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SERVICES FOR PHYSICALLY HANDICAPPED CHILDREN IN THE COUNTRIES OF SOUTH-EAST ASIA

The material in this Report has been extracted from the draft Report of the Conference of Experts on Physically Handicapped Children held at Jamshedpur, India, from 19 to 21 December 1950.

A. DISCOVERY AND DIAGNOSIS

Absence of Data or Special Enumeration of the Handicapped.

The first striking phenomenon in the under-developed areas of the world and the Far Eastern region under discussion is that the discovery and diagnosis part is the weakest. There is consequently no reliable data available of the numbers of variously handicapped child and adult population in the countries of the region. There are no special or general censuses or enumerations made of the handicapped population and in the general decennial censuses the classification of the variously handicapped is not included. In some countries the blind and deaf are enumerated at the time of the census, but there is no mention of the partially sighted or partially deaf, and the figures collected are not at all reliable because of no standards or definitions being made available to the average enumerator, whose educational level or general qualifications are not very high either. The difficulty of securing accurate data is further aggravated by the beliefs, customs and traditions of the peoples, who entertain superstitious fears and inhibitions even about perfectly natural and physical or mental defects, deformities or disabilities. Many try to conceal them because of the social stigma attached to certain deformities or the fatalistic belief about hereditary, congenital or disease-caused defects and deformities being due to the act of God, visitation or misfortune by way of divine punishment, or the malevolent work of an evil spirit. Attention was drawn by the authors of the respective papers to the fact that among the records of the Manila Health Department, there was no mention of orthopaedics, and the census Report of India for 1931 (which is the last report in which relevant data on the handicapped is available) did not classify the 'crippled' persons in an independent category. It was after considerable agitation by the Society for the Rehabilitation of Crippled Children that the Bombay Municipality made poliomyelitis a compulsorily notifiable disease.

Absence of Registration and Poor Means of Diagnosis

Thus when the fundamental data about the extent and magnitude of the problem is lacking, it can be understood what scant facilities would exist for registration of cases as they arise at birth, as a result of accidents, or as an aftermath of disease, starvation or malnutrition. References were also made by one or two speakers to either the conscious neglect of timely treatment of deformities, or deliberate mutilation with a view to using the victims as eshibits for exciting pity and begging alms from the susceptible public. With lack of facilities for registration went extreme scantiness of facilities for diagnosis of incipient cases of diseases which cause or result in deformities. A large number of cases did not know where to go for diagnosis, a large number did not have the means to consult qualified practitioners, and of the few that did exert themselves to seek treatment for their unfortunate children or dependants, the majority went to quacks, herbalists, native doctors, and such others and some were treated without success by qualified allopathic practitioners, who were innocent of the knowledge of orthopaedic, therapeutic, prosthetic or other accurate treatment and rehabilitation of handicapped patients, and spoiled their chances of recovery or rehabilitation in the absence of proper and timely treatment.

Need for Census, Survey and Statistical Data

Various speakers therefore addressed themselves to the essential need of discovery, registration and immediate or early diagnosis for correct referral of cases to appropriate qualified practitioners or medical institutions. The suggestions made by them are briefly summarized below:-

(a) There was need for maintaining a National Register of all the handicapped. Facilities for registration of all serious cases of physical handicaps should be provided and multiplied according to local needs. In urban areas, where literacy percentage is high, some form of compulsion for more severe forms of handicaps may be possible to be introduced.

(b) A special census of the handicapped may be carried out on a uniform basis throughout the country. Failing this the decennial or quinquennial census should be utilized in order to obtain accurate information of the incidence of various types of physical and mental handicaps, and the enumerators must be given a brief course of training and provided with easily intelligible classification, definitions and standards in order more intelligently to collect pertinent data and information. Wherever necessary qualified medical assistance and consultation should be available to supervise such enumeration so that the collected information may be fairly reliable.

(c) Where a country is not in a financial position to take up such a country-wide general or special census of the handicapped, sample surveys in a sufficiently large number of urban centres and groups of villages may be undertaken with the help of college and University students and other local and outside voluntary workers in order to estimate the numbers of various types of crippled and handicapped in various age-groups in the country.

(d) It was suggested that a central nation-wide organization like the Red Cross may be requested to assume the responsibility of such a census or sample survey. Another suggestion was to utilize the services of Village Punchayets (equivalent of Parish Councils) and village Headmen to collect data through censuses or surveys for rural areas, and the services of Local Boards and Municipalities to collect information for towns and cities.

(e) In order that early and correct diagnosis may be ensured and timely referral of cases to appropriate treatment centres rendered possible, it was further suggested that a course in orthopaedics and rehabilitation of the physically handicapped might be introduced in the curriculum for medical students, and the School Medical Inspection Staff specially instructed to examine school children not only from the viewpoint of detecting physical defects, but also to detect and correct wrong physical postures that lead over a period to permanent structural defects or deformities.

(f) There is generally so little knowledge of orthopaedics and the proper treatment of physical handicaps among the average general medical practitioners,

and so less still of the modern developments of orthopaedic surgery that it has been observed many general practitioners go on treating orthopaedic cases for long periods when these really required specialized treatment. Some basic limited course in the special treatment of the physically handicapped for all medical men is clearly indicated.

B. TREATMENT

Social and Psychological Factors

Besides the physical, psychological and social factors play a part in the life and growth of a handicapped child. In fact after the medical and surgical part of the treatment, which is relatively shorter, has been completed, social and psychological factors, which are more or less life-long, play a very vital role in the life of the child and the formation of its habits, sentiments, attitudes and character. 'Medical and surgical treatment,' therefore, says Dr. Balme, 'which stops short of routine measures of nursing, appropriate drugs or surgical operation and after-care, and does not include special measures to counteract the physical and psychological effect of the illness or injury is not sufficient.' Modern hospital authorities recognize this and 'are adding well-equipped and adequately staffed rehabilitation departments to their other units, whilst convalescent homes are more and more being transformed into active rehabilitation centres.'

Conditions in South East Asian Countries

(i) Poor Clinical Facilities - The participating Specialists from the region, who dealt with the various aspects of the treatment and care of physically handicapped children emphasized the profound lack of hospital and clinical facilities both for purposes of diagnosis and treatment of physical handicaps caused by disease, injury, malnutrition or other factors. Thus 'in Ceylon so far the only Government institution that exists for treating crippled children is the Orthopaedic Department of the General Hospital, Colombo, with

which is associated the Khan Memorial Ward of 24 beds for children. The population of Ceylon is over seven million and the ratio of handicapped persons is estimated at 6 per 1000.

In India there are said to be only two special institutions for the treatment of orthopaedically handicapped children, one in Bombay, one in Hyderabad, and the third in Madras, the last offering treatment according to the indigenous system of herbal and other medicines. Only 13 out of 26 General Hospitals in the country are said to have special wards for children with only 30 to 50 beds exclusively for children in the Orthopaedic Wards of hospitals in Metropolitan centres. There is no Rehabilitation Centre attached to civilian hospitals for the treatment of the physically handicapped. Even in a city like Delhi, there is no dealer who can supply required prosthetic appliances from a ready stock. The population of India is nearly 354 million.

In Indonesia there is only one Rehabilitation Centre attached to the General Hospital at Solo (Central Java), established in 1946 largely for the war-invalids and now taking care of about 300 disabled persons out of an estimated population of 10,000 war-disabled alone. There is no special institution for crippled children. The population of Indonesia is over 76 million.

In the Philippines the National Orthopaedic Hospital, a government hospital founded in 1945, has 60 beds for crippled children, the children's ward being always full and every vacancy sought after by a large number of applicants, there being an estimated 10,000 crippled children among students in public schools alone, suffering from harelip, clubfeet and other crippling conditions. The population of the Philippines is over 19 million.

The figures of crippled children in Thailand or the hospital facilities available for them are not known but there do not appear to be any special institutions for the admission and treatment of physically handicapped children in the country except one government subsidized school for blind children in Bangkok, catering to the needs of about 60 children. The population of Thailand is about 18 million.

(ii) Paucity of Prosthetics and lack of trained personnel - Whereas the hospital and clinical facilities are very limited in every country, they also suffer from a crying lack of workshops for the manufacture of prosthetic and surgical appliances as well as of sufficient trained personnel and technicians, such as orthopaedists, physiotherapists, occupational therapists, psychiatrists, social workers and skilled technicians and craftsmen for the manufacture of prosthetics. This may perhaps be due to the fact that the history of efforts for the education and welfare of the handicapped is comparatively recent, dating back some 150 years in Europe, some 100 years in America and about 50 years in India. Whereas the first efforts at amelioration of conditions were for the blind and then for the deaf, those for the other physically handicapped have been still more recent, particularly in the oriental countries.

Increase of Facilities for Treatment and Rehabilitation

In view of the above situation, the delegates made the following suggestions:

(a) That the hospital and clinical facilities for the adequate treatment of the physically handicapped children should be gradually increased as the resources of each country permit, in view of the very large number of handicapped children in each country, who are at present unable to get admission to the existing wards and institutions, and whose handicaps are aggravated, thus throwing a larger ultimate burden on the family in particular and the community in general.

