serampore and Hooghly. In the first Elections the Serampore constituency comprised the then Serampore subdivision (excluding Haripal and Tarakeswar pofice stations) and the Domjur and Bally police stations of the neighbouring Howrah district. In the second Elections this constituency came to be contained entirely within the district with the whole of the present Serampore subdivision, the Chandernagore subdivision (excluding Chandernagore police station) and the Pursura police station (excluding Union No. 1) of the Arambagh subdivision, while in the third General Elections it shrank a little to cover nine police stations of the district, viz. Jangipara, Chanditala, Uttarpara, Serampore, Bhadreswar, Singur, Haripal, Tarakeswar and Pursura (excluding Union No. 1). The other Parliamentary constituency, Hooghly, contained, during the first General Elections, the Hooghly (Sadar) subdivision (excluding Balagarh and Magra police stations), the Arambagh subdivision (excluding Goghat police station) and two police stations of the Serampore subdivision, Haripal and Tarakeswar. This constituency during the second Elections had the whole Sadar subdivision, the Chandernagore police station of the Chandernagore subdivision, Union No. 1 of Pursura P.S. of the Arambagh subdivision and some portions of the Ranaghat and Chakda police stations of the neighbouring Nadia district. During the next Elections its composition underwent further change to include the Chandernagore, Chinsura, Magra, Balagarh, Pandua and Dhaniakhali thanas as also Union No. 1 of the Pursura P.S. of the Hooghly district and parts of the Ranaghat and Chakda thanas of the Nadia district.

Lok Sabha (House of the People)

Vidhan Parishad (Legislative Council)

Political Parties AND Organization

In 1952, Hooghly district did not have any constituency for the Vidhan Parisinad totally to itself; it was parcelled out amongst three neighbouring constituencies. In the Hooghly-Howrah (Local Authorities) Constituency, it shared the area with the district of Howrah. The West Bengal South (Graduates') Constituency consisted of the Hooghly and two other districts, viz. Howrah and 24-Parganas. The Burdwan Division (Teachers') Constituency encompassed all the districts of that division, including Hooghly.

During the 1962 Elections, delimitation processes created one double-membered constituency for the Legislative Council-the Hooghly Local Authorities Constituency-which was conterminous with the boundaries of the district. Besides, the district formed parts of two other constituencies, viz. the West Bengal. South-West Graduates' Constituency and the West Bengal South-East Teachers' Constituency. In the former five other districts, Birbhum, Burdwan, Bankura, Purulia and Midnapur and in the latter three other districts, Murshidabad, Nadia and Howrah were included.

There are no political parties exclusive to the district. Generally speaking, the Statewide or nationwide political parties have their local organizations in the district and operate through them. From the experience of the last three General Elections it appears that the Indian National Congress, the Communist Party of India, the Socialist Party, the Hindu Mahasabha, the Jan Sangh, the ${ }^{1}$ Forward Bloc, the Forward Bloc (Marxist) and the Praja Socialist Party played their roles in the political arena of the district. During the first General Elections a few other parties like the Ram Rajya Parishad, the Forward Bloc (Ruikar) Party etc., did appear on the scene but the political evolution of the country and polarization of public opinion eventually brought only two or three of the all-India parties to the fore which alone played significant roles in the subsequent Elections.
It may be wrong to suppose that the political pulsations of the district are articulated only by these important parties. Time has shown that the common people are apt to respond in large numbers to spasmodic agitations on current issues. The so-called food movement, which gripped this State in the early part of 1966, had its worst repercussions in the district in places like Konnagar, Rishra and Serampore. ${ }^{-}$The matter is now before a Commission appointed by the State Government and the precise political motivations behind the movement are expected to be brought to light when the Commission's report is published.

Any assessment of very recent political behaviour of the populace is likely to suffer from a lack of proper perspective. The only other alternative for a more dependable analysis-which is attempted in the following paragraphs-is to examine the results of the last three

General Elections held over a period of ten years between 1952 and 1962.

Besides the General Elections of 1952, 1957 and 1962, two byelections were held in the district, one in the Goghat constituency in May, 1952 and the other in the Chandernagore constituency in June, 1955.

In the first General Elections as many as 80 candidates contested for the 14 Assembly seats. Of them, 14 candidates were set up by the Indian National Congress, 6 by the Communist Party of India, 8 by the Forward Bloc (Marxist), 2 by the Forward Bloc (Ruikar), 4 by the Jan Sangh, 3 by the Hindu Mahasabha, 6 by the Krishak Majdur Praja Party, 7 by the Socialist Party, 1 by the Ram Rajya Parishad and 29 candidates fought independently.

After the polls 7 Congress candidates, 4 Communist candidates, 1 Forward Bloc (Marxist) candidate and 2 independent candidates were returned. The successful Congress candidates came from Serampore, Bhadreswar, Tarakeswar, Chinsura, Dhaniakhali (both seats) and Balagarh constituencies. The candidates of the C.P.I. were returned from Singur (both seats), Uttarpara and Arambagh constituencies while the lone Forward Bloc (Marxist) candidate won from the Chinsura constituency. Arambagh and Goghat constituencies elected two independent candidates. Of the total electroate consisting of $12,06,129$ voters, $6,00,453$ actually cast their votes bringing the overall poll percentage to 49.08 . The Congress candidate secured 44.03 per cent of the total valid votes in the Serampore Constituency being very closely followed by a C.P.I. candidate who secured 41.44 per cent. Congress candidates won comfortably in the Bhadreswar and Tarakeswar constituencies by polling 51.22 per cent and 47.14 per cent of the total valid votes respectively. In the Dhaniakhali double-membered constituency the Congress Party captured both the seats by polling 20.03 and 19.92 per cent of the votes and in the Chinsura constituency it captured one seat but conceded the other to a Forward Bloc (Marxist) candidate by polling 19.37 per cent of the valid votes while the latter secured 18.42 per cent. At Balagarh the Congress candidate won with 35.29 per cent of the total votes. Both the seats in the Singur double-membered constituency went to the C.P.I. candidates who collected 19.68 and 16.71 per cent of the total valid votes being very closely trailed by Congress candidates who secured 17.74 and 16.64 per cent of the votes respectively. At Uttarpara a C.P.I. candidate polled 52.04 per cent of the total votes and was returned with a comfortable margin. The C.P.I. shared the two seats in the Arambagh constituency with an independent candidate by polling 25.17 per cent of the votes while the latter secured 34.24 per cent. The record for high polling in the district during this election was set up by an independent candidate in the Goghat constituency who captured 62.36 per cent of the total valid votes.

On an analysis of the votes cast for each party vis-a-vis the total number of votes polled during the first General Elections, it appears that the Indian National Congress was incomparably stronger than any of its rivals. While it got 37.01 per cent of the valid votes cast, the second best performance was of the independent candidates taken together who secured only 18.01 per cent of the same. Among the other parties, the C.P.I. secured 17.00 per cent, the Forward Bloc (Marxist) 12.8 per cent, the Jan Sangh 5.3 per cent, the Socialist Party 3.4 per cent and the Hindu Mahasabba 2.8 per cent and the rest still less.

