CONTROL & ERADICATION

CO01

LEPROSY ELIMINATION - URGENT ACTION REQUIRED

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Taking into account the remarkable efficacy of the Elimination strategy as well as the present or possible difficulties, it appears that action should be taken **urgently** in three main directions.

1- In view of its tremendous achievements so far and the hopes it raises, the programme should go on. However, an in-depth evaluation of the epidemiological and operational status should be conducted at all levels. The main objective should be to identify the areas (especially those with high leprosy incidence) which will require strengthened programme activities **beyond the year 2000**.

2- It is not certain that the presently available technology (i.e. MDT) alone will allow leprosy to be « eliminated » in particular in areas with high incidence. Thus, it appears necessary to reactivate research activities, in order to develop new diagnostic, prophylactic and even therapeutic tools.

3- It is obvious that it will be possible to carry out the two above kinds of activities only if the programme receives during all the required time, i.e. well beyond the year 2000, all the required support, especially from political and financial nature.

CO02

TREND OF LEPROSY IN THE LEPROSY MISSION ASSISTED PROJECTS IN BANGLADESH, ETHIOPIA, INDIA, INDONESIA, NEPAL AND TCHAD

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A study was conducted to determine the trend of leprosy in 22 of The Leprosy Mission assisted projects from 6 countries. Data for 10 years i.e. from 1986 to 1995 was obtained from 19 of these projects while the other 3 provided data for the recent 5-7 years.

MDT coverage, mode of case detection, prevalence, annual case detection rate, child rate, multi-bacillary rate, gender ratio and disability rates were analysed. The study revealed that in several of these projects Leprosy Elimination levels will be reached by the year 2000 A.D.. However signs of interruption in the chain of transmission are not yet clearly evident. The scenario from most of these projects in this context suggests that there is no appreciable change while in a few projects a declining trend is just emerging.

Thus it is concluded that it may take a minimum of 10 years of 100% MDT implementation in an area to observe the desired declining trend. The study recommends that we need to continue our efforts with increased grit and determination and monitor the occurrence of new cases with uniform operational methods of case detection as monitoring incidence is more appropriate and relevant.

CO03

CASE DETECTION THROUGH LEPROSY ELIMINATION CAMPAIGNS IN 21 DISTRICTS OF BANGLADESH

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BANGLADESH is one among ten countries that contribute 90% of the global leprosy case-load. The current estimate of the number of cases in Bangladesh is 40,000, giving a prevalence of 3.3 per 10,000 population. With the aim of detecting the remaining cases and to achieve the leprosy elimination goal, Leprosy Elimination Campaigns(LECs) were planned for 21 of the 64 districts of the country in 1997/98. LECs were conducted through mobilisation of village volunteers and existing general health and NGO workers, after appropriate training and orientation.

The campaign duration was twenty-two(22) days with the following main activities :

* Thana(sub-district) level advocacy meetings
* Union(sub-thana) & Ward(sub-union) level publicity
* Village level group meetings, Rapid photo surveys and Contact surveys

The details of case detection through LECs will be presented and discussed including the impact, usefulness and cost-effectiveness of LECs.

CO04

PROSPECTS OF ELIMINATING LEPROSY : QUO VADIS? 40 YEARS EXPERIENCE IN A HYPERENDEMIC AREA

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Gudiyatham Taluk (Vellore District) of Tamil Nadu State in India was one of the hyperendemic areas for leprosy. Since 1962, the NLEP was carried out with great vigour, supervised by Medical Officers and Epidemiologists. This area also served as one of WHO field centres for testing MDT and continues so. Over the past 35 years, nearly 25,000 patients have registered and were treated initially with DDS and from 1982 with MDT. The trends in new case detection rates over time, across villages and in relation to age, sex, type and mode of detection are summarized in this paper.

While there have been appreciable declines the slowing down and current stagnation in incidence rates causes concern, requiring strategic planning and implementation of specific activities. The integration of vertical control programme with general public health system in Tamil Nadu State needs to be capitalized to ensure elimination of leprosy.

Serious community involvement, not just lip service, true collaboration between government and non-governmental agencies better MIS and IEC, discarding ineffective and outdated methods are urgently needed. Strong recommendations are made in this direction as we move towards a world without leprosy.

CO05

CAN INDIA REACH LEPROSY ERADICATION TARGET BY 2000?. AN EPIDEMIOLOGICAL AND STATISTICAL ASSESSMENT.

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Problem: The objective set by World Health Assembly in 1991 to eliminate Leprosy as a public health problem (< 1/10000) by 2000 and voice concerning it at Governmental/NGO levels has been at the centre stage. However, efforts have not been directed with required intensity to detect and treat cases. Activities largely centers on reported cases at health centres/Institution. Hardly any sincere attempt has been made to detect cases at population level where large reservior is expected to exist. Besides, there are problems related to incomplete treatment,cases (RFT,released from treatment)but still infectious and relapses. These together silently helping transmission to continue at community level. As a result, India still reports 400,000 cases in 1996 (Leprosy Review,68(3)1997). In reality, this may be manifolds higher. The paper would examine in detail several such issues to help to understand as where we stand and what needs to be done.

Methodology: Data from several studies would be examined and reported trend of leprosy cases in last 30 years at the centre would be presented. Infectiousness has been estimated using Catalytic models.

Results: Detailed results and findings would be presented at the Conference.

CO06

THE IMPORTANCE OF (HOUSEHOLD) CONTACTS IN LEPROSY CONTROL

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Objective: To study the importance of (household) contacts in leprosy control.

Material and methods: This retrospective study reports on the contact status of 1199 new leprosy patients detected in 1987-1996 in a selected area in the leprosy control programme of the Danish-Bangladesh Leprosy Mission in Northwest Bangladesh. The programme employs several methods of active case finding, including contact survey.

Results: Cumulative percentages of having a known contact for widening circles of closeness of contact for newly detected cases:

Age (in years)	*0-14 (n=184)*	*15-29 (n=332)*	*30+ (n=683)*
Contact eating from same kitchen	33%	14%	8%
+ Contact from different kitchen, same house	41%	23%	12%
+ Contact with relative in other house	48%	28%	18%

Conclusion: Cases who are contacts of known leprosy patients are an important part of the total new case load. The importance increases with younger age. Prospective studies are required to describe in detail the role of contact in leprosy transmission according to degree of closeness (e.g. including neighbours), and to determine to what extent interventions should be directed at contacts of known leprosy cases.

CO07

LEPROSY ELIMINATION MONITORING - ACTION PLAN FOR THE NEXT FIVE YEARS - STATE OF SÃO PAULO, BRAZIL

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The State of São Paulo, Brazil, had 33 585 961 inhabitants in 1996 (estimated), living in 626 counties. The Leprosy control activities are normalized by the central State coordination but the service is totally decentralized and under direct responsibility of the county authorities. There are 5 Reference Units each of them providing technical and laboratory support for difficult cases to a group of counties. Several of these Reference Unit are related to Medical Schools. The Leprosy services are fully integrated into general health services and the state surveillance system meets some difficulties to obtain fast data according central standardized criteria . There are a standardized group of epidemiological and operational indicators recommended to evaluate and monitor elimination of leprosy at the county level. In order to monitor the leprosy elimination at the local level , the central state surveillance team and reference Units proposed and developed a special surveillance plan for the next five years. Initially, the two selected health regions are Ribeirão Preto and São José do Rio Preto. These two regions have some similar desirable characteristics such as: counties in different endemic level; good reference services related to Medical Schools; good local health services in most of the counties; important urban centers and well-defined rural areas . The region of Ribeirão Preto has 1,028,713 inhabitants and 24 counties, 5 of them with no detection of new cases and one with no prevalence. The region of São Jose do Rio Preto has 1,214,397 inhabitants and 92 counties, 34 of them with prevalence rate under 1/10,000 and 41 others have not detected a single new case in 1996. Counties with zero or under 1/10,000 prevalence are now developing a special educational project called "Alert Sign Project" (an educational project integrated to the local community). They also will develop a special surveillance project which will last 5 years, starting 1998. The project will use PGL-1 tests in samples of adult population and intensify the BCG vaccination to the household contacts and, if possible, extend the vaccination to all community. Data will be evaluated on a yearly basis utilizing standardized epidemiological and operational indicators to monitory leprosy elimination. The geographical information will also be analyzed together with other health and social economics indicators like migration.

CO08

ELIMINATION STRATEGY IN LEPROSY - A STUDY ON ITS PRACTICALITY

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The world wide use of Multi Drug Therapy (MDT) in leprosy control programme, as per the recommendation of WHO has drastically changed the global leprosy scenario. In order to bring out a leprosy free world the WHO has put forth an Action Plan for elimination. This elimination strategy in Leprosy as per WHO definition is to bring down the level of leprosy prevalence below 1 per 10,000 population by the year 2000 A.D.

Keeping this in view a 10 years retrospective study was conducted involving 87 leprosy control programs supported by German Leprosy Relief Association and Swiss Emmaus Leprosy Relief in INDIA.

This study revealed that though there is a decline in the leprosy prevalence, the incidence of leprosy is remaining almost static, which indicates that the transmission of the disease is still continuing. This study also revealed that many projects especially in the states of Uttar Pradesh, Bihar and West bengal are still getting new untreated leprosy patients from out side the Project area, where MDT has not reached so far. Hence it indicates that there are still uncovered pockets for MDT implementation. The premature integration of leprosy control work with general health services may result in poor active case finding in the field which may also slow down the elimination process.

CO09

A STUDY ON THE IMMEDIATE AFTER EFFECTS OF LEPROSY INTEGRATION IN RURAL TAMIL NADU

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Leprosy integration in Tamil Nadu was started during the last quarter of 1997. With the drastic reduction in the number of leprosy cases registered for treatment after the advent of MDT, vertical programme designed for leprosy

programe have been less cost effective. Equality of opportunity to all members of a community including leprosy patients to revive optimal health care is a basic right of every human being. Integration in leprosy work means provisions of medical care to a leprosy patient as close to a community as possible.

A study was conducted among 350 patients in rural Tamil Nadu where leprosy work has been integrated.

- 35.14 % patients found it extremely difficult to comprehend with the changed system.
- 12.86 % patients were not at all properly oriented on the locations where leprosy services are available.
- 53.43 % of patients revealed that they were not fully satisfied with the available leprosy services in the Primary Health Centres (P H C).
- It was reported that the P H C staff are not tuned to attend the specialised needs of patients with Ulcers.
- Hospitals run by NGO's reported that they were getting increasing number of patients coming from the integrated rural areas in search of better service delivery.
- 70.29 % of the patients reported that they have not encountered any problem due to stigma

Adequate preparation in terms of general health service delivery should have been made before launching the integration process. Intensive awareness campaign and adequate training of the general health staff could help to bring down the deficiencies surfaced through this study

CO10

MODIFIED LEPROSY ELIMINATION CAMPAIGN IN BOMBAY -THE MEGA CITY

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The Modified Leprosy Elimination Campaign involving 4986 Searchers to achieve a total population coverage by rapid survey. All 12 Leprosy organisations participated and covered 23 wards of Mumbai. Each organisation selected and trained teams of volunteers with Suspect cards. 2493 teams of volunteers suspected leprosy cases, which were later screened and confirmed by leprosy workers.

A population of 76,87,824 was examined out of 1,05,90,104 enumerated (72.5%). 22,286 individuals suspected to be having leprosy were identified by these searchers. Of these 1275 turned to be leprosy cases. The new case detection rate was 0.1/ 100,000. 180 (14%) were of MB type, 47 (5.9%) were skin smear positive MB type. 670 (52.5%) were single lesion PB leprosy. The MLEC experiment in Mumbai helped to detect 1275 new cases in addition to 3170 new cases detected as routine activity in 1997-98. This gives a NCDR of which is significantly higher than NCDR of 3.8 in Mumbai.

Similar MLEC should be conducted in other Mega cities in the country to make Leprosy elimination by 2000 AD a reality in India.

CO11

LEPROSY IN LOW-ENDEMIC HILLY AREAS OF U.P., INDIA: PROBLEMS AND STRATEGIES TO ACHIEVE THE ELIMINATION GOAL.

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MDT has been in use for nearly 3 years in hilly districts of Chamoli and Tehri Garhwal, U.P., INDIA. The prevalence of Leprosy in these districts has significantly come down but NCDR is nearly the same. This indicates that hidden sources of infection still remain within the districts. Understanding and adopting proper methods to identify and manage these uncovered areas will certainly help early achievement of elimination of leprosy. Most of the villages in these districts being in hilly terrains have remained inaccessible. Thus systematic surveys in the past faced lot of difficulties. Health education and mass awareness is poor. Stigma against leprosy exists in these difficult to approach villages. To overcome these difficulties and hurdles, Govt. of India has launched SAPEL programme and MLEC is shortly going to be carried out. The overall scenario of leprosy and out come of these novel approaches will be presented and discussed.

CO12

SITUACIÓN EPIDEMIOLÓGICA DE LA LEPRA EN BRASIL: PERSPECTIVAS DE LA ELIMINACIÓN DE LA MISMA COMO META.

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Brasil es una República federativa con veintesiete estados aproximadamente 6.000 municipios por lo tanto tiene tres esferas de gobierno autónomos.

Siguiendo la trajetória de todos los paises em desarollo , Brasil vive en una franca transisión epidemiológica com índices altos de accidentes de tránsito, enfermedades cardio-vasculares, enfermedades degenerativas, registrando al mismo tiempo altas tasas de enfermedades infecciosas, como la malária, tuberculosis , lepra e otras.

En este contexto apesar de todos los esfuerzos gubernamentales y no gubernamentales, la lepra sigue siendo un grave problema en la salud pública.

En este trabajo los autores discuten las perspectivas de eliminar la lepra como meta en el pais, analizando cada estado por separado.

Se discute también las estratégias adoptadas para buscar dicha meta, a partir del análisis de los indicadores epidemiológicos y operacionales de los últimos diez años.

CO13

LEPROSY ELIMINATION IN BRAZIL AND THE SOCIAL COMMUNICATION PROCESS

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This paper presents the results of the research "Influence of Social Communication on the Brazilian Leprosy Elimination Strategies", which aimed at understanding the role of social communication in the elimination project, as an agent of change of the disease's social representation and as fundamental element for the early search of treatment, greater treatment adherence and broader coverage of the exam of contacts. It identifies how the messages disseminated in educational campaigns through the different media, organized by the National Coordination for Sanitary Dermatology (NCSD) of the Brazilian Ministry of Health, have influenced the perception, attitude and behavior of individuals suspected or diagnosed as having Hanssen's Disease in different parts of the country.

In the first stage, on October 25th 1997, we interviewed customers who went to those health units offering dermatologic examination together with the multivaccination campaign, in 4 out of 20 states carrying out this activity. These interviews allowed measuring the impact of the disseminated messages, building qualitative indicators and describing the profile of the population who searched the health units in response to the media. Results showed that the largest number of people who had a dermatologic exam corresponded to individuals who were screened in the multivaccination waiting lines, but that detection was more effective among the group of people who spontaneously searched this service, motivated by the messages.

The second stage of the survey in seven states which had and had not adhered to the campaign aims to known in the sample of newly diagnosed cases in the post-campaign period the impact of the media on message retention, incorporating the dynamics of the recipients social plurality and applying statistical models to explain the results.

