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Report of Field Trip—India, Vietnam, Philippine Islands and Okinawa

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1. BOMBAY, INDIA

One of the main reasons for visiting Bombay was not only to observe and evaluate the Nerve Lesion Research Project carried on at the J. J. Group of Hospitals under the direction of Dr N. H. Antia, plastic surgeon, and Dr D. K. Dastur, a neuropathologist, but also to see as much as possible of rehabilitation programmes for disabilities caused by other diseases. During my week there (December 30 to January 6) I had the opportunity of visiting every leprosy treatment and rehabilitation programme in the Bombay area. And in addition I saw many of the rehabilitation programmes being carried on for other disabled people. Following are brief descriptions of the places and projects visited and my comments and recommendations concerning them.

(a) *J. J. Hospital Group.* At this outstanding hospital centre where I made several visits with Dr Antia and Dr Dastur there are three projects under way in the Plastic Surgery Units: Research on Nerve Lesions in Leprosy, Rehabilitation in Leprosy and Burns, and the Development of Prosthetics for Leprosy and Other Disabilities. These projects are supported by grants from the Vocational Rehabilitation Administration. I was given every facility to observe all the various details of the nerve lesions research project, and was interested to watch a nerve dissection in which Dr Antia carried dissection of the ulnar nerve from high in the arm down to its finest terminal branch in the hand. He also fully dissected the median nerve. Wherever there were attachments of the nerve passing through tunnels or fibrous bands, either anatomical or pathological, these were freed. Wherever any nerve lesion was found the sheath was laid open carefully, avoiding any displacement of the nerve or interfering with the blood circulation of the sheath itself. Dr Dastur gave me some interesting domonstrations of pathological sections and slides. And I was particularly interested in the work of Dr James Smith of New York City because American Leprosy Missions had provided the camera equipment used to photograph nerve lesions and dissections, thus making a permanent record for teaching purposes. He demonstrated by the use of the diploscope in actual surgical procedures as well as on autopsy material that circulation to the nerve sheath is all important and must be preserved at any cost. Where indicated, biopsies were taken from the nerve but never when such a biopsy would deprive a viable nerve of its function. Electromyographic studies were done on all the nerves and their fine terminal branches in order to determine the conduction function of the nerve and to trace pathological origins of damaged nerves.

In my visit to the project on causes of burns, I was interested to learn that many of the burns occurring in women stemmed from attempts at suicide.

Dr Antia's plastic operation on the nose, which I observed one morning, used a plastic prosthetic device for restoring a nose depressed by leprosy. This technique was demonstrated in the film made by Dr Paul Brand and Dr N. H. Antia.

Some comments and recommendations:

1. Excellent progress has been made on the Nerve Lesion Project, the results of which, I believe, will be of far reaching significance in the prevention and treatment of deformity in leprosy.
2. In a talk with Professor Choksi, of the Tata Foundation and later with Dr D. V. Virkar, Dean of Grant Medical College and J. J. Hospitals Unit, I pointed out an obvious need for a project co-ordinator for all the programmes under Dr Antia. Both Dr Antia and Dr Dastur have to give too much time to administrative work. If Professor Choksi and Dr Virkar can find a suitable administrator, I believe it would be a valuable contribution for ALM help finance his support.

3. American Leprosy Missions should also provide such basic equipment as shelves and storage equipment, tables and furniture, the lack of which is a serious detriment in Dr Dastur's department.

4. Mr H. D. Pavri, occupational therapist at J. J. Hospital would benefit greatly from a study grant to gain experience abroad.

(b) *Kondhwa Leprosy Hospital.* With Dr N. J. Bandorawalla, Dr J. M. Mehta and other members of the Poona District Leprosy Committee, I spent a day of observation and discussion at this excellent treatment centre near the city of Poona. Following are some general comments and recommendations:

1. Hospital facilities are fine and Dr Antia has an active surgical programme.

2. Physiotherapist and other workers are well suited to the work and take great interest in it. Canadian nurse, Miss Shirley MacLean, who was recruited with Wyva Hasselblad's help, is making a significant contribution. A study grant for Mr W. Jennings, the physiotherapist, would be a valuable aid to his work.

3. Chicken farm and textile manufacturing units are excellent, but seem to be designed to support the hospital community rather than provide patients with skills

they can use to achieve economic and social stability when they return to their home communities.

4. In a discussion with the Committee on the VRA project, 'Research in Methods of Rehabilitation for Rural Communities', I made the following points:

(i) There doesn't seem to be any real link between what is being done at the centre and actually helping people to get established after their discharge.

(ii) Rural people must be helped where they are. Even a temporary dislocation by bringing them into a so-called rehabilitation centre will be a further dislocation and handicap.

(iii) The stigma associated with any centre identified with leprosy also works against effective social rehabilitation.

(iv) Wyva Hasselblad's report on her preliminary pilot study of the need for a rehabilitation project among rural patients showed that 86 per cent of the patients were living with their families, but that the great majority were already suffering some kind of social and economic dislocation. Any rehabilitation project for these people, therefore, should be designed not only to maintain what security they already have, but to discover ways by which they can regain real stability in the community.

(v) An effort should be made to find the proper investigating officer to carry out the rural rehabilitation project.

(c) *Workshop for Leprosy Patients.* This is a projected programme for outpatients in the Bombay area which grew out of a study of one thousand of these patients by a social worker to discover their economic needs. The need for such a workshop was based on a rigid and rather arbitrary rule that lepromatous patients must be under treatment for a specified time of five to ten years, during which time they should not associate with other people. In a number of discussions of this proposal I made the following points:

1. The premise itself is a false one, based upon a questionable idea of infectivity. It is now generally agreed that the danger of infectivity is likely to be reduced by early treatment, and the longer a patient is under treatment the less likely he is to be infective. Basis for the workshop should not be 'infectivity', but needs of the patients, whether infectious or not.

2. The project should not be a leprosy project *per se.* It should not be tied in with any leprosy organization or located at a known leprosy hospital such as the Acworth Leprosarium. One of the greatest values of Dr Antia's projects is that the workers are not in the strict sense, leprologists. It is thus being demonstrated that leprosy belongs in the mainstream of medical and scientific concerns. This emphasis should be carried over also into the field of rehabilitation.

3. The project should have an independent board of management to maintain control over its purpose and function.

4. Its main purpose should be to provide a means of livelihood for patients under treatment to keep them from becoming socially and economically dislocated.

5. An offer by Mr Chandra Kant Garawa, a plastics manufacturer, to help establish a paint brush factory in connection with the workshop project would be an excellent start. He was prepared to give technical guidance and handle the marketing of the products.

(d) *Acworth Leprosarium.* Dr N. Figueredo, superintendent of this large leprosy hospital runs eight other treatment centres in the Bombay area. About 10,000 new cases are discovered in Bombay in a year. Patients' workshops at Acworth are used almost entirely in helping to maintain the institution, and there is no real vocational training to prepare patients for the outside world.