The by-election in the Goghat Legislative Assembly constituency was occasioned by the resignation of the returned candidate who was simultaneously elected from two constituencies, Arambagh and Goghat. He chose to retain his membership from the Arambagh constituency and vacated the Goghat seat. The by-election took place on May 15,1952 with a total number of 50,266 voters on the electoral rolls, of whom only 33.4 per cent actually exercised their franchise. The contestants numbered four, one set up by the Congress, one by the Forward Bloc (Marxist) and two were independents. An independent candidate won by polling 11,564 votes while his nearest rival, a Congress candidate, trailed far behind with a tally of only 5,791 votes.

The second by-election was occasioned by the merger of the erstwhile French possession of Chandernagore in the Hooghly district and was held on June 19, 1955. Of an electorate of 22,314 in the new Assembly constituency of Chandernagore, a remarkably high percentage, viz. 80.2 , participated in the polling. There were four candidates, one from the Indian National Congress and one from the Forward Bloc (Marxist) besides two independents. An independent candidate won with 9,736 votes being followed by the Congress candidate who secured 6,248 votes.

During the second General Elections held in 1957, 45 candidates

Second General Elections contested for the 15 seats. The Congress fought for all of them, the C.P.I. for 6, the Forward Bloc (Marxist) for 3, the Hindu Mahasabha for 5 , the P.S.P. for 2 and 14 candidates fought independently. The electorate had by now swelled to $13,02,533$, of whom $7,03,790$ persons actually cast their votes bringing the percentage to 54.03 . Of the winning candidates 11 belonged to the Congress, 3 to the C.P.I. and one was an independent. Congress candidates were returned from Arambagh, Khanakul (both seats), Tarakeswar, Dhaniakhali (both seats), Chinsura, Bhadreswar, Singur and Jangipara (both seats) constituencies. A very interesting result came from the Arambagh constituency where the Congress polled 72.34 per cent of the total valid votes although the constituency had been a total loss to it during the first General Elections. The apparent paradox may perhaps be explained by the fact that the electorate favoured
the same man who had stood as an independertt candidate during the first General Elections but fought under the Congress banner during the second. Other constituencies where the Indian National Congress secured comfortable victories were Tarakeswar ( 72 per cent of the total valid votes), Chinsura ( 56.80 per cent), Bhadreswar ( 55.48 per cent) and Singur ( 52.51 per cent). The Congress party also captured all the seats in the three double-membered constituencies, Khanakul ( 35.78 and 33.94 per cent), Dhaniakhali ( 27.41 and 25.71 per cent) and Jangipara ( 25.34 and 23.48 per cent). The C.P.I. candidates were returned from Balagarh, Serampore and Uttarpara constituencies with $47.55,52.59,56.66$ per cent of the votes respectively. The C.P.I. candidates conceded three seats to the Congress at Arambagh and Singur constituencies while they wrested from them the Balagarh and Serampore seats. Uttarpara returned a Communist candidate in both the elections. Chandernagore again sent an independent candidate to the Legislature with 51.94 per cent of the total valid votes cast in his favour.

The third General Elections were held in 1962 with a still larger electorate, $11,14,854$, of which $6,84,121$ actually exercised their franchise bringing the percentage to 61.4. For the 15 seats available, as many as 50 candidates took the field of whom 15 were from the Congress, 11 from the C.P.I., 2 from the Hindu Mahasabha, 3 from the Forward Bloc, 6 from the P.S.P., one from the S.B.P. and 12 candidates fought independently.

The polling results showed a slight swing to the left with 10 Congress, 4 C.P.I. and one Forward Bloc candidates being returned. A new party came into the arena during the third General Elections; it was the Forward Bloc shorn of its 'Ruikar' or 'Marxist' affiliations.

The Indian National Congress won from the Jangipara, Chanditala, Singur, Balagarh, Pandua, Dhaniakhali, Tarakeswar, Khanakul, Arambagh East and Arambagh West constituencies. C.P.I. candidates were returned from the Uttarpara, Serampore, Bhadreswar and Chandernagore constituencies while the Chinsura constituency elected a Forward Bloc candidate. The most spectacular result was witnessed in the Singur constituency where the C.P.I. nominee lost to his Congress rival by only 31 votes, the percentages of votes polled being 49.97 and 50.03 respectively. The Singur constituency had opted for the C.P.I. during the first elections but it chose to remain in the Congress fold during both the succeeding ones. Congress eandidates triumphed with comfortable margins at Arambagh East ( 69.32 per cent of the total valid votes), Khanakul ( 60.94 per cent), Balagarh ( 56.76 per cent), Pandua ( 55.15 per cent), Arambagh West ( 51.09 per cent) and Tarakeswar ( 50.3 per cent). The C.P.I. candidates similarly won with majority votes in all the constituencies where they were successful, viz. 52.84 per cent at Uttarpara, 52.7 per cent at Bhadreswar, 51.39 per cent at Serampore and 50.06 per cent at

Chandernagore. The Forward Bloc candidate also secured an absolute majority in the Chinsura constituency by polling 51.4 per cent of the valid votes cast. The Bhadreswar constituency which was faithful to the Congress during the first and second General Elections, opted for the Communist party during the third. Similarly, Chandernagore which had gone to independent candidates during the initial byelection of 1954 and the second General Elections became this time a gain for the C.P.I. The Congress party wrested Balagarh from the C.P.I. and put up a good show at the Communist strongholds of Uttarpara, Serampore and Bhadreswar by securing 43.77 per cent, 48.61 per cent and 42.86 per cent of the total valid votes respectively. Another interesting outcome of the third General Elections was that none of the 12 independent candidates was returned; during the first and the second General Elections their numbers were 2 and 1 respectively.

Lok Sabha: First General Elections

Second General Elections

[^6]In 1952 there were two Lok Sabha constituencies in the district, Serampore and Hooghly, which, between them, fielded 9 candidates of whom 2 were from the Congress, 2 from the C.P.I., 2 from the Hindu Mahasabha, 2 from the Socialist Party besides one independent. In the Serampore constituency having an electorate of $3,81,914$, only $1,90,924$ voters ( 49.99 per cent) participated in the polls while in Hooghly with $3,85,944$ voters no more than $1,98,385$ ( 51.4 per cent) cast their votes. In the Serampore constituency the winning C.P.I. candidate polled 40.72 per cent of the total salid votes being followed by his Congress rival with 36.03 per cent while at the Hooghly constituency the Hindu Mahasabha candidate secured 36.19 per cent of votes and the Congress nominee got 33.72 per cent.

During the second General Elections held in 1957, the number and names of the Lok Sabha constituencies remained the same. Five candidates entered the contest this time, of whom 2 were from the C.P.I., 2 from the Congress and 1 from the Hindu Mahasabha. The electoral rolls rose to $4,02,713$ at Hooghly and $4,28,149$ at Serampore and poll percentages were 58.00 and 57.47 respectively. A Communist candidate polled 35 per cent of the total valid votes and won from the Hooghly constituency being followed by a Congress candidate with 33.7 per cent. The position was reversed in the Serampore constituency where the Congress candidate won with 51.12 per cent of the votes and the Communist candidate trailed behind with 48.88 per cent.