CO14

PACE OF LEPROSY ELIMINATION AND SUPPORT TEAMS - BIHAR

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India is the major contributor to global load of leprosy. Multi Drug Therapy (MDT) programme has been implemented since 1984 in majority of leprosy endemic regions. The cases on record has declined from 3 m (1984) to 1.2 m (1996). There are few regions where it was difficult to implement MDT in an intensive manner. Bihar state was one such region where MDT programme was introduced in 1993 in a low key. Bihar contributes 21 % of case load in India and 12% of global case load.

Damien Foundation India Trust was allotted 16 districts (43% of population in Bihar state) for assisting in implementation of MDT. Support teams provided by DFIT, one for each district, assisted in screening of existing cases, planning case finding, treatment delivery in line with national guidelines. Intensive training programmes were done for various categories of staff. Action Plan was implemented in all the 16 districts. New case detection improved by 228% and case discharge after completion of MDT improved by 135% when compared to the previous year's performance.

The support teams consisting of experienced personnel can hasten the implementation of MDT programme in regions where it is delayed or being done in slow pace.

CO15

IMPACT OF INTEGRATION ON LEPROSY CONTROL PROGRAMME IN NEPAL.

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Leprosy control programme in Nepal was implemented as a vertical programme since 1996. In line with the government's policy of integrating all vertical programmes into the basic health services, since 1987 leprosy control programme was assimilated into basic health services. With integration leprosy services benefited as larger population was covered. MDT was extended to all the districts as well as to all registered leprosy patients, regular services were provided, coordination among INGOs and HMG staff was improved and proved to be cost effective in terms of manpower, transport and finance. However, leprosy control activities suffered because of unforeseen technical and operational constraints. Leprosy was found to be accorded low priority and because of wider coverage adequate supervision could not be provided. In addition low motivation and morale of health workers as well as poor health facilities has caused obstacles in providing effective leprosy services. The government is taking necessary steps to reddress these issues by conducting regular training programmes, meetings of programme managers and INGOs at different levels and increasing the frequency and quality of supervision in order to achieve the goal of elimination by the year 2000.

CO16

INSTANT NEW CASE DETECTION - AN EXPERIENCE IN BIHAR STATE, INDIA.

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Bihar State in India contributes 12 % to global leprosy case load. DFIT is involved in leprosy elimination through their support teams since May 1996. Singhbhum is an endemic district with 3.5 million population. Support team organised a campaign for case detection in the 3rd quarter of 1996. All the available field workers were involved in the campaign with the assistance of experienced leprosy workers from other States. Teams of doctors, NMS and PMW were formed. Each team was provided with a vehicle. The teams visited several villages daily. Propaganda was done by audio system and with the help of flash cards rapid enquiry survey was done. They also visited "Haat" in the afternoon where large number of people gather from neighbouring villages. Suspected cases were screened and active leprosy cases were started on MDT.

New case detection was (4953) equivalent to the total new cases detected in the district during the previous one year. The whole exercise was completed in 45 working days covering 55% of the population of the district. The campaign helped in improvement of the skills of the local staff and there was positive change in motivation and work culture.

CO17

NATIONAL LEPROSY ELIMINATION CAMPAIGN -BRAZIL (LEC). Valladares D; Ledra VJ; Glath R; Pereira GF and Oliveira MLW
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The proposal of national LEC draws on two previous experiences on mass media campaign and additionally incorporates the strategy of WHO LEC proposal including not only information but also diagnose and treatment. It was held in 20 of the 27 states of Brazil and reached only 14% of the total of existing municipalities with leprosy programs, in those states involved (305.2.255) in spite of being the most populous ones. The Brazil LEC inovation was to add the examination of individuals with skin symptoms simultaneously with multivaccination campaign (10.25.98). This strategy presents some advantages and disadvantages such as: opportunities for mothers and children examination, logistics facilities at health network, mobilization of communities as well as promotion of integration.. On the other hand such strategy may jeopardize the health workers' tasks mostly where there are scarcity of them. Thus leading to overwork. It decreases the cost benefit of new cases finding is harmed (too many exams of mothers and children for few cases found).Some municipalities choose a different day for the campaing eigther before or after.

The conclusion was: 1) around 2.400 new leprosy cases were diagnosed in single day and 63% started MDT (practically the same number was considered suspected of leprosy) which means 5.3% of yearly estimated detection. Many others cases are still being found as a result of the campaing. 2) in a huge country like Brazil, the national LEC is very useful to reach large number of people specially if including the "big media" as TV. And also to sensitize the many local authorities and thechnicians as to existing hidden prevalence of leprosy. It has to continue be repeated on the next immunization day but local LEC proved to be more effective and must be kept in high endemic municipalities.

Other important outcomes of national LEC were:

a) spreading of leprosy awareness in the community; b) Proving the low coverage of diagnosis and treatment; c) certifying the hidden prevalence. Therefore, the LEC results are being used to increase the committement of both local and central level authorities of SUS to decentrilize the attendance.

This proposal received funds of WHO and logistic support of PAHO/Brazil Unifyed Health System of Brazil

CO18

COMBINED TUBERCULOSIS AND LEPROSY CONTROL PROGRAMMES: LESSONS FROM NIGERIA

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This paper is not about whether TB and Leprosy control programmes should be combined or not. Indeed the author acknowledges the substantial benefits potentially accruing from combination. In order to reap these benefits however, certain operational issues have to be recognised and carefully thought through by policy makers and programme managers contemplating combination. Based on his experiences as a state TB/Leprosy Control Officer and Medical Adviser to a leading NGO supporting the Nigerian national programme, the author highlights some important areas of concern. These include issues related to microscopy network for TB control in areas where diagnosis and monitoring of treatment ofleprosy have been based on clinical parameters alone, balancing 'cure' in TB with 'care' in leprosy, the implications of using many general and tertiary hospitals as intake centres for direct observation of TB treatment, recognising and addressing apparent and inapparent conflicts between erstwhile leprosy and TB control staff as well as between supporting NGOs with differing policies regarding the combined programme. Options for solutions are suggested.

The paper concludes on an advisory note: transitions from single-disease leprosy and TB programmes to combined control programmes must be planned and not brought about by mere executive fiat.

CO19

BURULI ULCER, AN IMPORTANT EMERGING MYCOBACTERIAL SKIN DISEASE IN WEST AFRICA

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During recent years the prevalence of leprosy decreased significantly in West Africa, as a result of efficient programmes and help from NGO.
At present, another mycobacterial disease, Buruli ulcer (BU), is increasing. BU is a cutaneous infection caused by *Mycobacterium ulcerans*, the third most common mycobacterial disease in immunocompetent humans, and was recently recognized by the World Health Organization as an important reemerging disease. Prevalence has increased in recent years, especially in West Africa and in Australia. New foci were discovered recently in Togo, Angola, Guinea and Peru.
To delineate the extent of the disease in Benin, we conducted an epidemiological study, the first of its kind, based on data from the records of 867 patients treated at Zangnanado Hospital between 1989 and 1996. BU had spread contiguously and widely in southern Benin. All affected areas are in the valleys of the Ouémé, Zou, Mono and Couffo rivers. The total number of BU patients detected between 1989 and 1996 increased exponentially, and now exceed those of leprosy and tuberculosis in many endemic sub-prefectures.
Implementation of a Benin National Anti-Buruli Ulcer Programme proved essential for the development of a BU central reporting system that would increase the knowledge of the epidemiology of BU, assure earlier diagnosis, improve patient care in the endemic areas and diminish the financial burden of the disease, for the health care delivery system, the patients and their families.
In West African Countries with a BU problem, the excellent leprosy control programmes could take part in the responsibility for this new burden, since there are parallelisms between leprosy and BU e.g. in PIRP and rehabilitation. One strategy would be to have National BU control programmes associated with leprosy control programmes.

CO20

TREND OF LEPROSY IN DAMIEN FOUNDATION PROJECTS IN INDIA

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Damien Foundation India Trust, an ILEP agency working for leprosy control in India, supports 34 leprosy eradication projects in India. Trend of the disease in the past ten years in 13 of the DFIT- supported projects (3 in the north and 9 .. the south) has been analysed for New Case Detection Rate, deformity proportion, positives, single lesions and relapses. Only those projects which had a well-established programme by 1987 have been included for analysis. These projects have well established programme of case detection and case holding, a good laboratory facility, and the criteria they follow for selection of cases for smear examination has not changed.

The total population of these projects in 1987 was 3 029 838 and the projected population in 1997 was 3 502 206. The 13 projects had detected 62586 cases since 1987 (10036 in 1987 and 3713 in 1997). Number of positive cases detected from 1987 was 3062 (356 in 1987 and 138 in 1997), and the number of relapses 718 (55 in 1987 and 35 in 97).

The trend of the disease in terms of NCDR, new positives, proportion of BI 3+ and above among the positive cases, proportion of deformity and single lesion cases among the new and relapses and the prospects for elimination in these projects would be discussed.

CO21

LEPROSY DEFAULTER RETRIEVAL AND MANAGEMENT. AMAZONAS STATE, BRAZIL.

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Two urban and one rural areas of the Amazonas State with highest prevalence of leprosy, and highest proportion of defaulting cases received an intervention to reduce these rates. The intervention consisted to retrieve defaulter patients by home visits and their evaluation. Based on detected reasons for defaulting and clinical status, actions were taken, including restart MDT in a flexible way, whenever it was necessary.

In the urban area, from 110 defaulter patients, 58 (53%) have moved out and were removed from the prevalence area. From 52 (47%) patients retrieved, 14 (27 %) were released from treatment as cured , 19 (36 %) have not attended to the clinic after home visit, 10 (19 %) restarted MDT 4 (8 %) patients were receiving or completed treatment in another health unit, 2 (4 %) refused to treat and 3 (6 %) patients expecting result of biopsy to subside procedure. The main reason for default in urban areas was that most of them felt cured. In the rural area from 79 defaulters identified, 23 were retrieved of whom: 17 (75%) started MDT (previous dapsone monotherapy), 4 (17 %) re started MDT due to presence of active lesions, 1 (4 %) was released as misdiagnose and 1 (4) was released from treatment as cured. The main reasons for defaulter in rural area were long distances between small communities and health unit and also lack of transportation. Due to these problems we decided to make efforts to establish MDT, in the area, by training health agents.

This investigation received financial support from UNDP / World Bank / WHO Special program for Research and training in Tropical Diseases (TDR)/DAHW.

CO22

LEPROSY ELIMINATION CAMPAIGN COMBINED WITH THE ANTI-POLIO VACCINATION - MUNICIPALITY OF RIO DE JANEIRO - BRAZIL

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The objectives of the campaign were to raise awareness about leprosy amongst the people of Rio and to encourage people with signs of the disease to report to their local health centres, particularly in those areas not covered by normal leprosy control services. The model of polio mass vaccination was used in developing plans for LEC in Rio. This mass campaign was combined with the anti-polio campaign (july 1996) when the second shot of the oral Sabin vaccine was administrated. Screening of suspects was done in 70 health units during a single day. More than 10 000 persons (volunteers from MORHAN and civil club) were envolved in public information on leprosy. In relation to the objective of the campaign to diagnose cases in areas not covered by the Programme, it was observed that 57.18% of the examined population was examined in health units where leprosy control was not previously implemented.

CO23

THE PROFILE OF THE UTILIZATION OF HEALTH CARE AMBULATORIAL SERVICES BY LEPROSY PATIENTS IN BRAZIL.

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The Secretariat of Health Care/SAS/MoH has established a cost-effective national monitoring system. Monitoring of service utilization and cost can not be done through the existing epidemiological information system. The number of cases of leprosy can be determined from multiple national databases such as Out-Patients system (SIA/SUS) and In-Patients Information system (SIH/SUS). These databases allowed to analyse data at national, states and municipal

levels and/or health units involved in leprosy care. Data from the National Out Patients System were analyzed for better understanding the profile of utilization of health care services by leprosy patients. Notification sources (105 520 registered cases in 1996) were used for calculating the cost per patient. From January to November 1997, the cost for care leprosy patients in Brazil was 0,06% of the total care amabulatorial cost. In average 2.24 medical consultations and 8 procedures were offered for each patients on registers. The cost per patient was US$ 19.55 for utilizing health primary services (excluding drug cost). Large variations were observed between states and regions. This type of analysis from multiple sources can assist in assessing leprosy programme performance in various levels.

CO24

LUCHA ANTILEPROSA EN LA CIUDAD DE SANTO DOMINGO. LOGROS Y PROBLEMAS PERIODO 1973-1997

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Santo Domingo, capital de la Republica Dominicana, con una poblacion de 2,389,937 habitantes, la mayor parte de ellos por migracion interna ha sido un foco muy activo relacionado con lepra con un diagnostico de casos que representa alrededor del 50% del problema del pais Los logros alcanzados, con las medidas del programa, se evidencian por medio de las tasas de incidencia y de prevalencia que de 17 4 y 14 8 respectivamente en 1973, se han reducido a 2 9 y a 0 63 en 1997 Una de las estrategias empleadas para conocer a fondo el problema y lograr una prevención secundaria eficaz fue la atencion medica gratuita a partir del año 1995 para la poblacion de los barrios marginales con donacion de medicamentos en las manifestaciones dermatologicas mas frecuentes de poca complejidad Se discuten los problemas que acarrea la lucha antileprosa en las grandes ciudades

CO25

ARE THERE GHOST LEPROSY PATIENTS IN NIGERIA?

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How much do statistical reports of registered prevalence reflect the actual number of patients in the clinics? A review of clinic records was done in 7 States of Nigeria to compare the reported with the actual point registered prevalence of leprosy at the end of the 3rd quarter of 1996. Instead of the 3,586 patients (2.0 per 10,000) reported,2,276 (1.3 per 10,000) were found. The total discrepancy of 1,310 cases represented 1,411 non-existent and 101 unreported cases. It was significant that 2 in every 5 reported patients from the 7 States were 'ghost' or fictitious cases. The proportion of ghost cases in the individual affected States ranged from 20.6% to 67.8%. This significant reporting of fictitious cases in some States suggests that the actual national registered prevalence of leprosy could be lower than is reported. Apart from the economic importance of statistical over-reporting, the elimination of leprosy as a public health problem may be even sooner than the national or global figures would declare. Quarterly, structured and field supervision of information system activities by programme co-ordinators is recommended to eliminate the prevalence of ghost patients.
The author proposes (and suggests a sample) of a checklist as a useful supervisory tool.

CO26

DEVELOPMENT OF SUSTAINABLE LEPROSY CONTROL SERVICES BY ADJUSTING LEPROSY ORGANIZATIONS IN SHANGHAI

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Shanghai Municipality had met China's criteria of basic eradication of leprosy in 1990. Since then, a sustainable leprosy control service has been developed gradually and successfully.

In 1994, the Shanghai Municipal Health Service decided to combine Municipal Station for STD control with Shanghai Municipal Zunyi Hospital to make their resources yield well. Clinics for skin diseases and STD and special wards for care of aged patients with non-leprosy diseases have been established resulting in significant social and economic benefits.

In recent years, health education about leprosy has continuously been carried out through mass media. A report on "Seeking the Way of Returning Back to the Society" informing that there is still the last generation of unfortunates in Shanghai has evoked strong repercussions in the community. A number of social societies, welfare agencies, industries and resident population have actively provided assistance. The living conditions of cures continuously stayed in the hospital have been markedly improved with a monthly living expense of 300 yuan each. A new well-equipped ward building has already been put in use as a home from home for cures to make their remaining years peaceful and carefree.