(e) *Chembur Leprosy Beggars Home.* This is a place entirely for beggars who are taken off the streets and committed by law to the home. Dr Antia visits regularly, has provided a physiotherapist and takes those who need reparative surgery to the J. J. Hospital, and does what he can in the way of rehabilitation.

(f) *Phansa – Tata Agricultural and Rural Training Centre for the Blind.* Dr B. D. Pallonji, employment and placement officer for the National Association for the Blind, accompanied me to visit this project which is supported by the Vocational Rehabilitation Administration. It is designed to train blind boys in agricultural work, including crop planting, horticulture, poultry and cattle farming. At the very interesting Crop Museum, where a great number of crops are grown, the boys are taught to identify the different varieties by touch. Today nearly fifty boys have become self-supporting in all parts of India. The rehabilitation programme includes a placement officer to prepare the way for the boys' return to their homes, the purchase of land, when necessary, by the government, provision of tools, and an excellent follow-up service.

Mr Rustom Doctor, a well-to-do farmer and chairman of the Phansa Committee, showed us through the project for the blind boys, invited me to visit a small leprosy rehabilitation centre he had established in his own area, caring for 20 residents and 180 outpatients. The staff, including the superintendent, are all former patients. I think American Leprosy Missions should help this man who has taken the initiative in caring for the people in his locality by giving a grant to provide medicines and other necessities.

(g) *King Edward Memorial Infirmary.* Under the direction of the Salvation Army, this government project is run in connection with a beggars camp where those found begging on the streets have been sentenced to one to five years. It is designed to prepare these beggars, all of whom are disabled by various diseases, amputations, etc., for useful employment after they have served their sentences. It consists primarily of job work given from factories and returned to factories for marketing, such as bookbinding, carding, safety pins, plastic work and printing. After their release, efforts are made to find employment for these rehabilitated former beggars.

(h) *Tata Cancer Hospital and Rehabilitation Centre.* This project, which I visited with Mrs Kamala Nimbkar, Editor of *The Journal of Rehabilitation in Asia*, not only provides useful occupational therapy for patients under treatment, but also employs families of cancer patients. Because of the long periods of treatment, many families

accompany the patient and often find it difficult to support themselves.

(i) *Workshop for the Blind.* In this beautiful new building in the city, blind men undergo a one or two year training period in a number of skills. Though they operate lathes, drills, electrical power saws and other complicated and dangerous machinery, the provision of safeguards and good training have prevented any injuries. They also assemble such things as car headlights with 17 components, radio parts and other very detailed work.

I addressed a group of 30 journalists from all over India who were visiting the workshop under the sponsorship of the United States Information Service and had a good opportunity to discuss the problems of leprosy in relation to the total rehabilitation programmes.

(j) *Fellowship of the Handicapped.* This new building for disabled men, was built by a remarkable woman, Mrs F. Ismail, whose achievements in rehabilitation were motivated by her own polio-afflicted daughter. In caring for her daughter, who now lives a completely normal life, Mrs Ismail learned all the techniques she now uses in developing projects for other disabled. Here some 140 disabled men are taught skills and settled in open industry with follow-up care and guidance.

(k) *Rehabilitation Centre for 'Toddy Tappers'.* Former manufacturers of the very potent palm brew, displaced by prohibition, are being helped in this government rehabilitation centre to make non-alcoholic products out of palm trees. These include an unfermented juice called *neera*, sugar, vinegar, syrup; and from the fibre and bark such things as rope, baskets and other materials.

During my visit I had many interesting and fruitful observations with outstanding community leaders. In addition to those already noted, to whom I am indeed grateful for the time they gave, I should also like to mention Dr Sharat C. Desai, dermatologist and professor at the King Edward Memorial Hospital Medical School who has integrated leprosy in his department; Mr M. S. Mehendale, educational officer working with the Gandhi Memorial Leprosy Foundation, whose job is to educate medical practitioners, public leaders, educators and the average citizen about the facts of leprosy. I was most appreciative of the opportunity to discuss leprosy problems, especially those of rural rehabilitation, with Sri Shantilal Shah, Government of Maharashtra Health Minister, who spoke highly of my daughter Wyva's work at Kondhwa. Sri Shah's knowledge of leprosy was very great and he offered co-operation and financial help for any projects that we cared to submit to him.

I was grateful for the many opportunities during my stay in the Bombay area to visit various rehabilitation projects for other than leprosy-caused disabilities. It is quite clear that in the special problems of rehabilitation in leprosy, there is a great deal to be learned from what is happening in the rehabilitation of people with disabilities arising from other causes.

2. WARDHA – INDIA

This town of 25,000 is the headquarters of the Gandhi Memorial Leprosy Foundation which was established in 1951 under the direction of Dr R. V. Wardekar as an entirely new approach to the problem of treating the great number of patients in India – a number too vast to be cared for in institutions.

The introduction of the sulfone drugs as a new and effective remedy for leprosy made it possible for the first time to treat the disease on a mass scale.

The object of the Foundation's programme was not only to try to carry out widespread treatment but also to establish training centres for paramedical workers.

Leprosy control units and two control clinics have been opened at ten places in endemic areas. The programme covers 362 villages with a population of more than two million, and includes annual surveys, educational work and medical treatment.

Under the direction of one medical officer and one paramedical worker, each unit covers a population of about 25,000 people within a radius of approximately ten square miles. They are located where there is an *estimated incidence of 30 patients per 1,000 population.* Because of Dr Wardekar's experience in these units, he developed the so-called survey, educational and treatment (SET) units which have been recommended to the government as the accepted method of leprosy control.

The first unit was started in 1951 at Sevagram near the ashram where Gandhi spent most of his working years in India, and the last unit was set up in 1955.

Connected with the control units are the central laboratory at Wardha and the paramedical workers training centre at Chilakalapalli, which not only serves as a model training centre but also as a source of supply of paramedical workers to a number of state governments and non-official agencies.

The Foundation has also undertaken at Chilakalapalli an experiment on the prophylactic control of leprosy. In a given circumscribed area all people under 25 are given DDS and treated for six months with the regular dosage, then put on a maintenance dose for an observation period. The experiment, which started in April 1963 with a control group of untreated healthy people, will have to be carried on for seven years or so to know precisely whether the prevalence of leprosy is appreciably less in the treated group.

Following are some general observations and comments on this pioneer mass treatment campaign:

1. There is evidence that all patients have been registered in that area by constantly surveying the population and following up every contact.

2. There has been quite a reduction in leprosy incidence. Although the lepromatous rate has come down considerably, a hard core of cases still remain. Since new cases are found regularly, one wonders whether the lepromatous case is the only source of infection.

3. Statistics are so well kept, with all kinds of counter-checks, that it will be possible to determine by careful evaluation and statistics how effective is this method of control.

