

(five years and above) and sputum examination (for X-ray suspects). The survey was highly ambitious and was difficult to conduct due to a variety of practical difficulties and technical challenges.

It was planned that two teams would attempt to cover minimum of 80% of the population for all the examinations. Some of the problems associated with the field work have been elaborated in Chapter 3. The population being studied was highly mobile. There would be migration, immigration, births and deaths. To establish identities after a lapse of time for different examinations by different investigators was not easy. A new methodology of census, identifying the individuals, houses, location maps of households, etc., had to be developed. Data generated from such a mobile population had to be collated so that examinations conducted at different times had to go to the records of the identified

persons only. This was a new kind of data, a data flow of how TB behaved in a population living in a particular area. It revealed the natural history of TB in a general rural population, during the survey period. The report was published in 1974, as to draw tenable inferences would take time and much effort. The results of the survey are given in Chapter 3.

2.6. Building infrastructure for training

From the outset, training was one of the major activities of the NTI. BCG teams comprising of medical and non-medical personnel were trained in the theoretical, administrative and organisational aspects of the mass BCG vaccination campaign. BCG teams from southern states, Kashmir and Rajasthan and from the WHO arrived for training. In the last quarter of 1960, 36 trainees arrived from different parts of India for the

If the beginning of 1959 marked the modest start of NTI, the beginning of 1960 got the first proper programmes underway and 1961 was the time when NTI became ready to receive the first batch of trainees; then the beginning of 1962 was to become the time when NTI began to make itself known to the world outside Bangalore⁴¹.

second All India BCG training programme. A six-week refresher training course for BCG technicians and team leaders from nine states of India was held in 1961³⁵.

Since the mass BCG campaign activities were limited in scope, NTI came up with a training strategy for DTP key personnel which differed from the one existing for BCG workers. It had to develop the necessary infrastructure for training different kinds of key personnel needed in the diverse activities. Serious work began for developing a curriculum, course content and strategies to impart didactic, as well as on the job practical training. This was not an easy task both for the trainers and the trainees. The trainers had to impart the new knowledge obtained from the vast experience of previous research and the findings from just completed or ongoing field studies. The trainees had to receive it, find meaning and adjust to its work procedures much against to the prevailing practices that were predominated by the clinical approach. On 15th May 1961, the

first batch of trainees consisting of MOs (5), XTs (6), LTs (7) and HVs (13) arrived and NTI launched its first six-month training course for key personnel for the NTP district centres³⁶. They were from Mysore, Kerala, Andhra Pradesh and Bihar. The training course concluded in November 1961. Unfortunately, it turned out that the trainees had varying qualifications and different kinds of experiences. Some had not even worked in the TB field. NTI could not send them back. However, the first lesson was learnt. For future training courses, it took care to requisition, from state governments, trainees who had the relevant and basic knowledge or had been working in the field for TB.

As stated by Mr Andersen: *The first batch of trainees had a unique chance in participating in building up our first DTP. The trainees went through many hardships. We committed many mistakes and wasted lot of our and trainees time, initially, in the first three months. They were first grade material. They will make good ambassadors for the NTI – if the state*

top administrators give them a chance.

Tapping all the available resources, NTI began to develop a new methodology of imparting training to various types of TB workers operating the TB control programme. From lectures, demonstrations and work situations, a robust methodology began to emerge. From this experience, manuals, data entry cards and forms were developed. These were field tested and improved upon wherever possible. Though most activities were rural oriented, part of the training was in urban areas. The NTI was working at a furious pace to build and equip lecture rooms, demonstration infrastructure, hostel facilities for trainees coming from different parts, etc. In consultation with the GOM, 'Garden House' (which was just behind the Avalon premises) was acquired, along with several garages and cook houses. Ten garages were built and a contract was given to build a temporary hostel.

High expectations rested on NTI for

the training. The second batch of trainees promptly arrived in January 1962. As reported by Mr Andersen:

On the 22nd January the second training course for key personnel began in the Institute. The emphasis has been placed even more heavily than before on practical work towards TB control: the primary objective remained that of imparting the community based approach. Four weeks of lectures and demonstration in Bangalore and Tumkur, orientated towards the planning of a district programme, seemed enough for doctors and HVs. The overall plan for the above training programme was that all categories of trainees were given an introductory lecture on NTP and basic techniques for each category were provided during the first two weeks. Thereafter, for nine weeks they were rotated through NTI field programmes and sections. During the following nine weeks, they participated in the proper training programme where they worked as teams in Anantapur district where the first DTC was being implemented. Finally, the trainees were put through a series of practical and theoretical

tests before winding up of the course.

Based on the experience of the first course, the period of training was reduced to four months of which a very considerable part was to be spent in **'do it yourself in Anantapur district'**. After the experience gained in the second training course, they decided to conduct two regular training courses every year beginning in February and August, each lasting for four months.