CO27

LUCHA ANTILEPROSA EN REPUBLICA DOMINICANA PERIODO 1973 - 1997

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Los datos estadisticos, demuestran un aumento anual de la tasa de deteccion por 100,000 habitantes que alcanzo un 10 2 en 1975 Posteriormente se aprecia una disminucion continua de la misma hasta llegar a 3 8 en 1989 Desde este año, los indices proyectan un estancamiento franco que se atribuye a que los factores de riesgo (del individuo y socio-economicos) se han mantenido sin modificacion Por otro lado, la tasa de prevalencia presenta una caida continua a partir del año 1980 (8 33) hasta llegar a 0 48 por 10,000 enfermos en tratamieno en 1997, situando a R D entre los paises en donde la lepra no presenta problemas de salud publica

CO28

[illegible]

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International trends, government policy, similar disease control strategies and improved service capabilities are all cited as reasons for integrating leprosy and tuberculosis programmes. We describe the experiences of an INGO programme with 200 staff serving a population of 2.5 million in the Mid Western Region of Nepal, which was created by the merger of two separate programmes in 1995. After describing some of the advantages and disadvantages of joint operations, and outlining the management process involved, we present data on leprosy case finding and treatment outcomes. These indicate that, far from distracting programmes away from good leprosy control, carefully managed combinations can enhance our effectiveness. However, this must be matched with integration at government and donor levels. They in turn must listen to field managers and be prepared to be flexible for successful implementation.

CO29

COMMUNITY AWARENESS AND INVOLVEMENT

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Now that leprosy has reached a level where it may not be justifiable to continue as a special vertical programme, the problem of its integration into the general health programmes of the country will have to receive attention.

A major difficulty in such integration is that the primary health centre (PHC) which was devised to provide an integrated preventive, promotive and basic curative services in a decentralized manner has itself reached a low ebb due to the 'target' pressures of a variety of vertical programmes under the influence of a hierarchial bureaucratic approach. To try and integrate the leprosy programme into the

general functioning of a PHC, which has been reduced to a target oriented institution to serve the needs of National Disease and Family Planning Programmes, may result in loss of the achievements to dates.

The answer to this, as for many other diseases, is to involve the community and their health functionaries for early detection and also for ensuring regularity of treatment, with the PHC providing the supportive service for confirming diagnosis and providing the regime and the drugs for treatment which can then be undertaken most effectively and at low cost by the community's own functionary.

CO30

VOLUNTEER MOBILISATION CAMPAIGN FOR LEPROSY ERADICATION (V M C)

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Harnessing of the " Student Power" for the elimination of leprosy in India is a new concept which is not at all in vogue in any other part of the World. This concept was first tossed by the German Leprosy Relief Association with the objective to educate, trace and treat the hidden cases of leprosy which had hitherto eluded detection by conventional modes of case detection.

Through VMC all forms of student groups were brought under one common banner of " Student Volunteers" irrespective of their affiliation to groups and schemes of actions to realise the following objectives:

- To create awareness about leprosy in order to eliminate the disease
- To help wipe out the social stigma attached to the disease.
- To mobilise a mass of student volunteers favourably disposed towards eradication of leprosy.
- To enable the community to identify the hidden cases among themselves through voluntary reporting.
- To train student volunteers to identify the early signs and symptoms of leprosy and to mould them as a " Task Force" to be deployed in the community.

During the initial campaign and immediately after that 34 MB cases and 103 PB cases were registered from the operational areas through the efforts of the student volunteers. These initial results would speak of the greater role VMC could play in the detection of new cases and the mass education they impart to the public.

CO31

COST CONTROL IN MANAGING LEPROSY PROGRAMMES - A STUDY REPORT

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In the modern days running a Leprosy Control Programmes have become very expensive in all aspects viz., Investments, Personnel Management, Maintenance of equipments and utilities and Administrative overheads. This is mainly due to the inflationary trend prevailing in the country.

A study was conducted involving 5 leprosy programmes covering a population of 4,129,593 having a total budget Rs. 7,133,897/- and the findings revealed that by adopting the following measures the expenditures could be reduced by 30%.

a) Investments in Buildings as well as Vehicles and equipments for the project can be made after assessing the real need and full use.

b) Unproductive staff can be offered voluntary retirement and responsible positions can be provided to efficient and qualified persons. Only qualified staff for the appropriate positions to be appointed .

c) Expenses under maintenance of buildings, utilities and equipments can be minimised by using austerity measures without bringing down the quality. Similarly preventive maintenance can save unnecessary expenditure.

d) Administrative expenses like printing of stationery and records, communication expense and such other expenses can be curtailed to the minimum.

It is suggested for future that the Project Holders can be explained to strictly follow the policies of the Donors and the cost effectiveness in respect of managing the projects when the goal of elimination is not very far.

CO32

CRASH POPULATION SURVEY - A TOOL FOR DEMONSTRATING RAPID CASE DETECTION

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Crash Population Surveys (CPS) have been experimented by German Leprosy Relief Association (GLRA) and Leprosy Relief Work Emmaus Switzerland (LRWES) since 1993 with the objective to demonstrate the skill of sytematic and rapid case finding in a short span of time.

During the 5 year period 23 crash population surveys have been conducted in 11 states. The teams consists of 20 Para Medical Workers,2 Non Medical Supervisors and One Doctor. This involves efficient and well trained workers who will act as trainers to the concerned project field staff.

It was observed that the average case detection rate per 10,000 population examined was 16.3 prior to the demonstrative survey. During the Survey the team could detect an average case detection rate of 84.3 per 10,000 population. In a follow up review after one year it was noted that the case detection rate in the participant projects have gone up by 33 %. This excercise can be used to orient the staff to detect the hidden cases in the community in the fag end of the elimination phase.

CO33

THE SINGLE HEALTH SYSTEM AND THE NEED FOR REMODELING THE PROPOSAL FOR UPGRADING OF HUMAN RESOURCES FOR HANSEN'S DISEASE CONTROL

Heleida Nobrega Metello, Otília Simões J. Gonçalves, Wagner Nogueira

This paper presents a model for upgrading of human resources for Hansen's disease, planned with basis on the need of corrections posed by the implanting of the Single Health System and, especially, in the process of transferring actions for local levels.
The proposal developed by the Hansen's Disease Control Program in São Paulo includes the local realization of actions and the upgrading of services, preferrably regional.
The phases of previous planning are presented, as well as the phases employed for implanting the proposal, strategies employed the results reached.
Specificity of roles and attributions of central levels are also detailed, in regional and local levels of the cities involved.

CO34

IMPLEMENTATION OF TUBERCULOSIS PROGRAMME IN AN ONGOING TRIBAL LEPROSY CONTROL PROJECT STRATEGY AND RESULTS

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In a hilly tribal district in India, Leprosy Control Project was started in 1991 covering a population of 1.5 million in 6500 villages.

Taking advantage of the close liaison with community under the project, a DOTS programme for TB sputum-positive cases was implemented in a pilot project covering a population of 261000.

Active case finding by house-to-house enquiry survey was carried out and 9508 samples of sputum were collected, 3 samples from each symptomatic. Finding of bacilli in at least 2 of the 3 samples from a

symptomatic was the criterion to confirm diagnosis.

263 patients were thus detected. Excluding those who left area and died, treatment was initiated for 216 patients.

Treatment results are satisfactory. Patients' compliance, sputum conversion rate, strategy of case detection, drug delivery by DOTS, problems of work in difficult terrain and other details are presented.

CO35

Effect of health education and training on case dectection in leprosy

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Li Huan-Ying " " " " "

A HSR project carried out in a mountainous county in Wenshan (1994.08-1996.07), after a short period of training of primary health worker (PHW) and intensive health education to the public, the detection of leprosy by the PHW has increased from the previous two year period (1992 .08-1994.07) 5/36 (detection by PHW/total detection) to 26/45 (1.32 X), at the same time there was an increase of detection among non-contacts from 13 to 31, increase of PB from 13 to 26, decrease of grade II deformity from 12 to 6. Thus signifying the advantage of relieving the workload of case finding and drug delivery from the wide area and high population coverage for the individual leprosy worker in the vertical leprosy administration system.

CO36

COST FACTORS OF LEPROSY MANAGEMENT

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Cost factors implied in leprosy control at the mass level are neglected areas of leprosy research. We present the data on field experiments carried out by Bombay Leprosy Project functioning with minimum establishment and infrastructural budgets.

1. **Case detection:-** Surveys employing trained paramedical workers (PMW) are prohibitively expensive costing about US $ 190 for detection of one skin smear +ve case hidden in the slum community at the current prevalence rate of 1 per 10,000. Small scale studies indicate that cost can be considerably reduced by using community volunteers, college students and primary health care workers supplemented by IEC activities.
2. **Medical Treatment:-** (a) Regimens using rifampicin (R) and ofloxacin (O) are amenable for administration (on the lines of 'DOTS' in TB control) by community volunteers, cost of manpower for administration of supervised course of treatment of RO for 28 days being US $ 4 for one patient as opposed to $ 14 if a trained PMW is employed. (b) Treatment with standard course of treatment of steroids costing US $ 12 for 840 tablets of prednisolone 5mg can be managed under field conditions with good compliance rate using the same volunteers.
3. **Care of the disabled :** Analysis of services reveals that the cost of community based disability care services using low cost tools for one patient for a year is US $ 20 whereas the cost of institutionalised services of identical nature works out to US $ 233 per patient for one year.
4. **Surgery, Hospitalisation and Rehabilitation :** While possible cost analysis of these aspects is extremely difficult, experience over two decades indicates that these services can be offered economically in integration with general hospitals, medical colleges, vocational training centres, rehabilitation institutes for the handicapped.

Health systems research in leprosy assumes greater importance in the current low endemic scenario than at any time in the past.

CO37

HOW TO DETECT LEPROSY PATIENTS IN AN INTEGRATED HEALTH SYSTEM WHEN REACHING THE GOAL OF ELIMINATION? EXPERIENCE FROM MARCHOUX INSTITUTE

Alexandre Tiendrebeogo, Samba O Sow, Modibo Traore et Fatimata Doumbia

Marchoux Institute, a research and training center for leprosy, is charged to coordinate leprosy control in eight Francophone Countries of West Africa. The implementation of leprosy programs with WHO/ MDT, through integrated health system approach, allowed those Countries to reduce the burden of leprosy. The prevalence rate of leprosy fell from 21 6 to nearly one case per 10,000 inhabitants between 1987 and 1997. During the same period, the detection rate remained stable (between 15 8 and 10 4 per 100 000 inhabitants). Those findings conducted us to assess the quality of the diagnosis of leprosy done by general health workers at peripheral level. We also evaluated strategies of case-finding used in the region covered by Marchoux Institute. The results of these studies conducted from 1995 to 1997 showed the following main conclusions:

- Quality of the diagnosis of leprosy done by trained general health workers at peripheral level is sufficient for a leprosy control purpose (one false negative among 329 patients and four false positives among 41 suspected cases).
- Active case-finding methods are more efficient than passive ones when conducted from time to time rather than yearly.
- The number of patients actively found gets greater with the distance between health centers and villages.

These results suggest that detection of cases of leprosy should be conducted combining passive and active approaches. Active case-finding would be applied on remote areas or villages far of more than 30 kilometers from common health centers, involved in leprosy case-finding.

Key-words: leprosy, case-finding, strategy, integrated health system

CO38

MEDIA (RADIO/TELEVISION) CAN PLAY A MAJOR ROLE IN DEFUSING STIGMA, INCREASE IN VOLUNTARY REPORTING AND ULTIMATELY ASSIST IN THE ELIMINATION OF LEPROSY

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The challenge of eliminating leprosy by the year 2000 has motivated people to envisage and adopt new methods besides traditional,to detect new cases, in early stages to bring maximum number of patients under the Multi Drug Therapy.

With the above objective a study was conducted to measure the effect of media in creating awareness.

In 1995, a message of 45-80 seconds in National Network of Doordarshan brought, 5568 letters, in 1996, a 3 minutes song, 10752 letters and a 45 seconds message in 1997,3451 letters,seeking information on treatment etc. and thus following observations were made.

Television/Radio,a relatively cheep and effective method of case detection will increase voluntary reporting. As in 1995 -1.25%; 1996 - 2.5% and in 1997-0.25% written requests came seeking help. (This percentage is based on the fact that 5 lakhs newpatients are found every year in India). The expenses incurred in 1995 were-Rs.5,000; 1996-Rs.25,000 and 1997- Nil due to repeat programme.
Hence media(Readio/Television) plays a major role in increasing voluntary reporting and ultimately assists in eliminating leprosy
Regional language programmes can give more information including places of availability of treatment.With this 96% polulation can be reache

CO39

EMPOWERING THE COMMUNITY TO DO CASE DEFECTION AND DISSEMINATION OF SCIENTIFIC FACTS OF LEPROSY - A PRELIMINARY REPORT

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The objective of the study is to assess how far the community is able to detect cases on its own and try to spread the scientific facts of leprosy.

It is by two tier system of education. In the first place 300 leaders of the community,elected village Presidents and community health workers who till now do not take part in leprosy care, are given orientation on leprosy. The questionnaire is given to them at the time of orientation to assess their knowledge. These trained community leaders in turn train 10-15 village councilors, women care takers of pre school children and other interested women in the village. The trained village men and women volunteers each visited 30 families (100-150 persons approximately) and look for signs and symptoms of leprosy and educate families regarding leprosy.

This research study was done in an endemic area having a population of 325634. The results of the answers to the questionnairs are compared. The number of social problems before and after are compared. Analysis is done of the comparison of before and after results of the study.

CO40

A SUGGESTED STRATEGY FOR THE CASE DETECTION ACTIVITIES IN LEPROSY

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A multicentric study has been carried out in five Leprosy Control Areas with an aim to provide leprosy workers a tool to identify whether case detection of leprosy is a gender problem and if so, to enable them to make case detection methods more gender sensitive.

The case detection activities by rapid survey in these areas are carried out by paramedical workers who are men. For the purpose of the study, seven women at each centre who had orientation in leprosy for two weeks were involved in House to house survey along with male paramedical workers. A female volunteer from each village has been identified to help in survey in that village. The village presidents were involved in planning and implementing the study.

The population examined was 1257659 and 5425 new cases were detected which is three times more than cases detected every year. The cases detected among adult female is 4 times more than adult female cases detected every year.

The study has shown that many cases still exist in community which needs to be detected. Involvement of female workers, female volunteers and community leaders is proved to be effective in case detection.

CO41

SUPERVISION: NA EFFECTIVE ALTERNATIVE FOR MONITORING AND MANAGING LEPROSY CONTROL ACTIVIES

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Fundação Nacional de Saúde Brasil

This paper presents the results of the methodology shared by a group of the National Coordination for Sanitary Dermatology's technical staff and by health professionals from the 27 Brazilian states, performing different functions in the leprosy control activities at the different levels of the Brazilian Unified Health System.
It led to the creation of the supervision instrument for monitoring leprosy control activities by area: diagnosis, treatment and disability prevention, critical inputs - drugs, laboratory, information system and management.
Result of a collective creation involving 105 local professionals in 4 workshops and applied in the services, this instrument uses task analysis and professsional performance analysis, taking into account the type of professional who carries them out, the local context, the evaluation, the assessment from both customer and health professionals, in concrete interventions.
The decoded tasks and subtasks are broken down into knowledge, attitude and skills required, defining the minimum level acceptable for considering a task completed.
The methodology used allowed each actor, supervisor and supervised satff, to lead a critical reflection about the task, reviewing its practice, taking joint decisions towards changing the reality, improving the resolution of the correction of identified deviations and discussing the local and regional management's structural framework.