4. For the last two years education has been substituted for surveys in one or two units, to find out if educating the public will bring in as many cases for treatment as house to house surveys. If effective, this method would have the obvious advantages of saving time and expense and also of awakening community responsibility for seeing that all cases are treated. The educational programme,

which uses slides and pictures illustrating all types of leprosy, how it originates, how it spreads and how it can be controlled, gives a realistic and hopeful understanding of the disease.

5. If the methods used by Dr Wardekar in the leprosy control units can be instituted on a large enough scale, it seems quite clear that rehabilitation programmes will be unnecessary, because people who are treated at home and stay within the security of family and community, do not need rehabilitation.

The two days I spent with Dr Wardekar, during which I visited the Central Laboratory at Wardha and the control unit at Sevagram, were meaningful and informative. A scientist with a great understanding of public health measures and of epidemiology, Dr Wardekar has the confidence of the government and will probably, more than any other man, influence the future of leprosy control in India.

3. KARIGIRI, INDIA

Since my visit to the Wm. Jay Schieffelin Leprosy Research Sanatorium in 1962, there have been many developments in buildings and staff. The lovely new chapel built by the Mission to Lepers has given a real sense of unity to the work and serves as a centre for the entire hospital community. There are new staff quarters and two new wards, one a women's ward, built by ALM and The Mission to Lepers, and the other built by the Swedish Red Cross for epidemiological studies. The Swedish Red Cross is also building its own administrative building.

New staff members include Dr A. B. A. Karat, B.SC., M.B., M.R.C.P. (Lond.), M.R.C.P. (Edinburgh), Consultant Physician, who will head the medical department and do research and Dr (Mrs) A. B. A. Karat, F.R.C.S., Chief Surgeon, who heads the surgical unit. There is increasing co-operation between the Christian Medical College in Vellore and Schieffelin Sanatorium. Dr and Mrs Karat have honorary staff appointments at Vellore Christian Medical College and Dr C. K. Job, B.SC., B.B.S., M.D., is Professor of Pathology there. Dr A. J. Selvapandian, B.SC., M.B., M.S., Dr E. P. Fritschi, F.R.C.S., and others at Vellore continue as consultants at Karigiri and several members of the Vellore staff are aiding in various research programmes.

During my stay the new women's ward was officially opened, and the ceremonies attracted a large audience. Dr Reidaman, pastor of this parish led the worship and prayers. Dr Job spoke about the contribution of ALM to Karigiri, pointing out that ALM provided the original capital to launch the work and has continued to provide, in co-operation with The Mission to Lepers, the means for what progress has been made. I spoke briefly and cut the ribbon opening the ward.

Following are some additional observations and comments:

1. A particular need at Karigiri is for an epidemiologist with a good background of training and experience.
2. There is also a need for much more co-ordination in research programmes carried on in various centres. Because of the lack of sufficient contact, there is probably a great deal of unnecessary duplication. A cross-fertilization of ideas between research institutions would be invaluable.
3. Karigiri, for example, should have a special budget for research workers to visit other areas.

4. VELLORE, INDIA

In my visits to the Christian Medical College it was encouraging to see how fully leprosy work has been integrated into the Orthopaedics Department, of which Dr A. J. Selvapandian is head, in the Orthopaedic Ward and in the new Department of Physical Medicine and Rehabilitation headed by Dr Mary Verghese, M.B.B.S. and Member of American Board of Physical Medicine, which has introduced a whole new concept of rehabilitation.

In the Hand Research Unit, I discussed with Dr W. M. Lennox, B.SC., M.B., F.R.C.S. (Eng.), F.R.C.S. (Edin.), his significant new research in skin grafting. For the last two years Dr Lennox has done surgery at Vellore and Karigiri, and has set up surgical programmes in centres surrounding Vellore. His skin grafting research involves transferring areas of skin from one part of the hand which has retained sensation to another, thus restoring a trigger area of sensitivity.

5. RANIPET, INDIA

Here, too, the integration of leprosy control into a widespread public health scheme and into the work of the well-known Scudder Memorial Hospital is impressive and significant to the future of leprosy control in India. Dr Julius Savarirayan, B.A., M.B.B.S., director of Scudder Memorial, has undertaken the control of leprosy in an entire taluk, where he has direct responsibility for over 10,000 leprosy patients. In addition, a ward has been built on the general hospital compound for the care of leprosy patients with special complications. Dr Frank L. Zwemer, M.D., with the help of Dr Lennox of Karigiri and Vellore, has set up an excellent surgery programme.

6. MALAVANTHANGAL, INDIA
(Kasturba Kushta Nivaran Nilayam)

The leprosy control unit adopted by the Hind Kusht Nivaran Sangh is of special interest because the treatment and control aspect of the programme is balanced with a centre providing facilities to care for special complications, for the partially and totally disabled. In the centre a good vocational programme gives needed training for self-support. Selected patients from the control villages are brought in for two or three weeks at a time for occupational therapy and education in protecting their hands, etc.

7. MUTTATHUR, INDIA

A new hospital unit was built here recently by American Leprosy Missions and The Mission to Lepers. Related to the Reformed Church in America the centre also has a control area with paramedical workers. The director is Dr Kamala H. Lazarus, L.M.P., whose husband, Rev. Henry Lazarus, B.A., B.D., S.T.M., is the head of an extensive Christian programme under the Church of South India. Though still in its early development this significant unit has the support of government, the Hind Kusht Nivaran Sangh, and the British Leprosy Relief Association, and deserves the backing of all Christian organizations.

8. WANDIWASH, INDIA

With Dr (Mrs) S. Ponniah, M.D., B.S., and Dr M. D. Graham, I visited two roadside clinics near this centre, and was again impressed with the vast number of patients reached with the help of trained paramedical workers. The new hospital is now completed but staff quarters are still needed. I regret that this work has not had the encouragement and support it merits.

9. KATPADI, INDIA

The modern industrial plant built by the Swedish Red Cross and employing 50 former leprosy patients as well as those handicapped by various causes, is a pioneer project in a sheltered type of industry. Completely self-supporting, the modern, well-run workshop meets competition from other industrial plants, proving that its workers are capable of first rate production. The plant is part of the comprehensive domiciliary treatment programme the Swedish Red Cross is administering out of Karigiri.

10. CHESHIRE HOME, VELLORE, INDIA

A home established by the internationally known Cheshire Foundation cares for the chronically ill and those who cannot be rehabilitated. About 25 severely handicapped people have attained a degree of self-support in a comfortable environment. The governing board of which Dr Selvapandian is a member, is made up of public-minded citizens who have a special concern for the handicapped. I believe that American Leprosy Missions should send a grant as a mark of encouragement to a facet of leprosy work which is still needed.