During the third General Elections there were 5 candidates from the same Lok Sabha constituencies. The Congress and the C.P.I. each fought for both the seats and an independent candidate contested at the Hooghly constituency. The electorate had meanwhile swelled to $5,21,686$ in the Serampore constituency and $5,11,620$ in the Hooghly constituency. The polling percentages also reached an all-time record touching 65.88 at Serampore and 63.32 at Hooghly. This time
the district chose squarely for the C.P.I. and both the seats were captured by it; the Congress candidates finished in either case as the runners-up. The winning C.P.I. candidates polled 51.62 and 34.64 per cent of the total valid votes at Serampore and Hooghly respectively with the Congress candidates following next with 48.37 and 33.8 per cent.

It may be stated at the outset that any analysis of the political behaviour of an electorate based merely on slender poll statistics recorded at the elections is likely to suffer from a bias not significantly apparent on closer scrutiny of the factors involved in the process. In a new democracy like ours, the electorate does not always equate a candidate with the political programme of his party. Factors like personal popularity of the individual candidate, powerful propaganda for or against the contestants, passing agitations and the like are apt to deflect public opinion from crystalizing on the political ideologies of the contesting parties. But even ådmitting all these, certain broad facts emerge from the election results making them worthy of a study. One of them, for instance, is the steady evolution of the political maturity of the electorate. During the first General Elections only $49.82 \%$ of the voters in the Vidhan Sabha constituencies in the district had exercised their franchise. This scant percentage rose to 54.71 during the second and to 61.36 during the third Elections. The same upward trend was noticeable in the Lok Sabha constituencies as well where the polling percentages were 50.7 during the first, 57.6 during the second and as high as 64.6 during the third General Elections. It may perhaps be broadly stated that the electorate has, over the years, demonstrated an unmistakable widening of its democratic consciousness.

The following table, based on polling percentages of all the contesting parties (and the independent candidates taken as a separate group) in the Vidhan Sabha constituencies of the district during the first three General Elections, throws interesting light on their fluctuating hold on the electorate at successive Elections.

| Percentage of votes polled |  |  |  | Percentage Variations |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Party | 1952 | 1957 | 1962 |  | Difference between |  |  |
|  |  |  |  |  | Cols. 2 <br> $\& 3$ | Cols. 3 <br> $\& 4$ | Cols. 2 <br> $\& 4$ |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
| Congress | 37.1 | 56.0 | 50.9 | +18.9 | -5.1 | +13.8 |  |
| C.P.I. | 17.0 | 18.6 | 33.0 | +1.6 | +14.4 | +16.0 |  |
| Jan Sangh | 5.3 | - | - | - | - | - |  |
| Socialist Party | 3.4 | - | - | - | - | - |  |
| F.B. (Ruikar) | 0.3 | - | - | - | - | - |  |

An analysis

Trends: Vidhan Sabha

| Percentage of ${ }^{c}$ votes polled |  |  |  | Percentage Variations |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | ---: | :---: |
| Party | 1952 | 1957 | 1962 | Difference between |  |  |  |
|  |  |  |  | Cols. 2 <br> $\& 3$ | Cols 3 3 <br> $\& 4$ | Cols. 2 <br> $\& 4$ |  |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
| F.B. (Marxist) | 12.8 | 6.0 | - | -6.8 | - | - |  |
| F.B. | - | - | 7.5 | - | - | - |  |
| P.S.P. | - | 3.0 | 1.1 | - | -1.9 | - |  |
| Hindu Mahasabha | 2.8 | 4.1 | 0.5 | +1.3 | -3.6 | -2.3 |  |
| K.M.P.P. | 3.1 | - | - | - | - | - |  |
| RamRajya Parishad | 0.1 | - | - | - | - | - |  |
| S.B.P. | - | - | 0.1 | - | - | - |  |
| Independents | 18.1 | 12.3 | 6.9 | -5.8 | -5.4 | -11.2 |  |
| Total | 100.0 | 100.0 | 100.0 |  |  |  |  |

The above figures reveal that during the first General Elections the Indian National Congress, with $37.1 \%$ of the Vidhan Sabha votes cast in its favour, was the most popular political party in the district and that the C.P.I., with a poll percentage of only 17, was but a poor second. During the next Elections the Congress party considerably improved its position by capturing $56 \%$ of the total votes but the Communists continued to trail far behind with only $18.6 \%$ of the votes cast in their favour. A definite shift towards the left made itself felt for the first time in 1962 when the C.P.I. was able to raise its gains from $18.6 \%$ to as high as $33 \%$ partly at the expense of the Congress which, although retaining an absolute polling majority, climbed down from $56 \%$ to $50.9 \%$. The relative ascendancy of the C.P.I. is also attributable to the decline in the fortunes of the independent candidates. During the first General Elections as many as 29 of them were in the field but their number precipitately dwindled to 14 and 12 during the second and the third. Apart from their numbers, the independent candidates had captured no less than $18.1 \%$ of the total votes in 1952 but the corresponding figures for 1957 and 1962 were only $12.3 \%$ and $6.9 \%$ respectively. As a consequence, against two independent candidates returned from Vidhan Sabha constituencies in 1952, there was only one in 1957 and none in 1962. Broadly speaking, the reverses suffered by the Congress and independent candidates materially added to the strength of the C.P.I. during the third General Elections.

In spite of quantitative variations in the supporting polling percentages, the Congress party has so far enjoyed the largest representation from the Vidhan Sabha constituencies in the district. During the
first Elections, rightist parties like the Jan Şangh, the Hindu Mahasabha and the Ram Rajya Parishad captured 5.3, 2.8 and 0.1 per cent of the total votes respectively. But from the second Elections onwards all of them are out of the picture except the Hindu Mahasabha whose political fortunes also appear to be on the decline. The real threat to the popularity of the Congress, which has been the majority party all along, is now not so much from the parties of the right as of the left like the C.P.I., the P.S.P. and the Forward Bloc whose combined strength is decidedly a force to reckon with.

Subjective approaches to election issues are often conditioned by environmental circumstances, a fact which explains the varying reactions exhibited by urban and rural electorates over identical political questions. This customary phenomenon should be especially borne in mind while attempting an analysis of the overall behaviour pattern of the voters of the district.

In this context, it is not of little consequence that during the third General Elections all the urban municipal areas of the district fell within the 6 Vidhan Sabha constituencies of Uttarpara, Serampore, Bhadreswar, Chandernagore, Chinsura and Arambagh (West) and that the remaining 9 Vidhan Sabha constituencies comprised predominantly rural areas with the result that the verdict of the urban and rural electorates followed more or less certain broad norms which are analysed in the following paragraph.