CO42

CASE FINDING BY VERTICAL SERVICE COMBINED WITH BASIC HEALTH CARE

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Doctors of 10 townships in Wenshan county were trained on basic knowledge of leprosy. Popular population took health education frequently through basic medical units in townships. The way of leprosy control turned into a " network-type " service of combining vertical service with basic health care. This reform has much improved case detection of leprosy with an increase of 25% of newly detected patients comparing with that before reformation. The proportion of new patients detected through basic medical units and passive modes went up from 13.9% and 55.6% to 57.8% and 80% respectively, detected non-familial new patients increased from 36.1% to 68.9% and WHO II and III disability rate among new cases reduced from 33.3% to 13.3%.

Disability rate also dropped from 40% and 53.8% to 13.9% and 16.1% respectively among new cases detected by passive modes and non-leprosy household contacts. The cost for detecting one new case decreased from 330 to 140 Chinese yuan. The above results strongly suggested that progromme of vertical service in combination with basic health care should be expanded in the field of leprosy control.

CO43

PAST AND PPESENT STATUS OF HANSEN'S DISEASE (LEPROSY) IN TAIWAN —SUCCESSFUL LEPROSY CONTROL IN TAIWAN

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Background:Leprosy control and its problem was traced to historic events of the islands' ruler from 13th century on Taiwan by original Hills' Tribes, then in successively by an occupation of the Mongol fleet, Portuguese who named it as "Ilha Formosa" in 1590, Holland, Spain in 1624-1661, Koxinga a champion of Ming dynasty in 1661-1681, and Ching dynasty till the mid-18th century when first literature on leprosy described.

Aim: To report Taiwan achievement on leprosy work during past 262 years included the recent 50-year experiences, by dividing into three stages.

Materials and Methods:The first stage of Leprosy Problem was recorded as institutional care of leprosy, simply for socio-relief purpose in the Yongche-In(insitution) in the Country Annals and accepted by the rest of several Socio-Relief Institution over the whole Taiwan for about 160 years. Second stage,modern medical care in Christian hospital & clinic from 1900 after the western medicine was brought in Taiwan in 1865. Leprosy Control Program was employed from 1925 to 1945 with the strict isolation law, such as segregation in two leprosaria with social relief program, which was published in Japan in 1901 because Taiwan was under Japanese rule.

Results: It showed a decreasing in prevalence rate,1.60 in 1945 but in the third stage, sudden increaing due to influx of a great number of refugees and soldiers after World War II from China. Later, however, chemotherapeutic regimens was successfully employed included WHO-MDT.The accomplishment was due to cooperation with Taiwan Leprosy Relief Association Clinics, local and central health organizations of the government, which also enforced BCG vaccination for anti-TB program for more than 40 years till now.

Conclusions: It showed that the maximal registered case of 4,942 with 117 new cases for treatment ever since 1977 when population was 16,783.000, decreased to the rate of 2.1 per 10,000 in 1984 with 29 new cases. In 1997 record, 7 new cases included 3 imported in the total case of less than 99 for MDT when population was 21.3 million.

CO44

MDT IN BETIM - FROM IMPLEMENTATION TO THE PRESENT (1987 - 1997)

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Multidrug therapy (MDT), a new technological intervention recommended by WHO in 1982, was implemented in Betim in 1987. Its implementation and course was influenced by the historical past of the population and went through different political moments. Although there has been great improvement in the health system organization, now considered a model for all the country, leprosy control is still a challenge for the municipality.

MDT was, however, a revolutionary intervention which marked a new era in leprosy control in this municipality despite the conflicts between agents and clients. The new proposal has brought reflections about the approach to the patient and control of this disease clearly showing that leprosy control is complex and demands not only diagnosis and specific treatment but a new ample intervention to cure the organic, psychic and social lesions caused by leprosy.

The greatest challenge for the third millennium is not only to eliminate leprosy as a public health problem but to eliminate leprosy as a human problem. Thus, we are working towards a world without people suffering from problems related to leprosy.

CO45

LEPROSY IN KARAKALPAKSTAN.
PROSPECTS FOR ITS ERADICATION

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For Karakalpakstan leprosy is an ancient heritage, but regular efforts towards leprosy control were initiated since 1933 after national health protection and leprosy service had been organized. To intensify antileprosy activity in 1962 Karakalpak Leprosy Control Branch of Uzbek Institute for Study of Dermatovenerology was opened and two outpatient clinics and six leprosy units were organized. Since 1957 active case-finding through regular sample and mass surveys with annual coverage of up to 100 000 inhabitants were carried out, identified foci of leprosy were put under surveillance with chemotherapy of both leprosy cases and their contacts, and just in 1960-1964 these efforts resulted in finding 490 new leprosy cases. Rates of leprosy incidence sharply contrasted between north and south parts of the country. Thus, in 1960 when the highest rate of total incidence for the country was observed (30,4 per 100 000) it was 43,7 in the north districts, approaching 185,6 in Muinak while in the southern parts it reached only 2,8 per 100 000. This difference is due to various factors, including genetic, besides living and economical conditions (Abdirov Ch.A. et al., 1973, 1977). Successful combined chemotherapy resulted in gradual decrease in leprosy incidence. By 1980 a tendency towards sporadic incidence began to be observed, ranging from 0,83 to 0,7 per 100 000 in 1987. In recent years only single cases of leprosy have annually been registered in the north territories, and Karakalpak focus acquired features of disappearing endemicity. Meanwhile, difficult ecological and economical situation, long incubation period, absence of antileprosy vaccine and high susceptibility of a part of the population to leprosy could induce burst of leprosy incidence on Karakalpak territory.

CO46

LEPROSY SITUATION IN I.R.IRAN

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Leprosy is an endemic disease in IRAN. The number of registered cases has progressively declined since 1984. The cumulative number of cases reported over the past years stands at 10310. In the computerized data collection system established in 1992, the total number of cases after deleting the repetitions were reduced to 9669. Out of this figure, 1608 cases had already died. From the remaining 8063 patients, 7355 cases have completed their treatment and 708 cases are under MDT.

Considering all those who are under-treatment at the end of 1997, the prevalence rate of the disease is 0.11 per 10,000. It is clear that leprosy is in the elimination phase in the Islamic Republic of IRAN.

CO47

REFLEXIONS SUR LA PRISE EN CHARGE THERAPEUTIQUE ET LA REHABILITATION SOCIALE D'UN GROUPE DE MALADES HANSENIENS APRES UN SUIVI DE LONGUE DUREE (1963-1998)

APRES AVOIR SITUE LE CADRE DE CES REFLEXIONS ET LE NOMBRE DE MALADES ACCOMPAGNES DURANT CETTE LONGUE PERIODE, L'AUTEUR FAIT PART DE SES OBSERVATIONS SUR:

1 - L'EVOLUTION DE LA MALADIE CHEZ SES AMIS ET SUR LES CONSEQUENCES DES AFFECTIONS INTERCURRENTES QUI LES ONT FRAPPES.
2 - LES EFFETS POSITIFS ET NEGATIFS DES DIFFERENTS TRAITEMENTS PROPOSES.
    CHIMIOTHERAPIE
    NEUROCHIRURGIE
    CHIRURGIE REPARATRICE DES SEQUELLES
    ORTHOPEDIE
3 - LES DIFFICULTES DE REINSERTION SOCIO-ECONOMIQUE
4 - LES SOLUTIONS TROUVEES
5 - LA QUALITE DE VIE OBTENUE PAR L'ENSEMBLE;

CETTE REFLEXION GLOBALE MURIE PAR UNE OBSERVATION ATTENTIVE ET DE LONGUE DUREE VOUDRAIT ETRE UTILE AUX DIFFERENTES CATEGORIES DE PERSONNEL SOIGNANT EN VUE DU "MIEUX-ETRE" DES PERSONNES SOIGNEES PAR ELLES.

CO48

LEPROSY CONTROL IN SUDAN: PROGRESS UNDER DIFFICULT CIRCUMSTANCES

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Leprosy Control in Sudan is under severe constraints due to the civil war, which has been going on for 15 years. This has caused more than four million people to be displaced inside and outside the country. In some areas travelling has become dangerous. Resources for health care have reduced over the years, and many patients therefore encounter problems in getting treatment.

Even under these dificult circumstances leprosy control activities have increased over the past 5 years. Under the guidance of the late Dr. Khallafalla M. Ahmed, the number of health centres providing leprosy treatment has increased from 25 in 1991, to 401 in 1996. Continued effort is needed to improve the quality of care.

CO49

GOVERNMENT/NGO COLLABORATION IN LEPROSY ELIMINATION ACTIVITIES - THE BANGLADESH EXPERIENCE and MODEL

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In Bangladesh, NGO work is fully integrated into the National Leprosy Programme through a Govt/NGO Memorandum of Understanding(MoU) by which 23 districts and 7 urban areas, representing a population of 47 million or 40% of the country is allocated to NGOs for MDT implementation. The salient features of the MoU are :

* Govt provides leprosy drugs and logistics to the NGOs.
* NGOs run leprosy services within Govt health centres with Govt and NGO staff jointly involved in case-finding diagnosis, treatment, case-holding and care.
* Govt and NGOs assist each other and pool their resource for activities like training, IEC etc.
* NGOs submit periodic reports to the Govt and attend the review meetings at various administrative levels.

The Govt/NGO partnership in Bangladesh is a MODEL that other countries should consider because it has ensured optimum utilisation of resources, avoids duplication of work, complements the strengths of each and has achieved remarkable results, which will be presented and discussed.

CO50

ERADICATION DE LA LEPRE EN TUNISIE

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En 1985 une association de lutte contre la lèpre (ALL) s'est créee à Sfax avec l'aide du comité internationale de l'ordre de Malte d'aide aux lépreux (CIOMAL) pour entreprendre une action efficace et adaptée aux conditions épidémiologiques de la lèpre en Tunisie.

1) Moyens de contrôle : un fichier « lèpre » a été établi est se compose de : une fiche individuelle de dépistage,un registre sommier-matricule,un carnet de traitement,un cahier de traitement

2) Activités de l'Association : l'activité de l'Association est basée sur les enquêtes menées sur le terrain autour des contacts des malades, voisins et collectivités dans les zones considérées à forte end0émicité lépreuse (écoles, marchés, casernes....).

3) Création d'un centre dermatologique d'hospitalisation : les malades sont hospitalisés pour un bilan biologique et anatomo-pathologique avant de démarrer la thérapeutique spécifique basée sur la polychimiothérapie ou pour recevoir des soins complémentaires.

4) Bilan d'activité 1985 - 1997 : 240 cas sont fichés et répertoriés selon les normes internationales. Les régions les plus consernées sont : - Mahdia 32 % , Medenine 25 %, Sfax 23 %. Ces statistiques révèlent l'existence de 2 foyers à endémicité lépreuse relativement importante : Mallouleche, Béni Khadèche, l'exode rural est à l'origine du troisième foyer Sfax. L'incidence reste autour de 0,01 pour dix milles habitants et la prévalence de 0,03 pour dix milles habitants ce qui place la Tunisie parmi les pays à faible endémicité lépreuse. 60 % des malades sont des lépromateux. Le pic d'âge est situé entre 60 et 64 ans. On note cependant quelques cas entre 10 et 19 ans. La contamination reste essentiellement familiale. 20 % ont une invalidité de degré 3. 150 malades sont mis sous polychimiothérapie : rifampicine (dose unique ou mensuelle) selon l'éloignement du malade, disulone ou fanasil, lamprène, 110 malades sont en état d'observation sans traitement. Au cours de cette période, l'équipe mobile a parcouru 549 897 km, a réalisé 7665 examens bactériologiques et a examiné 17 712 sujets soit des contacts des malades, soit des citoyens de la collectivité.

5) Instauration d'un cours de léprologie : En vue de sensibiliser le personnel médical et paramédical, chaque année un cours de formation nationale léprologie est tenu dans différentes régions de la Tunisie.

CO51

INCREASING THE MDT COVERAGE IN ISOLATED AREA OF NOMADIC PEOPLE BY USING COMMUNITY LEADER APPROACH

Day, R. Ribi

Indonesia is a country of islands with a population of about 200 million (1997) and leprosy has been a public health problem in a number of island. Health Services specific to leprosy were not that well organized in some of the islands due to poor accessibility, some cultural and other factors. Waropen atas with a population of 5,373 is one sub-district out of 9 in Yapen Waropen district located on a small island.

Only leprosy cases were on record with poor regularity of treatment in Waropen Atas in 1995. It was suspected that a large number of leprosy cases might have got accumulated and remained undetected in the area, due to poor accessibility and other reasons. A Special Action Project for Elimination of Leprosy (SAPEL) was planned and implemented in Waropen Atas in 1996 from January to December with funding from WHO. Emphasis was put on training and utilizing the services of community leaders in detection of all hidden cases of leprosy and their treatment. Project implementation resulted in detection of new cases of leprosy and putting them on MDT treatment. Activities were followed-up and the treatment regularity was found increased markedly, beside detecting 15 new cases.

This project might not have contributed significantly to the national leprosy elimination goal, but stands as an example of making available leprosy control services to under served and difficult to access population through their community leaders.

CO52

A COMPARISON OF EXPERIENCES WITH DIFFERENT METHODS OF INTENSIFIED CASE DETECTION APPLIED IN SOME STATES OF EASTERN NIGERIA

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In the face of decreasing (registered) prevalence and shorter treatment duration, many leprosy control programmes are embarking on intensified case detection strategies. Given the dearth of resources in many of these countries, it is important that the relative merits of various options are considered before settling for a particular approach.
This paper presents experiences made in some States in eastern Nigeria with methods of intensified case finding for leprosy at local government level (equivalent to districts). The methods compared comprise a Leprosy Elimination Campaign conducted with technical and financial assistance

of WHO and locally developed "mini-LECs" using mainly locally available human resources.
The paper will describe the main characteristics of the applied methods and the environment.
The various approaches will be compared and critically discussed regarding case holding, cost effectiveness and sustainability.

CO53

GEO-MEDICAL ANALYSIS AND THEIR IMPACT ON A HUMAN DISEASE:

A CASE STUDY OF LEPROSY IN TAMILNADU, INDIA.