(b) As many forms of physical disability arise from injury or neglect at birth, and in oriental countries, more particularly from lack of skilled attention and treatment at the time of delivery and during infancy, there should be an extension of maternal and child welfare services, increased training and supply of trained midwives, and a larger provision of pre-and post-natal clinics in each country, both in urban as well as rural areas.

(c) Tuberculous disease, particularly of bones and joints, is rampant in

most of the oriental countries, acting as a major cause of deformities. Prevention of this disease is closely interrelated with the prevention of pulmonary tuberculosis. As the treatment in such cases is prolonged, which general hospitals are not in a position to continue, it is desirable to increase the number of tuberculosis sanatoria and to provide beds therein for bone and joint tubercular children with facilities for orthopaedic surgeons to visit and guide the treatment in such conditions.

(d) Infective conditions of the cerebro-spinal system and spastic paralysis are big problems in the countries of the region and these could only be solved by intensified public health measures, improved sanitation and more nutritive and balanced dietary of the people.

(e) While these measures are being taken, the handicapped that suffer have to be treated and rehabilitated, for rehabilitation is an integral part of the treatment of an orthopaedically handicapped person, and the cost of maintenance of a handicapped child is much greater than the actual non-recurring cost of rehabilitating him. This rehabilitation according to modern methods cannot be carried out by the general hospitals in the countries of the region. They are overcrowded and the staff is worked to the limit of its capacity. Further they are mainly occupied with the treatment of the disease rather than treating the person, whereas a handicapped person, who has developed certain mental complexes not found in normal persons, needs to be accorded special treatment with affection and tact, which general hospitals and their busy staff cannot afford to give on account of the rush of patients with acute illnesses.

In view of these specific difficulties, there is need to plan a special type of small institution for the treatment and rehabilitation of the handicapped child so as to salvage the majority to the extent of enabling them not only to take care of themselves but to take up gainful employment and become useful citizens. It is proposed that an adequate number of such smaller units or

institutions should be scattered all over the country within easy reach of all classes of population, particularly the poorer and middle classes. They should function as independent units in close liaison with big hospitals but not as a part of them, and should be run on the lines of convalescent homes. Each unit should be equipped with a few beds, a good out-patients' department, to which should be added a well equipped physical medicine and a rehabilitation department, a small X-ray plant and a small operation theatre for day to day work. Such a unit with the outfit provided would be able to handle about 80% of the handicapped children, who cannot be taken care of in a home and who need not be sent to a hospital dealing with acutely ill cases. Such units will also prove more effective and economical, for the majority of physically handicapped children are not ill patients and do not need the elaborate equipment of hospitals with a certain number of trained employees for a fixed number of patients; nor should these children be mixed up with acutely ill patients in a general hospital, where there is great restriction on their physical activity, not conducive to their normal growth and development. The hours of work of these institutions should be fixed in such a way that it would be convenient for the parents to bring their children for treatment without interfering much with their daily routine. Wherever possible, arrangements may be made to provide transport for carrying children to and from the institutions.

(f) Following the British model, the Society for the Rehabilitation of Crippled Children, Bombay, formulated in 1948 a blue-print of a Central Orthopaedic Institution in Bombay comprising:

i A children's orthopaedic Hospital

ii A teaching institution for training personnel

iii An orthopaedic workshop

iv A School for educational and vocational training, and

v A Research Institution for combating and preventing the spread of poliomyelitis.

(b) The Indonesian Government has been presented with a scheme, worked out by Dr. Soeharso in charge of the Rehabilitation Centre at Solo, which takes into account the medical, educational, social, juridical and financial aspects of the problem of the handicapped, and advocates a central body appointed and controlled by Government, which should determine the standards and the rules and procedure of conducting the programme of rehabilitation, the State introducing the necessary legislation.

(h) Since the problem of physical handicaps has both preventive and curative aspects, great stress was laid on the provision of facilities by the State and voluntary organizations for the early discovery and prompt and efficient treatment of individuals who would otherwise be cripples. 'Disabilities like claw-foot, club-foot, congenital dislocation of hip, tuberculosis, need early treatment as the chances of restoring straight limbs were good in most cases. Orthopaedic advice should be available to children as a matter of right, since the future welfare of the State depends on the fitness of individuals.'

(i) Wherever governments are not in a position to expand or increase facilities for the treatment and rehabilitation of handicapped children in spite of 'the glaring need for more orthopaedic surgeons, more specialized equipment and supplies and more beds,' it is urged that voluntary organizations be established by public spirited citizens to tackle the problem of the crippled child by raising funds and co-operating with governmental, municipal, Red Cross and other agencies.

(j) As the timely provision of a suitable prosthetic appliance may make such a great difference in the early straightening out of a defect, which may otherwise assume permanent proportions with disastrous results in the life of the child, the provision and fitting of suitable prosthetic and surgical appliances is particularly important. In any programme for providing national services for physically handicapped children, one of the first items on the list is to have adequately equipped and fitted Workshops attached to the orthopaedic clinics or wards of hospitals, manned by trained technicians and craftsmen, in order to manufacture and repair prostheses and surgical appliances. Such appliances should be fitted at orthopaedic clinics under the expert care and supervision of trained surgeons, as ill-fitting appliances may aggravate the defect instead of alleviating or curing it. It is also advisable to provide funds for the supply of such appliances free or at nominal cost to those patients who cannot afford to pay the price owing to their pecuniary condition. For, together with regular exercises and appropriate games, the provision of mechanical supports

such as spinal jackets, calipers, orthopaedic boots, crutches, properly fitted artificial limbs, some form of simple and inexpensive wheeled chair when necessary, can do a great deal in making the child more independent and self-confident.

Occupational Therapy to be adapted to particular needs of the patients.

It was emphasized that in the East, wherever possible, Occupational Therapy must be related to the past customs and traditions of the people in order to effect the maximum good. Local techniques should be applied and adapted according to needs in preference to foreign ones. Occupational Therapists are needed in hospitals, convalescent homes, for home visiting and treatment and in the ordinary and special schools where handicapped children are being educated. The work of the Physiotherapist and Occupational Therapist should be closely correlated and the latter should prepare the child for formal education, and also give him such training in crafts as to prepare him for pre-vocational and vocational training. With the need of trained occupational therapists, there is also need for his rather expensive working materials such as wool, raffia, leather, plastic materials and wood. Voluntary organizations and similar agencies can help in providing these or their substitutes to needy patients and institutions.

The work of the Occupational Therapist has to be adapted to the condition of the child and will naturally differ according to the nature of the handicap, e.g. the child with heart disease, poliomyelitis, surgical tuberculosis, cerebral palsy, etc. The first approach, in any case, however, is the same and that is to 'know' the child in certain essentials, viz.

(i) His physical handicap and degree of incapacity;

(ii) Possible improvement through treatment, operative or non-operative;

(iii) Mental and emotional state;

(iv) Family situation and its bearing on him.

C. EDUCATION

Schools for the Handicapped

In view of the long stay necessary for some types of cases such as those of surgical tuberculosis or paralysis in hospitals, sanatoria or convalescent homes, or other types of institutions as the case may be, it would be of great benefit to the children if classes were held regularly in all such institutions. For children who are staying with their parents in cities, special day schools may be preferable, particularly if the handicaps are such as to preclude their participation in the life and activities of the ordinary schools. The special schools for handicapped children should however provide sufficient facilities for their frequent mixing with normal school children at parties, picnics, outings, entertainments, debates, games, etc. In oriental countries with vast populations living in rural areas or smaller towns, it may be economical to have a few special residential schools for handicapped children at convenient centres, where they can be given education and vocational training as well as treatment where necessary. Where, however, the handicaps are such that there is no great obstacle to the children in following the ordinary curricula of the normal schools, it is equally desirable that they should be educated with normal children, for, after all, the fundamental fact has to be remembered that most of the handicapped children will have to live a major part of their life and constantly rub shoulders with normal human beings. They should however be assisted to adapt themselves to their disabilities, not in a spirit of resignation but of determination to overcome their sense of handicap and fit themselves for a useful and satisfying position in life.

D. VOCATIONAL GUIDANCE, TRAINING AND PLACEMENT

Compulsory legislation may not be opportune

It will be argued that the conditions of manpower and employment are very different in oriental countries. It may be conceded the time for legislation

and compulsion is not yet and it will be a long time before labour scarcity can be felt in most of the oriental countries. However, it should be remembered that 'there is no greater tragedy which can happen to a physically handicapped child than to complete a good course of education and be trained for useful employment, only to find every opening barred by prejudice or ignorance on the part of employers, fellow workmen or public opinion in general.' That is why much attention needs to be paid in oriental countries to wise methods of publicity, repeating again and again carefully collected statistical data of such employment in western and regional countries. It is also necessary to educate public opinion on this subject and make personal approach to sympathetic employers appealing to them to employ suitably trained handicapped youth in certain selected jobs in various industries and give them a chance to make good. Once the ground is broken and handicapped persons have rendered a good account of themselves, which they would, public sympathy will be aroused and a way will be made for employing disabled persons in suitable avocations and in larger industries. Till this happens other appropriate avenues will have to be explored in the eastern countries. Cottage industries are widespread in the region and attempts are being made to resuscitate them on scientific lines with the help of various types of experts in financing, techniques, designing, marketing and co-operation. Many cottage industries could afford very suitable employment to the handicapped.