11. POLAMBAKKAM, INDIA

This famous pioneering control centre had its beginnings when Dr Robert G. Cochrane, M.D., F.R.C.P., D.T.M. and H., ALM's former medical advisor, started a programme of night segregation of leprosy patients in the area. Later taken over by Belgian workers, the centre covers an area of 50 square miles, with a population of 700,000 in 86 villages. As a result of careful surveys, there are now 20,000 patients under treatment. Three doctors, and a number of well-trained paramedical workers handle this tremendous caseload. In fact, the whole basis of the programme is the paramedical worker. Sub-centres are located at strategic villages so that patients won't have to walk long distances for treatment. A careful follow-up service checks on absenteeism.

Here rehabilitation really begins with diagnosis and the prevention of dislocation. The occupational therapy programme simply provides a means for temporary occupation while in the hospital for special complications.

Of the 20,000 under treatment, only 50 are totally dependent. Arrangements have been made to subsidize their care in the homes of relatives or friends, a method of custodial care which has been found far more effective and inexpensive than establishing a separate institution.

Another group of about 50 who are only partially disabled are cared for at The Home of the Beatitudes, where they do some work to the extent of their abilities.

An evaluation of the ten years of work at Polambakkam is now under way and will determine whether this kind of control programme is practical; and, if carried out on a national scale, could effect the incidence of leprosy.

I owe a debt of gratitude to Dr C. Vellut, who spent much time showing me the facilities of the central unit and going over with me the details of the widespread programme and its well-kept records.

12. CHINGLEPUT, INDIA

Accompanied by Dr Job of Karigiri, I visited the famed leprosy teaching and research centre, The Lady Willingdon Sanatorium established by the Indian government and directed by the well-known Indian leprologist, Dr Dharmendra. The Sanatorium, with its magnificent facilities and large administrative unit, undertakes research in many aspects of leprosy. Among the department heads whose work was particularly impressive are Dr C. G. S. Iyer, M.D. (Bom.), F.C.P.S. (Bom.), a neuropathologist who is head of the Research Division and the Pathology Department, and Dr P. Mohamed Ali, head of the Epidemiology Department, who directs the control programme and an experimental programme on the use of prophylaxis. In this experiment DDS is given to children of all contacts in a given area.

Dr Dharmendra, who has made a great contribution to the understanding of leprosy, expressed a high regard for the work at Karigiri, which he thinks is uniquely significant. This interest is most gratifying and should, by all means, be reciprocated by the Karigiri staff.

13. AMBUR, INDIA

Established more than 40 years ago by The Lutheran Church – Missouri Synod, the Ambur centre is known for its achievements in the control and treatment of tuberculosis. Dr Wolf Bulle, a member of ALM's Board of Directors, directed the centre for some years before he took his present post as medical secretary of the Missouri Synod. Though the hospital has for some time cared for leprosy outpatients in their regular clinic, a new and comprehensive leprosy control programme, similar to the T.B. programme, has been established under the direction of the present medical officer, Dr Johannes Pueschel. As a part of the domiciliary treatment programme of the Schieffelin Sanatorium, establishment of the new unit gives over-all leprosy control in the taluk for which Karigiri is responsible. Patients needing hospitalization and special care are treated in the Ambur General Hospital wards.

Here are some added comments:

1. The well-organized hospital at Ambur offers a well-balanced programme with all community needs taken into consideration.

2. It offers an excellent example of the involvement, not only with medical and surgical treatment of acute diseases, but also with the total public health problems of the community.

3. It demonstrates that a general hospital must care for all chronic diseases, including leprosy, that are highly endemic in the area.

14. MADRAS, INDIA

At the headquarters of the Hind Kusht Nivaran Sangh, I had the pleasure of meeting again its organizing secretary, Dr T. N. Jagadisan, with whom I served on the panel on

Educational and Social Aspects of Leprosy at the International Congress of Leprology in Rio de Janeiro in 1963.

A former leprosy patient himself, Dr Jagadisan was encouraged by Dr Cochrane to specialize in leprosy and has dedicated his life to the service of other victims through the Hind Kusht Nivaran Sangh. An intimate of Mahatma Gandhi, Dr Jagadisan has written a book about him and his relationship to leprosy work. It will be published shortly.

15. CALCUTTA, INDIA

During a few days stop-over in Calcutta, I met Dr Victor Das of the Mission to Lepers. I was grateful to Dr Das for coming from Purulia to discuss the many mutual problems of our two organizations. We discussed the question of aided versus owned work of The Mission to Lepers. Though owned-work must of necessity receive first attention, Dr Das does agree that aided-work must also be developed to the level of other programmes.

Dr Das has requested and strongly urged that I come again to India as soon as possible so that we might visit together some of the places where these come into focus.

I also visited a number of industrial projects in Calcutta which could set a pattern for sheltered workshops and rural programmes suitable for leprosy rehabilitation.

Since my projected trip to Jorhat was unavoidably cancelled, I was pleased that Revd M. Savino, superintendent of the Jorhat Christian Leprosy Hospital, came to Calcutta to report on recent progress made at my former mission station. The leprosarium, which has been beset with difficulties in the last few years, seems to be on the up-turn. Inpatients have been reduced to about 150 and outpatients increased to almost 700. Two mobile units take treatment to outlying centres every week. Many former patients have been resettled on to farming land and only a handful remain at the leprosarium for continuing custodial care. Most encouraging is the growing co-operation between the leprosy centre and the general hospital where cases are admitted for surgery.

VIET NAM

SAIGON, VIET NAM

It was a very special joy to be met at the airport here by my daughter, Marva, a nurse at the Evangelical Church Hospital in Nhatrang. We stayed with the Longacres, the Mennonite representatives in charge of the relief programme in Saigon, before journeying on to Nhatrang.

Excellent progress has been made in the Nhatrang mission hospital in terms of increased facilities and better arrangements for the outpatient clinic which treats hundreds of patients. There has also been an advance in the tuberculosis programme, which now gives regular care to 25 or more inpatients and many outpatients.

Most members of the hospital board are connected in some way with the Church of Christ in Viet Nam and some are from the Christian and Missionary Alliance Seminary nearby. It was reassuring to me to know that responsible men are watching the situation closely and keeping in touch with the Chief of the province. I confess to being worried about the distance of the hospital from town and its vulnerability to attack. But I trust in an all-loving God and my daughter's own judgment which she exercises without panic or fear.

After my return to Saigon, I visited the pastor of the International Church, formerly of White Plains, New York, who has developed a strong ministry in the city's international community, and an American woman, Mrs Manfull, who has become interested in leprosy work through an organization with the unfortunate name of Friends of the Lepers. The organization has succeeded in improving the conditions formerly existing at the government leprosarium. Mrs Manfull, whose husband is in the American Embassy is a good example of the American woman who uses her time and energy, while living in a foreign country for the public good.

I also had an interesting visit with Dr Le-Van-Thong, M.D., a Lt.-Colonel in the Vietnamese army, who runs the only rehabilitation centre in Viet Nam for disabled army veterans. It includes a prosthesis manufacturing shop, a vocational retraining programme for patients and also for the widows of military men. Expansion of its work to include disabilities from other causes would be a desirable development in this excellent project. Dr Thong also cares for some 100 crippled children in a Catholic institution just across the street from his workshop.

