REPORT

WHO REGIONAL TRAINING COURSE ON HEALTH EDUCATION IN LEPROSY/TUBERCULOSIS CONTROL PROGRAMME

Research Institute of Tuberculosis
Kiyose-shi, Tokyo, Japan
26 October - 9 November 1981

Manila, Philippines
March 1982
WHO REGIONAL TRAINING COURSE ON HEALTH EDUCATION IN LEPROSY/TUBERCULOSIS CONTROL PROGRAMME

Convened by the

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Research Institute of Tuberculosis
Kiyose-shi, Tokyo, Japan

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NOTE

The views expressed in this report are those of the participants of the Training Course and do not necessarily reflect the policies of the Organization.

This report has been prepared by the Regional Office for the Western Pacific of the World Health Organization for governments of Member States in the Region and for those who participated in the Regional Training Course on Health Education in Leprosy/Tuberculosis Control Programme, which was held in Kiyose-shi, Tokyo, Japan, from 26 October to 9 November 1981.
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1. INTRODUCTION

The present approach to leprosy/tuberculosis control programmes involving early case detection, case-holding and domiciliary treatment can only achieve its full benefits if there is involvement and active participation of a highly motivated and well-informed public.

An overview of existing experience has shown that delayed diagnosis, irregularity of treatment as well as social stigma and excessive fear, particularly in the case of leprosy, continue to pose formidable barriers to the successful implementation of the control programmes. This points to the need for promotion of better understanding and creation of a supportive social climate through a well organized and comprehensive health education component of the leprosy/tuberculosis control programmes, aimed at combating the social stigma and fear of the disease and promoting an understanding of the modern concepts of leprosy/tuberculosis. In view of this, the need to further strengthen the health education component of the leprosy/tuberculosis control programmes is recognized. This will require developing educational strategies based on the available body of knowledge and experience and providing training in health education methods and approached to those involved in the control programmes.

In addition, available data presented in the findings of the study on psychosocial aspects of leprosy control, of the feasibility study on health education in leprosy control in Papua New Guinea and of similar studies conducted in other countries have provided the basis for the design of a realistic training course.

The WHO Regional Training Course on Health Education in Leprosy/Tuberculosis Control was held in Kiyose City, Tokyo, Japan, from 26 October to 9 November 1981. It was conducted at the Research Institute of Tuberculosis in cooperation with the National Institute for Leprosy Research, the National Leprosarium Tama-Zenshoen and the Ministry of Health and Welfare.

Organizational arrangements were made by the Research Institute of Tuberculosis. The responsibility for planning and organizing the course, and utilization of local faculty resources in addition to the WHO temporary advisers was entrusted to the Research Institute of Tuberculosis. During the course, administrative services were provided by the staff of the Institute.

A total of 14 participants and one observer attended the course and are listed in Annex 1 of this report.

The course was opened officially in the afternoon of 26 October 1981 by Dr Hiroshi Nakajima, Regional Director, WHO Office for the Western Pacific. Dr Masahide Abe and Dr Tadao Shimao, Director of the Research Institute of Tuberculosis and the National Institute for Leprosy Research also delivered addresses highlighting the magnitude of the problem and the importance of health education in enlisting community support. Their messages are attached as Annex 2 of this report.
The participants and the staff of the course and the observer were introduced by Mr H.S. Dhillon, Chief, Human Resource Development, WHO, Western Pacific Regional Office, and Operational Officer of the course. A group photograph was taken after the opening ceremony. A reception followed.

2. OBJECTIVES OF THE COURSE

The objectives of the course were:

(1) to orient and refresh the knowledge of the participants on the nature and magnitude of the problems, the remedial measures, and the service programmes for leprosy/tuberculosis control;

(2) to provide comprehensive understanding of the human factors (social, cultural, psychological and situational) which influence the response of the individual, patient, family and the community to the leprosy and tuberculosis problems and their participation in the control programmes;

(3) to prepare them with knowledge, concepts and skills in planning, implementing, and evaluating the health education component of the leprosy/tuberculosis control programmes.

3. CONTENT OF THE COURSE

The course content was grouped into three main areas, as follows:

(1) the nature and magnitude of the problem of leprosy and tuberculosis;

(2) management of service programmes, including currently used control measures, organizational and administrative aspects of the programme, strengths and gaps of the programme and the problems encountered in its effective implementation, and monitoring and evaluation of the programme;

(3) health education in leprosy/tuberculosis control with special attention to community diagnosis in health education, methods and techniques in health education, and programme planning, implementation, monitoring and evaluation in health education.

A total of 15 units covering 11 subject areas were presented and discussed during the course.

The curriculum and timetable of the course are presented in Annex 3.
3.1 Country reports

Participants from each of the 13 countries presented a brief report on the current status of the problem and programme activities in leprosy and tuberculosis control in their respective countries; guidelines for the preparation of country reports had been provided in advance to the participants.

The main points included in the guidelines were: the type of organizational set-up; manpower and other resources for control; and constraints and problems encountered in implementing control measures with emphasis on health education methods and approaches used for leprosy/tuberculosis control.

3.2 Presentation and discussions

The different subjects presented by the resource persons and discussed by the participants in small groups and during general discussions were:

- Nature and magnitude of the problem of leprosy in the Region
- Nature and magnitude of the problem of tuberculosis in the Region
- Basic principles in the control of leprosy and tuberculosis
- Leprosy and tuberculosis control programmes in the Western Pacific
- Leprosy control in Japan
- Tuberculosis control in Japan
- Country reports of countries in the Western Pacific Region
- Tuberculosis control programme in Japan
- Leprosy control programme in Okinawa
- Factors affecting human response
- Health education concepts and health behaviour models
- Skills in health education; audiovisual support in health education
- Training of health workers in health education
- Community diagnosis and programme planning in health education
- Research, monitoring and evaluation in health education

3.3 Demonstrations

Different types of leprosy and early and advanced signs and symptoms were demonstrated through the use of colour slides. A number of sessions were held utilizing graphs, flow charts and other schematic presentations, models and transparencies to demonstrate the concepts through visual media.

To complement and supplement the discussions on the subject of media support to health education, a demonstration was conducted to show the importance of understanding the characteristics of a colour scheme such as chroma, a 'hue' and 'value'. Samples of colour slides were presented to illustrate the points to be considered in the production of this kind of software. Another demonstration was conducted using a special type of transparency which can show motion (as in blood circulation in the body) through the use of an aid called a polarizer. This was shown as an example of modern technology using animation in educational media. Participants were informed about low-cost media which can also be used as effective visual aids.
Three films were presented to the participants. A 30-minute film produced in the Philippines, funded by the Sasakawa Memorial Health Foundation, was shown to depict the importance of psychosocial, cultural and situational factors which affect the response of the individual, the family and the community to leprosy and the leprosy patient. Two films entitled "Leprosy" and "Leprosy rehabilitation" in English, produced by the British Leprosy Association and the Berling Scientific Association, were also shown. Participants were able to relate the messages in the films to previous discussions on different subjects covered.

3.4 Field visits

The participants had an opportunity to visit three institutions, namely: the National Institute for Leprosy Research, the National Leprosarium Tama-Zenshoen, and the Ministry of Health and Welfare. These visits enabled participants to observe activities and facilities as well as exchange ideas with those directly engaged in the leprosy control and research programmes. The observations and sharing of experiences with experts in Japan provided participants with some ideas on alternative strategies in the control of leprosy in a country which has adequate resources for control activities.

4. SUMMARY OF DISCUSSIONS

4.1 Nature and magnitude of the problem in leprosy control
(Dr L. Lopez-Bravo)

A simple definition of leprosy was presented and the different medical terms used in it explained and discussed.

The causative agent of leprosy, Mycobacterium leprae, with its prolonged multiplication time (about 14 days) leads to a lengthy incubation period (average of 2-5 years) and the slow, chronic development of the disease. As no sensitive test for the detection of the subclinical infection is at present available, detection of leprosy patients can only be done when the initial signs of the disease appear.

Though not scientifically proved, it is now believed that leprosy, like tuberculosis, is an airborne infection. Multibacillary patients can expel leprosy bacilli from their infected nasal mucus by means of coughing, sneezing and speaking.