Sheltered Employment for the Handicapped where necessary

Ordinarily the handicapped should be allowed to work with normal persons but in certain cases of severe handicaps, it would be more appropriate and economical to let them work in 'sheltered' workshops, institutions or farms, where the tempo, conditions and type of work are adjusted to suit their disabilities. Such 'sheltered employment' may serve as a transition to ordinary employment. There is also the possibility of handicapped trainees doing contract work at home or setting up individually to carry on the craft learnt by them. Where it is feasible for them to be self-supporting in this way, a set of tools or a small initial loan may give them a good start. Assistance may also be profitably given them in the form of regular supply of materials and in marketing their products.

Vocational Training

In modern rehabilitation, the goal of vocational training is to qualify the handicapped child for work on a basis of complete equality with the non-handicapped, wherever possible. This means not only careful choice of a suitable occupation for which to train him, but also maximum development of residual working capacities. One important aspect in this connection is that like education, the vocational training of the handicapped child must begin at an early age, earlier than of the normal children. Where ordinary vocational facilities are adequate for the purpose, it is now considered desirable to train handicapped children alongside able-bodied boys and girls to spare the former the evil effects of segregation and to increase their sense of independence and self-reliance. It may be repeated that conditions in the particular region concerned must govern the development of vocational training to a great extent, and since small factories and handicraft workshops at present offer more employment possibilities in Asia than do larger industrial undertakings, it is probable that for some time to come much of the vocational training of handicapped children will have to be orientated towards such employment. To take an instance, in Ceylon, some of the handicrafts and vocations recommended for the handicapped are the following:

> watch repairing, pencil making, leather work; manufacture of toys and pottery, polishing and cutting of precious stones (Ceylon being rich in such minerals), turning out of component parts for surgical appliances and artificial limbs, etc., for male children; and mat-making, basket-weaving, book-binding, dress-making, commercial printing, lampshade-making, etc., for female children.

Intensive Training of the Handicapped more essential in oriental countries

In some of the advanced western countries, residential training colleges under skilled instructors, form an important part of the programme of rehabilitation, particularly for the too severely crippled or handicapped such

as those suffering from the more serious forms of paralysis or loss of one or both arms, and who are consequently unable to attend an ordinary training institution. In view of the immense problems of unemployment and under-employment in Asian countries, the question of giving suitable training to the handicapped assumes special significance in so far as without adequate and appropriate training, the handicapped will find it all the more difficult to secure remunerative jobs or adequate means of livelihood and will be a greater burden on the community at large.

Techniques of Placement of recent development

Special techniques for placement of the handicapped have as yet been developed in only a few countries and that too comparatively recently. The correct procedure has to be evolved from small beginnings and adapted to local conditions. Further the extension of the technique to the placement of the handicapped must naturally wait on the development of a basic employment service, which is in its infancy in most Asian countries. All the same in any Demonstration Rehabilitation Centre or Pilot Project in the region, it would be both feasible and desirable to introduce the necessary specialized methods and techniques from the start.

Thoroughness advisable in placement of first few cases

Vocational rehabilitation of the handicapped would be a comparatively easy task where other public services, e.g., health, education, vocational guidance employment service, factory inspection, etc., are fully developed. But such rehabilitation must of necessity be thorough, for, to bring a child halfway and then to abandon it would be wantonly cruel. In so far as the public's acceptance of handicapped workers depends largely on the success or failure of the early cases, it is preferable where facilities even for normal youth are limited, as in many Asian countries, to concentrate at first on a relatively small number of cases, i.e., to set up one small but complete unit, and by enlisting all available aid and organizing the whole process with care, smooth the way for further development and expansion of a well-organized and well-

balanced system of rehabilitation. This can then be integrated with other services as they are developed. Help is available, upon request from international agencies. The ILO, for instance, has been studying many aspects of vocational rehabilitation for some years and has got several conventions regarding the handicapped passed by the Organization and ratified by member countries.

E. SOCIAL ADJUSTMENT, INTEGRATION AND WELFARE

Education of the Parents and Public

To the crippled, greater than his physical handicap is the consciousness that he has been prevented from exercising his faculties and developing his potentialities, and reduced to inertia by an insufficient education and a lack of understanding of the social environment. Social justice demands that this should not happen to our handicapped children. In order that the parents of children and society at large realize this responsibility, both of them need to be educated into it. Particularly so because more than by the perceptive or intellectual functions, the child's social relationships, patterns of behaviour and entire character are determined on the level of emotions, by his affective functions. The child is naturally more sensitive to these affective relationships of the home, neighbourhood and community, attracted by love, repressed by opposition, forming his future social attitudes by the types of affective relationships established in early years. As the tradition in oriental countries towards the various severe handicaps has been one of indifference, pity, fatalism, superstition or stigma, the correct attitudes to the problems of the handicapped children are a matter of systematic and persistent education of the parents and the general public. The social worker with a psychological background will be best fitted to undertake this important task of establishing personal contacts with the family, guardians, heads and staff of institutions as the case may be, and help them appreciate the modern standpoint of scientific rehabilitation of the physically handicapped child by utilizing all the resources

of the community such as medical, therapeutic, educational, psychiatric, social and vocational. She will help the family in difficult circumstances to seek immediate medical aid and allay the child's anxieties and fears and act as a liaison between the child and the various specialists working in their particular fields, her object being to secure everyone's co-operation in the attempt to reduce or limit permanent disability and helplessness as much as possible.

Adaptation of Methods and Techniques to local conditions

One thing for social workers to remember in this, as in all other social work, is that while certain basic principles of the practice of social work and welfare are universal and applicable to all humanity, many of their social problems are regional and stem from local conditions and climate, customs, mores and beliefs, traditions, ritual and codes of behaviour, local, social structure and organization. They must not therefore blindly adopt imported methods of approach or unthinkingly apply wholesale foreign or foreign learnt techniques. While the physical handicaps themselves in varying proportions are the same in South East Asia as in Europe or America and the basic methods of treating them can be adopted everywhere, the social and psychological impact and incidence of the handicaps on the sufferers would be different according to the differing social conditions. The solution of the various aspects of social and psychological rehabilitation should therefore be entrusted to local experts, although their scientific training can be undertaken regionally and would give them proficiency in the universally adopted principles and methods of diagnosis and treatment.

F. CO-ORDINATION OF SERVICES IN REHABILITATING THE HANDICAPPED

Co-operation of all parties concerned essential

Throughout the foregoing pages of the Report, it will be noticed, the Experts from the United Nations and Specialized Agencies, Representatives of the

participating governments and Observers, in fact every speaker laid great stress on the necessity of close co-operation between the different categories of technical personnel dealing with the various aspects of the total rehabilitation of the physically handicapped child. The need for the co-ordination of various services either through a voluntary national organization or through government in the realm of organization and in the fields of practical work was also stressed. Further, co-operation was considered essential not only between the specialists and agencies dealing with the problems of the physically handicapped child, but it was considered essential between the parents of such children, the general public, the specialized services, social workers, government departments and the employers and workers inter se, if the entire programme of activities involved in the rehabilitation of a disabled child was to be effectively fulfilled. Thus the co-operation of the parents or guardians of the handicapped child is essential in timely reporting the case, taking the child to the doctor or hospital, following the instructions of the orthopaedist, pediatrician or therapeutist and carrying out the advice of the psychiatrist and social worker.

Team Work among Technical Personnel

Close team work is equally indicated between the surgeon, physiotherapist, occupational therapist, educationist or teacher and social worker as well as between these and the vocational guidance and training expert and the placement or employment agencies. These last should keep in close contact with the employer and the handicapped young person so that they can solve the difficulties inevitable upon the adjustment of the worker to the job either themselves or through the intervention of the social worker or psychiatrist and if need be of the medical personnel. While each of these rehabilitative agencies plays its appropriate individual role in the social integration of the handicapped child, the national organization or government department concerned should set the overall standards and see that they are maintained as nearly as laid down.

Co-ordination of Voluntary and governmental effort

Not only should there be this much needed co-ordination of specialist services, but the various social and administrative services concerned preventive, curative, cultural or development, such as medical, sanitary, health, educational and welfare should also work together so as to effect a gradual but steady reduction and prevention of handicaps, their limitation once they have occurred, and the ultimate adjustment of the handicapped individuals to their socio-economic milieu, so that instead of being a burden upon the relatives, community or state, they may become useful, integral, independent and self-supporting members of society. In this consummation, voluntary social welfare organizations can also play their significant role. In fact the achievement in the field of rehabilitation will be more thorough, if voluntary associations do not compete with one another and duplicate services but combine their welfare efforts inter se and with those of local and governmental authorities, as the latter, impersonal in their working, cannot be expected to bring to bear on the problems of the reclamation of the handicapped that personal human touch and loving sympathy that voluntary workers can offer.

Need of educating public opinion in general

This co-ordination of services and welfare effort cannot come about without considerable education of the technical personnel, the parents and the general public. To illustrate, in order that both the medical and teaching personnel may help each other, they should all be given a course in the problems of the handicapped child and demonstrated the occasions for co-ordination. In order that handicapped children may receive encouragement, comfort and confidence and be in rapport with the rest of the normal world, youth movements like scouts and guides may be attracted to give the handicapped children a chance to participate in the activities of other children and share experiences with the normal on an international level. Normal institutions should not only provide opportunities to these children to mix with their members or inmates, but wherever possible, they must allow the handicapped children to be educated or trained with the normal

so as to prepare them for their future life within the orbits of the normal community. This can only be effected on a basis of close co-operation on the part of all the sections of society, which co-operation can be cordial and effective if there is a proper and sympathetic understanding of the problems and difficulties of rehabilitation of the disabled child, a victim of circumstance and therefore needing the fullest sympathy of the more fortunate and numerically preponderant sections of society.