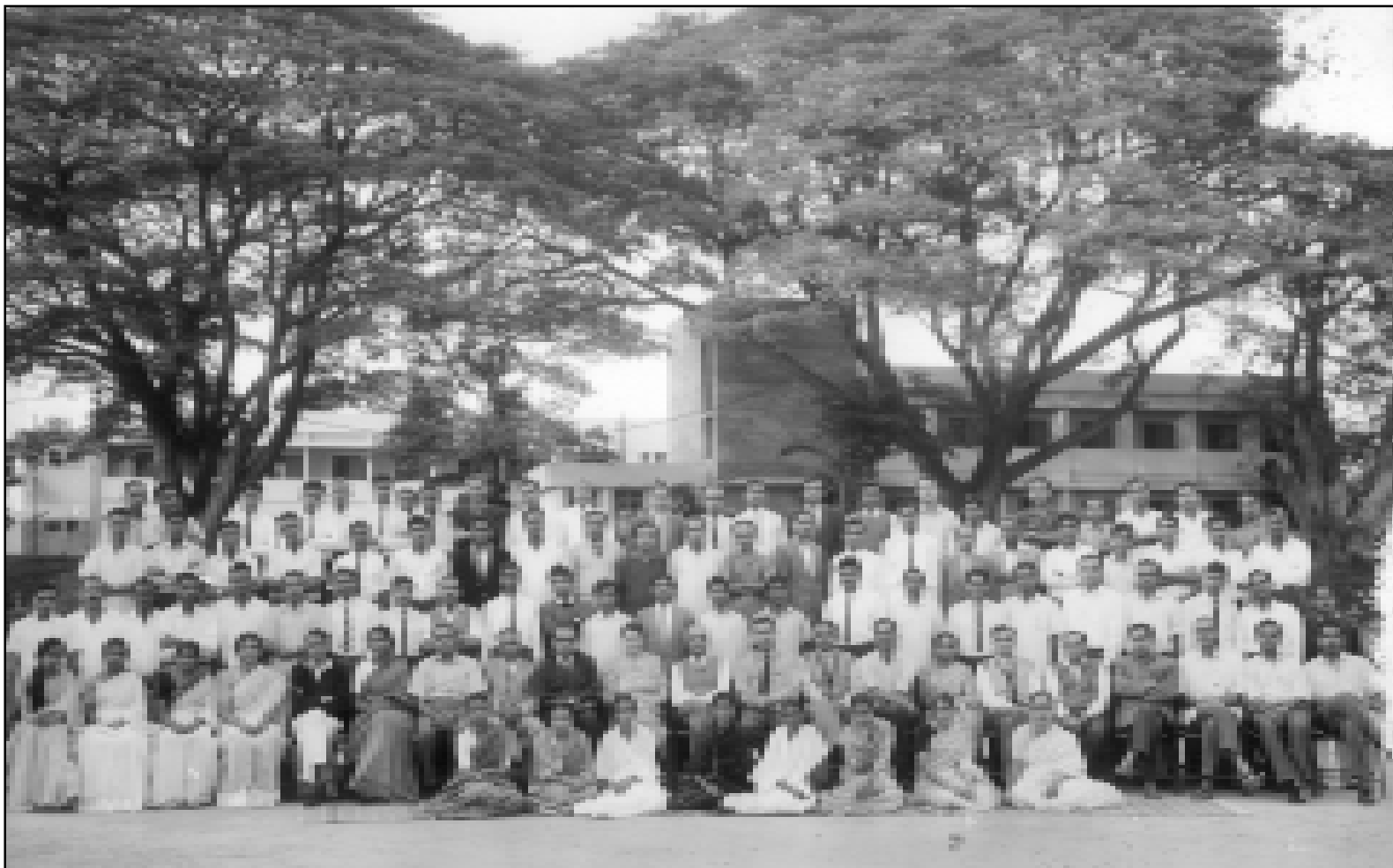
The special character of the training was that all the trainees would have to be employees of government, assigned to the specific duties which they would be required to take up on return from training. It was envisaged that through the efficient performance of the activities by trained general health workers, it would be possible to achieve a systematic reduction in the problem of TB over a period of time. In order to achieve this, a large number of personnel of various categories and at various levels need to be trained in specific job performances in a short time. The concept of constructing one TB team for each district and preparing its members for meaningful functions and

responsibilities was by that time widely accepted⁴¹.

The people receiving training would learn to function as a coordinated team. The Institute does not entirely have the privilege to choose its trainees. The initial interviews with the trainees before the classes begin and the introductory lectures seeks to establish an empathy which makes the expectations from both sides more realistic. The initial lectures on general topics, philosophy, concept and outline of the programme for the para medical workers of all categories are given to the entire group simultaneously. The group then separates into its component categories in different class rooms for didactic classes, tutorials, seminars, discussions, etc. The categories including MOs come together again for group assignments which are mostly in the form of practical work, presentation and discussion of the reports.