HISTORICAL BACKGROUND OF PHILIPPINE LEPROSY CONTROL PROGRAMME

Though leprosy doubtless existed in the Philippines long before the coming of the Spaniards, there is no record of any care given its victims until the latter part of the 16th century when a Franciscan missionary dedicated his life to leprosy service with the support of his church and occasional aid from the government. This humanitarian work, which consisted of providing shelter and other bare necessities, continued throughout the Spanish régime. During this period only two noteworthy actions have been recorded: a numerical survey of cases in Cebu by Lobres, a provincial health officer, and a royal decree in 1830 establishing three leprosy settlements in Manila, Cebu and Nueva Caceres. Only those in advanced stages, numbering not more than 400 or 500, were sent to these colonies. By the end of the Spanish-American War and the beginning of the American Army Occupation estimates of leprosy incidence in the Islands ranged from ten to thirty thousand.

Under the two-year (1898–1900) military government, according to Dr C. B. Lara, former head of Culion, 'thought was given to the need of (leprosy control) and since there was no other known control measure but segregation, long practiced in Norway and Hawaii, an isolated island was sought. A military board selected Cagayan de Sulu. The civil government (1901–1905) found it unsuitable and decided on Culion with its 13 neighbouring islands. Two names were prominent in this

connection: Professor Dean Worcester, Secretary of the Interior under Governor-General William Howard Taft; and Dr Victor Heiser, first Director of Health for the Philippines.' It was 1906 before construction of the leprosarium was completed, and in May of that year 365 patients were transferred from the settlement at Cebu to Culion, some 200 miles southwest of Manila.

In his book, *An American Doctor's Odyssey*, Dr Heiser says: 'When I became Director of Health of the Philippines I realized that one of my most important duties would be to isolate the lepers. I believed that isolation not only protected others from contracting leprosy, but was the most humane solution for the leper himself. Instead of being shunned and rebuffed by the world, he could have an opportunity to associate with others of his kind in pleasant relationship.'

In the light of our present day knowledge of leprosy, however, the rounding up of sick people, which was done in every province during the next six years by local officials and the police, often by force, was anything but humane. Act 1711, passed in 1907, providing for the 'apprehension, detection, segregation and treatment of lepers' aroused in some areas great resentment and resistance, yet health officials of that time knew no other way to control the disease.

When Major-General Leonard Wood was appointed Governor-General of the Philippines in 1921, he took an immediate interest in Culion and the whole problem of leprosy, visiting 'collecting stations' and investigating reported conditions of inhumane treatment in which patients were crowded in local jails, held many months, often a year without treatment, awaiting transport to Culion.

Greatly disturbed by these conditions, General Wood conceived the idea of establishing treatment stations throughout the islands so patients could get care near their homes while waiting to get to Culion, and where those in the early stages could remain for treatment without the necessity of being sent to the remote island leprosarium.

Because of his interest there was a marked change in Culion itself. The medical staff was greatly increased and in the twenties and early thirties the leprosarium became the leading centre for research.

LEONARD WOOD MEMORIAL

One action he took at the beginning of his administration held great significance for the whole future of leprosy treatment and research. In 1922 he persuaded a young and brilliant American pathologist, Dr H. H. Wade, then working with the Philippine Bureau of Science, to go to Culion as chief pathologist and acting chief physician. General Wood was so impressed by Wade's work at Culion that in 1927 he sent Mrs Wade to the United States to raise funds to create a research foundation for the study of leprosy and to construct appropriate facilities and a new leprosarium in Cebu.

As a result of Mrs Wade's successful fund-raising tour an American Committee for the Eradication of Leprosy was formed to aid the Philippine work. At General Wood's death in 1927 the name was changed to the Leonard Wood Memorial for the Eradication of Leprosy.

By 1930 the Cebu Leprosarium had been built with Leonard Wood Memorial Funds replacing the old collection of nipa huts in the city and was turned over to the government, with Dr Jose Rodriquez as its first director. Cebu was the first of the eight regional sanatoria proposed by General Wood. The last, the Central Luzon Sanatorium at Tala, was completed in 1938.

Another noteworthy event in the early thirties which would affect leprosy work all over the world was the International Round Table on Leprosy held by the Leonard Wood Memorial in Manila in January 1931. Out of this three-week meeting, attended by leprologists from all parts of the world and by representatives of the League of Nations, came the formation of The International Leprosy Association and its organ, *The International Journal of Leprosy*. Publication of this important journal began in 1933 with Dr Wade as editor.

THE PROTESTANT MINISTRY IN THE PHILIPPINES

Since Protestantism came to the Philippines only after the Spanish-American War, there were few if any Protestants among the first group of patients. Some years later pioneer missionary Dr George William Wright and Mrs Juana Coronel of the Presbyterian Mission of Manila started regular visits to Culion. By 1911 there were 30 Protestants who worshipped in a patient's hut. By 1915 the membership had doubled and had built a bamboo and nipa chapel. In 1917 a regular church was built by American Leprosy Missions, which had begun to support Dr Wright's chaplaincy service.

Another Presbyterian missionary who went to the Philippines at the beginning of the American occupation was Miss Elizabeth White. She began Bible classes among the patients in the old Spanish leprosy settlement, San Lazaro, just outside Manila, where she met a young Dane, Paul Frederick Jansen. After their marriage this young couple did pioneer work in the province of Batangas and Cebu, until they were told of the need at Culion by a young Philippine doctor. From 1922 until they were interned in Manila in 1944, the dedicated Jansens lived and served in a Protestant ministry at Culion with the financial support of American Leprosy Missions.

And as the regional leprosy hospitals were built during the thirties the ministry was extended to serve patients in them. Inter-denominational from the beginning, this ministry included construction of dormitories, wards, churches, schools for adults and teachers, self-help projects, the provision of food and clothing.

In 1935 Culion reached an all-time high of 6,997 patients. Ten years later, at the end of the Second World War, only 1,500 were left. In the first year of the war almost 2,000 patients left the island and many never reached their destinations. During the next three years half the remaining patients died from malaria and other diseases and from lack of food and medicines.

After the internment of the Jansens, the Rev. Ulpiano Evangelista took over the direction of the work. A nurse on Culion's medical staff for 20 years until he resigned in 1941 to assist the Jansens, Ulpiano Evangelista took special correspondence courses from the theological seminary at Manila and was ordained in 1942. He and his devoted wife, who still continue a full time ministry throughout all the Philippine leprosaria, developed at Culion a remarkable Protestant ministry which established churches in surrounding areas and created effective co-operative projects.