G. TRAINING OF PERSONNEL

Great lack of trained technical personnel in the region

In the rehabilitation of the physically handicapped child a variety of personnel is required to handle the various aspects of the whole problem, viz. physicians, surgeons, specialists in Physical Medicine, pediatricians, orthopaedists, physiotherapists, occupational therapists, remedial gymnasts, prosthetics technicians, educationists, teachers, psychiatrists, social workers, vocational guidance and training experts and placement personnel. Further all of these need to be informed about the special aspects of the problem of the handicapped child, with his fears, inhibitions, diffidence and disappointments, and trained in the essentials of co-operation. The advanced western countries of Europe and America have developed facilities for the training of these varied types of technical personnel, more particularly in the last one generation because of the vast needs for such men created by the casualties of the two world wars. Unfortunately in most oriental countries this lack of trained technical personnel is glaringly patent. Even the medical and surgical students or the para-medical personnel have no facilities for instruction in the methods, techniques and

problems of rehabilitation of the crippled. Some countries have no department or ward for physically handicapped children, most have no Rehabilitation centres, hardly any has a special school for the training of crippled or orthopaedically handicapped children.

THE PHILIPPINES - The Philippines have at least three orthopaedists in the National Orthopaedic Hospital recently trained in the U.S.A., who can undertake teaching work. Two more are being trained in the U.S.A. The occupational therapist and the Brace Maker have been trained in the United States in their respective fields through scholarships given by the UNICEF. There are 60 beds for children in the National Orthopaedic Hospital at Manila with a bed capacity of 300.

CEYLON - The position in Ceylon with one Ward of 24 beds for handicapped children in the Orthopaedic Department of the General Hospital, Colombo, catering to the needs of the whole country, with an estimated crippled population of 6 in 10,000 is not different. Their few orthopaedists are trained in the United Kingdom and the Manager of the Prosthetic Workshop was trained in India and subsequently in England and his Assistant at Poona in India.

INDIA - India so far had no special school for the education and training of the crippled children. One is on its way to being organized by voluntary effort in Bombay. It has been gathered from a special inquiry by the Delhi School of Social Work that 13 out of 26 General Hospitals in the country have special Children's Wards and 'there are in all 22 surgeons who are either qualified or are known to have experience in orthopaedic work.' Calculating on the same proportions, we would find that there are not in India probably more than 50 orthopaedic surgeons.

INDONESIA - There was no experienced Indonesian orthopaedist or specialist in Physical Medicine to treat the large number of (nearly 10,000) war-disabled persons after the freedom struggle. One surgeon, who organized a Ward of 300 disabled patients in a General Hospital in Solo, near Jogjakarta, without previous experience, has been recently awarded a bursary by the British Council to study the general problem of rehabilitation of the handicapped. The United Nations have offered three more Scholarships to Indonesians to study special problems of the handicapped abroad.

THAILAND - The position in Thailand is not dissimilar. There is no special institution of Clinic for the treatment of physically handicapped children and there are few trained orthopaedists in the country. The magnitude of the problem is not known either for lack of reliable data and incomplete census enumeration.

Therapists and Psychiatrists

Perhaps the position about Physio-therapists, Occupational Therapists and Psychiatrists is worse in almost all the countries of the Far Eastern Region, except perhaps Japan, where it may be a bit better. There are no training institutions for the training of such personnel, or for that matter of teachers and gymnasts with special bias for the teaching of methods and techniques suited to the specific conditions and requirements of handicapped children.

School for Physio-therapy and
Occupational therapy in Bombay

The need for physio-therapists and occupational therapists is so urgent in hospitals, convalescent homes, in ordinary and special schools for the handicapped children and for treatment at home in needy cases, that a start has been made in Bombay by establishing a School for offering a course of combined training in physio-therapy and occupational therapy, attached to one of the General Hospitals, viz. the King Edward Memorial Hospital at Parel. The course as now planned covers the fundamentals as followed in America, England and Australia. 'We give more time to recreation', says Mrs. Nimbkar, 'because so few in this country know how to play or enjoy the simple things about them. We have kept a course in teaching methods which could be developed into full training for teaching school subjects. The background of anatomy, kinesiology and neurology is the same as required for physio-therapy. It could be so arranged that basic physiotherapy training could be given in one more term. ..... When it is financially possible, it is probably better to keep the two as separate professions co-operating on treatment as need arises, but considering the urgency of our needs, some such consolidation of training could be made.'

Schools of Social Work

Three countries in the region, viz. India, Indonesia and Japan, have established a few Schools of Social Work (six between them), and these turn out about 150 to 175 trained social workers annually, a number tragically inadequate even to fill the normal demands of the countries. With a paucity of special institutions for the handicapped children, only a few of these receive special training to deal with the problems of the handicapped. The larger number of voluntary social workers in each country have to go without any institutional training except what they pick up by experience or through short-term classes organized by University Departments or associations like the Social Service League or similar bodies interested in social work.

Vocational Guidance and Training Specialists

In the field of vocational guidance and training, there is a similar lack of personnel and absence of training facilities. A few government Labour Exchanges or Placement Bureaux are functioning in most of the countries of the region largely established or taken over after the last war. The I.L.O. representative suggested that technical personnel and assistance could be made available by the Organization through its Asian Field Office at Bangalore and the special section at Geneva Headquarters dealing with the question of vocational guidance, training and placement.

Establishment of Regional Centres or Projects for training of Personnel

It was suggested that the solution of the problem of the handicapped child in eastern countries with their slender resources may not lie in the establishment of new Hospitals or addition of the needed number of beds in the existing General Hospitals but that it may lie in the multiplication of special smaller units or clinics throughout the cities and towns or districts, and attaching Rehabilitation Centres to larger hospitals. More trained personnel of all types as mentioned above and the training of ordinary doctors, nurses, teachers, vocational guidance and training experts and social workers in the special problems of the physically handicapped children will be necessary in order to man these units or institutions before they can be founded or multiplied. Technicians for the manufacture and fitting of prosthetic and surgical appliances will also be required in large numbers.

It was felt, however, that while scholarships and fellowships from the United Nations, Specialized Agencies and the UNICEF would naturally be very welcome and of assistance, the problem was so large that the establishment of regional institutions or Pilot or Demonstration Projects was considered absolutely essential for the training of a sufficient number of various types of personnel required for tackling the total problem of the handicapped child. It was stated that the sending of a large number of students or personnel for special training abroad was not feasible for the countries in the region with their poorer financial

resources and what is more the enormously heightened cost of living and training in European or American countries, which was estimated to be four to five times as high as was incurred in the students' own country. Several speakers stressed the need of technical assistance and other aid from the International Organizations in establishing such regional centres or institutions for training as the countries themselves were not in a position to do so unaided, nor did they have all the requisite teaching or technical personnel for the purpose, which could be supplied by international organizations from the more fortunately placed countries. It was also suggested that it would be very helpful if three Demonstration Rehabilitation Centres were established in the region by international organizations for the three categories of handicapped, viz. one for the blind, one for the deaf and one for the other crippled or physically handicapped.

H. ECONOMIC ASPECTS OF THE PROBLEM

Rehabilitation less costly than permanent maintenance of the neglected handicapped

The delegates realized the magnitude of the problem of the vast numbers of handicapped children in their respective countries and the region in general. They knew and stressed the fact that some of the physical disabilities arose directly from the poverty and malnutrition of the parents as well as the children, and some from their ignorance, to which poverty and hunger were contributory factors. At the same time the urgency of the problem and its economic implications as a vast burden of the untrained and idle handicapped on the family, community and nation were also understood and appreciated. The delegates were convinced the problem needs to be tackled systematically; they realized that although the initial costs of rehabilitation for a specific period were heavy, the ultimate costs of maintaining the unrehabilitated or neglected child were heavier still; further whereas the rehabilitation costs were non-recurring for the individual, the maintenance costs would have to be incurred for the life-time of the neglected handicapped. The cost to society of the neglected handicapped child inevitably developing anti-social attitudes and conduct would be more damaging to its treasury as well as conscience.

Poorer Resources of under-developed countries and need for Voluntary Welfare effort

The delegates, however, also realized that as in all other things, regarding social services also, the development will have to be slow and gradual, undertaken step by step according as the resources of the country developed. Several countries in the region were going through an economy drive and the aftermath of war had left most of them impoverished in goods, resources and institutions. In Ceylon and the Philippines a good deal of the work for the handicapped was done by voluntary welfare organizations, people's associations, and religious or charitable endowments. The Filipino government could spend only 1/300 peso on social services to every peso spent on other items of national expenditure. Most of the prostheses to amputees are donated by a philanthropist in Manila, who spends $15000 annually for the purpose. Very little money is spent on technical assistance by the government. The Voluntary Service Department of the Social Welfare Commission of the Republic of the Philippines maintains a Register of men and women who are prepared to give service in any social, medical, public health or other field in different units of the country, and helps to utilize these vast man power resources by bringing about needed contacts between voluntary workers and organizations needing their services. The Government of India could conduct only 6 or 7 schools or institutions for the blind and deaf in the country, and subsidize the others. Out of 80 institutions for the blind and deaf and 3 for the orthopaedically handicapped in the country, the remainder were run by private agencies through voluntary contributions or philanthropic endowments and the negligible amount of fees from some of the handicapped students themselves. In Indonesia and Thailand too, the three teaching institutions for handicapped children (blind and deaf) are run by religious orders or philanthropic bodies and only partially subsidized by government.