The practical training in its different forms has pre-implementation practicals, dummy

XI Batch of traniees (September- December 1965)



SITTING-GROUND - (Left to Right)	Mrs. Vijayakumari Singh, Mrs. Chandrakantha, Miss. E M Saramma, Miss. A S Virnodkar, Mrs Dasamma, Miss. G Laxmi Singh, M i s s . Gurbachan Kaur, Mrs. C A Mary.
SITTING-CHAIR - (NTI Staff)	Miss. R Indira, Miss. L Koshy, Miss M G Martha, Mrs. Zachariah, Dr. G V J Baily, Miss. M A Seetha, Dr. K Padmanabha Rao, Dr. V B Naidu, Dr. G D Gothi, Mrs. A Pe, Dr. D R Nagpaul (Director), Dr. D M Savic, Dr. P Chandrasekhar, Mr. V A Menon, Mrs. Mohanraj, Dr. Kulbhushan, Mr. S S Nair, Dr. Pyarelal, Mr. Vaidyanathan, Mr. G Krishnaswamy, Mr. P K N Murthy.
STANDING 1st Row - Messrs :	S P Agarwal, B S Bisht, P Anjaneyulu, Noorulla Hussaini, M G Quadri, B B Rath, B P Patel, R N Kapoor, B P Pande, S H Rahman, H A Dhonde, Laxman Rao, B Janakirama Rao, Jamilur Rahman, Davendram, D S N Reddy, R K Sahoo, M R C Reddy, S C V Chetty, S R Siddiqui, N R Pershad, Bachan Singh Bist, K B L Mathur, K D Davange.
2nd Row - Messrs :	K Krishnappa, P Subrahmaniam, M Akbar, T N Shetty, C Narayanaiah, R C Sukla, R L Kureel, S B Kadam, B R Avasthi, S Z Dholakia, M Fazlulla, M M Hussain, S H Joshi, P V Parikh, S H Ranshringare, N C Restogi, S V Shantha Raju, A N S Nair, J C Muzumder, R D Pandey, Chouthmal, H T Giriappa.
3rd Row - Messrs :	S Varadarajan, Krishnan Nair, K Thiagarajan, M Sivaramakrishnan, C Y Abdul Majidh, M Kannan, Ghous Mohiuddin, K Nagasubrahmanian, M M Ghildiyal, R Prasad, K V K Nair, B S Chauhan, S B Mehrotra, B G Patil, M G Hapse, B P Verma, Prem Phukan, W G Shevagoankar, D C Ghosh, B Giri, A K Ghosh, P B Shrotriya, R P Bhatt.

programme, implementation and supervision which creates a training situation wherein each trainee learns her/his own job, gets conversant with the nature of the job of her/his colleagues and becomes aware of the links and flow of work of all categories of personnel in the entire programme. The trainees observe and practice the knowledge that they have gained with respect to several important activities and tasks of the programme. On the spot supervision and guidance by the NTI staff helps the trainees in establishing a firm foundation in the practical approach.

Training in implementation is more sophisticated. The teams are deputed to the district where the programme is to be started or where the programme is not working too smoothly. This involves working with the health personnel in the area, imparting the knowledge, attitude and skills the trainees have gained from the training in order to introduce the necessary changes in the working situations, so that the programme gets established as a part of

integrated health services. This is a situation which calls for considerable tact on the part of trainees as well as surmounting the difficulties that crop up due to differences in language, socio-cultural milieu, etc. This is also an occasion where the trainees become actually aware of the nature of team work necessary for the programme. It is also an opportunity provided to the health personnel to observe and emulate the team spirit and team concept necessary in public health work.

Training in supervision is introduced towards the end of the course when the trainees are expected to be conversant in the nature of their duties and capable of assessing others work in their specific field. They would, therefore, identify inadequacies in skills and techniques and would also be able to take corrective actions and demonstration of correct practices. It culminates in a final group discussion, with field reports on implementation and supervision being discussed by the trainee participants as a group. By 31 Dec 1962, 271 DTP key

personnel of various categories deputed from 18 different states of India were trained in various programme activities.

To facilitate the training in the urban environment, rapport had also been established with the GOM. The then director of medical services (DMS), Dr VR Naidu took personal interest in providing assistance. For training and urban orientation, he arranged to lend the services of the senior most doctors, SR Kidiyoor and Susai Mary. A collaborative relationship was established with LWSTC in 1959. It provided both infrastructure and training support. Under the guidance of the NTI, it began to fulfil the duties of a state TB centre.

A full-fledged training centre ought to have library facilities as well. Yet not much attention was paid to the library nor was action taken to house it suitably. In the late 1960s, a library in a corner room was deemed adequate. Being a trained librarian, Ms Indira took it upon herself to arrange the books and periodicals in a scientific way. She

also prepared reference catalogues extracted from different sources pertaining to current work in the TB field and circulated them among the NTI faculty. Later termed as information services, these periodic circulars assisted the staff immensely and reduced their burden of sifting through volumes of irrelevant literature to obtain what interested them. She also began issuing lists containing 'suggested readings'. These services were extremely useful to meet the demands of the ever increasing number of trainees and other TB workers. Realising its importance, funds were quickly released to buy books, documents and relevant periodicals and develop the infrastructure. Though TB was its speciality, other areas of interest were not ignored. Its activities were slowly extended to include a documentation and information centre. First copies of work summaries, protocols, manuals and research papers were preserved and new papers sent for publication.