When the war ended a group of national Christian workers and missionaries of various denominations formed the Philippine Evangelical Leprosy Committee, which became the receiver and dispenser of funds from American Leprosy Missions. In 1963 the committee was incorporated as the Philippine Leprosy Mission, and undertook to support rehabilitation and research efforts as well as maintaining the strong spiritual ministry which now reaches some 900 Protestant patients. Working with the central committee in Manila are various local committees located in the centre of population nearest each sanatorium.

It was through this committee that American Leprosy Missions supplied sulfone drugs during a period in which the Philippine government did not have the means to reach all patients with the new medicine. Promin was being used at Culion, but on a very limited scale and for experimental purposes only. From 1947 through 1952, when the government started general treatment with sulfones, American Leprosy Missions supplied more than one million Diasone tablets to the Philippine Leprosy Committee to be administered through the Bureau of Public Welfare. According to an agreement between ALM's general secretary, Dr E. R. Kellersberger and government officials, half the amount was to be used for needy Protestant patients and the other half for Catholics and others. The provision of drugs to the Philippines was the first exception to American Leprosy Missions' policy of giving medicines only to non-governmental hospitals, and was made only because of the serious conditions in the Philippines after the war.

A MAJOR CHANGE OF POLICY IN GOVERNMENT LEPROSY CONTROL

In 1952 the hated segregation law was at long last revised (Republic Act 7530) to permit home isolation and treatment under approved conditions. This step marked the beginning of a major change of policy, a shift in emphasis from the leprosaria to field control work through systematic case finding and treatment. Later the Fifth Congress of the Republic of the Philippines passed the following:

Republic Act No. 4073

'AN ACT FURTHER LIBERALIZING THE TREATMENT OF LEPROSY BY AMENDING AND REPEALING CERTAIN SECTIONS OF THE REVISED ADMINISTRATIVE CODE.

Section 1. Sections one thousand fifty-eight and one thousand fifty-nine of the Revised Administrative Code, as amended, are further amended to read as follows:

Section 1058. PERSONS AFFLICTED WITH LEPROSY NOT BE SEGREGATED:

Except when certified by the Secretary of Health or his authorized representatives that the stage of the disease requires institutional treatment, no person afflicted with leprosy shall be confined in a leprosarium: Provided, that such person shall be treated in any government skin clinic, rural health unit or by a duly licensed physician.

Section 1059. CONFINEMENT AND TREATMENT IN SANATARIUM WHEN NECESSARY:

Whenever a person afflicted with leprosy shall have developed the disease to such a stage as to require institutional treatment and the leprosy officer shall so certify, the said person shall forthwith be sent to a government sanitarium and be treated therein until such time as the Secretary of Health or his authorized representative decides that institutional treatment is no longer necessary.

Section 2. Sections one thousand sixty to one thousand seventy-one, inclusive, of the same Code, as amended, are hereby repealed.

Section 3. This Act shall take effect upon its approval. Approved, June 18, 1964.'

Today there are three types of institutions used in a co-ordinated control programme throughout the Philippines: eight regional sanatoria; four stationary skin clinics (these stationary clinics operate in close co-operation with regional sanatoria); and ten travelling skin clinics.

In the travelling skin clinics, the first of which was started in 1930 by Dr Jose N. Rodriquez in Cebu, the actual treatment is administered by personnel of the rural health units. These units are under a municipal health officer and offer general training courses including leprology.

According to Dr Rodriquez, who served as Director of Disease Control until his retirement in 1963, the *per capita* cost of new cases discovered and treated in the travelling skin clinics is 75 pesos a year, and in the stationary skin clinics only 45 pesos.

REPORT ON SURVEY OF PHILIPPINE LEPROSARIA AND RECOMMENDATIONS FOR EXTENDING THE MINISTRY OF THE PHILIPPINE LEPROSY MISSION

INTRODUCTION

It is against the background of the history of the Philippine leprosy control programme and the recent changes in the world-wide approach to the leprosy problem that the Philippine Leprosy Mission must discover what service it can best give in the changing circumstances. This visit, my first to the Philippines, was undertaken specifically to discuss these problems with the Board of Directors of the Philippine Leprosy Mission following visits to each of the eight leprosaria in the islands. These visits were arranged through the kind offices of Dr Leandro B. Uyguanco, director of the Bureau of Disease Control of the Department of Health, who wrote to the hospital chiefs asking that I be given every facility and opportunity to study the work of the institutions. I would like to express here my gratitude for all the help given me and the many courtesies I received.

One of the gravest problems arising from the commendable change of emphasis in the government leprosy programme is that of educating the public to accept negative patients and convincing patients who can leave the leprosaria that it is to their benefit to do so.

A great many in the leprosaria are negative patients who have become accustomed to depend on the government for food, clothing, and maintenance. Some are positive cases who could just as well be treated in their home environments, but hate to leave the security of the institution. Some are disabled, but could be rehabilitated if proper medical, surgical and other rehabilitative techniques were available. Most difficult is the group in every leprosarium who have been isolated so long and are so physically debilitated there is no hope for rehabilitation. Many of these are now being sent to Culion which is apparently being transformed into a home for the completely dependent.

When positive cases or negative ones requiring continued treatment are discharged from the leprosaria they are referred to one of the skin clinics in the government's control programme for continuing treatment. While this new approach has as its basis, economic necessity, yet I like to think its chief motivation is to bring under control a greater number of patients for early diagnosis and treatment, and to prevent social and economic dislocation of sick people. This effective approach, with its noble purposes, is being followed today in many countries of the world.

I believe the primary objective of the Philippine Leprosy Mission should be to help the Philippine government implement its control programme. In the past we have provided an effective spiritual ministry to patients. It is now the feeling of many of the committee that a broader interpretation of the Christian witness would include helping patients to become integrated members of society and providing the social, vocational and economic factors necessary to this task.

Even before the incorporation of the Philippine committee, steps had begun toward this end. The most noteworthy was helping a former leprosy patient finish medical school and sending him to Karigiri for hand surgery and training in physiotherapy techniques. Dr Julio Pasion is now head of the Department of Physical Medicine and Rehabilitation at Tala, the only one of its kind in the Philippines. The committee also arranged and financed the training at Karigiri of Dr Jose N. Rivera, now doing surgery at Tala and working closely with Dr Pasion. And more recently Miss Judith Croot has been appointed full-time physiotherapist for the Philippine Leprosy Mission.

These instances mark a good beginning of an enlarged ministry. Changes will come slowly because some local pastors and committees find it difficult to realize the new opportunities of Christian service. Also the patients themselves must regain the qualities of dignity and self-respect and want to resume their rightful place in society.

RECOMMENDATIONS SUBMITTED TO THE PHILIPPINE LEPROSY MISSION

Though the world-wide changing pattern of leprosy work is based on scientific advances, neither the medical profession nor the general public are well prepared for these changes. The concept of rehabilitation, for example, is generally misunderstood, being widely regarded as something to be done after cure rather than a part of the total treatment and a preventive of social dislocation. And there is little awareness that the word 'cure' cannot really be applied until a patient is living a normal life in society.