Suggestions for financing services for the Handicapped

Various suggestions were made for the financing and provision of the needed services and equipment for the handicapped children by the various speakers as follows:-

(a) The most emphasized suggestion was that voluntary effort, service and pecuniary help should be encouraged and enlisted for the cause of the handicapped child to the largest possible measure, and that where voluntary workers were forthcoming, they should be utilized to the full after having been given proper training. Voluntary assistance cannot be ignored under the existing socio-economic and political conditions of the eastern countries.

(b) The responsibility for the treatment of the handicapped child should be primarily of the family and local community, with state help where certain remedial measures were outside the reach of local resources, whereas the province or state should undertake the responsibility for the education of such children.

(c) District and Local Boards in towns and larger villages and Municipalities in cities should be approached to set aside a certain percentage of their funds for the education of the physically handicapped. The Provincial and Central Government should set apart a certain sum in their budgets for the various services for the handicapped in the order of priorities.

(d) Government institutions which have outlived their utility, e.g. secondary schools in certain areas, should be turned to more other urgent uses, e.g. schools for the education and vocational training of the handicapped children.

(e) Arrangements may be made through bilateral or international agreements and through State legislation to obtain free of customs duties equipment, materials and books for the use and education of the handicapped.

(f) In view of the poorer resources of the countries of the region, as much assistance as possible may be extended to them by the United Nations, Specialized Agencies and the UNICEF by way of supplying prostheses, materials, equipment, literature and films for the use of institutions for the handicapped, offering scholarships and fellowships for the training of personnel abroad, providing services of experts needed by the governments and institutions in the region, and instituting Pilot or Demonstration Projects for training regional personnel and demonstrating advanced methods and techniques in the rehabilitation of handicapped children.

(g) Methods of raising funds by voluntary contributions same as or similar to those adopted successfully in some other countries were suggested, e.g.,

In one of the Scandinavian countries, sale of matches was taxed, and controlled by the State, and each match box was priced slightly higher, the excess amount being utilized towards raising a central fund for ameliorative services for the handicapped child.

In another Scandinavian country, funds for the handicapped children were raised from a permanent children's Fete or Fair, where various amusements were provided for normal children throughout the year.

In three Scandinavian countries Permanent Amusement Parks were provided for the entertainment of the people and the gate and other moneys collected went into a fund for providing specified social welfare services. In some countries of Europe and Asia, charity sweepstakes were run for raising funds, and a certain percentage of all ticket money was allocated to certain social welfare services including hospitals.

The great successful American experiment of Community Chests for raising funds by annual campaigns to collect voluntary contributions for needed social welfare work and its successful adoption in Japan and Manila were also quoted.

It was suggested that one or more of such movements may be followed with advantage after due adaptation to local conditions by the countries of the region for raising funds for providing certain services for the handicapped child in the initial stages, until public conscience was aroused to the need and governments saw their way to make adequate provision for the various services necessary for the total rehabilitation of crippled children. The ultimate emphasis was however put on the responsibility of the State to see that the handicapped child does not suffer neglect as has unfortunately happened hitherto, and a greater responsibility for his rehabilitation is assumed by the State as its socio-economic development progresses.

I. LEGISLATION

A strong desire on the part of most delegates was expressed for the introduction of appropriate legislation suited to the local conditions of each country for the compulsory registration of all the physically handicapped children, either congenitally or traumatically, for, it was felt that preventive, curative or rehabilitative programmes cannot be effectively planned over a short or long period unless the correct data of the various types of handicaps were known. Some delegates like those of Ceylon expressed themselves in favour of legislation for the compulsory education of the handicapped, as the standards of literacy and provision of educational facilities in the country were very high. But the delegates of other countries, though equally desirous in principle of universal education for the handicapped, did not feel confident to insist on legislation for the compulsory education of the handicapped child in view of the low level of literacy and lack of adequate resources for an immediate provision of a network of needed schools all over the country. They advocated gradual and progressive legislation. Legislation was considered desirable for exempting materials needed for the use and education of the handicapped from customs duties, not only when imported by institutions but also by bona fide individuals for their personal use, especially the blind and deaf. While a few delegates were in favour of feasible legislation for reserving a small percentage of certain suitable vocations as of weaving, massaging, working lifts, manufacture of toys, festive lamp-making, commercial advertising, packing, etc., for the physically handicapped trained for the vocation or operation somewhat on the lines of legislation in the United Kingdom, United States, Scandinavian and other European countries, others felt that looking to the manpower problem and large scale employment of underemployment in Asian countries and the incipient growth of industries, time was not yet for enacting such legislation. It was felt that legislation in social matters should as a general rule follow or accompany public opinion. It was therefore considered advisable for the voluntary agencies and state departments concerned to combine their efforts to stimulate the interest of the public in the problems of the handicapped child and make their minds receptive for such legislation.

CAUSES AND PREVENTION OF PHYSICALLY HANDICAPPING CONDITIONS IN CHILDREN

Prevention better and less expensive than cure.

While dealing with the problems of the handicapped child, every speaker dwelt on the great value of prevention of physical handicaps or bodily disabilities. They referred to the large numbers of children and adults suffering from various congenital or traumatic disabilities in the countries of the region, and felt that the problem was rather serious as remedial measures had been largely neglected so far in almost all the countries, owing perhaps to the birth-rate being high in the region, the value of human life scanty and economic and technical resources comparatively poor. The delegates however were unanimous about the urgency of a systematic handling of the problem, adopting gradual steps for the improvement and expansion of the various needed services as the resources of the country developed. They realized that progress would be slow and outside assistance was needed. They also realized that by the time there was an appreciable expansion of equipment, training facilities and technical personnel, more cases would be added to the existing numbers of the variously handicapped. They were therefore all at one with regard to the immense value and urgency of preventive programmes, which would naturally strike at the root of the problem in the eastern countries, keeping down the numbers of the handicapped.

Need for the study of Causes and Causative factors in the Programme of Prevention.

It was realized that the first requirement for the adoption of a programme of preventive measures was the study of causes and causative factors of physically handicapping conditions in children, and various specialists addressed themselves to these in their papers and in the discussions that followed, drawing upon their own clinical experience or that of other workers in the field. For the sake of convenience, the causes or causative factors referred to by various delegates will be enumerated below with the suggestions made for limiting or preventing the causative factors of handicapping conditions. The general causes of physical handicaps will be dealt with in

this chapter, whereas those that are more specifically prevalent in the countries of the region will be briefly touched upon in the succeeding chapter.

Prevention - Most of the above causative factors are preventible and can be tackled by an extension of maternal and child welfare services, education of wives and expectant mothers, good professional medical care of confinements and skilled attention in ante-natal and post-natal clinics, of which a net-work needs to be conveniently spread all over the country. There should also be better and more scientific nutrition of the mother and child through education and provision of supplementary diet in needy cases.

Child Welfare Centres should provide facilities for the teaching of parents in child care. There should be early recognition of potential disability and direction for treatment with a wider use of health visitors.

A great extension of popular education in simple hygiene and in the importance of securing early medical advice in all cases of abnormality of an infant will tend to reduce the number of defective children in a community.

Community-wide campaigns should be carried on to stamp out or reduce the incidence of infective diseases including immunization and promotion of general hygiene, for, it is less expensive to prevent diseases than it is to treat the consequences.

Prevention of accidents should start in the home, where careless handling of fire, hot water, poisonous drugs, sharp articles by children should be guarded against. Children should be given advice and instruction both at home and school about traffic rules and behaviour in streets, crowds and traffic and to observe certain rules when engaged in play, games or exercises.

A school health programme comprising teaching in nutrition, prevention of diseases and personal hygiene will be an effective medium for preventing handicapping conditions, school children being in the most receptive and absorbing age. School medical inspectors and nurses should be trained to detect bad postures in children and rectify them by timely first aid and other measures.

The use of more safety devices in industry, in streets and in the homes are necessary to reduce the risk of serious accidents.

Though accidents and injuries cannot be completely eradicated from life, a great number of disabilities in children can be completely or partially prevented even with our present knowledge of preventive medicine by eliminating the known causative factors. To repeat once more, since the oriental peoples are not in a position to afford resources to set up in the near future the elaborate institutions, with costly equipment, methods and techniques for various curative medical treatment and health services, it is highly desirable for them to concentrate greater attention on all possible preventive measures for limiting or reducing the incidence of physical and mental handicaps among children before, at and after birth.