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Leprosy has emerged as a major public health problem in India especially in Tamilnadu. There were 15 leprosy affected persons for every 1000 as against the national average of 5 per 1000. A deterioration in the ecosystem of life elements such as personal hygiene, poor sanitation, overcrowding, housing density, illiteracy are responsible for an increase in the case detection rate of leprosy. Since there is an association between the life elements in geoecosystem with reference to the origin of leprosy, the present study attempts to analyse the following major objectives:
1) To analyse the leprosy situation in Tamilnadu with reference to regional variation among the districts; 2) To analyse the living environment and ecological perspectives of leprosy and the leprosy patients; 3) To identify the life elements that largely contribute for the origin of leprosy with reference to spatial distribution of leprosy patients; 4) To identify the major dimensions which determine the patient attitudes towards treatment and follow-up of drug schedule.
The study was based on a questionnaire survey by direct observation method conducted among 300 respondants chosen in all the districts of Tamilnadu. The data were analysed with the help of multivariate statistical technique known as factor analysis. The dimensions extracted from the analysis indicate that the life elements of Leprosy patients are related to the geoecosystem of Tamilnadu. Fourteen major dimensions were emerged with an eigen value of ranging from 1.00 to 3.45 and with a total variance of 42.33%. The dimensions worth mentioning are; 1) Leprosy and Socioeconomic status 2) Physical deformity and permanent disability 3) Attitudes of leprosy patients on MDT programme .... The study thus identified the major life elements of Leprosy patients and their significance in geo-medicalsystem, and their effects on Health care system in Tamilnadu.

CO54

IS OUR SOCIETY MATURED ENOUGH TO ACCEPT LEPROSY INTO GENERAL HEALTH SYSTEM ?

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Global aim of leprosy elimination by 2000 AD,has positioned leprosy on the verge of integration into General Health System (GHS). All Cogitations in this regard, are in the view of dwindling prevalence rate and economic motives.
The paper intends to examine the prospects of leprosy integration programme in the context of knowledge and perception about leprosy in the society. The study was conducted in the metrocity of Bombay and other places with varying endemicity of leprosy.
The study reveals that the time is not yet congruous for integrated programme.In view of diagnosis and treatment of leprosy society has shown least faith in GHS.Shockingly, the attitude of the youth seems to thwart the prospects of integrated programme, as one third still favour concept of isolation and 60% opposed to establish marrital relationships with leprosy patients. More than one third (36%) do not seem to accept Germ Theory. Authors strongly believe that dependency on leprosy institutes for service and expertise is an obstacle in post elimination scenario. The authors, reproach authorities for having ingnored the faculty of health education, in the wake of advances in the chemotherapy of leprosy.
The failure in bringing about attitudinal changes in the society may be attributed to the traditional health educational policies. The paper concludes with a word of caution that if health educational activities are not rejuvenated, the integrated scheme will revert leprosy situation to pre-leprosy control era.

CO55

PUBLICITY RESULTS OF " THE INTERNATIONAL LEPROSY DAY "

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Due to the fetters of the traditional concepts and people's fear , leprosy was a "forbidden zone" for publicity for several decades after the founding of New China. However, after the reform and China opening to the world, Dr. Ma Haide pointed out that technical policies and measures of leprosy control, particularly its publicity work in China should be reformed. In 1988, the Ministry of Public Health reissued "The Administrative Regulations for National Leprosy Control Programme", which freed the publicity work as one of the important measures and since then has been carried out throughout the process of leprosy control with fruitful results. This essay showed that, during "China Leprosy Day ", i.e. World Leprosy Day in China, how the workers in the field of leprosy practised what they advocate, how the patients made demonstrations with their own experiences, how the government officials, workers of mass media and people from all walks of life involved in and gave support to leprosy control. Also the social and economic results achieved through publicity work were analysed proving that it is really correct and necessary to make the publicity as one of the leprosy control tactics in out country. It also demonstrated that the commitment of governments at various levels and involvement of people from all circles are major factors for a success. The author stressed that only by making people believe and respect science and by using scientific thinking and methods to observe, analyse and deal with the issue, could we get rid of man-made obstacles in leprosy control and consequently achieve the goal of early casefinding, prompt treatment, reducing infection, preventing disability and helping persons affected by leprosy return back to the society. Meanwhile, by analysing the exising problems, the author emphasized that efforts must be made continously in popularization of science and scientific knowledge about leprosy.

CO56

APPLICATION OF RANK SUM RATIO IN EVALUATING THE OUTCOME OF LEPROSY CONTROL PROGRAMME

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The authors evaluated the outcome of leprosy control programme using rank sum ratio (RSR) in Southwest Prefecture (administratively divided into 8 counties) of Guizhou province. Early detection rate (EDR), disability rate and prevalence were selected and converted to EDR ring comparison (defined as the change range between EDR among newly detected cases of reporting year and that of previous year), EDR comparison(defined as the comparison value between average value of EDR of the designated county and that of the whole prefecture), disability rate, prevalence ring comparison (defined as the change range between prevalence rate of reporting year and that of previous year) and prevalence cross comparison (defined as the comparison value between prevalence of the designated county and the average prevalence rate of the whole prefecture)as 5 essential indicators for evaluation (EIE). Based on experiences reported and author's own understanding of the importance of these 5 EIEs, their experience weight coefficients, right weight coefficients and RSRw were defined and calculated. These values and their grades directly reflect the outcome of leprosy control programmes in the whole prefecture more scientifically and objectively.

CO57

LEPROSY ELIMINATION IN DHARAVI: THE LARGEST SLUM IN ASIA

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The urban slums are considered to be a difficult population group for achieving the elimination of leprosy with MDT. Dharavi, the largest slum in Asia located in Bombay and reported to have an approximate population of 600 000, was taken up for intensive leprosy control activities by Bombay Leprosy Project in 1979. WHO-MDT was introduced in 1982 and later short course chemotherapy(SCC) based on rifampicin, ofloxacin and minocycline combination was introduced. Along with regular active case detection methods, intensive case detection activities including special campaigns were undertaken to identify hidden cases at regular intervals using medical students, nurses, community volunteers as well as para-medical personnel. A massive "Leprosy Elimination Campaign" (LEC) using essentially volunteers from the

community as well as primary health care workers ("searchers") was undertaken recently to assess the current leprosy situation in the slum.

A total of 2849 new cases were identified since 1982 out of whom 635 were MB leprosy (skin smear +ve). The registered prevalence rate was 14.4 per 10 000 population in 1982. This declined to 0.1 per 10 000 population by the end of December 1997, thus reaching the level of leprosy elimination in the slum. Though the annual smear positive case detection showed a significant declining trend, it remained more or less unchanged after 1990 which is considered to be a feature of the elimination phase.

These recent observations indicate that leprosy can be eliminated even in vast slums characterised by several operational difficulties by employing 'searchers' described above to identify backlog cases followed by intensive MDT.

CO58

THE INITIAL EFFECT OF SAPEL OPERATED IN LEPROSY ENDEMIC AREA

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Monhai county of Yunnan borders on Burma with more than 20 minorities (mainly Daizu), a high illiteracy rate (37.7% in children) and an area of 5 511 square kilometers. The highest prevalence of leprosy was 1.25 ‰ in 1978. The average annual detection rate was 6.9/100 000 of last 5 years. Because of shortage of specialized workers, 77.3% of newly detected patients were identified by passive case finding and 84% of them were diagnosed at leprosy clinics. Of 14 townships of this county, leprosy in Monza and Monhai townships were more endemic and the average annual detection rate of last 5 years was 45/100 000 and 12.7/100 000 respectively. In the recent 5 years, the total number of newly detected cases in both two townships occupied 77.3% of that of the whole county. Based on the Statement by Member-Associations of the ILEP (July 1994, Hanoi), a SAPEL project was implemented in Monhai and Monza townships by a team of specialized doctors from provincial, prefectural and county levels from 13 to 27 of January 1996. Through deep-going health education to the community and training of health workers at basic level of the whole county with simple language and object teaching method for only two days, then, main attention was paid on household (especially MB households) survey and examination of suspected clues. Eventually, 22 patients with leprosy were detected among 496 suspected clues and 15 among 431 households of known patients (13 cases from 314 MB households, 2 from 117 PB households) with a detection rate of 56/100 000 (Monhai 133.3/100 000, Monza 20.0/100 000) which was 8.1 times as many as of average annual detection rate of last 5 years. The sex ratio of these 37 cases was 0.95 and its type ratio was 0.40, much lower than 3.9 and 1.7 of last 5 years respectively. Afterwards, the project was carried out in another 5 of the rest 14 townships. Up to the end of June of 1996, 22 additional new patients were identified with a detection rate of 10.3/100 000, which was 2.9 times average annual detection rate of last 5 years (3.6/100 000). It indicated that the implementation of active casefinding activities and health education in Monhai county were not efficient and inadequate inthe past, and it also indicated that the SAPEL project was proved effective and feasible for promoting and speeding up the process of elimination of leprosy in high endemic areas.

CO59

LEPROSY ELIMINATION CAMPAIGN IN A METROPOLITAN LEPROSY PROJECT

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To reach MDT to all undetected leprosy patients in endemic areas the National Leprosy Eradication Programme(NLEP) India initiated a county wide modified Leprosy Elimination Campaign(LEC). Bombay Leprosy Project undertook LEC in its project area covering a population of 1.8 million as a part of state-wide campaign in Maharashtra between 30 January and 5 February 1998.

A total of 748 volunteers ("searchers") both from primary health care and community were offered one day training to screen and suspect leprosy in their area of allotment using colour diagnostic cards while going from house to house.

A total of 923,004 residents of the project area, mainly slum dwellers, were screened in seven days. 2190 individuals suspected to be having leprosy were enlisted by the searchers. The field staff of the project confirmed cases and identified 70 new patients. The new case detection rate was 7.6 per 100 000 population. The new case detection rate during 1997 was 13 per100 000 population.

This campaign showed that a simple task oriented training to community volunteers is adequate to suspect leprosy though it is possible that some leprosy cases especially of the early lepromatous variety might have been missed. This cheaper work force can be used to strengthen the existing manpower involved in leprosy control to refer the suspects to treatment centres for confirmation. The deployment of such searchers will enable us to reach realistic levels of leprosy elimination in metropolitan cities.

CO60

A STUDY OF COMPREHENSIVE MEASURES USED IN LEPROSY CONTROL FOR PROMOTING BEASIC ELIMINATION OF LEPROSY

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Shandong Province is situated in the east part of China with a population of 87 million and 135 counties/cities. About 2500 years ago, the first leprosy case, namely Ran Boniu, was recorded in "Lun Yu ". The prevalence of leprosy was high in the past and no leprosy control measures were carried out . After the founding of New China, the government has paid more attention to leprosy control. Since 1955, the comprehensive measures for leprosy control have been implemented in Shandong as following : early case finding, case holding, chemotherapy, management of leprosy control programme, research and health education. Through 38 years of active leprosy control, a prominent achievement was obtained. By the end of year 1992 , the cumulative number of leprosy patients was 53 274 and that of cured cases was 39 578, only 321 active cases remained with a decrease of prevalence from 0.45 ‰ (1960) to 0.0037 ‰ in 1992. The incidence and detection rates reduceed from 0.05 ‰ and 0.1 ‰ during 1955-1959 period to 0.0003 ‰ and 0.00066 ‰ during 1988-1992 respectively. After the evaluation of the Leprosy Expert Group of the Ministry of Public Health in 1994, Shandong, as the first province in China, was proved to met the China's criteria of basic eradication of leprosy.

In the years of 1994, 1995 and 1996, the total number of registered active cases was 272, 231 and 254 (225 in 1993) and the incidence and prevalence rates were 0.00043 ‰, 0.0005 ‰, 0.0006 ‰ and 0.0031 ‰,0.0027 ‰ and 0.0029 ‰ respectively in this province. It is considered that the achievments of leprosy control have been consolidated in Shandong.

CO61

SURVEY OF LEPROSY IN UNAPPROACHABLE AND UNCOVERED AREA

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There is no doubt that due to the implementation of multidrug therapy the prevalence rate (PR) of leprosy has declined drastically. New case detection rate, however, has reduced only marginally or has remained static in certain areas, this may be due to the foci of infections in the society lurking in unapproachable areas or due to mobility of the community members and spreading the disease.

The survey report of such population is reported

a) The examination 3030 labourers of five different construction work places revealed six leprosy cases giving a PR of 20/10000.
b) The group of male fishermen (304 persons at Panvel) who remained 8 months on sea were examined in rainy season revealed four new cases (PR 131/1000) of which one was smear positive MB case.
c) The examination of 3457 tribal population on hilly area of Pen yielded 11 leprosy cases (PR 32/10000) of which five were MB.

Such pilot studies suggest that special surveys of selected population groups may have to.undertaken systematically, if the leprosy elimination target by the year 2000 AD is to be reached.

CO62

IMPACT OF MULTI DRUG THERAPY IN AN ENDEMIC DISTRICT IN TEN YEARS

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Chittoor is One of the endemic districts in Andhra Pradesh India. It is having a population of 3.26 Millions (1991 Census). National Leprosy Eradication Programme is being implemented in this district both Government and Non Government Orginsation as a vertical Programme. Multi Drug Therapy is started in 1987 and now on way towards the goal of elimination by 2000 A.D.

Impact of M.D.T. on Leprosy Profile in the District is substantial on Prevalance, incidence and other indicators as given below.

S.No.	Indicator	At the start of MDT (01.04.1987)	As on 31.12.97	Percentage of reduction
1.	Prevalance Rate	93/10000	6.2/10000	93.3%
2.	Annual New case detection Rate	15/10000	7/10000	53.3%
3.	Disability Rate among New Cases	6.5%	1.6%	75.4%
4.	MB Rate among the new cases	31.7%	19.8%	37.8%
5.	Total No. of known Positive cases in the community	1197	74	93.8%
6.	Prevalance rate among School going children (As per school Survey)	19.3/10000	5.9/10000	69.1%
7.	Cases detected among the contacts	18.2/10000	9.8/10000	46.2%
8.	No. of Cases deleted as Migrated	19.3/10000	5.9/10000	69.1%

Conclusion:- These achievements give us the hope to reach the goal of elimination of leprosy in this endemic district by 2000 A.D.

CO63

STRATEGY OF ELIMINATION AFTER 2000 A.D.

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Gandhi Memorial Leprosy Foundation.
Balarampur Control Unit: Purulia:723143: INDIA:

The introduction of MDT in treatment of Leprosy has resulted in substantial case reduction. Though global elimination Leprosy as Public Health problem (<1/10,000) has been targeted by 2000 A.D. the trend of new case detection (20/10,000) indicates that the problem will continue even after specified period. It therefore, calls for a modified strategy to combat the situation.

The suggested strategy is the reorganisation of the existing infrastructure and a coordinated effort to detect early cases through intensive health communication supported by regular clinic services.

In Balarampur Control Unit of Gandhi Memorial Leprosy Foundation, an experiment was conducted to assess the efficacy of Health Education. The Unit with a population of around 2,20,000 was divided into 4 zones. In zone D, mass surveys were conducted in routine SET pattern while in zone C, only intensive Health Education programmes were undertaken with total population survey every 5 years.

Comparative analysis of 15 Year's (1980-1994) achievement of the zones show that total cases detected in zone D were 1904 (MB-247, PB-1657), self reported cases were 682 (MB-131, PB-551) while in zone C, total cases detected were 2159 (MB-262, PB-1897), self reporting was 1640 (MB-226, PB-1414). Besides, involvement of community leaders were more viable in zone C.

CO64

LEPROSY AFTER THE YEAR 2000: SCENARIOS ON THE BASIS OF THE LEPROSY SIMULATION MODEL SIMLEP

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Although the last decade has seen a dramatic fall in numbers of cases registered for leprosy treatment because of shorter treatment duration, the number of newly detected cases worldwide has remained more or less stable. The case detection trend is decreasing in some areas, but stagnant or even increasing in others. It is therefore unclear what will happen to the leprosy problem after the year 2000. This is of particular concern because WHO has previously set its elimination target for the year 2000.