Uttarpara, an urban constituency, has steadfastly sponsored C.P.I. candidates in all the three elections. Serampore, another urban constituency, favoured the Congress party first but went over to the Communists during the two successive elections. Similarly, the Bhadreswar constituency returned Congress candidates during the first two elections but supported the C.P.I. during the third. Chandernagore, which had chosen two independents in 1954 and 1957 showed its preference for the Communists in 1962. Chinsura and Arambagh (West) proved a little different. The two seats in the Chinsura doublemembered constituency were shared by the Congress and the Forward Bloc (Marxist) during the first General Elections. But during the second, when the constituency had only one seat, it chose a Congress nominee and during the third, it went over to the Forward Bloc. Arambagh had backed an independent and a Communist candidate during the first General Elections but emerged as a champion for the Congress during succeeding Elections. Except for Arambagh, the allegiance of the urban Vidhan Sabha constituencies has, therefore, swerved to the left over the years. The 9 rural constituencies on the other hand had distributed their favours between the Congress and the C.P.I. during the first two elections, but opted unequivocally for the Congress during the third. While the electorates of Dhaniakhali, Tarakeswar, Khanakul and Jangipara never forsook the Congress, the three new constituencies of Arambagh (East), Pandua
and Chanditala voted for the same party during the third Elections. The performance of the Singur and Balagarh constituencies has been slightly 'more chequered inasmuch as the former chose a Communist candidate to start with but moved into the Congress camp during the second Elections and stayed there during the third. Balagarh on the other hand started with a Congress candidate, had a short-lived entente with the C.P.I. during the second, and returned to the Congress fold during the third. All this empirical evidence tends to prove that the shift towards the left noticed in the Vidhan Sabha constituencies of the district in course of the first three General Elections has happened more or less exclusively in the urban constituencies while the rural constituencies generally stuck to the centre.
Lok Sabha
It is a little confusing that in selecting candidates for the State Legislature, the district favoured by and large the centrist parties but in making its choice for representations to the Lok Sabha it leaned heavily towards the left. In the first Elections it sent a C.P.I. and a Hindu Mahasabha candidate to the House of the People thus dividing its affections equally between the left and the right. During the second, it moved a little to the left by choosing a Communist and a Congress candidate. But during the third, the shift to the left was more pronounced when both the Lok Sabha seats went to the Communists. The apparent paradox of a wholesale left representation at the Centre and a centrist majority at the State level is not altogether irreconcilable. For a clearer assessment of this issue one"has primarily to remember that the total of valid votes cast for the Lok Sabha elections was only $6,47,876$ while that for the Vidhan Sabha elections was as high as $6,84,121$. Of the former, the centrist party captured only 41.4 per cent but of the latter it secured 50.9 per cent. Therefore, on a percentage basis, the centrist party was weaker to an extent of about 9.5 in the Lok Sabha elections. On the other hand, the corresponding polls for all the leftist parties taken together were 41.7 per cent in the Vidhan Sabha and 43.4 per cent at the Lok Sabha constituencies, or a gain of only 1.7 per cent of the votes in respect of the parliamentary elections. The reason for the total failure of the centrist party in the Lok Sabha contest has, therefore, to be sought elsewhere than in the apparently bewildering duality in the voting behaviour of the Hooghly electorates. It appears that in one of the two Lok Sabha constituencies an independent candidate polled as many as 98,679 valid votes, a figure far higher than the votes polled by all the independent candidates together in all the Vidhan Sabha constituencies which aggregated only 47,259 . This independent candidate, although he did not win, not only polled the total number of independent votes in the Vidhan Sabha elections but also took away for himself another 51,420 votes. To this should be added the numerous rightist votes, which in all likelihood, went to
the same candidate, a political figure of all-India renown. The gap thus created in the polling strength of the centrist party coupled with the usual but imponderable vacillations among the marginal voters was perhaps the reason for the centrist debacle in the Hooghly district in the Lok Sabha elections of 1962.

As a part of the pioneering activities of the Baptist missionaries of Serampore* in the realm of Bengali language and literature, the Digdarsan, the first periodical in Bengali, made its appearance in Serampore in April, 1818. It was a monthly journal intended to fulfil the role of an "Indian Youths' Magazine" according to its publishers. The periodical used to contain articles on history, geography, religion and various other branches of knowledge. Soon after the emergence of the Digdarsan, the missionaries of Serampore brought out a Bengali weekly under the title Samachar Darpan which appeared in May, 1818. This was perhaps the first weekly. newspaper to be published in the Bengali language. Later, the Samachar Darpan was converted into a bi-weekly. In the same year, the Serampore missionaries started publishing the Friend of India, a monthly newspaper in English. Of the three journals starting their careers one after the other in quick succession, the Friend of India had the longest life extending up to 1874 when it was amalgamated with the Calcutta daily, The Statesman. The Samachar Darpan was discontinued in 1841 or rather transferred to an Indian editor in Calcutta in whose hands it soon ceased to exist. It was revived in May 1851 but did not continue for more than a year and a half. The Digdarsan had the shortest career being closed down in 1821 after the publication of its twenty-sixth issue. Following the pioneering enterprise of the local missionaries in the field of journalism, a number of periodicals, mostly in Bengali, appeared in Serampore of which the Jnanarunodaya, a Bengali monthly, deserves special mention. Appearing in 1852 it was the first magazine to be published entirely under Bengalee management. Chinsura, the district town, saw the publication of its first periodical, a Bengali monthly named Subodhini, in January 1858 under the editorship of one Ramchandra Dixit, a Brahmin of north Indian origin. It was followed by a number of other journals of which the Education Gazette, the Sadharani and the Chunchura Bartabaha are worth mentioning. The Education Gazette, a Bengali monthly, originated in Calcutta in 1856 with the object of supplying the people in the interior of the country with a newspaper cheap in price and healthy in tone. In 1869 its management was taken over by Bhudeb Chandra Mukhopadhyaya $\dagger$ who

[^7]Newspapers AND Periodicals

Defunct and old periodicals
transferred the seat of its publication from Calcutta to Chinsura. The paper continued for a long time. The weekly Sadharani, brought out in $18^{\circ} \%$ by Akshaya Chandřa Sarkar, the noted Bengali litterateur, used to contain articles contributed by famous writers including Bankimchandra Chattopadhyaya and became very popular. It was discontinued in 1884. In 1893 a weekly newspaper in Bengali started publication in Chinsura under the rame of Chunchura Bartabaha. It is still in circulation and enjoys the distinction of being the oldest Bengali newspaper in West Bengal.

The periodicals now published from the district are mostly in the Bengali language. The Chunchura Bartabaha published from Chinsura, the Srirampur Samachar and the Palli Dak, both weeklies, published from Serampore, the Panchayet and the Samadhan, two fortnightlies published from Tarakeswar and Hooghly respectively, are prominent journals of the district. The Bartaman Bharat, a fortnightly, appearing from $\cdot$ Chinsura and the Yugabarta, a weekly, published from Makalpur in Dadpur P.S., are other magazines deserving mention. These local journals mainly cater news and views on current topics emphasizing those relating to the district. The Punyabhumi, a weekly journal published from Tarakeswar, deals with religious subjects. The Nava Sangha, the fortnightly organ of the Prabartak Sangha of Chandernagore, is published from the same place. These journals, by ventilating local sentiments and aspirations, act as a forum for the expression of public opinion and thus play an important role in a free democracy.