SITUATION REGARDING THE PHYSICALLY HANDICAPPED IN SOUTH EAST ASIA

References have been made in the foregoing chapters under various heads to indicate the situation as regards a particular topic, problem need or condition of the physically handicapped child as it obtains in the countries of South East Asia, whose representatives participated at the Conference. In this chapter a brief reference will be made to

(a) The major causative factors of handicapping conditions as found on study in each country;

(b) The numbers of the handicapped in each country so far as available;

(c) The types of voluntary organizations functioning in each country and the plans or schemes formulated by them, if any, for tackling the problems of the physically handicapped.

It must be stated that unfortunately the information on these items is not only scanty or incomplete in each case, but in some cases there are wide divergences in the data supplied or estimates made by more than one source or agency. In the present condition of the availability, collection and preparation of statistics, and particularly social statistics in under-developed regions of the globe, this defect will have to be tolerated, while urging for more attention being paid to the proper collection, classification and presentation of statistical data in the social field on matters which

vitally affect the planning of the socio-economic development and the assessing of the standards of living, progress and well-being of the peoples of the countries concerned.

A. The major causative factors of handicapping conditions

Delegates presented the following data on the above subject:

Ceylon: The following figures for 1949 were obtained from records in the Orthopaedic Clinic, Colombo:-

Total number of cases seen (children and adults)

First visits	5,603
Subsequent visits	11,873
Physiotherapy	6,311

Number of children under 10 with orthopaedic defects 988,

of which the larger numbers were as follows:-

(a) Deformities	411	(including club-foot - 192, Bow legs - 83, Knock knee - 54 Flat foot - 37, etc.)
(b) Fractures	238	(including clavicle - 65, humerus - 69, forearm and wrist - 58, etc.)
(c) Poliomyelitis	137	(Paralysis and deformities not included in (a))
Ostromyelitis	9	
(d) Spastic Paralysis	30	
Birth Palsy	28	
Hemiplegia	15	
Facial Paralysis	6	
Meninogoele, Hydro-cephalis, etc.	6	
(e) Tuberculosis of bones and joints	27	
(f) General backwardness	40	
(g) Others	41	

Mr. G.M. Muller of Ceylon stated that by far the largest number of crippling follows the attack of Anterior Poliomyelitis, and the onset of the disease in Ceylon dates after 1941, when the camps for British Occupation Forces in various parts of the island were opened. Other main causes of crippling are Cerebral Palsy, Congenital deformities and Tuberculosis.

India:

(a) Dr. M.V. Sant's following observations are based on figures obtained from the Orthopaedic Department of the Jerbai Wadia Hospital for Children in Bombay, 'probably the best hospital of its kind in India', and the first institution in the country to introduce since 1934 a complete course of occupational therapy treatment for the rehabilitation of children suffering from the Tuberculosis of bones and joints.

During a period of ten years (1939-1949), 1,670 children were treated as in-patients in the Orthopaedic Department of the Hospital. This figure excludes children treated as out-door patients or those whose parents declined to submit them for treatment, operative or otherwise, for various reasons. The following table gives the frequency of handicapping conditions for which the 1,670 children were treated:

Tuberculosis of bones and joints	34.1%
Accidental injuries	32.2%
Deformities due to Rickets	12.0%
Congenital deformities	11.0%
Deformities due to Poliomyelitis	7.0%
Osteomyelitis and Suppurative Arthritis	2.2%
Miscellaneous conditions	0.9%

(b) Mrs. Fathema Ismail who has been responsible with the aid of some doctors to start a Physiotherapy and Rehabilitation Clinic in Bombay in July 1947, after an unfortunate experience of the suffering of one of her children by an attack of polio, gives the following figures:

Total number of cases registered at the P & R Clinic, Bombay, from July 1947 to Nov. 1950 (coming from the State of Bombay and other parts of India) - 2,148

Classification of Cases according to diagnosis

Poliomyelitis	1,454	General debility	18
Spastic Paralysis	171	Scoliosis	1
Congenital deformities	117	N.Y.D.	2
Rickets	35	Other causes	28
Arthritis T.B. (19), others (9)	28	Registered but not come for examination	222
Osteomyelitis T.B. (3), others (2)	5	To be examined	31
Muscular Dystrophy	17		2,148
Accidents	19		

The figures of causative factors in the above two groups of cases differs obviously because the two institutions may have attracted the types of cases for which they provided better facilities for diagnosis and treatment.

(c) On being commissioned by the UNESCO to make a report on the methods of education and rehabilitation of crippled children adopted by institutions in India, the Delhi School of Social Work made a study of a random sample of fifty children each referred to the public hospitals in the cities of Bombay, Calcutta, Delhi and Madras. As the quota of fifty children could not be fulfilled in Calcutta, the number of case studies was only 167.

The causative factors of crippling conditions do not seem to have been studied specifically, but the distribution of cases according to the nature of physical deformities has been given in a table as follows:

Deformity of feet	104
Deformity of hands	13
Deformity of both hands	25
Deformity of Spine	21
Deformity of other parts	4

The prognostic data showed that 67 cases were considered to be completely curable, 70 partially curable, and 30 not curable owing to late reference and other reasons.

(d) Dr. M.G. Kini gives an interesting table of rejection of army recruits in India during World War II (1939-1945) obtained from the Director, Army Medical Corps. The feature to note is that the recruits were picked by retired soldiers and non-commissioned officers going about the country from amongst persons whom they considered fit for a career in the army. On examination by medical personnel, the following number of men were rejected for reasons of various defects or deformities:

Total number examined	2,721,792
Rejected	595,327

Out of the 22% of picked men rejected, nearly one-third or 33% were disqualified owing to physical handicaps as follows:

Defective Vision	51,340
Trachoma	28,157
Otitis media	16,468
Disordered action of heart	39,597
Flat feet	5,201
Knock knee	6,452
Curvature of Spine	3,092
Goitre	6,526
Other deformities	22,257
Varicose veins	9,407
Haemorrhoids	8,565
	197.062

Indonesia: There has never been an official registration in Indonesia nor are there any studies of the physically handicapped classified according to their handicapping conditions as above presently available in Indonesia. Dr. Raden Soeharso of the Rehabilitation Centre attached to the General Hospital at Solo, near Jogjakarta, gives the following as the prevailing causative factors:

"The greatest amount of disability amongst children in Indonesia will be blindness caused by trachoma, venereal disease and avitaminosis A. Trachoma is one of the endemic diseases in Indonesia. Poliomyelitis occurs in Indonesia but not to such an extent as in Europe and America. Cerebral Palsy is not of frequent occurrence though there are certain cases. More frequent are the congenital defects which cause many disabilities such as foot defects, there being also a fair number of lip and palatum defects.

Rachitis is very rare in Indonesia.

Many disabled children die as a result of bone-tuberculosis. A very frequent clinical picture in Indonesia is coxitis, gonitis, spondilitis tuberculasa. The greatest problem of the handicapped persons (children) has been caused mainly by the war."

The Philippines: Records of the Manila Health Department show that out of 294,933 school children examined during the fiscal school year 1948-49:

2,515 had defective vision,

371 had defective hearing,

109 had defective speech,

1,077 had heart trouble,

3,084 had lung defects,

32 needed surgical care.

In this report no mention is made of the orthopaedically handicapped. The National Orthopaedic Hospital admits about 2,000 orthopaedic and traumatic

cases every year, about one-fourth of these being children. The causes of crippling in children may be glimpsed from the following tabulations of consultations in the dispensary for the fiscal year 1950:

Traumatic cases (fractures, dislocations, etc.)	601	53%
Postopoliomyelitis	167	15%
Tuberculosis of bone and joints	160	14%
Congenital malformations	72	6%
Osteomyelitis	56	5%
Others	79	7%

Need of an 'Infirmity Schedule' and
Standard Definitions

It will be seen from the above that there is marked difference in the classification of the causative factors and handicapping conditions in different countries of the region and even in different parts of the same country. Several delegates strongly expressed a desire that either the Conference, the United Nations or some authoritative international organization should suggest some ways whereby an internationally acceptable 'Infirmity Schedule' may be worked out and used at the same time of the Census or the Special Enumeration or Sample Surveys proposed to be carried out for collecting statistical data, so that the data may be internationally comparable. This is not the case at present because no knowledge exists of the standards adopted by each country to judge the various types of defects, infirmities or disabilities. Even the age for classifying persons as 'Children' seems to vary from country to country. While welcoming the distribution of the document 'Some Terms' - a glossary of words used in connection with the physically handicapped, the delegates expressed a desire that the definitions of handicaps should be standardized and adopted internationally as far as possible.

B. The Numbers of Physically Handicapped in South East Asia.

Glaring lack of authentic data

As repeated by almost every delegate, no authentic figures of the physically handicapped are available for most of the countries in Asia, much less are they available for the physically handicapped other than the blind and deaf. In some countries even the classification of the 'infirm' is not to be found in census tables, nor is there a separate enumeration of children under 15 and adults. The data is collected in such a haphazard way that the census figures even of the blind, deaf and insane are considered unreliable. The partially sighted and partially deaf are often not enumerated at all among the handicapped. Owing to social stigma, superstition or indifference, there is considerable concealment as

regards information about the blind, deaf, crippled and mental defective in the family. Most of the following figures are therefore surmises, estimates, or approximations.

As in some cases the figures of the blind and deaf are not excluded from those of the other crippled or physically handicapped and as in others it is not clear whether they have been so excluded or not, the available figures of the orthopaedically handicapped blind, deaf and mental defectives will all be given together in this chapter for the sake of convenience.