The following questions can be raised. Which factors determine trends in leprosy? Will disease trends proceed to eradication, or will the pattern of disease become static? Can leprosy control efforts be relaxed? Can leprosy resurge after having reached the elimination target? What is the role of large scale BCG vaccination? This paper opens the discussion on these very important questions on the basis of exploratory scenarios for the future of leprosy that have been derived by bringing together relevant assumptions on transmission and control in the leprosy simulation model SIMLEP.

Preliminary simulations indicate the possibility of persistence of the leprosy problem in the first decades of the new millenium, and of failure to eliminate leprosy if control activities are interrupted too soon.

CO65

PROGRESS OF LEPROSY ELIMINATION ACTIVITIES AND TRENDS/ PROFILE OF LEPROSY CASES OVER A FIVE-YEAR PERIOD FROM 1993-1997 IN BANGLADESH

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BANGLADESH National Leprosy Programme was re-organised, integrated into the general health services and accelerated by the Government of Bangladesh through support from the World Bank and World Health Organisation. The accelerated programme has many achievements to its credit within a short time-frame :

* Integration of leprosy into the general health services
* Country-wide establishment of MDT facilities-a total of 600 facilities established
* Over 31,000 general health staff trained in leprosy
* Formal collaboration with NGOs by which 23 of the 64 districts are allocated to NGOs for MDT implementation
* Intensified IEC activities
* Country-wide information and data collection including Geographical Information System.

The trends and status of leprosy in terms of prevalence new case detection, MDT coverage, PB/MB ratios, cure rates and deformity rates for the 5-year period will be presented, data analysed and discussed.

CO66

LEPROSY ELIMINATION - SUPPLEMENTING THE STATE'S PROGRAM BY NGO

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Leprosy elimination from India by 2000 AD is the stated goal of NLEP. The constituent states follow the guidelines of

NLEP. However, there are various constraints and NGO's can help in achieving the goal by removing or reducing these constraints. At Goa, CLCP is providing support for leprosy elimination since 1991. The prevalence is on decrease but currently new case detection and prevalence are almost the same. We were able to identify the areas of support including MDT and disability care and rehabilitation services. Considerably good results have been achieved and disability primary and secondary have decreased appreciably. The cumulative load of leprosy disabled have almost become half of what was at 1990 level. We will present the constraints and help rendered as an example of true bond of partnership for elimination drive in the state of Goa.

CO67

THE DRIVE TO ELIMINATE LEPROSY IN BANGLADESH: RESULTS OF SURVEYS IN GAIBANDHA AND JAYPURHAT

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ABSTRACT NOT AVAILABLE

CO68

AN ANALYSIS ON ROUTINE MODES OF CASE FINDING

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During the period of 1994-1995, 538 leprosy patients were detected in Guizhou province through 6 routine modes with a case detection rate of 0.806 per 100 000 population, an average age at onset of disease of 34.9 years and an average disease duration of 3.3 years. The highest grade II disability rates were 39.3% and 33.5% amongst new patients detected by reporting of suspected cases and trace-survey respectively. With regards the age distribution, no children case was detected by trace survey but with a peak at age 45-55 group, and no patients with an age of 55 or above was detected by contact examination. 45-55 and 35-45 were the peak age groups of leprosy patients detected by trace survey and through passive case finding (self-reporting and examination at outpatient department of dermatology) respectively. The proportion of patients with a disease duration less than 2 years was 79.2% and 44.4% in new patients detected by contact examination and self reporting. The number of patients newly detected by trace survey, self reporting and skin disease clinic accounts for 82.5% of the total number of newly registered cases. It is considered that these three case finding methods should be implemented as main modes continuously particularly in low endemic situation from the cost-effectiveness point of view. Training of general health workers should be strengthened to improve the quality of early diagnosis and health education should be intensified to reduce disability rates amongst new patients as well.

CO69

LEPROSY CASE DETECTION IN LOW ENDEMIC SITUATION

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Dongguan city lies in the south of Guangdong province with a population of 1 450 000. The total registered leprosy patients were 3 990 during 1950-1995. The prevalence and incidence rates were 1.71 ‰ and 4.88/100 000 in 1959 and 0.05 ‰ and 0.76/100 000 in 1990 respectively. To detect leprosy cases timely in such a low endemic area, the authors combined the case detection with the primary health care network during 1991-1995. The measures used were training paramedical workers of primary health care network with leprosy knowledge, developing suspected cases reporting system, widely conducting propaganda about knowledge of leprosy and health education to the community and rewarding the health workers or doctors who detect new cases. The results showed that 35 new cases were detected during observation period. The early detection rate was 85.7% significantly higher than that of 64.1% in 1986-1990 ($p<0.01$). The disability rate of grade II among new cases decreased remarkably from 35.9% in 1980-1990 to 20% ($p<0.01$). The authors concluded the advantages of case detection through this way: 1)through the involvement of general health staff of primary health care network, leprosy control service could be permanently accessible for the patients and common people; 2) a large auxiliary team of leprosy control was developed through implementation of leprosy training programme; 3) the awareness of self health protection of the masses increased, once suspecious symptoms appear they will seek medical advice actively; 4) because of setting up a clue-card reporting system, doctor's attention and responsibility in detecting suspected cases have been improved; 5) a lot of manpower as well financial resources could be saved. The authors suggested to expand this kind of way for case detection.

CO70

STUDY OF EFFECTIVENESS OF SKIN DIAGNOSTIC CAMPS IN LEPROSY CASE DETECTION

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Poladpur Leprosy Control Programme is covering a population of 2,37,600 and is mostly hilly area and the villages are scattered into many small wadies.

Twelve free skin diagnostic camps were conducted in 12 villages with an aim to detect new leprosy cases along with the persons who have skin diseases in three months period and 1430 people were examined. 933 with other medical problems and 497 skin patients were diagnosed and treated and among them 6 leprosy PB cases were detected and all 6 patients do not have any deformities. Out of these were: 2 Female, 2 Male, 1 Female child, 1 Male child. Even though only 6 cases were detected in these skin camps, it has shown that organising the camps on a larger scale frequently will help in detecting leprosy cases.

Thus skin diagnostic camps are useful in the leprosy case detection and also to increase the community awareness of leprosy and will help in the integrated approach of leprosy services.

CO71

ATENCION PRIMARIA EN DERMATOLOGÍA

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El programa de atencion primaria en Dermatologia se inicio a mediados del año 1973. Lentamente se ha extendido por todo el Territorio Nacional. Laboran en el programa los Directores de las diferentes Unidades Dermatologicas, Medicos Dermatologos, residentes en Dermatologia y los Auxiliares de campo del Programa de Lucha Antileprosa que reciben un entrenamiento adecuado a ese respecto. El proposito basico del programa es el diagnostico y tratamiento de las dermatosis de poca complejidad, descubrimiento de nuevos casos de lepra y control de la endemia en la zona rural. Parte importante de su labor es la educación sanitaria de la Poblacion rural en materia de dermatologia y lepra. Recientemente se comenzó un proyecto piloto en la region Suroeste para el manejo igualmente de las ETS en la zona rural.

CO72

THE NEPAL NETWORK OF LEPROSY N.G.O.s
A MODEL FOR COOPERATION

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The Network of Leprosy Non-Governmental Organizations in Nepal was founded in 1995, in response to a need felt by various project leaders to have a forum available to discuss matters of mutual interest. The past 3 years have seen The Network grow in membership numbers and in influence. Its achievements include better understanding of each other's work, and practical contributions to the National Leprosy Elimination Programme. Although The Network has no funds of its own, no office and no staff, it has become a well established and valued forum, with a distinctive role to play in relation to The N.L.E.P..

The style of interaction represented by the Network could usefully be copied in other countries or regions.

CO73

EVALUATION ON KEY COUNTY ACTIVITY FOR LEPROSY CONTROL FROM 1990 TO 1996 IN GUANGDONG

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In 1990, there were a population of 62 millioms and 1 675 active leprosy patients in Guangdong Province. Out of its 99 counties (cities), 23 have already reached the China's criteria of basic eradication of leprosy, but the prevalence was still as high as more than 0.1 ‰ in 10 and more than 0.05 ‰ in 5 counties. So the 15 counties (cities) were regarded as key units where emphasis should be put on for being able to reach the goal of basic eradication of leprosy in the whole province by the year 2000. Special measures were adopted including refreshed training of professional staffs and doing individual guidance by provincial leprosy experts under the leadership of the Provincial Health Service.

After 6 years, i.e. by the year 1996, the leprosy control service has been greatly improved. Following were basic epidemiological and operational indicators available in key counties in comparison with those in average of the whole province marked in parentheses: a reduction of active cases by 78.4% (71.8%), a decrease of prevalence by 79.7% (74.1%), increasing coverage of MDT to 99.2%(97.3%) and increasing regularity of MDT to 99.5% (96.3%). The authors realized that the leadership of government and support from concerned departments at all levels, scientific management and individual guidance according to local situations were key points for the success of this project.

CO74

IMPROVING ACESSIBILITY TO MDT IN DIFFICULT AREAS. AMAZONAS STATE, BRAZIL

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The project started on January, 1994 and the rural villages located along Purus and Juruá rivers in Amazonas State were the pilot areas. These areas wore chosen for its high leprosy prevalence, restricted access to health services, high rates of leprosy defaulter patients and low MDT coverage. The main objectives of the study was to implement MDT and reduce the leprosy defaulter patient rates. The strategy was to identify and to train rural health agents and other community leaders, to supervise MDT regimens, and to detect and refer new leprosy cases.

During the project implementation, 94 rural communities were visited, 106 rural health agents and other leaders were trained, 11,462 skin exams were done and 55 new leprosy cases were diagnosed and put on MDT promptly. Besides that, the leprosy prevalence of the project areas was reduced and the main reasons for this results were: patients have moved out, have been released from treatment as cured or informed as died for other causes.

After 2 years, of the project implementation, at Carauari Municipality (Juruá river) the prevalence rate decreased from 87.2/10.000 (1993) to 34,2/10.000 (1996) and the NDT coverage increased from 66.43% (1993) to 93.69% (1996); at Boca do Acre Municipality (Purus river), the prevalence rate decreased from 43.9/10.000 (1994) to 28.9/10.000 (1996) and the MDT coverage increased from 63% (1994) to 93% (1996).

This investigation received financial support from UNDP/World Bank/Who Special program for Research and training in Tropical Disease (TDR)/DAHW.

CO75

THE DECREASE OF HANSEN'S DISEASE PREVALENCE IN THE STATE OF MINAS GERAIS - BRAZIL FROM 1986 TO 1997

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The State of Minas Gerais is located in the southeast region of Brazil and has had the largest number of Hansen's Disease cases for some years. This study shows the main strategies used to get the decrease of the prevalence from 39,862 cases, on the active register in 1986, down to 7,640 cases in December 1997.

The main indicators of Hansen's Disease Control were studied from 1986 to 1997 and compared with the number of trained people during this period. Obstacles and facilitating factors were analysed.

The principal facilitating factors for the prevalence decrease were: the annual planning and evaluation of actions ; multiprofessional training courses in order to decentralize the Hansen's Disease Control to the municipalities; involvement of different institutions such as Health Regional Directories, Universities, Health National Foundation, Non Governmental Organizations, Health Municipal Secretaries and the Local Health Services.

Great obstacles, due to the lack of human and financial resources faced by the State, were overcome.

The Hansen's Disease prevalence rate in Minas Gerais State was decreased from 27,0 to 4,5 /10,000 in this period of time.

CO76

PRIORITIZING MUNICIPALITIES - STRATEGY FOR HANSEN'S DISEASE CONTROL IN A BRAZILIAN STATE WITH 853 MUNICIPALITIES

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The State of Minas Gerais is located in the southeast region of Brazil. It has an area of 587,172 Km^2 and a population of 16,904,977 inhabitants. This State has the largest number of municipalities (853), and of Hansen's Disease cases in our country, which makes it difficult to control the endemy.

In order to face the difficulty of working with all the municipalities, the State Coordination has adopted since 1995 the strategy of prioritizing some municipalities for more intensive actions with the goal of decreasing the prevalence of the disease.

This strategy has increased the involvement and commitment of municipal authorities and has made the organization of training courses, supervisions and the assesment of the progress of Hansen's Disease control easier.

This study shows the evolution of the indicators of Hansen's Disease control by comparing data from December 1994 with 1997 in prioritized municipalities and the State where there was a decrease of 21,546 cases (13.29 / 10,000) to 7,640 cases (4.5 / 10,000).

CO77

PROBLEMS AND STRATEGIES AFTER BASIC ERADICATION OF LEPROSY

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After 40 years of leprosy contorl with comprehensive measures in Hainan Province, the prevalence of leprosy has decreased to 0.008 ‰. The average incidence rate in recent 5 years was 0.07/100 000. Seven thousand and forty five cases were detected in totol and 5 654 of them were cured. There are only 60 active cases at present. Fifteen counties have basically reached the goal of basic eradication of leprosy with a marked decrease of endemicity.

But the counties where leprosy were basically eradicated are facing following problems: 1) The attitute of leaders and staff of specialized institutions turned into passive; 2) The funds for leprosy control from the government decreased; 3) The propaganda and education of leprosy

knowledge were loosened; 4) In order to keep the " achivements " some counties concealed their actual number of cases. Under this condition, the authors recommended that: 1) To strenghen the propaganda and education about leprosy making people fully aware of its importance; 2) To maintain and cahence the leadership on leprosy control and keep the organization, funds, staff-team and task unchanged; 3) To detect new patients as early as possible and promptly treat them with MDT and put them under surveillance after treatment; 4) To teach new cases and cures to promote their own rehabilitation and self-care; 5) To tighten up the management, report epidemic situation actually and conduct regular evaluation; 6) To hold training courses on early case finding, MDT and POD continuously for health workers at grassroots; 7) To improve and expand servies of specialized (skin) clinics to further promote leprosy control.

CO78

LEPROSY ELIMINATION PLAN - BAIXADA FLUMINENSE/RJ: AN EXPERIMENT ON UNIVERSITY - HEALTH SERVICES INTEGRATION.

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PAPS/ FM ,Dermatology Unit / HUCFF / UFRJ and FSS/ UERJ

Regarding number of leprosy cases Brazil ranks second in the world. Epidemiological indicators, as of 1995 (Brazilian Ministry of Health), are: prevalence rate: 8.82/10,000 population; detection rate : 2.30/10,000 population; detection rate before age fifteen: 0.63/10,000 population. Around 74.07 percent of its population live in high prevalence areas, such as the towns of Queimados and Belford Roxo (Baixada Fluminense, metropolitan area of Rio de Janeiro) - prevalence rates: 7.9/10,000 population and 7.0/10,000 population; detection rates: 2.9/10,000 population and 2.3/10,000 population; abandon rates higher than 40 percent, what is probably related to the centralising model of endemy control adopted by the city health departments (only one health care center with leprosy control program).

Aiming the reduction of the cases to levels lower than 1/10,000 population by precociously detecting all expected new cases and beginning and concluding treatment MDT/WHO of 90 percent of active cases, the School of Medicine of UFRJ (Federal University of Rio de Janeiro) engaged in elaboration and execution of the leprosy elimination plan in those towns as defined in the Leprosy Elimination Plan/WHO.