No daily newspaper is published from the district. The popular Calcutta dailies, both in English and in Bengali, like The Statesman, the Amrita Bazar Patrika, the Hindusthan Standard (all in English), and the Jugantar, the Ananda Bazar Patrika, the Dainik Basumati (all in Bengali) are in common circulation in the district. Two Bengali weeklies published from Calcutta, viz. the Desh and the Amrita are also widely read.

Voluntary
Social Service
Organizations
Organizations

## Current

 periodicals
## Calcutta

 papersThe history of the activities of social service organizations in the Hooghly district can be traced back to the early years of the 19th century when the Baptist missionaries of Serampore started their pioneering work for the spread of education and the development of the Bengali language and literature. Other organizations and trusts were also formed in the last century with similar ideals. These have been discussed in the chapter on Education and Culture.

Leadership in social service in the 19th century came either from
the foreign missionaries or from the elite of the local society. With the spread of education and growth of social consciousness among the educated middle classes, new forces emerged in the field of social service from the beginning of the present century. These elements changed the character of the social service organizations and
widened their scope to cover all facets of the social and economic life of the people.

The foremost and the earliest of such institutions to be formed in the district was the Prabartak Sangha of Chandernagore which took shape out of a combination of the spirit of nationalism and the creative idealism of a group of devoted youngmen working under the leadership of Matilal Roy who founded a philanthropic organization known as the Satpathabalambi Sampradaya around 1902. Its objective was to translate the ideals of Ramkrishna-Vivekananda into action. But neither the founder nor the workers of the institution could remain aloof from the prevailing political situation in the country. In the wake of the partition of Bengal in 1905, Matilal Roy and his colleagues identified themselves with the cause of the revolutionaries and carried the spirit of nationalism to the French territory of Chandernagore. Physical culture clubs were started in various localities of the town for lathi, dagger ard boxing exercises. In their weekly study circles revolutionary literature was read and discussed. It was from these study circles that the first batch of the Sangha's workers emerged. Soon a section of the Swadesi agitators took to the path of terrorism and the organization formed by Matilal Roy at Chandernagore supported this extremism and became a shelter for revolutionaries fleeing from British India. One such absconder was Sri Aurobindo who came to Chandernagore in 1910 and called upon Matilal to eschew the path of violence and devote his energies to constructive activities based on a noble spiritual life. Since then the organization has been wedded to these ideals.
During the non-co-operation movement of 1921 more workers of mettle joined the Prabartak Vidyapith (for that was the name of the institution at that time) and they along with the earlier group formed the core of the Prabartak Sangha. In 1925 the members of the Sangha accepted Matilal Roy as their Sangha-guru and were initiated by the latter in Sangha life which aimed at a thorough rejuvenation of the cultural, social and economic existence of the country through the evolution of a spiritual community. Starting with an agricultural farm and a weaving centre, the Sangha gradually built up an elaborate complex of commercial and industrial establishments and philanthropic organizations. In 1932 the economic activities of the Sangha were placed under the Prabartak Trust. In the social and cultural fields the Sangha founded the Prabartak Mahila Sadan at Chandernagore in 1943 in collaboration with the Hindu Mahasabha for providing shelter to famine-stricken women. In its present expanded form, the Mahila Sadan is one of the biggest organizations run by the Sangha providing vocational training to its inmates numbering 125 , and general education to those that need it. The courses include weaving, tailoring, sewing and printing. For the first three months the trainees joining the industrial section are required to pay a small fee
but on completion of the trainfng they become regular wage-earners as the products turned out by them are sold in the market. Inmates receiving general education are required to teach in the educational institutions of the Sangha. The Mahila Sadan receives financial assistance from the Government of West Bengal and the Central Social Welfare Board. The Sisu Sadan, an annexe for children, is a growing institution; its entire costs, including the educational expenses for the inmates, are borne by the Sangha.

The educational institutions run by the Sangha in Chandernagore• are (i) the Prabartak Pathsala, a primary school with 350 pupils, (ii) the Prabartak Bidyarthi Bhavan, a higher secondary multipurpose school having a roll strength of 650, (iii) the Prabartak Nari Mandir Uchchatara Balika Bidyalaya, a higher secondary multipurpose school for girls with 850 students on its rolls, (iv) the Prabartak Buniadi Bidyalaya, a basic school with 350 students and (v) the Prabartak Chatushpathi, a free Sanskift College recognized by the Government of India. Residential students are provided with free boarding and lodging. Outside Chandernagore, the Sangha runs educational institutions at Raninagar in Burdwan, Dadpur in Howrah and Belgharia and Freserganj in 24-Parganas district.

The Prabartak Sangha has taken over in the Goswami Ghat area of Chandernagore a large navaratna shrine flanked by several minor atchala temples. The main temple has been renovated and named Sri Prabartak Mandir. In it was installed the emblem of the Prabartak Sangha on the Akshaya Tritiya day of the Bengali year 1330 (A.D. 1923). The shrine also houses a Siva-linga. The annual festival of the Sangha, known as the Akshaya Tritiya Utsab, is held in its precincts on the Akshaya Tritiya day in early May.

The Baidyabati Youngmen's Association, an important social service organization of the district, was established in 1908. Its patrons have played an active role in spreading the library movement in Bengal and in organizing the Hooghly District Library Association and the Bengal Library Association. Its own library, one of the biggest in the district, contains 21,000 volumes and has a text book section for the benefit of students. A fragmentary typescript of a very rare book called 'Dutch Activities in the East', which has since been edited by Dr. Niharranjan Ray and published by the Calcutta University, is among its prized possessions. The library has a publication branch which has brought out a number of books. Other wings include a Women's Section, a Children's Corner and an Infant Health Centre. The Women's Section runs handicrafts and tailoring classes, holds exhibitions of the products and organizes excursions and competitions. The Children's Corner arranges Sunday gatherings, excursions, exhibitions, sports and hobby centres through which the participants receive educative training. The Infant Health Centre, established with financial aid received from the Central Welfare

Board, conducts regular health check-ups, distributes medicines and nutritious diet and gives medical advice to parents.

The Chunchura Anath O Dustha Bhandar at Shandeswartala in Chinsura town has been rendering material help to indigent persons of the locality since its inception in 1919. It distributes rice, garments and clothes free of cost and helps poor students with books and money. The Bhandar arso maintains a library.

The Bhadrakali Association, established in 1921, maintains a free reading room and a library with 8,150 books which is affiliated to the West Bengal Library Association. It also runs an Anath Bhandar for helping distressed persons of the locality and a separate section for conducting sports and games.