Ceylon (Population 7 million) - There was a census taken in Ceylon in 1946, which gave the following figures:

Blind	4,602 (2,431 m. and 2,171 f.)
Deaf	3,123 (1,820 m. and 1,303 f.)
Crippled in both legs	3,259

From the imperfect census figures of 1946, it is found that one district returned a figure of 8 cripples in 10,000 population, though the average figure for the various districts came to 6 per 10,000.

Whereas the percentage of deafness in Ceylon may be about the same as in western countries, that of blindness is much higher because of a considerable amount being caused due to malnutrition. Over a period of years, however, blindness has been steadily declining owing to better sanitation, more general use of prophylactic measures, etc.

India (Post-partition population - 354 million)

(a) The census of 1931, which does not give completely reliable data owing to political disturbances at the time, gives the following figures:

Blind	600,000
Deaf-mutes	231,000
Insane	120,000
Lepers	148,000

(b) According to Mr. P.N. Venkata Rau, Principal, Government School for the Blind, Poonamallee, Madras, Mr. Henderson, some time ago, put the proportion of the blind at 4.5 per 1000 in India. Mr. Venkata Rau puts it at approximately 3 per 1000. He estimates the numbers of blind and deaf in India as follows:

1,050,000 blind
650,000 deaf

Of these children of school-going age between 5 and 15 years are estimated to be 157,500 blind and 138,875 deaf.

Of these 296,375 blind and deaf children about 3000 are said to be receiving some education in about 80 institutions in the country. Prof. N.N. Sen Gupta of the Calcutta University puts the blind population of India at 1.5 million.

(c) The Hon'ble Minister for Health, Rajkumari Amrit Kaur, whose Inaugural Address was read by Dr. K.C.K.E. Raja, Director-General of Public Health Services, Government of India, while deploring the lack of reasonably correct figures of the handicapped in the country, surmised that the proportion of the physically handicapped in India may not be less than in the U.S.A., though the incidence of Mental ill health in the relatively simpler and unsophisticated way of life of India may be lower than in the U.S.A., with her hectic tempo of life. On that basis of 20 per 1000 population, she thinks India may have to deal with some seven million handicapped persons.

Some five years ago it was estimated that there were about 200,000 blind persons under 20 years of age with about 28 schools in all for this number at the time. This has now increased to 40 schools with workshops attached to some of them.

(d) Dr. M.G. Kini, Medical Director, Society for the Rehabilitation of Crippled Children, Bombay, referring to the U.S.A. estimates of the crippled of 2 per 1000 in children, 6.12 per 1000 in older children and 20 per 1000 for

all ages, and taking the proportion of 10 per 1000 population of all ages in India arrives at a figure of 3.5 million persons suffering from various disabilities.

Indonesia (Population - 76 million) - No figures of the blind or deaf or other physically handicapped are available. The approximate number of war-disabled persons, including adults and children of both sexes, was estimated in 1949 to be about 10,000, of whom 300 were receiving rehabilitative treatment in a centre at Solo, organized by Dr. Raden Soeharso.

The Philippines (Population - 19 million) - 'To date, no accurate statistical survey has been made to determine the number of crippled children in the Philippines. An incomplete and inaccurate survey has however been made by the "Philippine Band of Mercy" among the public school children all over the Philippines and they reported that 10,000 are suffering from various forms of crippling conditions'. The records of the Manila Health Department for the year 1948-49, show that out of 294,933 school children examined 7,188 suffered from various defects of vision, hearing, speech, heart and lungs. No mention has been made in this report of the orthopaedically handicapped.

Special Census and Research

In the above figures of various countries, there is no mention of the crippled or orthopaedically handicapped children from birth up to adolescence or the age of 15, nor much mention of the tuberculosis, rachitic, cardiac, chronic sick, leprous and the like. In view of these conditions in most Asian countries, it was suggested that a National Council of Research be established in every country in order to collect data, co-operate in preparing internationally acceptable standards and definitions, facilitate exchange of information, carry on and co-ordinate research into pressing problems and help in planning programmes of work and services needed in the country. Special Census of the crippled and failing that Sample Surveys in typical areas were also suggested.

C. Voluntary Organizations and Plans or Projects for the Handicapped in South East Asian countries

In the economic and financial circumstances in which the governments of the countries of the Far Eastern Region have been placed with regard to the expansion and development of health, education and social welfare services, considerable amount of work is being undertaken in most countries by voluntary organizations with or without the assistance of government. A brief account of this voluntary effort is given below with a view that the information of work in countries other than their own may be available to those interested in the problems of the handicapped child.

Ceylon - There is a body called 'The Crippled Children's Association' affiliated to the Central Council for the Care of Crippled Children in London. The local branch has not been active for some time. The Red Cross Society is another body whose individual members, in the absence of concerted action, have very kindly housed crippled children coming from the provinces to Colombo for appliances or for a clinical check-up.

There are no organized voluntary institutions in Ceylon to undertake the care of crippled children. The Government Department of Social Services concerns itself with the welfare of crippled children among its other activities. A Central Bureau for the employment of cripples and Hostels for crippled children, preferably organized by voluntary effort and subsidized by government, are suggested by Mr. Muller.

India - Except for the six or seven institutions for the education and training of the blind and deaf children conducted by Government, the 73 odd institutions for the blind and deaf are run by voluntary effort, charity trusts, religious endowments, philanthropists and social welfare agencies, some of them being special organizations for the blind and deaf; they are partly

subsidized by government, central and state. Some institutions receive assistance from local municipalities also. Bodies and Associations like the Red Cross Society, All-India Save the Children Committee, Y.M.C.A., Y.W.C.A., Boy Scouts and Girl Guides Associations, Balkan-ji-Bari (Children's Garden) and others also interest themselves in work for the handicapped children.

The Physiotherapy and Rehabilitation Clinic in Bombay was started in 1947 with voluntary effort inspired by the striking enthusiasm of a lady (Mrs. Fathema Ismail), whose child suffered from the effects of polio. The sponsors of this Clinic have now formed a Registered Society in Bombay called the 'Society for the Rehabilitation of Crippled Children' with the following objectives:-

(a) Organizing hospitals and clinics for the diagnosis, care and treatment of disabled and crippled children;

(b) Educating public opinion on the problem of each afflicted children, and collecting statistics.

They have also drawn up a Scheme of a Central Orthopaedic Institution in Bombay for the consideration of the State and Central governments. There is a Polio Clinic in Hyderabad run on similar lines as in Bombay. Besides the above, 'The Hospital of Indian Medicine', Madras, with a well-developed system of treatment based exclusively on Indian medical science, treats crippling conditions in children, massage with particular herbal extracts forming a major part of the treatment programme. The King Edward Memorial Hospital, Bombay, run under Municipal auspices, is sponsoring a School for training in Occupational Therapy and also elements of physiotherapy.

There are also a few charitable residential institutions all over the country which keep crippled children. Though they do not have an educational programme for the children, vocational training facilities for other inmates are open to them.

Indonesia - There are only a few associations in Indonesia, which take care of the physically handicapped children. Most of such children remain in the care of their family and are not supported by government or by philanthropic associations. Two such institutions for the blind and deaf are the following:

(a) Institute for the Blind - Bandoeng, Western Java - founded in 1910 as a branch of the Association for the care of Blind persons in Holland. It has some little educational and social character and takes approximately 300 inmates.

(b) Institution for Deaf and Dumb Children - Temanggoeng - Central Java - founded about 1920 by a Religious Mission. It can take care of about 50 deaf and mute children.

With the increase in the number of war-disabled, several Associations were formed to help the disabled but mostly the sentiment of charity and politics predominated therein. Dr. Raden Soeharso has prepared a Scheme for the socio-economic rehabilitation of the handicapped and submitted it to his Government for consideration. It envisages an Inter-Departmental Central Board for the Rehabilitation of Handicapped Persons with representatives from the Ministries of Health, Labour, Education, Social Affairs and Defense and the Indonesian Red Cross, and local Consulting and Administrative offices with Rehabilitation Centres, Sheltered Workshops, Sanatoria, etc. as required.

The Philippines: Besides the two government hospitals, the National Orthopaedic and San Lazaro, which take orthopaedic and infectious cases respectively, there are a few voluntary agencies interested in the welfare of crippled children.

The Philippine Band of Mercy looks after crippled children with congenital deformities all over the country, and intercedes for the admission and treatment of cases in the National Orthopaedic and other hospitals.

The Masons maintain a few beds in Mary Johnston's Hospital, specially for crippled children.

Other organizations like the Lions, the Jaycees, the Chamber of Commerce, Y.M.C.A., Y.W.C.A., Rotary, Eastern Star, American Ladies' Club have charity funds for giving aid to crippled children. The work being done for the crippled today is however inadequate and inco-ordinated.

It is because of this reason that the Philippine Foundation for the Crippled has been established in 1949 by a few civic-minded individuals, with briefly the following objectives, viz.

(a) to establish a National Register for the Cripples;
(b) to build orthopaedic hospitals, clinics and convalescent homes;
(c) to encourage and finance research on conditions which cause crippling; and
(d) to co-ordinate the work being done by other organizations for the welfare of cripples.