The chief characteristic of this research is its being interventive. The action plan consisted in the integration of the institutions involved, evaluation of human and material resources of city health network, capacitation of 90 percent of health personnel in diagnosis suspicion, capacitation of seven health units previously selected for discentralisation process, participation in open-air health fairs, home visits (active search of missing patients), educational action in schools and community associations so as to publicize signs and symptoms

The authors present their results after two years of work and its interference in the epidemiological indicators of those municipalities. The work had financial support from WHO in its first year.

CO79

HANSEN'S DISEASE CARE DELIVERY IN A COUNTRY OF LOW ENDEMICITY (USA)

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An estimated 200 - 250 persons are diagnosed with Hansen's disease (HD) annually in the U.S.A., which has a population of 269,765,000 (1997). The number of persons currently under treatment for HD is estimated at 600, with 4,200 receiving outpatient care as needed for the residuals of HD.

Challenges to HD care delivery in the U.S.A. include decreased level of interest for education on HD diagnosis/treatment, low index of suspicion for HD by medical community, decreasing levels of funding by government entities for HD services, and, consequently, lack of competition for supplemental grants among providers. The large geographic area of this country and misinformation about HD in the general population also impact HD programs.

A variety of approaches being used to meet these various challenges to HD care delivery will be discussed in this poster presentation.

CO80

EPIDEMIC AND CONTROL OF LEPROSY IN GUANGZHOU

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Before 1958,Guangzhou had one of the highest cases of leprosy among cities in China .Due to lack of statistics in the past, the figure of leprosy in Guangzhou is uncertain.

The first leprosy control project, including case-finding, treatment, surveillance, education and research, was started in 1958.

From 1958 to 1996 there were seven general surveys, seven expertise examinations and two clue surveys were carried out in Guangzhou.Eleven million people(person-time)were examined. People with HD traced to clinic of general hospital and other health system added together came to a figure of 7419 cases. Eexcept the death from old age and from other diseases, active cases of leprosy in Guangzhou by the end of 1996 was 30 only.

Dapsone monotherapy was implimented from 1958 to 1985 in Guangzhou and after 1986, MDT for leprosy was implimented.

The prevalence rate decreased to <1/10,000, detection rate to <1/100,000 and incidence rate to <1/100,000 in 1985 and met the criteria of WHO's goal. The Prevalence rate decreased from 12.8/10,000 (1965) to 0.08/10,000 (1996), detection rate from 20.31/100,000 (1961-1965) to 0.23/100,000 (1992-1996) and incidence rate from 12.59/100,000 (1961-1965) to 0.06/100,000 (1992-1996), and met the goal of basic eradiction of leprosy in China.

Except for prevalence rate, detection rate and incidence rate, the incidence rate of the age from 0-14 years from contacts with HD patients, and the relapse rate of the disease have reach the goal of leprosy control. The facts implied that leprosy can be completely controlled by comprehensive measures including full case-finding and regular trratment.

CO81

LOT QUALITY ASSURANCE SAMPLING (LQAS) TECHNIQUE FOR MONITORING LEPROSY CONTROL PROGRAMMES

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Conventional survey methods to monitor leprosy control are expensive, time consuming and impratical. Further, with the attainment of the desired target level of leprosy, the programme administrators' concern should be shifted to smaller areas (e.g., districts, regions) for assessment and, if needed, for necessary intervention. In this context, Lot Quality Assurance Sampling (LQAS) technique, tried successfully for monitoring and evaluating immunization programmes, was explored. For simulating various situations and strategies, a hypothetical population of 10 million people mimicing Tamilnadu, India, was generated. Each individual in the population was marked to have the disease or not, by examining the probability (prevalence) of having leprosy. This procedure was done for prevalence rates ranging from 1 per 10,000 to 10 per 10,000. Assuming Type-I error of 5% and Power of 90%, sample sizes and the corresponding critical values were computed using Poisson approximation. Households, instead of individuals were used as sampling units. Initially villages/towns were selected from the population with probability proportional to size (PPS) linear systematic sampling and from each selected village/town, households were selected using systematic sampling. This sampling procedure was simulated 1,000 times in the computer from the base population. Sample size varied from about 3,000 households to 8,000 households.

The results in three different situations were on expected lines in correctly picking up smaller areas with prevalence upto the target level and also simultaneously in classifying areas with prevalence below the acceptance zone. Certain critical factors such as diagnostic efficiency in terms of sensitivity and specificity, non-response, possible heterogeneity, need consideration. LQAS methodology can be considered for rapid assessment of leprosy situation for monitoring purposes after validation under field situation.

CO82

UPDATE ON THE ONGOING LEPROSY VACCINE TRIAL IN SOUTH INDIA

Leprosy Vaccine Trial Study Group

CJIL Field Unit (ICMR), Avadi, Chennai, India

The objective of this double blind, controlled field trial is to study protective efficacy of three candidate vaccines, ICRC, *M.w*, and a combination vaccine of BCG and armadillo derived killed *M.leprae*, against development of leprosy in healthy population with special reference to progressive and serious forms of the disease.

At Intake, 256,000 persons were examined in Chingleput District, Tamilnadu, South India. Intake for the trial was completed between June 1991 and July 1993, "vaccinating" 170,000 persons. The prevalence of gross and active leprosy at Intake was 25.4 and 9.4 per thousand, respectively. First Resurvey was completed between August 1993 and February 1995. About 265,000 persons were clinically examined for leprosy, and the prevalence of gross and active leprosy were 17.8 and 4.0 per thousand, respectively. The incidence was 2.3 per thousand per year. 622 new cases were detected from the "vaccinated" cohort. First Resurvey helped in weeding out cases possibly missed at Intake. No decoding was done after First Resurvey.

As per the protocol, a gap of 2 years was allowed following First Resurvey, and Second Resurvey was started in January 1997. Till the end of January 1998, about 165,000 persons were clinically examined for leprosy. Second Resurvey is expected to be completed by August 1998, and it would provide adequate number of cases to judge the protective efficacy of the candidate vaccines. Decoding will be done at the conclusion of Second Resurvey and results are expected by the end of 1998.

CO83

SIXTY YEARS OF LEPROSY CONTROL IN HANZHONG SANATORIUM, SHANXI PROVINCE, CHINA

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1) Data analysis of 10 017 patients with leprosy from 24 provinces and autonomous regions of the country hospitalized and treated in Hanzhong Sanatorium was provided as follows

* male 7 917, female 2 100, M/F=3.77:1; age <15 yrs 1 240 (12.38%), >60 yrs 279 (2.79%), 20-40 yrs 7 144(71.32%); MB 7 299, PB 2 718, MB/PB=2.69:1;

* duration of the disease(>5 yrs/2 yrs) at diagnosis: 71.92%/14.04% in 1937 and 2.67%/80% in 1997;

* cumulative relapse rate after monotherapy 4.16%, no relapse after MDT, active case: 3 526 in 1959 and 29 in 1997.

2) The results showed that isolated treatment of the patients played an important role in reducing transmission of the disease before the introduction of MDT.

3) With the implementation of community control, health education, professional personnel refreshed training, scientific research, physical and socio-economic rehabilitation, the goal of basic eradication of leprosy has been reached in this province.

CO84

THE USE OF PHOTOGRAPHY TO MOTIVATE LEPROSY STAFFWORKERS

1. Background on the Country of Bangladesh
2. The Leprosy Mission (Bangladesh) – History and Activities
3. The Gaibandha-Jaypurhat Leprosy Control Project - Its Work and Achievements
4. Photography of Leprosy Workers
   a. Case-Finding and Provision of MDT
   b. Prevention of Disability
   c. Rehabilitation
   d. Other activities
   e. Individual and Family photos
5. Effects of Photography on Staff Motivation and Performance
6. Tips on Good Photography

CO85

THE RESULTS OF LEPROSY CONTROL IN YANGZHOU PREFECTURE OF JIANGSU PROVINCE, P R OF CHINA, FROM 1949—1996

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Accumulated cases of leprosy detected in Yangzhou Prefecture from 1949—1996 numbered 19,585. 14,701 were male and 4,884 female. Clinically 2,560 were classified as lepromatous cases, 205 as borderline, 16,797 as tuberculoid and 23 as indeterminate. A total of 14,496 cases were cured through DDS monotherapy from 1949—1983 and a further 1,191 cases by WHO MDT regime from 1983—1996. There were still 76 active cases on MDT at the end of 1996. A total of 335 cases relapsed after DDS monotherapy, giving a relapse rate of 2.13%. 3 cases relapsed after WHO MDT, giving a relapse rate to date of 0.26%. The highest prevalence rate was 18.9 per 100,000 population, found at the end of 1973. This decreased to 0.8 per 100,000 at the end of 1996. The highest detection rate was 25.8 per 100,000 population at the end of 1964 followed by a decrease to a rate of 0.096 per 100,000 at the end of 1996.

The authors consider that the success of leprosy control in Yangzhou Prefecture can be mainly attributed to DDS monotherapy but that improvements in socio—economic and living conditions are also playing a role.

The WHO disability grade II rate is over 60% in accumulated, living cases. Thus much work has still to be carried out to minimise secondary impairments in patients with nerve lesions and to improve socio—economic conditions and community acceptance of the disabled where indicated.

CO86

STATISTICAL DISCHARGE - COHORT STUDY OF HANSEN'S DISEASE PATIENTS WHO BECAME PREVALENCE CASES AGAIN AFTER HAVING BEEN ADMINISTRATIVELY DISCHARGED DUE TO DEFAULT

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A Statistical discharge from prevalence is done following specific administrative criteria. In Brazil these criteria have been changed in past years, in order to decrease the time that defaulting patients continue on the active register.

This study demonstrates the patients needing to be treated again after having had a statistical discharge from 1990 to 1996 in the State of Minas Gerais. Analysis was done on length of default time, disability grade, and clinical classification.

Out of 15,727 patients that were statistically discharged, 219 patients (1.4%) returned to prevalence by December 1997. Of these, 86.8% came back within 2 years. Deformities were present in 47.2%. The disability grade decreased in 35.2% of the patients. 91.8% of these patients were classified as MB when returning, of these 68% had been previously classified as PB. 42.5% of these patients returned by themselves.

The authors intend to continue this study. Currently it shows that there is a small percentage of returns after statistical discharge. This is an administrative procedure under the influence of service and information system organization. Most of the patients wrongly discharged from the active register returned within 2 years.

CO87

A STUDY OF 18-YEAR SURVEILLANCE OF LEPROSY PROPHYLAXIS BY DADDS INJECTION

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Lipu and Pingle counties, bordering on one another and with similar natural environment, health status, culture and education backgrounds, economic condition and endemic situation of leprosy, were selected as projected areas. For the purpose of prophylaxis of occurrence of leprosy, DADDS injections were utilized for 3 years in household contacts of known leprosy patients in Lipu county, not injected household contacts in Pingle as controls. The results of 18 -year surveillance showed that no new case detected in 788 injected subjects, but 6 new patients (LL 4, BB 1, TT 1) were diagnosed in controls with a significant difference one another ($p<0.001$) suggesting satisfactory long term effects of leprosy prophylaxis by DADDS injection.

CO88

DEMANDS OF 4 390 CURED LEPROSY CASES FOR HEALTH SERVICES

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A general survey of 4 390 cured persons affected by leprosy has been carried out to investigate thier disability status and other diseases they suffered from in recent 2 weeks. The authors also estimated the cost for their non-leprosy disorders. The results showed that the visible disability rate of 4 390 cures was 71.95 ‰ and the prevalence rate of various non-leprosy diseases in two weeks was 94.31 ‰ about 4.26 times that of general popalation. The average income per member of cures' families was 885.3 Chinese yuan only half that of their country residents.

It was estimated that approximately 850 000 & 683 879 Chinese yuan will be needed annually for general rehabilitation and managment of common diseases needed by 4 390 cured people affected by leprosy investigeted. The authors considered that there is a great need of developing suitable models for leprosy control and its financial management.

CO89

SIMLEP: A SIMULATION MODEL FOR LEPROSY TRANSMISSION AND CONTROL

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Partial knowledge of leprosy epidemiology and uncertainty about the effects of interventions make it difficult to explain observed trends in leprosy incidence and to predict the future of leprosy. Knowledge of the short and long term public health effects of leprosy control strategies is required for decision making in leprosy control.

SIMLEP is a computer model for transmission and control of leprosy that can be used to simulate region-specific epidemiologic trends over time, producing output on indicators such as prevalence, true incidence and case detection rates of leprosy. In SIMLEP, compartments have been defined that represent immunologic and health conditions with respect to leprosy. Two interventions are incorporated: vaccination and case detection plus chemotherapy. Assumptions can be varied, including those on natural immunity, incubation period, asymptomatic infection, delay between onset of disease and start of chemotherapy treatment, and the dynamics of leprosy transmission.

SIMLEP will be used to improve the understanding of observed leprosy trends by determining the combinations of assumptions that explain these trends. In addition, SIMLEP allows for scenario analyses, in which the effects of control strategies combining different interventions can be simulated and investigated in relation to each other and the range of plausible scenarios for the future of leprosy can be examined. The eventual aim of the development of SIMLEP is to conduct policy research and support actual decision making by assessing the cost-effectiveness of control strategies.

CO90

LEPROSY CONTROL – OLD OGOJA DIOCESE – 1945 – 1998

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1945– Estimated 40,000 Leprosy persons in old Ogoja Diocese, South Eastern Nigeria
1946 1,073 patients receiving Chaulmoogra oil
1949 3,000 patients in Ogoja (Obudu–Abakaliki) 3000
19521578 patients receiving Dapsone + 700 children
1953 1,000 patients discharged– cured from 1945
1959 7,482 patients Ogoja, 4994 Ikom Abakaliki estimated 20,000 in area incidence 10%
1960 7019 patients Ogoja + 8190 (Ikom Abakaliki)
1973 5321 patients Ogoja.
1988 Review – 1586 patients on M.D.T.
1995 572 patients– incidence 1.7% children 20%
1997 420 patients– children 20%

CO91

LEPROSY CONTROL PROGRAM IN MOROCCO WITH ITS UNIQUE REGIMEN

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At the Leprosy congress of west-African countries in 1981, the prevalence of leprosy in Morocco was reported to be around 0.75-1.5‰. During 1980 to 1986, the trial of unique poly-chemotherapy (PCT) was carried on to MB patients, replacing for the DDS monotherapy. The PCT regimen (for adult) includes 900mg of RFP weekly, 100mg of DDS, 6 days / week and 100mg of clofazimine daily. Based on the encouraging result of this trial, in 1992, a new system was formally adopted as the national program of leprosy control in this country. It is composed of 1) perfectly supervised PCT-regimen of 3 months duration for both of MB and PB patients, followed with DDS monotherapy for 5 (MB) or 2 (PB) years with regular survey of twice a year, 2) follow-up for another 5 years of MB patients, 3) regular contacts survey for 10 (MB) or 2 (PB) years and 4) socioeconomic and educational support to all the patients and their family members.

The PCT is more intensified regimen than WHO/MDT of greatly shorter duration and common for MB and PB patients.