In the light of these observations and because an effective Christian ministry must be conducted within the framework of scientific knowledge, I submit the following recommendations and suggested priorities:

I. *Central Luzon Sanatarium, Tala Province, Philippines*

(a) Dr Pasion and Dr Rivera should be sent to the Pan Pacific Conference on Rehabilitation in Tokyo in April, and also to Korea and Hong Kong for observation of leprosy work there.

(b) Miss Judith Croot, new physiotherapist for the Philippines, should be assigned to Tala as a primary base for development of rehabilitation and physiotherapy, though she would be available to other areas of need.

(c) Physiotherapy facilities already established under the direction of of Dr Pasion and Dr Rivera should be improved.

1. Physiotherapy, now regarded largely as an optional activity along with some occupational therapy, vocational training and recreational activity, should be integrated with the surgical programme and ordered by medical and surgical staff as a part of the general medical treatment.

2. The physiotherapy unit at Tala should be developed as a future training centre for paramedical workers.

3. Miss Croot's work should be closely related to the Department of Physical Medicine and also to the physiotherapy training course at the National Orthopaedic Hospital. An exchange of information and programme ideas will be helpful to both institutions.

II. *Mindano Central Sanitarium, Zamboanga City, Philippines*

(a) Careful consideration should be given to the possibility of supplying badly needed basic surgical instruments to this hospital, with the advice of the Division of Overseas Ministries and the Inter-Church Commission on Medical Care in the Philippines.

(b) Ways and means should be sought to support the existing but little used vocational training workshop and utilizing its facilities.

(c) Families ready to leave the hospital should be helped to resettle in their home communities, if possible. In cases of complete dislocation, the local church should be consulted and a joint effort made to help such families utilize what skills they have, or, if need be, to provide temporary financial help so they may become useful, contributing members of the community within the life of the Church.

III. *Eversley Childs Sanitarium, Cebu City, Philippines*

(a) Consideration should be given to a disability survey by Miss Croot of the great number of negative patients who have settled in a barrio in Cebu City and around the periphery of the Eversley Childs Leprosarium, to discover how many need surgical or non-surgical physical rehabilitation. These people are having an extremely

difficult time to survive and undoubtedly many of them are handicapped physically, socially and economically.

(b) The Philippine Leprosy Mission should finance a study trip to Karigiri for Dr Carlos Delgado of the Community Hospital in Cebu City. Dr Delgado has had excellent training in plastic, orthopaedic and hand surgery and would like to relate his experience and training to the special problems of leprosy. Dr Su, director of the Community Hospital, said that Dr Delgado and another qualified staff surgeon would be willing to undertake surgical treatment of negative leprosy patients with fees paid by Philippine Leprosy Mission. The importance of this programme would be to show that leprosy work can be integrated into general hospitals, and also that surgical treatment of leprosy disabilities is not only practical but urgently needed.

(c) Funds already made available to the Philippine Leprosy Mission for a rehabilitation project at Cebu should be allocated, at least in part, for a vocational programme, sponsored by the Protestant church, which would provide training facilities in such occupations as photography, sewing, etc. The programme should be open to all patients, regardless of religion. The whole purpose of the programme would be to train patients who would leave the hospital and resume a normal life in the community, not continue to live, on an income from their occupation, in the leprosarium.

IV. *Western Visayas Sanitarium, Iloilo, Philippines*

The Philippine Leprosy Mission should help build a ward for the treatment of plantar ulcers and surgical complications to be used by all patients at the institution. Wards now maintained by the Mission for use of Protestant patients might very well be used for the above purpose, if both government authorities and Protestant committee agree.

V. *Bicol Sanitarium, Sipocot, Philippines*

A strong effort should be made to continue the existing vocational programme, but it should be redirected toward resettlement in the community, if at all possible, near a church where a receptive climate could be created for negative patients.

VI. *Culion Sanitarium, Culion, Philippines*

(a) Consideration should be given to providing Dr N. Viado, in charge of patients in the Protestant wards, with a period of observation and study in centres in Korea, Hong Kong and, possibly, India.

(b) Churches that have been established in surrounding areas as a result of the outreach of the Culion Church should be utilized in a comprehensive programme of resettling the large number of families of negative patients now in the institution. The programme should include a careful study of the motivations, mental attitudes and vocational skills of the family members, and if necessary, temporary financial support should be given. It should be made clear that these subsidies are loans to be repaid.

ADDITIONAL GENERAL OBSERVATIONS AND RECOMMENDATIONS

I. Subject to the approval of Dr Uyguanco, American Leprosy Missions will provide subscriptions to technical magazines, useful reprints, and other literature to all doctors in the Philippine leprosy institutions.

II. Disseminating the facts about leprosy should be an obligation of the Philippine Leprosy Mission, particularly to its local committees. This can be done in various ways. Chairmen of local committees could attend the annual meeting at which an outstanding authority would discuss leprosy problems. And educational material could be distributed to the local committees. ALM will provide all such needed material.

III. Resettlement should be on an individual family, not a group, basis. Establishment of communities of patients or former patients should be avoided for obvious reasons.

IV. The establishment of rehabilitation centres, either inside or outside a leprosarium, should be avoided. Rather, what resources we have should go into rehabilitating individuals and individual families and supporting government projects. Even if the government programme is fully implemented it will be a matter of years before most patients will be treated in their own communities. Those who need rehabilitation are those now living in the institutions.

V. There is a great need for the development of educational materials in the Philippines. People with writing skills and those familiar with the subject should be enlisted in this programme. Background material can be supplied by American Leprosy Missions, and I would urge that whatever is published should be submitted to the ALM editorial staff to check for scientific accuracy. There are three basic types of literature needed:

1. Promotional literature to acquaint the church with the scope and programme of the Philippine Leprosy Mission.

2. Educational literature for the public regarding the facts of leprosy, the worldwide problem and the government's programme.

3. Educational literature for patients written in simple language and showing by use of illustrations what they themselves can do to prevent crippling and deformity.

VI. Co-operation of the Philippine Leprosy Mission in the annual observance of World Day for Leprosy Sufferers on the last Sunday of each January would be of immense educational value in the Philippines. Programme materials will be supplied by American Leprosy Missions.

VII. The role of Protestant pastors in government institutions needs to be re-evaluated.

(a) While they are pastors to Protestant patients who are members of their churches, these chaplains should remember they are called upon to be pastor to all patients and to the staff, and that they have a duty to co-operate with the staff as responsible officers participating in a total leprosy control programme.

(b) Pastors should try to avoid the development of static ingrown communities of Protestants. The patient should be made to understand that his stay in the institution is only temporary, and all activities and thought directed toward his return home.

(c) The Gospel given to patients should create an attitude of hopefulness and expectancy, and a determination not to let sickness separate them from normal living, nor to become dependent. It should give a sense of self-reliance, dignity and self-respect.