The history of the Scout movement in the district goes back to 1921 when the first troop was formed. The Hooghly-Chinsura Boy Scouts Local Association came into being in 1923 as a branch of the Bharat Scouts and Guides Association. At present the Scouts section is divided into 5 Rover Crews with 90 Rovers, 11 Scout Troops with 288 Scouts and 11 Cub Packs with 249 Cubs. There are 83 Scouters to train the members of these groups. The Guides section consists of 11 Guide Companies with 331 Guides and 7 Bulbul Blocks with 210 Bulbuls. The number of Guiders is 25 . Annual Scouts and Guides camps are organized by the Association for extensive training. Besides rallies and campfires are arranged by the individual groups as also by the Association. In the periodical exhibitions held by the Association, the Scouts and Guides get opportunity for displaying their handicrafts etc. For rendering social service, the Scouts and Guides associate themselves with various local organizations as and when called for. They also work as volunteers during religious festivals when big crowds congregate at different pilgrim centres. The Association also plays an active part in Civil Defence measures and has given the necessary training to many of its members.

The Sakti Sangha of Konnagar was established in 1923 with the intention of imparting physical training to local youngmen and conducting games among them. Subsequently, it started a library which has now 3,000 books and is divided into two sections, one for the children and the other for the general public. The Sangha receives financial assistance from the local municipality and the Government for maintenance of the library.

Founded in 1924, the Akuni Youngmen's Association (in Chanditala P.S.) serves the village community in various spheres of rural life. It runs a charitable homoeopathic dispensary, a poor-fund, a night school, a girls' school and a library.

The Bratachari movement in the district was inaugurated in 1933 even before the formation of the Bengal Bratachari Society. Later, the Hooghly unit came under the central organization, the Bengal Bratachari Society. The district branch organizes training camps and

Chunchura
Anath O Dustha Bhandar

Bhadrakali
Association

3harat Scouts and Guides

Sakti Sangha, Konnagar

Akuni Youngmen's Association

Bratachari Society

Chandannagar Sakti Sangha

Rashbehari Sakti Samity

## Indian - <br> Red Cross <br> Society

## Ramakrishna

Math and Mission
its instructors also impart training when called for by other institutions.
The Chandannagar Sakti Sangha was founded in 1934 for the physical and moral upliftment of the people of the area. In 1946 the Sangha became affiliated with the Jatiya Krira O Sakti Sangha and its members have since been active participants in the training camps run by the central body. It has låboured hard for the revival of indigenous games like kabadi and has worked for the development of the Hatkhola area of Chandernagore where it is ${ }^{`}$ situated.

The Rashbehari Sakti Samity of Sahaganj, Bansberia, was formed in 1940. Primarily an organization for physical culture, the Samity also runs a night school, a basic school and a free dispensary to cater to the needs of the poor.

Although the Hooghly district branch of the Indian Red Cross Society was formally openěd in 1944, it started the King George V Silver Jubilee Maternity \& Child Welfare Centre with 23 beds at Tamlipara, Chinsura in 1940 in a house gifted by a benevolent gentleman. In 1965 the centre attended to 271 pre-natal, 154 post-natal and 389 delivery cases while the members of its staff made 488 home visits. The district branch maintains two ambulances, one at Chinsura and the other at Chandernagore. Apart from attending to general calls, these vehicles with first aid parties remain in attendance on the occasion of sports, fairs, the immersion ceremony of Jagaddhatri at Chandernagore and the Rathajatra festivals of Mahes and Chandernagore. The district branch of the Society distributes medicines, cloths, garments etc. from time to time.
The Kamarpukur (Goghat P.S.) branch of the Ramakrishna Math and Mission was founded in 1947 for preserving the ancestral house where Sri Ramakrishna Paramahansa was born. Subsequently, the Mission wing has set up a number of institutions for the benefit of the local people. These are-(i) a Pre-Basic (Nursery) school having 28 boys and 22 girls on its rolls, (ii) two units of Junior Basic school with 248 boys and 143 girls, (iii) two units of Senior Basic school with 138 boys, (iv) a Higher Secondary school with a roll strength of 112 students, ( $v$ ) a School-cum-Community Centre, (vi) one Students' Home with 125 inmates, (vii) a Sanskrit school having 43 students, (viii) an Outdoor Dispensary which handled 17,316 cases in 1965-66, (ix) an Audio-visual Mobile Unit with generator and projector, ( $x$ ) one Pre-vocational Training Centre, (xi) a large guest house for the visiting pilgrims and (xii) an Area Library functioning under the Education Programme of the State Government.

Founded in 1948, the Bhupendra Bani Mandir at Haraldaspur (Pandua P.S.) engages itself in the spread of education and economic development of the area. It runs a girls' school, a primary school, a library and a co-operative society.

The Chatra Mahila Pathagar and Silpasram at Chatra in Serampore town was founded in 1948 by a group of ladies of the locality. They started with a small library but soon extended their activities establishing a Silpasram for providing vocational training to the women of the locality, especially those who had migrated from East Bengal. In its present expanded form the Silpasram consists of three sections, viz. the Silpabibhag (industrial section), the Kalabibhag (arts section) and the dance and music section. The Silpabibhag provides training in tailoring, embroidery works, knitting and spinning and functions as a recognized training centre under the Directorate of Industries, West Bengal competent to teach students for the Lady Brabourne Diploma Course. A number of its pupils has received this diploma. In the Kalabibhag, trainees receive instructions in various handicrafts. The library contains 4,000 books. With financial assistance received from the Governor and the Director of Public Instruction, West Bengal, the library stocks text books for the denefit of students appearing in the degree examination with Honours in eight different subjects including Bengali as also in the M.A. examination in Bengali.

The Kumud Smriti Sangha of Champdani (Bhadreswar P.S.) was formed in 1948 by amalgamating the Kumud Bandhab Memorial Association (established in 1936) with Kumud Memorial Public Library (established in 1938). The library of the Sangha contains 7,606 books and its members undertake relief works from time to time.

The Serampore Rifle Club was started in 1948 and formally inaugurated in November, 1949 with a three months' training course. At present the club has a shooting range of its own with a pavilion. The members undergo a six months' training course in theory and in practice. The club has achieved signal success in various competitions held in India and abroad mainly through the excellent marksmanship of its top shooters of whom Mrs. Sovita Chatterji ranks as the foremost. At the time of the Chinese invasion in 1962, an Emergency Training Camp was organized by the club which, by its spectacular all-round performance, has earned for itself the reputation of being one of the finest of its kind in India.

The Suhrid Sangha of Chandernagore was founded in 1951. It conducts indoor and outdoor games, renders medical aid to the needy and extends financial assistance to poor meritorious students. The library of the Sangha has a text book section, a free reading room and a collection of 1,430 books and 5 manuscripts.