A goal of two million pesos (1 million dollars) has been set to be realized over a period of five years. A piece of land has been given by a donor and a plan for building a 500-bed hospital for cripples has been made.

Thailand - The Government at present subsidizes through the Department of Public Welfare a School for blind children in Bangkok conducted by a Christian Mission for about 60 children. Voluntary Associations occasionally help in raising funds.

All delegates fully appreciate the desirability of co-operation between government and voluntary agencies for the welfare and well-being of the community, for, as said by the Hon'ble Mr. Aneurin Bevan, formerly Minister of Health and now of Labour and National Services of the United Kingdom, "it is not possible by official methods to make provision for the wide variety of handicapped persons -

the crippled, the blind and the deaf and dumb. No matter what provision we make, there will always be a place for voluntary organizations, for, only by voluntary organizations are you able to touch the bottomless reservoir of kindness, humanity and self-sacrifice".

RECOMMENDATIONS OF THE CONFERENCE

General Unanimity of ultimate Objective in the work of the Experts

"This Conference of Experts on Physically Handicapped Children organized by the United Nations with the co-operation of the International Labour Organization, the World Health Organization, the United Nations Educational, Scientific and Cultural Organization and the United Nations International Children's Emergency Fund and the participating Governments of the Far Eastern Region, held at Jamshedpur, India, from 19 to 21 December 1950;

Being deeply concerned with the large number of children in countries of the Far Eastern region who are physically handicapped as the result of congenital deformity, malnutrition, disease or injury,

Recognizing the great assistance which can be given to such children by modern methods of treatment and after care, and the resulting improvement in their chance of happiness and of usefulness to the community,

Appreciating the help available through the United Nations, UNICEF and Specialized Agencies,

Recommends

1. The establishment, if and where necessary, of a national organization composed of Government officials, representatives of the medical and teaching professions, voluntary welfare agencies, commercial and industrial groups, and social workers which would, among its functions, collect information as to the number and distribution of physically handicapped children and the facilities already available for their treatment and care, and suggest methods by which such facilities could be expanded and improved,

2. The enactment of appropriate legislation or promulgation of regulations as found necessary and feasible, providing for reporting of cases of physically handicapped children and setting up of agencies for their registration,

3. The establishment of services for early discovery, diagnosis and treatment of physical handicaps,

4. The provision and extension of maternal and child welfare services, health education and industrial safety campaigns and public health activities, with a view to reducing the number of cases of physical handicaps caused by malnutrition, infectious disease, ignorance of elementary hygiene and social welfare, or industrial accidents,

5. The fuller use of modern safety devices in all industries,

6. The training and recruitment of orthopaedists, ophthalmologists, otologists, physiotherapists, occupational therapists, teachers for disabled children, child psychiatrists and psychologists, social workers and vocational guidance, training and employment service experts, and their employment in hospitals, institutions and vocational training schools for handicapped children and young persons.

7. The establishment of workshops for the manufacture of prostheses, surgical appliances and other forms of mechanical aid for the handicapped, with due provision for the supply, expert fitting and proper maintanance of such appliances free or at nominal cost; the provision of Braille material, tangible apparatus and appliances, and visual and hearing aids, free or at nominal cost to the blind and the deaf,

8. The training and recruitment of technicians for the manufacture, proper fitting and maintenance of prostheses, surgical appliances and other forms of mechanical aid for the handicapped, and utilization of their services in hospitals, institutions and schools for physically handicapped children and young persons,

9. The opening to disabled children who can be trained with the able-bodied, of all available vocational training facilities,

10. The introduction into the Public Employment Service of specialized methods and techniques for the placement and employment of handicapped children who are employable,

11. The organizing, as funds become available, of rehabilitation departments in orthopaedic wards and hospitals, the establishment of rehabilitation centres and special schools including those for the blind and the deaf, and theequipment of such departments, centres and schools with modern apparatus, books and other training material,

12. The wider use of the radio, films, the press, travelling exhibitions and demonstration projects, and the use of appropriate study material in schools, to inform the public of modern methods of prevention and treatment of physical handicaps, education and rehabilitation of the handicapped, to acquaint businessmen, industrialists and promoters of cottage industries of the variety of occupations which can be successfully filled by disabled young persons after suitable training with a view to inducing them to give opportunity of employment to those so trained, and to promote better public understanding of the problems of the handicapped,

13. The co-ordination of all efforts for the treatment, care, education, training and rehabilitation of the physically handicapped child by the United Nations, UNICEF, Specialized Agencies, Governments and Voluntary Agencies,

14. The exploration of the possibilities of Pilot Projects for a group of countries in the region, sponsored, on request, by the United Nations, Specialized Agencies and the UNICEF.

This Conference also desires to express its appreciation of the services of the United Nations, UNICEF and the various Specialized Agencies available to countries in the region and would welcome their further assistance in all measures calculated to reduce the occurrence of serious disability, and to provide modern treatment, education, vocational guidance and training, rehabilitation and social welfare services for children, who are suffering from physical handicaps."

CONCLUSIONS

Peoples of under-developed regions need not be disheartened.

The oriental countries may have their difficulties, but they need not be led into thinking that these goals are impossible of attainment by their peoples. They need to attach greater value to the dignity of human personality than done hitherto by their teeming millions, among whom life and death are taken too much for granted. For, the rehabilitation of the handicapped requires individual care and treatment, adapted to his unique psychology and individuality. This means deep research, a variety of institutions, large trained technical personnel, dynamic methods and techniques and their discriminatory application adapted to the local needs and milieu. It means good initial investment in order to reap rich results in the total long-range redemption of the maimed or mutilated personality. The countries of the region with their economic resources still incompletely developed and their institutional, personnel and equipment resources still rather poor, would naturally fight shy of ambitious programmes of services for the handicapped, when so much still remains to be done for their normal populations. This feeling and vascillation is understandable. But as the Report has shown there is earnest activity in the right direction on the part of governments as well as voluntary organizations to tackle the vast problems of the millions of handicapped in the region.

International Assistance needed.

Some delegates wished that the vast, difficult and hitherto neglected problem of the handicapped child and adult may be taken up on an international level as a collective responsibility of mankind through such agencies as the World Health Organization and the United Nations International Children's Emergency Fund, collecting funds specially for the rehabilitation of the handicapped child if considered necessary. All the delegates, however, uniformly expressed an earnest hope that the United Nations, its Specialized Agencies, the

UNICEF and advanced western countries may come to their assistance in this common humanitarian task of rebuilding the disabled, defective and deformed children into integrated and normal human beings true to one of the principles of the United Nations Draft Declaration of the Rights of the Child, viz. that "the child who is physically, mentally or socially handicapped shall be given the special treatment, education and care required by his particular condition."

The Services offered by the United Nations and Specialized Agencies.

The Representatives of the United Nations, Specialized Agencies and the UNICEF, as stated elsewhere in the Report, made statements at the Conference giving a detailed account of the varied services and technical assistance provided under their ordinary programmes as well as the new expanded programme of technical assistance through the specially created Technical Assistance Administration, Board and Council. These include scholarships, fellowships, services of experts in various fields, organization of Seminars and Conferences, and of Pilot or Demonstration Projects for the regional training of personnel or demonstration of advanced or up-to-date methods and techniques in social, economic, political, scientific or technical field, supplemented by the offer of laboratory, school and other equipment, tools, materials and plant required for the fulfilment of the Projects as also of literature, films and prosthetic appliances to requesting governments singly or in groups. A number of delegates showed great keenness to secure these services as will have been gathered from the Report and Recommendations of the Conference.

Utility of Teams Experts attached to Regional Offices.

The regional Representatives of the United Nations, Specialized Agencies and the UNICEF, who discussed this question amongst themselves at a subsequent meeting held to appraise the work of the Conference, felt that it would be more useful and economical if the immediate requirements of technical assistance in

the field of the handicapped of the various countries in the region were first ascertained by a close inquiry and scrutiny of the government proposals, and then a small team of three to five experts as required were attached to the Regional Centre or Office for six months, a year or longer as found necessary. These could not only study the conditions in each country beforehand at the Regional Office but could also consult among themselves and then visit the countries in the region in batches of at least two, rendering whatever services were required of them by the requesting governments. This approach would have several beneficial results inasmuch as

(a) it will prepare the governments with required data for their respective countries in the field in which United Nations assistance has been sought,

(b) the Experts will be better informed about the conditions, problems and needs of the countries of their visit.

(c) they will do their exploratory and advisory work in a much shorter time,

(d) their advice and mission will be more thorough and efficient because of the benefit of consultations with their colleagues at the Regional Office and in the field, and

(e) on the whole their services will be more economical both to the requesting countries and the United Nations and Specialized Agencies. They could also on request make investigations and preliminary preparations for a suitable, well-worked out Pilot or Demonstration Project for the region or a group of countries therein to meet the more urgent needs thereof according to properly laid down priorities on the basis of their personal studies and findings as well as consultations with the requesting governments. For, while beginnings have been made, a lot remains to be done in all under-developed countries for the handicapped child, who must no longer be treated as an object of pity, but who must receive the best that medical and social sciences and the enlightened conscience of man can give him in order "to enable him to develop physically, mentally, morally, spiritually and socially in a healthy and normal manner and in conditions of freedom and dignity."