Skin-to-skin contact, and biting insects may also play a role in the transmission of leprosy.

The leprosy bacilli shows its preference for the skin, nerves and mucus membranes; it is thus in these parts of the body that the early signs of the disease appear.
With the existing anti-leprosy drugs, the disease can be treated and patients rendered non-infectious and eventually cured, though it is necessary that treatment be regularly taken over a period varying from a few to several years.

When detected late or treated improperly, leprosy may develop serious deformities and disabilities. Inappropriate treatment may also lead to drug resistance. Early diagnosis and regular treatment will not only prevent deformities but also stop the transmission of the disease.

Whether or not a person will develop leprosy after having been infected by *M. leprae* depends on his ability to develop resistance (cellular immunity) against the leprosy bacilli. Most people are able to develop such a resistance and only a small number of individuals, if infected, will suffer from leprosy.

The different types of leprosy (indeterminate, tuberculoid, borderline and lepromatous) and the early and advanced signs and symptoms of the disease were demonstrated with the help of colour slides. The complications of leprosy, the acute and chronic accidents of lepra reaction and the need for their proper management in order to prevent further disabilities were discussed.

The diagnosis of leprosy, based on clinical and bacteriological examinations, was presented and criteria for the diagnosis of leprosy patients by peripheral health workers were presented and discussed.

Regarding the problems associated with leprosy, chronicity, irregularity of treatment, drug resistance, disabilities, stigma, late diagnosis and ostracism were mentioned. Possible causes and solutions with respect to each problem were discussed. The interrelationship between the problems associated with leprosy was shown in the form of a diagram and further discussed.

4.2 Nature and magnitude of the problem of tuberculosis control
(Dr T. Shimao)

Dr Shimao demonstrated the varying grades of the risk of transmission of bacilli by bacteriological status of patients and closeness of contact, and emphasized the presence of cough as an important mechanism of transmission when the bacilli are present in the sputum.

The tuberculin test, available in tuberculosis, measures the prevalence of tuberculosis infection at different ages and in different areas or countries and indicates the overall extent of the disease transmission from sources of infection to the healthy population. By repeating, at intervals, the tuberculin test for a specific age group, it is possible to get the "annual risk of infection" and its upwards or declining trend. This serves as a more reliable epidemiological indicator of the status of the disease in a country. In developed countries, the annual risk of infection has been declining by 11-15% per annum, whereas in most of the developing countries, there has been a much slower decline or no decline at all in recent years.
Tuberculosis disease is developed as a result of breakdown of the primary infection (endogenous reactivation) soon after the infection or in later years, but the possibility of reinfection from outside sources (exogenous reinfection), although rarer, cannot be totally ruled out.

The effectiveness of BCG vaccination as measured by various controlled trials was discussed. Research findings were presented to show the varying degrees of protection. The immunological mechanism of the effectiveness of BCG vaccination was explained and the practical aspect of BCG vaccine and BCG vaccination as well as the side-effects were also reviewed.

The importance of sputum smears as a means of case-finding by collecting sputum from symptom-motivated patients visiting the clinics was emphasized, and the limited role of mass miniature radiography (MMR) with its high cost of yield was explained.

The dramatic impact of potent chemotherapeutic agents in the cure of tuberculosis patients and as a means of reducing the sources of infection was explained. Research findings concerning the clinical effect of various combinations of drugs in controlled clinical studies were presented. With a combined use of some of the bacteriocidal drugs such as rifampicin, INH, streptomycin, pyrazinamide, etc., a 100 per cent sputum conversion can be obtained with a duration of treatment of as short as six months. However, the high cost of some drugs, especially of rifampicin, prevents the general application of such short-course chemotherapy in many developing countries. Furthermore, its actual efficacy as shown by clinical trials cannot be reproduced unless treatment organization is improved and capability in case-holding and case-management is strengthened.

4.3 Leprosy/tuberculosis problems in the Western Pacific Region

4.3.1 Leprosy

During this presentation, an overview of the magnitude of the leprosy problem and its distribution in the world and in the Western Pacific Region was given. Epidemiological profiles of leprosy and the main constraints relating to its control for some countries in the Western Pacific Region were also presented.

Out of a conservative estimate of ten and a half million leprosy patients in the world, it was reckoned that there are two million patients in countries in the Western Pacific Region, of which less than half a million are actually registered. It seems that three quarters of the estimated cases in the Region are still to be detected.

Regarding the percentage of cases undergoing regular treatment, the Western Pacific has the highest percentage (74%) compared with the other WHO Regions (Africa, 41%; South-East Asia, 47%, Eastern Mediterranean, 53%).

The percentage of disability, including the less serious form of anaesthesia arising from nerve trunk involvement affecting the hands and feet, attains 50% in untreated leprosy patients. If only the more serious grades of disability (anaesthesia only excluded) are considered, the percentage is about 32%.
It appears that training (health education included) of health personnel at all levels and improvement of supervision of control activities (mainly case-finding and case-holding) are the first and second priorities, respectively, for the effective implementation of leprosy control programmes in most countries in the Western Pacific Region.

4.3.2 Tuberculosis

The definition of prevalence and incidence were introduced as applied to infection, morbidity and mortality in tuberculosis.

The magnitude of tuberculosis in the world was presented with the help of the statistical data compiled in the World Health Statistical Annals and summarized and reported by Dr A. Bulla:¹

**Mortality**


It shows a reduction of 43% in 10 years. Out of the total deaths in 1976/77, three quarters occurred in Asia.

**Morbidity**

1967: 3.8 million; 1971: 3.5 million

1976/77: 2.8 million

It shows a reduction of 10 million or 26% in 10 years. Out of the 2.8 million new cases in 1976/77, 2.1 million or 75% were estimated to have occurred in Asia.

It was emphasized that these figures could be an underestimate, although it may be true that the prevalence and incidence of tuberculosis is much higher in Asia, of which the Western Pacific Region is a part.

Sixteen countries in the Western Pacific Region conducted a prevalence survey of tuberculosis, and some of them (Japan, China (Taiwan) and Republic of Korea) even conducted 4-5 surveys with an interval of 5 years. These surveys show accurate prevalence rates of tuberculosis, which were considered fairly high, the rate of bacillary cases being more than 5 per thousand population. However, the repeated surveys in the countries mentioned above show a considerable decrease over the past 15-20 years.

The latest data in various countries in the Region, which were collected in the course of visits in 1978-1980, show a registration rate per thousand population of 0.6-1.8 for total tuberculosis cases and of 0.15-0.9 for bacillary cases, the lowest for both being from Japan. These rates are high compared with those from most of the developed countries, and it was said that these do not represent the real incidence of tuberculosis and there must be a number of existing cases remaining undiscovered.

¹WHO Chronicle, 31(7) July 1977, and an unpublished paper.
One of the features of tuberculosis in the South Pacific countries, and areas particularly Melanesian countries is the high proportion of extrapulmonary tuberculosis and of children below 15 years of age among the total registered, both usually being well above 20%.

4.4 Principles of control of leprosy and tuberculosis

The main features of control of these two diseases are more or less similar, both being a chronic communicable disease caused by mycobacteria which belong to the same family. A table listing the similarities and differences in these two diseases was distributed, comparing the causative agents, their identification methods, reservoir, mode of transmission, incubation period, human susceptibility to them, duration of communicability after the start of treatment, control methods, etc.

4.4.1 Leprosy

Following the recommendations given by the WHO Expert Committee on Leprosy in its fifth report,1 four basic principles applicable to all leprosy control programmes were discussed: (1) coverage of the whole country with emphasis on foci of high prevalence; (2) provision of the necessary resources over a 20-year period; (3) integration of the leprosy control programme into the general health services, which should be strengthened as needed; and (4) emphasis on early diagnosis and regular treatment.

In the present approach to leprosy control, emphasis is placed on enlisting community support through health education, in order to ensure early diagnosis using methods of active case-finding and regular treatment of patients of all forms of leprosy.

With respect to active case-finding, the methods will have to be selected according to the existing prevalence of leprosy in each particular area/population groups in the country.

With respect to case-holding, the advantages of outpatient versus institutional treatment were discussed and the present role of sanitarium described.