(d) Church educational programmes should not only contain the basic elements of the faith, but also matters of health, hygiene and how to prevent the disabling effects of leprosy.

(e) Pastors should have some knowledge of social work, and if possible get training in it. They should make the word of God relevant to the everyday needs of His people, not only while they are patients, but also so that they may be better prepared to live as normal, healthy members of a community.

(f) Former patients who have resettled in nearby communities are equally a pastor's concern. They need his help and guidance in meeting social, economic and vocational problems.

(g) There should be full co-operation with medical authorities, and confidence that they are acting in the best interests of their patients in accordance with scientific advances in knowledge of leprosy.

(h) The time has come for the churches in local communities to take over the support of the pastor, chaplain and church in each leprosaria. The church in the institution ministers to people of many churches and denominations who have come from scattered communities. These local churches should have a sense of responsibility for their members who are under treatment. I therefore recommend that American Leprosy Missions withdraw financial support to churches in the leprosaria over the next four years. This will be on a percentage basis and the support will be picked up by the local committees. This action is not only in harmony with the indigenous principles of the Life and Growth of the Church; it gives an opportunity to churches near hospitals and clinics to become involved in the needs of leprosy patients. I believe that American Leprosy Missions can give a more effective Christian witness by using its funds to serve the needs of all patients in an institution.

VIII. The Philippine Leprosy Mission should give serious consideration to creating a full-time office of General Secretary, with the following qualifications and responsibilities.

(a) He should have special administrative skills and authoritative knowledge of present-day leprosy management. This knowledge can be acquired by personal observation of work in other countries and by orientation from American Leprosy Missions and authorities in the field.

(b) He should co-ordinate activities of all local committees, and implement and carry out the programme of the Philippine Leprosy Mission.

(c) He should be responsible for creating the suggested literature programme, with the help of volunteer specialists. He might also create a library of audio visual aids which would be helpful in public education, in churches and even to doctors in the various leprosaria.

(d) He should serve as liaison officer with American Leprosy Missions.

In closing I would again emphasize that the future programme of the Philippine Leprosy Mission should be in harmony and compatible with the best known principles of the management of leprosy. In no way does this conflict with the primary responsibility of the Philippine Leprosy Mission to use this ministry as a means of communicating the Gospel of our Lord to those who have suffered not only physically but socially and economically.

OKINAWA

In 1927 a Japanese leprosy patient, Keiya Aoki, who had become a Christian under the influence of Miss Hannah Riddel, an Anglican missionary at the Kumamoto Leprosy Hospital in Kyushu, Japan, went as a lay missionary to the Ryuku Islands. He obtained land on the Island of Yagaji, off the northern coast of Motobu Peninsula and gradually collected about him a group of neglected and persecuted leprosy victims. This small Christian settlement formed the nucleus of the Airaku-En Leprosarium, which was taken over by the Japanese government in 1938, built into a model hospital of some 700 patients, and then almost completely wiped out during the bombing of Okinawa by Allied planes in 1944 and 1945.

At the end of World War II, when the American military government took over the administration of the Ryukyu Islands, the leprosarium was rebuilt and the patient body soon increased to almost 1,000. American Leprosy Missions, in addition to sending material gifts to the patients, also helped rebuild the interdenominational chapel which had been bombed by mistake.

Now under the jurisdiction of the United States Civil Administration of the Ryukyu Islands (USCAR), Airaku-en is the largest of the two leprosaria on the Ryukyus, with about 900 resident patients. Nansei-en in Miyako cares for about 300.

Before the war mission work in Okinawa was carried on primarily by the Episcopal church which still continues an outstanding ministry. Since then, however, various other mission groups have started work in the Ryukyu Islands, carrying on co-operative projects through the United Church of Christ in Okinawa and the Okinawa Interboard Committee.

Because of the increasing mission interest in Okinawa, as well as the presence of American military and civilian groups there, American Leprosy Missions is frequently queried about the leprosy problem in that area.

One of the main reasons for my brief stopover in the Ryukyus at the end of my field trip in Asia was to visit the two leprosaria and to get first hand information from workers on the spot.

I landed at Naha City and was met by Dr Paul Warner, Field Representative of the Okinawa Interboard Committee, Dr Tsuneo Inami, Medical Officer in Charge of the Airaku-en Leprosarium, the Rev. Luke Teruo Kimoto,

pastor of the Airaku-en Chapel, and Dr Jiro Minato, Japanese missionary surgeon to Okinawa.

Dr Inami, who accompanied me on all my visits and official calls, had visited ALM headquarters in 1964 when he was in this country to do graduate work in dermatology.

1. NANSEI-EN LEPROSARIUM, MIYAKO ISLAND

Under the direction of Dr Shinjo, this beautifully located institution with its splendid modern facilities, cares for about 300 patients. One aspect of the medical work which disturbed me, however, was the protective clothing and masks nurses were required to wear. Another disturbing element was three beautiful and imposing church buildings to serve only a handful of Christians.

In Hirara City, the nearest town, we visited the Rev. Takashi Shinjo, pastor of St James Episcopal Church and also of St Michael's Church at the leprosarium. In addition to his regular ministry in the two pastorates Mr Shinjo runs a sheltered workshop for the disabled, among whom are several former leprosy patients, and a kindergarten for children of the patients.

2. AIRAKU-EN LEPROSARIUM, YAGAJI ISLAND

Located near the city of Nago, Airaku-en incorporates most of the present day methods in the management of leprosy. An excellent staff includes Dr Minato, who has instituted a fine programme of reconstructive surgery. Other aspects of the well-balanced programme include good laboratory and X-ray facilities, and eye department and physiotherapy programme. One interesting feature, which I had never seen before, is a training course for student nurses. For two weeks in rotation a group of 12 comes to the leprosarium for orientation and actual work experience. This is an excellent method of educating not only the medical profession but also the public.

On Sunday I attended worship services at the very fine Episcopal church, whose pastor, Mr Kimoto, also serves a church in Yagaji Village.

An inspiring rehabilitation project carried on by the Episcopal Church is the Nago Folkcrafts Centre in Naha City. Under the direction of the Venerable William A. Hio of the Okinawa Mission of the Episcopal Church, this thriving industry offers vocational training and economic independence to many, including the handicapped and disabled.

Before I left Okinawa, in addition to visits with various government officials, I also had the pleasure of attending a monthly fellowship meeting of mission representatives at Naha.

Although the excellent government support of leprosy work in the Ryukyus makes unnecessary any direct involvement of American Leprosy Missions, I should like, however, to offer the following suggestions of possible supportive projects.

1. Co-operation in arranging physiotherapy training, and possibly training for an Okinawan nurse.

2. Provision of additional training for Dr Jiro Minato in reconstructive surgery.

3. Provision of technical films and literature for Airaku-en.

4. Support of the splendid work of the Okinawan Mission of the Episcopal Church and of the United Church of Christ in Okinawa.