The Aniya Pallimangal Mahila Samity at Aniya (Chanditala P.S.) has been functioning since 1952 as a branch of the Aniya Pallimangal Samity. It runs a sewing centre and has taken up a scheme for spreading literacy amongst the womenfolk of the area.
Formed as a football club in 1953, the Bibek Dal of Bhadrakali (Uttarpara P.S.) is now actively engaged in social service. It runs a Pre-Basic school with 52 students, a Junior Basic school having a

Chatra
Mahila Pathagar \& Silpasram

Kumud
Smriti Sangha

Serampore
Riffe Club

Suhrid
Sangha

Aniya
Pallimangal Mahila Samity

Bibek Dal
roll strength of 55 , a library with 1,250 books and two music schools. In its Sisu Mahal, children are introduced to various branches of fine arts. The organization has a public relations branch which settles minor disputes among the inhabitants of the locality and volunteer force to render service to the people of the area.

Mandara
Unnayan Samsad

The Mandara Unnayan Samsad at Mandara (Dhaniakhali P.S.) was formed in 1957 to carry on social welfare work in the area. Its activities include the sinking of tube-wells, metalling of village roads, free distribution of milk to children from its centre at Bhandaihati, supplying tiffin to about 250 primary students of the locality, running a tailoring unit for women and maintaining a Children's Health Clinic and a charitable dispensary. The Samsad also runs a Junior High school and a library with 1,172 books. It reçeives financial assistance and other collaboration from the West Bengal Council for Child Welfare, the Meals for Millions Association of New Delhi, the West Bengal Council for Women and the local Block Development Office.

The Uttarpara Thana Samaj Sebak Samity is engaged in welfare activities amongst students and children of the locality since its inception in 1958. It has set up a chain of centres for the free distribution of milk, medicines and garments. To help poor school students the Samity supplies text books to them free of cost and has built up a book bank which caters to the needs of 60 to 70 students annually. Financial assistance in meeting the expense towards examination fees, admission fees etc. is also extended to deserving candidates.

The Rotary Club of Serampore, functioning since 1960, has opened an Eye Infirmary at the Rishra Seva Sadan. Each year over 100 cataract operations are performed here for which as also for the glasses supplied no charges are made. The club has also started a hospital at Makhla, near Uttarpara, to serve the needs of the locality. These schemes have won for the club the Paul Harris Award for the best charitable project run in Rotary District No. 325. The club has also started adult education centres at Rishra and Makhla and a charitable homoeopathic dispensary at Rishra in collaboration with Sri Ramakrishna Asram at Mahes. Besides, the club has established a children's park at Rishra and a book bank for high school students at Serampore.
The Rotary Club of Hooghly was inaugurated in 1962. It has donated primary school buildings to the villagers of Tegharia, near the factory of Dunlop Rubber Co. and at Ramnagar in Balagarh P.S.; a pavilion on the Chinsura maidan for the Scouts and Guides; three tube-wells to the village community of Dumurdaha (Balagarh P.S.); a children's park to the Jatiya Krira Sakti Sangha at Khamarpara, Bansberia; four book banks at Srigopal Banerji College at Baghati, the Women's College at Hooghly, the St. John's Higher Secondary School at Bandel and the Balika Vidyalaya at Hooghly and two beds
to the Hooghly Maternity Home at Chinsura. The club also runs literacy centres in the villages of Bispara and Raghunathpur in the Magra police station. A mobile eye clinic also functions under the auspices of the club.

The Janai Abhaya Samaj Siksha Kendra at Janai (Chanditala P.S.), functioning since 1963, endeavours to spread literacy among adult women of the area and to educate them in family planning. The Kendra also helps poor and meritorious students through free gifts of text books.
The Bharat Sevak Samaj started its rural upliftment work in the district in the year 1963. Its units now function at Balagarh, Pandua, Goghat, Arambagh, Khamarpara (in Bansberia town) and Singur. The Samaj has prepared a number of development schemes and is trying to realize them in practice with the help of the local people.

Certain other voluntary organizations exclusively connected with libraries, museums and literary societies have been dealt with in the chapter on Education and Culture.

In August 1947 there were only four labour welfare legislations in West Bengal, viz. the Workmen's Compensation Act 1923, the Trade Unions Act 1926, the Payment of Wages Act 1937 and the Industrial Employment (Standing Orders) Act 1946. After independence, betterment of the labourers' lot came to be recognized as an important ingredient of State policy resulting in the passing of the Industrial Disputes Act 1947, the Factories Act 1948 (this act provides for welfare measures both within and without the factories), the Employees State Insurance Act 1948 (an important welfare measure insuring a labourer's life against physical hazards like sickness, maternity etc.), the Minimum Wages Act 1948, the Plantation Labour Act 1951, the Employees' Provident Fund Act 1952, the Maternity Benefit Act 1961 and the Payment of Bonus Act 1965. By making profit-sharing enforceable by law, efficiency of production units has been directly linked with the labourers' interests. On the other hand, through a built-in institution of arbitration over industrial disputes, a shock-absorbing mechanism has been created for preventing frictions between labour and management in order to maintain industrial peace.

Apart from compulsive legislations, the State has come forward with positive schemes for labour welfare. In 1966, 44 labour welfare centres functioned in the State directly under the Government of West Bengal, 3 of which were located in Hooghly. These were the model labour welfare centre at Tarapukur Gardens, Serampore and two ordinary labour centres at Telinipara and Rishra which are purposely located at densely populated labour areas and oriented towards fostering a useful and recreative social atmosphere for the labourers and their families. The activities of such centres lie in the
field of education through the running of primary schools, adult education classes and audio-visual exhibitions, in the domain of health through the establishment of -dispensaries under qualified doctors and distribution of medicines free of cost to the workers and their families, in useful vocational training like leather works, knitting, tailoring etc. and in youth movements like scouting, sports etc. During 1966 (up to the month of August), the average daily attendance at the Serampore model centre was 154 industrial labourers, 92 others and 43 children attending primary classes. ${ }^{1}$

Apart from the steps taken in this behalf by the Government, some of the bigger industrial concerns in Hooghly have undertaken by themselves certain welfare measures for their workers. The Dunlop Rubber Company at Sahaganj, the North Mill at Bhadreswar, the Hindustan Motors at Uttarpara, the Alkali \& Chemical Corporation of India at Rishra are among those worth mentioning. Their accomplishments include cheap housing, free hospitals, subsidized canteens, arrangements for indoor and outdoor games, education for employees' children, supply of milk and drinking water etc. These are besides such profit sharing arrangements as payment of annual bonus, facilities of contributory provident fund, gratuity benefits and the like.*

[^8]The Scheduled Tribes and Scheduled Castes of Hooghly district number 90,106 and $4,45,208$ respectively according to the Census of 1961. Their growth, characteristics, group significance and measurable social changes have been dealt with in the chapter on People.
The State is now actively helping this comparatively backward population to come up and join hands with the rest of the community. In the Hooghly district a separate administrative section under the direct supervision of the District Magistrate was set up for their welfare as early as in 1957. From 1964-65 the District Tribal Welfare department has been placed under an officer of the West Bengal Junior Civil Service having the designation of Special Officer, Tribal Welfare. Under him are a Kanungo to look after land problems, a Sub-Assistant Engineer to supervise building and construction projects and an Inspector for organizing educational and industrial schemes. There are 3 Tribal Welfare Centres in the district at Belun, Hasnan and Somaspur where night classes are held and other educational and social activities carried on. An account of the impact of educational measures on this backward populace has been given in the chapter on Education and Culture and is, therefore, not repeated here.