4.4.2 Tuberculosis

In tuberculosis control, it was found in South India that a high proportion of bacteriologically proved cases were conscious of symptoms (95%), a large number were worried (72%) and many of them sought medical assistance (52%). It was emphasized that community health education can promote the level of awareness and concern among the symptom-conscious patients and motivate them to visit the basic health services for examination, thus facilitate the early diagnosis of more cases.

The coverage of service depends on the stage of extension of primary health care services in the country and the quality of these services, which includes the degree of the correctness in diagnosis. Once diagnosed, all the patients should be put on a standard treatment and guided to the completion of treatment, which is usually 12 months. Regularity in treatment is the key factor in success of treatment. To ensure high efficiency in case-holding and case-management during treatment, motivation and remotivation of patients as well as the family members through correct health education measures are most essential.

4.5 Country reports

A summary of the data obtained from the country reports of the 14 participants from 13 countries has shown that both specialized and integrated types of control programmes for leprosy/tuberculosis are being implemented at the central, intermediate and peripheral levels. The degree and level of integration vary from country to country. An example of a country that has fully integrated its leprosy/tuberculosis control programmes into the general health services is Papua New Guinea. On the other hand, Japan is a country that has continued to provide a specialized type of service to leprosy patients, although it has started skin clinic services in Okinawa. In all countries the control strategies employed consists of case-finding, treatment, rehabilitation, prevention and health education. The constraints and problems encountered, both technical and administrative, are: delayed diagnosis, irregularity of treatment, social stigma and unreasonable fear attached to the disease, lack of or inadequate training of health workers in leprosy/tuberculosis control, workers, poor and inadequate supervision, delayed reporting and recording, and inadequate means of transportation and communication.

The health education component of the leprosy/tuberculosis control programmes is being provided by either a specialized unit within the programme, or by a health education unit responsible for providing health education services to all major health programmes. Limited manpower and audiovisual facilities for health education support are available with these units. However, in most countries, technical and supervisory support to health education activities are provided at present only through the central level. The infrastructure at the intermediate level is yet to be developed in many countries. Health education activities in the peripheral level are being provided by the basic health service personnel. The strategies of health education employed at different levels include: community health education, patient education, training in health education, research in health education, and development/production/distribution of health materials. Among the constraints encountered in the implementation of the health education component of the leprosy/tuberculosis control programmes are inadequate manpower lack of or inadequate training in health education of health workers, and inadequate media support, both software and hardware.
Brief country reports on leprosy and tuberculosis in Japan are given below:

4.5.1 Leprosy and its control programme in Japan
(Dr Saikawa)

There are now about 9500 leprosy patients in Japan of whom only 10% are treated as outpatients and 90% as inpatients. Eighty-five (85%) percent of the hospitalized patients are at present considered "arrested". The inpatients are mainly composed of disabled and aged patients, with a mean age of 61 years.

There are 16 sanatoria, 13 national and 3 private, for the care of leprosy inpatients. Two university clinics, Kyoto and Osaka, and 5 skin clinics in Okinawa provide outpatient services. A survey of the patient population in 1979 showed that about 17% of all patients were smear-positive, and about 75% of the existing patients are of the lepromatous and borderline type of leprosy.

In his presentation, Dr Saikawa described in some details the leprosy control programme in Okinawa. Leprosy prevalence rate in Okinawa increased from 11.6/10 000 in 1901 to 25.3/10 000 in 1940. Leprosaria were destroyed during the Second World War and patients became scattered over the island. Since then 90% of the known patients have been treated through outpatient clinics.

The incidence rate has shown a sharp decline recently. This rapid decline within a short period of time achieved by outpatient treatment is worth noting when compared with the slower decline in mainland Japan achieved mainly through segregation.

Among other factors mentioned by Dr Saikawa which may have influenced the decline in the leprosy incidence rate, the improvement in socioeconomic conditions with the consequent rise in living standard since the 1960s is the most important. Graphs showing the relationship between the decline in leprosy incidence and economic development in Okinawa, the growth of the GNP and per capita income, increase in new building construction and floor space per house were presented.

As a result of industrialization a substantial proportion of the rural population has migrated to urban areas, and leprosy originally more prevalent in the rural areas (88.3% in 1955) has now become predominantly an urban disease (68.4% in 1980).

The consistent reduction in the incidence in children below 15 years of age was also mentioned.

There seems to be an inverse correlation between the reduction in the leprosy incidence rate and the proportion of lepromatous cases; about 63% of the cases detected in 1980 were of the lepromatous type.

Dr Saikawa found that the most effective case-finding method at this stage is contact examination.
4.5.2 **Tuberculosis and its control programme in Japan**  
(Dr T. Shimao)

The existing data on tuberculosis mortality since the beginning of this century show the highly sustained mortality rate before the Second World War and even an increase with industrialization. However, a rapid decline has been seen since 1947 and it was 5.5 per 100,000 in 1980.

The incidence of tuberculosis as represented by the newly registered cases has been available since 1947. It reached a peak in 1951 when the Tuberculosis Control Law was legislated and the subsidy for expenses of treatment was introduced, but it has shown a gradual decline since then, almost parallel to the decline in mortality, and was 60.7 per 100,000 in 1980, of which 20.5 per 100,000 was cavitary and/or bacillary cases. At the end of 1980, 238,787 active cases were on registration or 204.2 per 100,000, of which 16,495 or 6.9% were extrapulmonary cases.

The prevalence of tuberculosis has been disclosed by repeated tuberculosis prevalence surveys, once every five years, since 1953. The active tuberculosis cases decreased from 3.4% in 1953 to 0.74% in 1973, and the bacillary cases from 0.75% to 0.12%.

Thus, it is considered that tuberculosis in Japan has been brought well under control and this marked decline in the tuberculosis problem had been achieved mainly by technological progress in tuberculosis control, implementation of a rationally planned tuberculosis programme, and the participation and cooperation of Japanese people in the tuberculosis programme.

4.6 **Factors influencing human response**

The discussion presented with the aid of a conceptual model emphasized the importance of the knowledge and understanding of the social, psychological, cultural and situational factors that influence the response of the individual, the patient, the family and the community to leprosy and tuberculosis.

Identification was made of the different types of response under each interacting factor and their contribution to the assessment of the educational needs and problems of the leprosy and tuberculosis patients as well as those of their families and the community in general. A comparison of the two diseases was made noting their differences and similarities.

The discussions covered the following:

(1) The most common psychological responses to diseases like leprosy and tuberculosis as found by studies in the behavioural field are: regression, aggression, denial, displacement, withdrawal, shame and loneliness.

(2) Social repercussions brought about by the presence of these diseases include financial difficulties, shifting of one's status or role in the family or community, reverses in social acceptance, problems of interpersonal relationships (marital or otherwise), and problems of adaptation to the disease process itself or to changes in habits and practices.
(3) Socio-cultural and psychological factors include the customs and practices, social stigma and fear of the disease, confidence in the control technology and the social climate of acceptance or rejection prevailing in the community.

(4) Situational and technological factors include the availability of effective cure and other control strategies, accessibility to control services and the limitations of technology.

All these factors are interrelated and mutually supportive of each other. Consideration of these factors will enable those involved in leprosy/tuberculosis control to develop educational strategies that have a sound scientific and social basis. Application of the available body of knowledge and experience will enable health personnel to motivate patients, their families and the community to take positive action to prevent and control these diseases. Effective educational intervention will increase the rate of compliance of patients with the medical regimen and enlist community participation and support for the control programme.

4.7 Health education concepts and human behaviour models

Dr Yamamoto introduced this topic with a reference to the three different levels of health care, namely: primary, secondary and tertiary. He further described the fulfilment of the pre-conditions for survival such as the absence of hunger and illness, as the primary requirement for health; the fulfilment of the conditions for survival such as stable working conditions and a satisfactory economic order as the next level of requirement; and the ability to attain the highest level of health, including the desire to live one's life to the highest potential as the final requirement. He linked this discussion to the objectives of health education, which are set in the understanding that health is fundamental to the dignity of human life and survival.

He defined health education as a process of diagnosis, planning, implementation and evaluation, taking into account the contemporary knowledge of the disease, study of the behavioural factors influencing diagnosis, treatment and prevention, socio-cultural factors and cost effectiveness.