Other development schemes for the welfare of the Scheduled Castes and Tribes in the district are in the fields of sanitation, public health, housing, trade, communications, agriculture, irrigation, live-stock

[^9]and poultry farming and legal assistarce. The following table gives a yearwise break-up of the money spent on these measures in recent years. ${ }^{2}$

| Schemes on | 1960-61 <br> (Rs.) | 1961-62 <br> (Rs.) | $\begin{gathered} 1962-63 \\ \text { (Rs.) } \end{gathered}$ | 1963-64 <br> (Rs.) |
| :---: | :---: | :---: | :---: | :---: |
| Minor irrigation | - | - | 17,488 | 5,993 |
| Aid to artisans | 540 | 330 | 1,600 | - |
| Housing and land pur- | 83,788 | - | 22,629 | 25,644 |
| Drinking water supply | 33,473 | 10,000 | 11,491 | 5,998 |
| Free legal aid | 296 | 344 | - | 32 |
| Co-operative grain gola | 2,440 | - | 49,032 | 47,700 |
| Agriculture and cattle purchase | 700 | - | 7,000 |  |
| Live-stock and poultry farming | 1,885 | 1,934 | 2,000 | 2,676 |
| Total | 1,23,122 | 12,608 | 1,11,240 | 88,043 |

One of the main impediments to the amelioration of the lot of these backward people has been the concerted move on the part of the rural moneyed classes to alienate their lands, which, in an agrarian economy, is the basis of all prosperity, social or economic. In order to stop this nefarious practice, special legislations have been enacted making transfer of land owned by tribal people subject to Government supervision. This, combined with the spread of education and other welfare measures, has helped these neglected people to become conscious of their rights as also of the vital role that they have to play in a progressive society.

Instead of launching an all-out drive for complete prohibition in the State, certain fringe restrictions have been imposed by prohibiting the sale of liquor, country spirit, ganja, opium, bhang, toddy and pachwai on a fixed day in the week in certain notified industrial areas. Thursday is the dry day observed in Chinsura and Magra police stations in the Sadar subdivision; and Serampore, Uttarpara and Bhadreswar police stations (excluding the villages Khalisani, Nabagram, Jugipukur and Mankundu) in Serampore subdivision. The relevant notifications were issued as early as November 1948, February 1949 and May 1949. In addition, since December 1949, excise and opium shops all over West Bengal are compulsorily closed on 4 days, viz. the Independence day (15th of August), the birth day of Mahatma Gandhi (2nd of October), the Republic day (26th of January) and the Mahastami day (second day of the Durga Puja).

Besides, the excise shop owners have the option to keep their shops closed for 11 days in a year on the occasion of the birth day of Netaji Subhas Chandra Bose (23rd of Januâry), Rathajatra, Janmastami, Saraswati Puja, Ram Navami, Id-ul-Fitre, Bakr-id, Fateha Duaz Daham, Muharram, Jagaddhatri Puja and the first day of the Bengali year. Tapping of palm juice for preparing toddy in the Jagatpur village of the Khanakul P.S. has also been prohibited with effect from the 1st of April, 1956.

In order to persuade people for keeping away from intoxicants a scheme is now under consideration of the State Government and an officer, designated as Special Officer, Temperance, has been appointed under the Commissioner of Excise to execute the programme. ${ }^{3}$

The incidence of consumption of liquor in the district along with its concomitant aspects, illicit distillation and displacement of the licit liquor by the illicit, has been discussed in the chapter on Law, Order and Justice.

Charitable Endowments

A comprehensive list of 29 charitable endowments operating in the Hooghly district has been given in the Census 1951: District Handbook: Hooghly. ${ }^{4}$ Confirmation was obtained in August, 1966 from the District Magistrate and the Chief Inspector of Secondary Education, West Bengal regarding their continued existence. The only change that has taken place meanwhile relates to the administration of the Prasanna Kumar Mitra Grant Fund which has been taken over by the Chief Inspector of Secondary Education from the Inspector of Schools, Burdwan Division.

Of this large number of charitable trusts, endowments and memorial funds, the Mohsin Fund and the B. L. Mukherji Trust are State-wide while the others are limited to the district. The list at pages 645-47 gives details of the more important amongst them.

Notes
${ }^{1}$ Source: Deputy Labour Commissioner, West Bengal.
${ }^{2}$ Source: Special Officer, Tribal Welfare, Hooghly.
${ }^{3}$ Source: Commissioner of Excise, West Bengal.
${ }^{4}$ A. K. Mitra: Census 1951: District Handbook: Hooghly. Calcutta, 1952. pp. 51-3.


[^0]:    * Binay Ghosh—Paschim Banger Samskriti. Calcutta, 1957.

    A search was made for Ayurvedic texts found in the district. No information was available from Bangiya Sahitya Parisad, Asiatic Society or Astanga Ayurveda Vidyalaya. However, Dinesh Bhattacharya mentions an Ayurvedic text, 'Chikitsa Ratnavali' (A.D. 1661) written by one Kavichandra and found with the Datta family of Dirghanga village near Baidyabati. He also refers to 'Sukhabodh' (A.D. 1702) supposedly written by one Baidyaraj of Basu-Ray family of Sugandha in Polba P.S. and recovered from London. Kayastha by caste, members of this family were personal physicians to Mughal rulers. ibid. p. 762 .

[^1]:    * The climatic characteristics of the district have already been adequately dealt with in Chapter-I. The scope of this chapter is restricted to the discussion of those factors alone which have their impact on the state of public health in the district. It is to be noted that although the more important epidemics have been accounted for later in this chapter as part of the medical history of the district, the geographical dimensions thereof are separately treated below.

[^2]:    * For details see Chapter XII on Local Self-Government.

[^3]:    SUBDIVISION AND POLICE STATIONWISE DECENNIAL MINI-MAXIMAL PERCENTAGE VARIATION

[^4]:    *R.C. denotes Relief Camp; A.G. Auxiliary General; P.H.C. Primary Health Centre; S.H.C. Subsidiary Health Centre; U.H.C. Union Health Centre; and S.D. Subdivisional Hospital.

[^5]:    *R. C. Hospital means a Relief Camp Hospital and A. G. Hospital means an Auxiliary Government Hospital. P.H.C.s are Primary Health Centres, S.H.C.s are Subsidiary Health Centres and U.H.C.s are Union Health Centres.

[^6]:    Third General Elections

[^7]:    *For a fuller account of the activities of the Serampore missionaries, please see the Appendix written by Dr. S. B. Chaudhuri.
    $\dagger$ For a biographical sketch of Bhudeb Chandra Mukhopadhyaya, please see Appendix entitled 'Eminent Sons of Hooghly'.

[^8]:    Advancement of Backward Classes and Tribes

[^9]:    *For a fuller account of labour welfare measures, please see chapter on Industries.