Dr Yamamoto emphasized the role of health education in leprosy/tuberculosis control in the context of primary health care by referring to pertinent provisions in the Alma-Ata Declaration. The discussion was followed by a workshop on the educational approach to the problems in implementation of leprosy/tuberculosis in the context of primary health care. Participants divided into two groups and discussed the issues in relation to: (1) health education for policy makers and leaders such as politicians, health administrators and local community leaders, and (2) community participation in leprosy/tuberculosis control.

Group I on health education for policy makers and leaders discussed the role expectations of each of the identified target groups. These included promotion of acceptance by the country of the leprosy/tuberculosis control measures, formulation/revision of programme policies and strategies, encouraging and supporting control activities, and securing financial support for the control programmes. The participants developed
strategies for the different categories of leaders. For the policy makers and national leaders, briefing and orientation sessions and distribution of technical/position papers backed up by simple and understandable statistics and presented in an attractive and appealing manner were suggested. For the lay leaders, holding of community meetings supplemented by individual contacts and use of low-cost media prepared in popular language was recommended.

Group II on community participation in leprosy/tuberculosis control programmes identified the problems and set priorities. The group identified two areas where community participation can contribute to the attainment of the objectives of leprosy/tuberculosis control. The group placed emphasis on (a) encouraging patients to come for early diagnosis and to undertake complete and regular treatment and (b) combatting the social stigma and excessive fear of the disease among the people of the community. The group also assessed the barriers to the effective implementation of the control programmes, which are inadequate knowledge about the disease, social stigma and fear, inadequate health care delivery system, lack of confidence in the control technology, and limited coverage of the programmes. The suggested strategies included fact-finding to identify where the problem exist in the community, education of the community to make different population groups aware of the problem, patient education to motivate them to come for early and regular treatment, training of health workers in correct and up-to-date technology and to promote positive attitude and strong motivation in them to give quality service, and periodic assessment and evaluation of health education efforts in the community.

A plenary session enabled the participants to exchange ideas on the two issues and secure further clarifications and reinforcements from the resource speaker and other staff of the course.

4.8 Skills in health education; audiovisual support in health education

The subject of skills in health education and audiovisual support in health education was presented by a demonstration of the importance of the skills in both advanced and low-cost media support to health education. An illustration was made of production of a special kind of transparency and other video-type software, taking into consideration the characteristics of color such as chroma, hue and value. Samples of colour slides were shown to complement the theoretical discussions. A similar demonstration was also conducted showing a specially prepared type of transparency which can show motion as in blood circulation in the body through the use of an instrument called a polarizer. This was shown as an example of advanced technology using the projected animation-type of educational media materials.

The different types of low-cost media materials, such as flipcharts, bulletin boards, educational exhibits, etc., were discussed briefly. Guidelines on the proper selection and use as well as on the advantages and disadvantages of each type of media was also taken up. To supplement the presentation, handouts were distributed on types of media and tools, guidelines for the selection and use of visual media, and steps in planning an educational campaign. Three films were shown as audiovisual support to the session and other subject areas covered in the course.
Further discussions centred on other skills in the health education component of the leprosy and tuberculosis control programmes, namely: ability to conduct community diagnosis, planning skills, interpersonal and group communication skills, counselling skills, message formulation and media design skills, community organization and evaluation skills.

The importance of developing these different skills as illustrated in the discussions on the different stages of planning, implementation, and monitoring and evaluation of the health education component of the leprosy/tuberculosis control programmes.

4.9 Community diagnosis and programme planning

Dr M. Yamamoto discussed the need for community diagnosis as a basis for planning the health education component of the leprosy/tuberculosis control programmes. Community diagnosis was defined as a comprehensive assessment of a community in relation to its social, physical and biological environment. The purpose of conducting community diagnosis is to identify the problems and to set priorities. Collection of both quantitative and qualitative information is necessary in order to understand the factors, both psychosocial and environmental, associated with the problem. Examples of quantitative or measurable would include basic demographic information such as age, sex distribution, literacy level, occupation, prevalence of diseases, etc. The qualitative or descriptive information would include customs, beliefs, taboos, attitudes and values towards diseases and control measures. Knowledge of these psychological, social, cultural and situational factors is essential in developing sound and relevant educational strategies and approaches.

Discussions on programme planning followed. The different steps involved in planning the health education component of the leprosy/tuberculosis control programmes were taken up. These are: situational analysis, goal setting and formulation of broad strategies and policies, preparation of a detailed programme, implementation of the programmes, monitoring and evaluation and reformulation of the programme, and modification of the policies. These were briefly discussed before a workshop on how to increase regularity of treatment among leprosy/tuberculosis patients was conducted. The participants were divided into two groups and worked on the same problem.

Group I - Group work

Group I considered three points in planning the health education component of leprosy/tuberculosis control programmes. These are: problem identification; human and service factors influencing the problem; and the strategies for behavioural intervention. The group identified two problems common to all countries represented: fear of side effects and conflicting information from health personnel. The service factors identified were distance from the health facility, quality of service provided, and the
attitude of health personnel. The educational intervention strategies suggested are the following:

(1) Community health education through the community organization process with emphasis on:

(a) benefits of regular treatment;
(b) adverse effects of irregular treatment;
(c) availability of services and facilities;
(d) maintaining concern about dangers of relapse and its risk to the community.

(2) Small group discussions in the home or clinic settings where satisfied leprosy patients can talk about rewarding experiences for his continued regular treatment and other benefits derived.

(3) Patient education and home visits.

(4) Information/publicity with emphasis on informing public about:

(a) signs and symptoms of disease and need for early diagnosis
(b) availability of service facilities
(c) treatment regimens/procedures
(d) duration of treatment, and
(e) importance of regular and complete treatment

The irregularity of treatment generally starts after three months of initial treatment. Studies have shown that the patient's compliance in taking drugs depends upon the duration of treatment, complexity of the regimen, the side effects, and the overall feeling, and well-being induced by the treatment. A relatively short course, and uncomplicated regimen, the absence of adverse side effects and an awareness of the risk involved in irregular treatment, are all factors promoting a high rate of compliance, and vice-versa.

Thus the human factors to be considered include: ignorance about the cause, signs and symptoms of the disease, excessive fear of the disease contributing to the phenomenon of denial and social stigma resulting in delayed diagnosis, psychological fatigue due to long duration of treatment and false sense of complete recovery after a few months of treatment resulting in irregular treatment.

**Group II - Group work**

**Situation analysis**

**Step I - Situation analysis**

**Problem Identification**

How can we stop interruption of medical treatment among the patients?

**Step II - Objective and target group:**

To increase regularity of treatment among patients of tuberculosis and leprosy.
Step III - Fact-finding - studying a specific community in order to plan more specifically

(1) Statistics on a selected community:

(a) Land area: 3 000 000 square miles (shows difficulty of transport)

(b) Transportation - boat - irregular

(c) Climate - 3 months a year cannot be used for follow-up by health workers

(d) Health workers - 32; which means a ratio of 1:2500 population or 1:48 per tuberculosis/leprosy patient

(e) Number of leprosy/tuberculosis patients = 1500

(2) KAP survey - resulting survey

(1) Regularity of treatment among

(a) patients 35%

(b) awareness of tuberculosis/leprosy problems in community 10%

(c) Only 30% of family members support health regimen of patients

*KAP done with help of existing community organization.

Step IV - Goal setting

General objective: To increase regularity of treatment in tuberculosis/leprosy patients from 35% to 65%.

Step V - Does chosen direction fit the goal? YES

Step VI - Programme planning - The different stages were discussed by the group using the planning matrix

Step VII - Is it possible to attain goal through this programme? Yes (pending post evaluation)

Step VIII - Implementation

Step IX - Can the programme proceed smoothly?

Step X - Was the goal accomplished? - Give post-KAP survey at the end of the problem (2 years)
Programme planning

**General objective:** To plan a health education programme to reduce percentage of irregular patients from 65 to 35 after two years

**Specific objectives:**

(1) To increase the community awareness of the problem of tuberculosis/leprosy from 10% to 70%

**Strategy/activity:** One week campaign on leprosy/tuberculosis (exhibition) with use of mass media: interviews, radio/TV spots/printed materials, films. Also conduct forums for teachers, parents-teachers association groups, school children, community meetings and mothers classes.

**Approaches:** mass and group approach

**Place/time/date:** Population Centre (Mobile, on rotation basis), country-wide

**Manpower:** Ministry of Health, staff of Health Department, Department of Education, Internal Affairs, full cabinet, private organizations such as women's clubs, voluntary groups or associations such as Red Cross, etc.

**Materials:** Posters, pamphlets, radio spots, slides

**Funding:** Ministry of Finance, other ministries and allocations from health and non-health agencies.

(2) To recruit volunteers to support health programmes and to improve the manpower situation.

**Strategy/activity:** 2-week seminar/training (every evening)

**Approaches:** Group

**Place/time/date:** Community centre, evening

**Manpower:** Health workers

**Materials:** Talking points

**Funding:** Community resources
(3) To promote involvement of family members, (from 30% to 80%) in supporting health regimen.

**Strategy/activity:** Home visits, clinic visits, seminars

**Approaches:** Individual

**Place/time/date:** Homes of patients, clinics, community centres

**Manpower:** Health personnel, voluntary workers, satisfied users

**Materials:** Talking points

**Funding:** Community resources

(4) To increase knowledge and motivation of patients with respect to the importance of taking regular treatment.

**Strategy/activity:** Home visits, clinic visits, regular information system by appointment postcards

**Approaches:** Person-to-person, group discussion

**Place/time/date:** Homes, clinics, community centres

**Manpower:** Same as no. 3

**Materials:** Instruction booklets, handbills

**Funding:** Community resources

4.10 **Training of health workers in health education**

(M. Kanenaga)

Health education is an important duty of all health workers, whether they are a part of the specialized services, general health care system or voluntary group. Basic training and continuing education in health education are important for all categories of health workers. This would equip the health workers with the necessary knowledge, skills and understanding of the educational methods and strategies that can be employed as part of the total control programmes.

Any country with a leprosy/tuberculosis problem should not only provide adequate training for all professional and auxiliary staff on the nature and magnitude of the problem of these diseases and the current control measures but should also include the health education component. The training in health education should aim at developing positive attitudes and a strong motivation and commitment among health workers to render quality service. This will contribute to the goal of raising the level of confidence of the people in the control technology.
Every health worker who is in close contact with the people has a potential influence on the knowledge, attitudes and practices of the people with whom he works. In order to maximize the value of these contacts, all categories of health workers should become more conscious of their educational responsibilities and approach them with confidence, optimism and a variety of techniques.

The challenge of providing health education in support of leprosy/tuberculosis control is complex and difficult, especially in relation to the social stigma and fear, associated with leprosy; hence the need for training to raise the level of professional competence and enhance capabilities. It is also essential that all members of the leprosy/tuberculosis control team acquire a thorough understanding of the most appropriate educational methods and approaches, which can enlist community support and participation in the control programmes.

The health workers for whom health training in leprosy/tuberculosis is necessary are the following:

(a) Medical and health personnel especially assigned to leprosy/tuberculosis control work;
(b) Health service personnel;
(c) General practitioners;
(d) Students of medical and public health schools and of institutions that prepare other health workers; and
(e) Voluntary collaborators, teachers, village leaders and other key people in the community.

Current efforts to integrate specialized leprosy/tuberculosis control programmes require that in-service courses and subsequent refresher courses be provided for the existing staff. To strengthen these courses, sound educational methodology must be employed, and those in charge of organizing and designing training programmes must be equipped with training skills such as instructional objectives utilizing relevant techniques of communication and selecting and utilizing appropriate instructional aids and tools necessary to enrich the training courses. Provision for evaluation of the effects of training must be considered as an important aspect of the training course.

4.11 Research, monitoring and evaluation in health education

Research, monitoring and evaluation in health education should be considered as an integral part of the planning and development of the health education component of the leprosy/tuberculosis control programmes. Evaluation was defined as a dynamic process involving a constant assessment and improvement of the whole educational component through the use of feedback and monitoring mechanisms. It involves the setting up of definite standards and goals and determining the progress that has been made towards the attainment of these goals.
In leprosy/tuberculosis control programmes, research on the level of knowledge, the attitudes and behaviour as well as other psychosocial, cultural and situational factors is necessary. This will provide the baseline against which to measure progress, and also serve as a basis for effective and relevant planning of the educational component.

Evaluation can be conducted in terms of inputs into the programme, such as number of film showings, mass meetings organized, health classes conducted, radio talks prepared, posters distributed and similar educational efforts. It can also be based on the output, which will focus on changes in the knowledge, attitudes and behaviour of the various target population groups.

General guidelines on evaluation would include four steps, namely: the formulation of objectives, the setting up of proper criteria to be used in measuring progress, determination and explanation of the degree of success, and recommendations for further programme activity.

4.12 General recapitulation

A general recapitulation session was provided in order to link and integrate the eleven subject areas covered in the course.

An integrated and systematic discussion of the health education component of the leprosy/tuberculosis control programmes was conducted, using a simplified model for preventive health behaviour. Other findings in the behavioural field such as the health belief theory, diffusion theory and community organization concepts were also taken into consideration.

Health education in leprosy/tuberculosis control should consist of continuing educational efforts designed to develop positive health knowledge, attitudes and practices in relation to these two diseases. The ultimate goal of lasting behavioural changes can only be achieved through sound and effective educational interventions based on the current body of knowledge, the control technology, and experience. Utilization of the research findings in the social, psychological and behavioural field will ensure that the educational strategies and approaches are relevant and responsive to the needs of leprosy/tuberculosis patients, their families and the community in general.

The priorities of the leprosy/tuberculosis control programmes, which the health education component must address, should concern two critical aspects, namely: early and voluntary case-finding and early, adequate and regular treatment.

The target groups to which health education efforts must be directed include the patients and their families, the community in general, and the health and health-related workers involved in control programmes.

The educational objectives should focus on: (1) combatting social stigma and fear associated with the disease; (2) increasing confidence in the technology/and health services; and (3) maintaining concern about
relapse/self-care. The frame of reference could be based on preventive health behaviour model, which provides that, for people to take preventive action, three conditions have to be met, namely:

(a) People should believe that the problem of tuberculosis/leprosy exists and that they are susceptible to it.

(b) If they get the disease and if it is not controlled in time, it would have serious consequences.

(c) The remedial measures or control services should be available and people should have confidence in their effectiveness and safety.

Based on the frame of reference, the problems analysed were:

1. **Cultural** - ignorance about the cause, signs and symptoms, treatment, prevention and rehabilitation.

2. **Psychological** - social stigma and fear and psychological fatigue due to chronicity of these diseases, long duration of treatment, persistence of deformities and high cost of correction.

3. **Social** - social reverses in status or role in the family and community and effect on interpersonal relationships

4. **Situational** - limited confidence in the existing technology and health services, and the problems of availability and accessibility of control measures, and physical condition of the patients.

The behavioural changes would include the following:

1. Patients come for early and voluntary diagnosis and early, regular and adequate treatment.

2. Health workers are able to develop rapport and provide satisfactory leprosy/tuberculosis control services.

3. The community is more ready to accept and understand leprosy patients and becomes motivated to participate in the leprosy/tuberculosis control activities.

These behavioural changes would contribute to the attainment of the overall goal of the control programmes.

The expected outputs of the educational component are:

(a) satisfied patient (well-informed and highly motivated);

(b) committed and competent health workers; and

(c) supportive social climate (community acceptance of patients, which will facilitate reintegration of cured patients into normal society).
The different educational strategies and approaches evolved during the course included the following:

- community health education
- patient/family health education
- community organization
- small group discussions and other interpersonal communication techniques
- training of health personnel involved in health education

Patient education would:

(a) stress the importance of continued and adequate treatment to prevent deformities and to render patients non-infectious to other members of the family;

(b) allay apprehension of side effects;

(c) develop a sense of social responsibility; and

(d) enable patients to know how to take care of themselves to prevent deformities (self-care).

Reinforcement sessions were held to enrich the knowledge of participants by sharing some pertinent findings in the social, psychological and behavioural fields. These covered: development of social stigma and how to combat it, excessive fear associated with leprosy, health belief model, preventive health behaviour model, diffusion theory and decision-making process. Some of the sessions like the one on stigma were comprehensive, while other areas were treated briefly. Participants were requested to supplement these discussions with the handouts and suggested reading.

Another area reviewed during reinforcement sessions concerned on skills development and steps in planning the health education component of the tuberculosis/leprosy control programmes.

(1) Skills required for leprosy/tuberculosis control workers

(a) ability to conduct community diagnosis
(b) planning skills
(c) communication skills and ability to organize group discussions
(d) counselling skills
(e) message formulation and media design
(f) community organization strategies, including power dynamics
(g) evaluation skills

(2) Steps in planning the health education component

(a) situational analysis and community diagnosis
(b) setting goals and formulating broad strategies and policies
(c) preparation of detailed programme
(d) implementation of the programme
(e) monitoring and evaluation, and improvement of the programme
(f) reformulating, redirecting programme and modifying policies
The participants in the course also discussed the content of priority messages which could serve as a basis for preparing media support materials. These would be formulated in the simple language of the country and would take into consideration the existing beliefs, customs, value systems, and degree of stigma and fear. Samples of these key messages were:

1. Leprosy is curable
2. Early diagnosis and treatment will lead to cure
3. Early treatment prevents deformities
4. Regular and adequate treatment will not spread disease to others
5. If you have the following symptoms, come to the nearest health centres:
   (a) reddish/whitish patches on the skin
   (b) loss of sensation in the affected parts

The discussions during the recapitulation session were presented during the last day of the course and ended the two-week training course.

5. EVALUATION OF THE COURSE

An evaluation of the course was conducted on the last day of training using a questionnaire which was administered to 14 participants and one observer. The consolidated responses to a set of questions on the different aspects of the training course are presented in Annex 3 of this report.

Participants unanimously confirmed the attainment of the three objectives of the training course as shown in their positive responses to the first question in the evaluation instrument.

The majority of the participants considered that there was a well-balanced use of different educational methods and techniques.

They expressed a high degree of satisfaction over the clarity with which most of the subjects were presented and discussed. Most of the participants considered the time allotment for each subject as adequate and they agreed on the usefulness of the content of the course.

There was a consensus on the adequacy of the support materials/documents provided, sufficiency of personal contact with resource speakers during the course, and adequacy of free time for participants to work on their own, e.g. reading documents provided.

All participants felt the need to conduct the training course in the near future. Six participants suggesting holding the course every year and nine participants suggested holding the course every two years.
They also expressed a high degree of satisfaction over the amount of stipend, the reception given, the quality of accommodation provided, and the social and cultural facilities made available.

Despite some language constraints, which were minimized by visual aids and reading materials, the majority of the participants mentioned that they had a clear understanding of most of subjects covered in the course. Only four out of 15 participants experienced some difficulty in speaking English fluently. In two sessions in which reinforcements were provided by the staff of the course, two participants suggested that attempts should be made to minimize the language problem.

On the whole, the two-week training course on health education in leprosy and tuberculosis control was a success in spite of the persistent cold weather.

6. CLOSING CEREMONIES

A brief but solemn closing ceremony was held in the afternoon of 9 November 1981. The occasion was graced with the presence of Dr Kisao Kono, Deputy Director, National Sanitarium Division of the Ministry of Health and Welfare. Dr Kazuo Iwai, Associate Director of the Research Institute of Tuberculosis, represented Dr Tadao Shima, who was away on an official mission, Dr Masahide Abe, Director, National Institute for Leprosy Research, distributed the certificates of training to the participants.

Mr H.S. Dhillon, Chief, Human Resource Development, WHO/WPRO and Operational Officer of the course, thanked all the persons who had helped make the course a success. He expressed his gratitude and appreciation to Dr T. Shimao, Course Director, to Dr M. Abe and other members of the Organizing Committee, to the staff of the Ministry of Health and Welfare, especially Dr Shinozaki and Dr Nakatani, to the Administrative staff and Secretariat, and above all to the participants for their active participation in the training course.

Dr Philip Kame, from Papua New Guinea, representing the participants, thanked the staff of the course, the World Health Organization and other collaborating agencies and the resource speakers for their assistance to the course. He expressed his gratitude to all persons responsible for the conduct of the training course and promised to endeavour to apply the additional knowledge and skills gained in strengthening the implementation of the health education component of the leprosy/tuberculosis control programmes.

A farewell party hosted by the Research Institute of Tuberculosis climaxed the two-week training course.
7. ACKNOWLEDGEMENTS

This WHO Regional Training Course on Health Education in Leprosy/Tuberculosis Control Programme was made possible through the effective collaboration and cooperation of a number of institutions and people in Japan, the host country. Sincere thanks and deep appreciation are due to the Research Institute of Tuberculosis for the initiative and sustained effort in planning and organizing the course, for the selection and invitation of the local faculty resources, and for the administrative and secretariat services.

Sincere appreciation and gratitude are extended to the directors and staff of the Research Institute for Leprosy and the National Leprosarium Tama-Zenshoen for their comprehensive information sessions, demonstrations and guided tours for the participants and the staff of the course. This activity could not have been undertaken without the approval and indispensable support of the Ministry of Health and Welfare.

To all the participants, without whose interest and active participation the conduct of this course would not have been productive and successful, also go the sincere thanks and appreciation of the Management.
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## Annex 1

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<tr>
<th>Country</th>
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OPENING ADDRESS BY DR HIROSHI NAKAJIMA REGIONAL DIRECTOR
WHO REGIONAL OFFICE FOR THE WESTERN PACIFIC TO THE REGIONAL
TRAINING COURSE ON HEALTH EDUCATION IN LEPROSY/TUBERCULOSIS CONTROL
TOKYO, JAPAN, 26 October - 9 November 1981

Mr Chairman, Distinguished Guests, Ladies & Gentlemen,

I have much pleasure in welcoming you to the Research Institute of Tuberculosis, Kiyose, Tokyo, to participate in the WHO-sponsored Regional Training Course on Health Education in Leprosy/Tuberculosis Control. Thank you for finding the time - despite your extremely heavy commitments - to join us in seeking a better understanding of how health education can contribute to the control of two dreaded diseases - leprosy and tuberculosis - in this Region of the world.

Permit me to take this opportunity of thanking the Japanese Government and the Ministry of Health & Social Welfare for agreeing to host the Course in Japan. I am grateful to the National Organizing Committee and to the faculty members of the three institutes - the National Institute of Leprosy Research, the National Leprosarium Tama-Zenshoen, and the Research Institute of Tuberculosis - of extending their cooperation in planning and organizing the Course. I am sure that with their experience and expertise in the fields of leprosy and tuberculosis, the Course will be a success and that the participants will find it a highly valuable learning experience.

The Alma-Ata Declaration recognized that to achieve the goal of adequate health for the people of the world, we must bring the health services as close as possible to the daily lives of all citizens. This is a process we have come to call primary health care. The most significant element in primary health care is the focus on "people" and their active involvement in health development, with emphasis on community self-reliance. Health education and information of the public has thus gained added significance.

Despite the encouraging progress made by practically all countries in the Region in containing and reducing the problem of leprosy and tuberculosis, much remains to be done. Success in leprosy and tuberculosis control programmes will depend to a large extent on the cooperation received from a well-informed public.

For instance, the social stigma attached to leprosy and excessive fear of the disease continue to be the twin barriers to leprosy control programmes involving early case-detection, case-holding and domiciliary treatment as well as the social acceptance and reintegration of leprosy patients in the community. The same considerations still largely apply, although the image of the disease and methods of dealing with it have gradually changed for the better in many countries, to tuberculosis and tuberculosis control.
Community support can be, and should be, enlisted, with the promotion of better understanding and the creation of a favourable social climate through an active and well-organized health education programme. The health education component in the leprosy and tuberculosis control programmes must be strengthened. This will require developing educational strategies based on a careful study of the problem and providing those engaged in the control programme with training in health education methods and approaches.

I trust you will be discussing in some depth the human factors - social, cultural and psychological - as well as the technological and organizational factors that influence the response of the individual, the patients, the family and the community to the programme. During the next two weeks you also will be working intensively on developing national strategies for strengthening health education in leprosy and tuberculosis control. I am confident that this training course will result in a positive and fruitful exchange of views and provide you with a rewarding learning experience.

I should like once more to extend a warm welcome to you all, and to express my particular gratitude to Dr Abe, for agreeing to serve as Chairman of the National Organizing Committee for the Course, to Dr Onishi for serving as a member of the Committee and to Dr Shimao for undertaking the responsibilities of Course Director. I am grateful to the Research Institute of Tuberculosis for extending its facilities and hospitality and to the officials of the Ministry of Health and Welfare, particularly Dr Shinozaki and Dr Nakatani for their cooperation and support.

Let me wish you all an enjoyable stay in Japan.
ADDRESS BY DR M. ABE, DIRECTOR, NATIONAL INSTITUTE FOR LEPROSY RESEARCH TO THE WHO REGIONAL TRAINING COURSE ON HEALTH EDUCATION IN LEPROSY/TUBERCULOSIS CONTROL

Ladies and Gentlemen,

It is my great pleasure and privilege to speak to you at the opening of the Regional Training Course on Health Education in Leprosy and Tuberculosis Control Programmes, on behalf of the Ministry of Health and Welfare. I express my hearty gratitude to Dr Nakajima, Regional Director of the Regional Office for the Western Pacific of WHO for planning and organizing this training course in Japan and I am very glad to welcome you as the representatives of 13 countries in the Western Pacific Region at this opening ceremony.

Health education is an important part of control programmes on leprosy and tuberculosis. I would like to emphasize that it is especially important in leprosy control, because the implementation of leprosy control is still frequently disturbed by social stigma and excessive fear of the disease. These twin barriers must be conquered by developing health educational strategies based on the available body of knowledge and experience on leprosy.

In this training course, you will learn an outline of leprosy and its problems from Dr Lopez-Bravo and leprosy control in Okinawa from Dr Saikawa. I expect these lectures will be useful for understanding the present status of leprosy in the world. However, leprosy research is still developing and accumulating much new knowledge which may have an influence on the leprosy control programme. For example, we are studying subclinical leprosy infection from an immunological point of view. I think scientific understanding of subclinical leprosy is essential to the epidemiological study and to the vaccination trial in the near future, and this understanding should be popularized by health education for the purpose of eradicating social stigma and excessive fear of the disease. If possible, I would like to talk about the details of this problem on the occasion of your visit to the National Institute for Leprosy Research.

By the way, recent topics in leprosy research are not the main problem in this training course. I hope therefore that you will learn the principles of health education for utilizing new knowledge on leprosy whenever they are generally recognized as useful.

Finally, I again hope that all of you will be able to study successfully in good health and to enjoy the holidays during this training course, because autumn is the most beautiful and pleasant season in Japan. Thank you for your attention.
ADDRESS BY DR T. SHIMA, DIRECTOR, RESEARCH INSTITUTE OF TUBERCULOSIS, JAPAN ANTI-TUBERCULOSIS ASSOCIATION

Dr Nakajima, Dr Abe, Distinguished Guests, Dear Participants from Western Pacific countries, Ladies and Gentlemen,

On behalf of all the staff of the Research Institute of Tuberculosis, I would like to express my heartiest welcome to you all to this place Kiyose.

Next year, 1982, will be a very important year for us engaging in the fight against tuberculosis, as it is a centenary of the discovery of the tubercle bacillus by Robert Koch. Several functions have already been and are being planned jointly by the World Health Organization and the International Union Against Tuberculosis and by voluntary associations of each country.

During these 100 years, notable progress has been achieved in the technology to cope with tuberculosis. Tuberculin, invented by Koch himself first as a curative agent, was found to be useful to detect tuberculosis infection about 25 years after the discovery of tubercle bacilli. Forty years later, the first effective vaccine against tuberculosis, BCG, was made available, 60 years later, the first effective drug, streptomycin, was discovered, and 90 years later, bactericidal and sterilizing chemotherapy for tuberculosis was developed. Now, we know how to prevent, diagnose and treat tuberculosis, and tuberculosis has been brought under control in technically advanced countries through the application of advanced technology. However, in the majority of developing countries, tuberculosis still remains one of the major health problems.

Even now, 100 years after the discovery of tubercle bacilli, about 6 million new smear positive tuberculosis cases are coming out every year, and the total number of new tuberculosis patients, including cases culture positive only or radiologically active cases, is estimated to exceed 10 million. The number of deaths from tuberculosis is believed to be more than 3 million per year, and the majority of such events are occurring in developing countries.

It is quite a shame that tuberculosis has not yet been brought under control in the majority of developing countries though we have the technology to cope with it, and the situation of leprosy seems to me rather similar. The main cause of such a failure is a weak health infrastructure existing in most developing countries.

The World Health Organization is advocating "Health for all by the year 2000" through primary health care approach. If tuberculosis and leprosy problems remain as they are at present, "Health for all by the year 2000" will only be a dream. We have to make every effort to strengthen the primary health care approach in each country, and to integrate both the tuberculosis and leprosy programmes into it. This may be the only realistic way to bring these two diseases under control within the next two decades.
Health education is playing an essential role in the motivation of people to take initiatives for better health. In the early days of the tuberculosis campaign in Japan, conservative tuberculosis specialists very often did not accept the new concept of a tuberculosis control programme. Top leaders of the tuberculosis campaign at that time in Japan offered an intensive health education programme to tuberculosis patients, as they believed that the awareness and cooperation of tuberculosis patients were indispensable in the treatment for tuberculosis. Aware patients asked various questions of doctors, and thus doctors were forced to learn and accept the new concept of tuberculosis treatment. During the last two decades, women in Japan have been cooperating very actively, first in tuberculosis control, and now in the whole health programme as a result of the intensive health education approach. These examples in Japan clearly indicate the importance of health education in disease control.

I sincerely hope that this training course will be successful. Now is the best time in Japan, though for some of you it may be rather cool, and I hope you will enjoy the beautiful scenery of the Japanese autumn.

Thank you
EVALUATION OF THE COURSE

This evaluation report was prepared based on the responses of the fourteen participants and one observer to a questionnaire covering the different aspects of the course:

1. Attainment of the objectives of the course:

   (a) To orient and refresh the knowledge of the participants on the nature and magnitude of the problem, the remedial measures, and the service programmes for leprosy/tuberculosis control;

   (b) To provide a comprehensive understanding of the human factors (social, cultural, psychological and situational) which influence the response of the individual, the patients, the family and the community to the leprosy and tuberculosis problem and their participation in the control programmes; and

   (c) To prepare them with the knowledge, concepts and skills in planning, implementing and evaluating the health education component of the leprosy/tuberculosis control programmes.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective (a)</td>
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<td>Objective (b)</td>
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<tr>
<td>Objective (c)</td>
<td>15</td>
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</tbody>
</table>

   All participants unanimously confirmed the attainment of the three objectives of the course.

2. Well-balanced course utilizing different educational methods, namely: lectures, discussions, demonstrations, transparency/film and slide projection and field trips.

   Yes 15  No

3. Extent of usefulness of the different methods employed in the course.

<table>
<thead>
<tr>
<th></th>
<th>Essential</th>
<th>Useful</th>
<th>Not useful</th>
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</thead>
<tbody>
<tr>
<td>Lectures</td>
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<td>Discussions</td>
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<td>Demonstrations</td>
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<tr>
<td>projections</td>
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<td>6</td>
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<tr>
<td>Field trips</td>
<td>6</td>
<td>9</td>
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</table>

   Majority of the participants considered the different methods employed as essential and useful to the course.
Annex 3

LEGEND - SUBJECT AREAS

1. Nature and magnitude of the problem in leprosy control
2. Nature and magnitude of the problem in tuberculosis control
3. Principles of control of leprosy and tuberculosis
4. Leprosy and tuberculosis problems in Western Pacific Region
5. Country reports
6. Tuberculosis Control in Japan
7. Leprosy Control in Japan
8. Factors influencing human response
9. Health Education Concepts and Human Behavioural Models
10. Skills in health education, audiovisual support in health education
11. Field Visits to National Institute for Leprosy Research
12. Community Diagnosis and Programme
13. Visit to National Leprosarium in Tama-Zenshoen
14. Training of health workers in health education
15. Research, monitoring and evaluation in health education
### Annex 3

4. 5 and 6 MANNER OF PRESENTATION AND DISCUSSION, TIME ALLOTMENT AND THE QUANTITY OF THE SUPPORT MATERIALS/DOCUMENTS FOR THE DIFFERENT SUBJECTS

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>Subject areas</th>
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<tr>
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<td>Clarity</td>
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<td>5. Suggested duration of each subject</td>
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</table>
Annex 3

7. Sufficiency of personal contact with the resource persons during the course.
   Yes 13  No 2

8. Adequacy of free time for participants to work on their own, e.g. reading of documents provided.
   Yes 14  No 1

9. Language difficulty encountered.
   Yes 4  No 11

10. Rating on the length of the course.
     Too short  3
     Appropriate  11
     Too long  1
     No answer  1

11. Need for conducting the training in the near future
     Yes 15  No __

     Suggested interval for holding the course:
     Every year  6
     Every 2-3 years  9

12. Satisfaction on the stipend provided
     Appropriate  15
     Too low  __

13. Satisfaction on social and cultural facilities made available to participants.
     Yes 15  No __

14. Satisfaction on the reception given to the participants.
     Yes 15  No __

15. Quality of accommodation provided
     Good  10
     Satisfactory  5
     Unsatisfactory  __
16. Suggestions to improve future training courses:

(1) Include proper use of audiovisual aids/techniques in future health education course

(2) Extend length of the course to 3 or 4 weeks and include actual practice of health education methods and techniques

(3) More time should be allotted to health education subjects for a more comprehensive discussion as it is so vital to the control programmes.

(4) Conduct the training course in spring or summer so that it will not be very cold

(5) Language difficulty should be minimized through appropriate selection of participants and resource speakers

(6) Participants should come from all South Pacific countries, not only some.
CURRICULUM AND TIMETABLE
26 October - 9 November 1981

Daily Schedule:

morning - 9:30 - 12:00
afternoon - 1:30 - 4:00

Monday, 26 October 1981

11:00 - Briefing and guided tour
3:30 - Opening ceremony

1. Addresses:

   Dr Hiroshi Nakajima
   Director
   Regional Office for the Western Pacific
   World Health Organization

   Dr Masahide Abe
   Director
   National Institute for Leprosy Research

   Dr Tadao Shimao
   Director
   Research Institute of Tuberculosis
   Japan Anti-Tuberculosis Association

2. Introduction of the Participants, Staff of the Course and Observer

   Mr H.S. Dhillon
   Chief, Human Resource Development
   World Health Organization/WPRO
   Operational Officer of the Course

3. Group photograph

4. Reception

Tuesday, 27 October 1981

9:30-12:00 - Nature and magnitude of the problem in leprosy control - Dr L. Lopez-Bravo

1:30-4:00 - Principles of control of leprosy and tuberculosis
            Dr L. Lopez-Bravo/Dr H.T. Lin
Annex 4

Wednesday, 28 October 1981

9:30-12:00 - Nature and magnitude of the problem in tuberculosis control - Dr T. Shimao

1:30-4:00 - Country Reports - Participants

Thursday, 29 October 1981

9:30-12:00 - Leprosy and tuberculosis problems in the Western Pacific Region - Dr L. Lopez-Bravo/Dr H.T. Lin

1:30-4:00 - Country Reports - Participants

Friday, 30 October 1981

9:30-12:00 - Factors influencing human response - Mrs A. Soldevilla

1:30-4:00 - Tuberculosis control programme in Japan - Dr T. Shimao

Saturday, 31 October 1981

Free

Sunday, 1 November 1981

Free

Monday, 2 November 1981

9:30-12:00 - Health education concepts and human behavioural models - Dr H. Yamamoto

1:30-4:00 - Leprosy control in Okinawa - Dr K. Saikawa

Tuesday, 3 November 1981

National Holiday

Wednesday, 4 November 1981

9:30-12:00 - Skills in health education, audiovisual support in health education - Dr Y. Kanenaga

1:30-4:00 - Visit to the National Institute for Leprosy Research
Thursday, 5 November 1981

9:30-12:00  - Community diagnosis and programme planning in health education - Dr M. Yamamoto

1:30-4:00  - Visit to National Leprosarium - Tama-Zenshoen

Friday, 6 November 1981

9:30-12:00  - Training of health workers in health education - Dr Y. Kanenaga

1:30-4:00  - Visit to the Ministry of Health and Welfare

Saturday, 7 November 1981

Free

Sunday, 8 November 1981

Free

Monday, 9 November 1981

9:30-12:00  - Research, monitoring and evaluation in health education

1:30-4:00  - Final discussion

2:30  Closing ceremony
CLOSING CEREMONY
FOR
WHO REGIONAL TRAINING COURSE ON HEALTH EDUCATION
IN LEPROSY/TUBERCULOSIS CONTROL

1. Addresses:
   
   Dr Keizo Kono
   Deputy Director
   National Sanatorium Division
   Ministry of Health and Welfare

   Dr Masahide Abe
   Director
   National Institute for Leprosy Research

   Dr Kazuro Iwai
   Associate Director
   Research Institute of Tuberculosis
   Japan Anti-Tuberculosis Association

   Mr H.S. Dhillon
   Chief, Human Resource Development
   World Health Organization

2. Presentation of the certificates: Dr M. Abe

3. Address by the representative of the participants - Dr P. Kame

Note: At 4 o'clock, the participants were invited to join the reception which was held at the meeting room on the second floor.

Date: 9 November 1981
Time: 2:30 p.m.
Place: Auditorium, 3rd flr.
       Research Institute of Tuberculosis
LIST OF BACKGROUND PAPERS, HANDOUTS AND OTHER SUGGESTED READINGS

BACKGROUND PAPERS:

1. Health Education in Leprosy Control
   Assignment Report, Prof. T. Murai, WHO Consultant
   Papua New Guinea, 23 April - 10 June 1980

2. Research and Advisory Services in Leprosy Control
   Assignment Report, Dr C.M. Varkevisser, WHO Consultant

HANDOUTS:

1. What is Leprosy and Its Problems?
2. What is Tuberculosis and Its Problems?
3. Facts About Tuberculosis
4. Leprosy and Tuberculosis Problems in the Western Pacific Regions - Dr L. Lopez-Bravo and Dr H.T. Lin
5. Principles of Control of Leprosy and Tuberculosis - Dr L. Lopez-Bravo and Dr H.T. Lin
6. Leprosy Control in Japan - Dr K. Saikawa
7. Tuberculosis Control Programme in Japan - Dr T. Shimao
8. Factors Affecting Human Response - Mrs A.J. Soldevilla
9. Health Education Concepts and Human Behavioural Model - Dr M. Yamamoto
10. Need and Objectives of Health Education
11. Visual Development in Health Education
12. Staff Development in Health Education
14. Educational Campaign and Tools in Health Education
15. Evaluation in Health Education
SUGGESTED READINGS:


5. Health Education in Leprosy: the problem of overcoming fear and misconception - Margaret A. Phillips


11. A Leprosy Health Education Project - Christine M.E. Matthews and Mangalam Jesudasan, I.J. of Leprosy, Vol. 40, No. 4, Printed in U.S.A.


15. XVI International Tuberculosis Conference Report, International Union Against Tuberculosis and the Canadian Tuberculosis Association, Toronto, Canada, September 10-14, 1961
LEPROSY AND TUBERCULOSIS SONG

GOOD NEWS!

If you are coughing for a long time,
If you are coughing and losing weight,
with chest pain and fever or coughing up blood.

These are some symptoms of T-B.

T-B and leprosy can be cured
If found early and treated properly
Good news, good news, good news
T-B and leprosy can be cured
Verse 2

If you do have some patches on your skin,
On which there may be numbness and no pain,
There may be unhealed ulcer or nodules on your skin,
These some signs of leprosy.

Verse 3

Those patients who take treatment properly,
Will not spread their sickness to others,
So let them come and live together with us all,
Brothers and sisters all are we.