The prevalence rate of leprosy in 1996 was 0.42/10,000 and no relapsed case has been found until the end of 1997 among more than 13 hundreds cases who had completed PCT. One of the factors for this successful result is the dédication of AMAAF (Association Marocaine d'Application Agricole et de Formation; NGO) which has been supporting leprosy program in Morocco since the year of 1950.

The transitions of BI of skin and nasal smears and the serum levels of anti-PGL-I and LAM-B antibodies of MB cases aged from 17 to 60 years old are now on the way of monitoring from the beginning of PCT.

CO92

MONITORING OF HUMAN RESOURCES FOR CONTROL ACTIONS IN HANSEN'S DISEASE

Wagner Nogueira, Mary Lise Carvalho Marzliak

Brazilian social and economical situation in the past decades significantly contributes for the payment of low wages to Halth Professionals and, also for the high level of shifts among personnel. Therefore, this is a very important problem for the State Hansen's Disease Control Program since actions in the training of such professionals are often required.

The lack of a system for the control of Human Resources resulted in the fact that Human Resources upgrading activities were designed according to the demands from the Control Program.

A system for Control of Human Resources was designed in 1995 and has been working ever since, withe the use of computers, registering data from Hansen's disease control actions per service, local health branch, professional category courses performed and times when such courses were offered, with the following advantages for the Control Progam:

- Identification of all professionals involved in control actions
- Identification and assessment of personnel shifs
- Scheduling of courses according to the needs
- Selection of trainees according to local needs

Perfecting the assessment of human resources training for control actions
This paper presents the results of this system wich was fed with the data form the registers of the State Coordination collecteds in regional health branches up form 1988, showing that, in this period, more than 10.000 professionals were trained for control actions in Hansen's disease, assessing the shifts of personnel and pointing out the advantages mentioned before.

CO93

IMPLANTING SPECIAL PROCEDURES FOR EPIDEMIOLOGICAL SURVEILLANCE OF HANSEN'S DISEASE IN THE MUNICIPALITIES OF THE STATE OF SÃO PAULO (BRAZIL WITH ELIMINATION PREVALENCE

Wagner Nogueira, Otília Simões J. Gonçalves, Heleida N. Metello, Maria Ap. P. Sanches, Zenaide L.Lessa, Maria de Lourdes B. Diniz

The State of São Paulo (Brazil) with over 35 milion inhabitants (over 20% of the country population), for a long time has registered the largest absolute number of sick people in the country, reaching the mark of over 40.000 cases registered for 1988, distributed over the total area of the State, with more than646 cities. After mass implanting of the polichemoterapic schemes/WHO and subsequent recuction of the prevalence coefficien, in 1994 the state registered over 200 cities with no Hansen's disease cases registered.
In the end of 1994, the Elimination Plan was designed, including among the strategies, the starting of special epidemiological surveillance procedures in the cities with no case diagnosed in the previous year.
During the years of 1995, 96 and 97, meetings with the responsible for Hansen's disease control of 18 of the 24 health regional branches were scheduled, involving every city no cases detected. There were also undertaken actions for upgrading of personnel in the health services, as well as health education actions were performed with the population of these cities.
This paper presents the results of this intervention, wich has included over 400 cities and circa 1800 health professionals of local levels, showing that despite investments made, there were no changes in the detection cases of the State, allowing us to believe that the absence of cases in many cities is the result of a new epidemiological reality.

CO94

MONITORING THE USE OF THALIDOMIDE IN THE STATE OF SÃO PAULO - BRAZIL

Wagner Nogueira, Walter Meyer Karl, Carlos Sadao Eto

The State Hansen's disease control program has developed and implanted a program for monitoring the use of Thalidomide in the State of São Paulo, with the use of computers, designed up from the compulsory notification of the prescription of such medicine by the state health services network of the State, with control actions implanted.
Results are presented according to year, sex, age bracket and reason for prescription, pointing out that use of this medicine in Hansen's disease shows a discreet decrease tendency. The use of thalidomide in women in fertile age has also decreased.
In the same period the use has been increased for other pathologies, pointing out its use in AIDS, Lupus, Plane Liquen and Behcet Syndrome.

CO95

INFORMATION NATIONALE SUR LA LEPRE A TRAVERS DES APPELS GRATUITS AU MINISTERE DE LA SANTE - BRESIL

Auteurs: Magalhães, C.;Ayer, E.Z.; Oliveira, M.L.W.; Torres W.; Ledra, V.J.; Penna,G.; Coordination Nationale de la Dermatologie Sanitaire Ministère de la Santé du Brésil

SOS SANTE (DS-Disque Saúde) est un service téléphonique grauit qui met à disposition de la societé un canal d'accès à l'information de plus, avec une amplitude d'action aussi étendue que la compagnie des communications téléphoniques du pays en soi. Elle débuta avec MST (Maladies Sexuellement Transmissibles) et dispose aujourd'hui d'informations comme: donation d'Organes; Conseil National, par État et Municipal de Santé; Maladies du Coeur; Cancer de Poitrine; Maladies Transmissibles comme chólera, dengue, varicelle, tuberculose et llèpre. Le service fonctionne du lundi au vendredi, entre 8:00 h et 20:00 h avec réception "on line" iinteractif, au número de téléphone 0800-61-1997. Durant la nuit, les samedis, les dirmanches et lles féries, une unité de réponse automatique (URA - Unidade de Resposta Automática) en fonctionnement 24 heures par jour, renseignent automatiquement sur les maladies et actions relationées à la santé.
En octobre 1997, en guise de stratégie adoptées en vue d'augmenter l'adhésion à la diffusion du combat à la lèpre, on intégra au Plan d'Actions du Ministère de la Santé le thème de cette maladi-lá qui sont diffusés par le service SOS SANTE. A chaque appel reçu par le service SOS SANTE, et même si il ne s'agit pas d'une question sur la lèpre, les technicies et/ou un enregistrement informent sur la maladie. De plus, le numéro du service SOS SANTE a été divulgué a travers 9 millions de pamphlets distribués à la population. Le nombre d'appels lors des semaines antérieures et postérieures à cette activité (25/10) a augmenté de 38 fois en relation au début du mois.
L'analyse des principales questions, provenance et caractérisques de ses acteurs fournirent d'importantes recours qui permettent proposer cette stratégie pour adapter et étendre lla communications, et de plus obtenir des informations sur la qualité de l'assistance.

CO96

ANGOLA – IMPACT OF WAR ON LEPROSY CONTROL

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Leprosy control started in 1958 with the National Service Fighting against Leprosy which established mobile brigades (204) all over the country to identify new leprosy patients and fixed facilities for their treatment and care, these included 18, leprosaria run by the government or by Christian medical services, 549 treatment centres owned by government, Private Enterprises or Mission Health Centres. In 1974 were registered 15280 patients and 791 new cases detected.

After independence in 1975, the country entered a long period of civil war (1975-1992) which resulted in the massive migration of the population towards the cities (urban population passing from 15 % to over 60 %), the destruction of 60 to 80 % of infrastructures, a severe shortage of competent trained staff, medication and equipment. As the whole Health system collapsed, the Leprosy Program was totally paralysed and survived through a few institutions caring for leprosy. patients

In 1994 a revised Leprosy Control Program was initiated with ALM's input and in 1996 the first results became tangible : Patients are treated in 32 fixed structures, (60 % are situated in cities and provincial capitals) ; mobile structures are limited to 4, 1 governmental and 3 Church related ; There are, 3301 registered patients and 390 new cases detected. The migration of people has created in the cities communities with a high prevalence of leprosy, reflecting the situation of the area they came from. (slum of Malange people in Luanda city).

Where are the 12000 other registered cases ? Most of them have been lost from the registers, they have not received MDT, and have not been cured. The dramatic fall of PR from 25.3 in 1974 to 2,8 in 1996 is not a success story, but reflects the total disruption of services.

The future perspectives include : the training of nurses to recognise and treat leprosy using MDT as the only leprosy treatment in the country ; integrated care in Municipality Health Centres and other Health facilities to increase MDT coverage ; prevention and management of deformity , and develop public awareness. The increase of new cases means that we can overcome the negative impact of war on leprosy control, as we work « towards the elimination of Leprosy in Angola ».

CO97

LEPROSY ELIMINATION CAMPAIGN, AMAZONAS-BRAZIL 1997

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Leprosy is endemic in the Amazonas states, Brazil and according to the World Health Organization, about ¼ of leprosy cases in endemic regions, have not access to diagnosis and treatment. The lack of information about the first signs and symptoms of this disease in some groups of the population and health workers, is in greater part what still makes difficult the early diagnosis therefore delays its control process.

With the objective to increase awareness and mobilize the general population to early diagnosis of leprosy one of strategies for the year 1997 was the leprosy campaign carried out integrated to mass multivaccination campaign. At the period before the campaign all means of communication available (TV, newspaper, outdoors, radio, posters at supermarkets and collective means of transportations etc) were used.

In this campaign were involved 921 people amongst health workers and community volunteers. At the day of the campaign, a number of 688 units for basic educational activities and referring suspected cases besides 53 reference health centers were available. 29 leprosy cases were diagnosed and 22 suspected with more details at the present work.

CO98

IMPLEMENTATION OF JOINT TB PROGRAMME IN A LEPROSY PROJECT - PARTICIPATION OF ANGANWADI WORKERS (GRASS-ROOT LEVEL) IN ADMINISTRATION OF DOTS.

Prabhakara Rao V., Bhuskade R.A., Sudhakar K, Tilak S Chauhan.

A joint TB/AIDS programme is undertaken in part of a leprosy project in a tribal district of India with a population of 260 thousands.

The strategy for TB control is to detect sputum positive cases by rapid survey and treatment with DOTS. Anganwadi workers were utilised to monitor the daily treatment as the terrain of the project is difficult and the accessibility to general health services are poor. They were also responsible for DOTS in their respective villages.

210 anganwadi workers were imparted training in TB. A rapid survey was conducted. 271 TB cases were confirmed and 216 cases were put under DOTS. These patients were distributed in 174 villages.

The treatment compliance and the results of treatment are very satisfactory. The Anganwadi workers are identifying and referring new symptomatics.

The strategy and details of achievements are presented.

CO99

IMPACT OF IEC COMPONENT ON KNOWLEDGE, ATTITUDES AND PRACTICES OF COMMUNITY ABOUT HIV/AIDS IN A JOINT LEP/TB/AIDS PROGRAMME

Jaydev Sahu PrabhakaraRao V,Tilak S Chauhan,BhuskadeRA,SudhakarKS,Ranganadha Rao

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TB/AIDS awareness programme was incorporated into an ongoing leprosy programme experimentally in a tribal district in India. The project covers a population of 2.6 lakhs. DOTS was implemented for TB control. HIV awareness was considered as a very important component of the programme as the TB problem gets compounded in association with HIV.

The major educational inputs were group talks by PMWs at clusters of house-holds during rapid survey, public meetings in different villages and group meetings for service and youth organisations. Before launching the IEC campaign, a pre-test was conducted to have base-line information about the knowledge, attitudes and practices of the people. 1614 group talks attended by 15339 people and 31 public/group meetings attended by 3176 people were conducted.

To assess the changes in the levels of KAP after the educational interventions, a questionnaire was administered to 50 persons selected from among those who attended the educational programmes. Interesting data about changes in knowledge, attitudes and practices of the people about HIV/AIDS has been recorded. The details are presented.

CO100

PERSPECTIVES OF LEPROSY FIELD WORKERS ON ELIMINATION OF LEPROSY

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Leprosy elimination is the goal of WHO and National government. There is a need to understand the perspectives of the field workers in elimination of leprosy. This study was done to measure perspectives of field workers regarding their perception of level of prevalence for elimination of leprosy, maximising and early case detection, improving compliance rate, effective methods of creating community awareness and their suggestions for elimination of leprosy.

Analysis of the results showed :

1) 52% of the field workers are aware of the prevalence rate at which elimination of leprosy will be reached

2) 60% of the workers felt that they need to do intensive/census survey to detect early cases.

3) 70% of the workers felt that group survey maximises the case detection.

4) 66% of workers felt film shows on leprosy to be an effective method of creating mass awareness.

5) 50% of the workers felt that health information and follow-up within 15 days will enhance the compliance rate.

6) 42% of the workers felt that modified leprosy elimination campaign using entire health infrastructure in the district would a go a long way in elimination of leprosy.

CO101

TRADITIONAL SYSTEMS OF HEALTH

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It is estimated that up to 80% of rural populations depend on Traditional Health systems for the management of their ailments. Traditional systems are mostly locally available, sustainable and at low cost. They have often been undervalued by those trained in scientific method in the principle 'western' schools of medicine.

Their efficacy and safety are undergoing reappraisal.

One field in which Traditional Medicine is most easily examined is wound healing. Chronic suppurative wounds are common and costly to health services, communities and individuals. The new plague of antibiotic resistant organisms is often generated and spread by such wounds. This is only one of many reasons for examining other systems of medicine as a panacea.

Tissue repair is now well understood and the properties of 'dressings' likely to assist healing can be tested in the laboratory and on the patient.

This poster on Traditional Medicine illustrates 1) cheap locally available systems of debridement, 2) agents that are antibacterial, 3) agents that are antioxidant.

It examines the management of the dying epidemic of the 'leprosy ulcer' against the background of a rising epidemic of traumatic, diabetic, vascular degenerative and decubitus ulcers.

CO102

LEPROSY CONTROL SITUATION IN JIANGSU PROVINCE

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By the end of year 1996, the cumulative number of registered leprosy patients was 55 342. The prevalence dropped from the highest of 62.96/100 000 in 1973 to 0.535/100 000. The dectetion and incidence rates also decreased from 5.69/100 000 and 5.49/100000 in the period of 1956-1960 to 0.16/100 000 and 0.14/100 000 in the period of 1991-1995 respectively. The proportion of children cases of 0-14 years reduced from 19.82% in the period of 1951-1955 to 1.78% in the period of 1991-1995. On the other hand , the ratio of MB to PB increased gradually from 16.24% in 1966-1970 to 115.87% in 1991-1995. The MDT coverage rate was 99.17% in the whole province and the compliance rate was 99.13%. The relapse rate decreasssd gradually from the highest of 0.531% from 1961 to 1965 to 0.072% from 1991 to 1995. By the end of Angust 1997, all the counties in Jiangsu province have reached the China's criteria of basic eradication of leprosy .

CO103

VARANASI IN WORKING TOWARD A WORLD WITHOUT LEPROSY

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In Varanasi a cosmopolitan city situated midway between Delhi and Calcutta, the holy river Ganges washes away all sins for which Leprosy was said to be a punishment. Sushrata giving good clinical account and treatment of Leprosy with hydnocarpus oil in Sushrat Samhita (600 BC) lived in Varanasi. Social factors like over crowding along trade and pilgrim routs were considered important by Hansen after discovery of Leprosy bacillus. Several leprasoria and temples arranged for food to thrown out sufferers of this contagious and communicable disease. Varanasi is the holiest of the holy pilgrimage for Hindus, Buddhists, and Jains for getting cosmic knowledge and salvation. It is a tourist centre of international importance and no foreign tourist goesback to his country without witnessing the rising sun on the Ganges and an evening at Sarnath. Banaras Hindu University unique in imparting knowledge in all known disciplines in a single campus and Institute of Medical Sciences the only one of its kind having both Modern Medicine and Indian Medicine as its faculties are engaged in integrating health services with Urban, Rural and Training Centres for Leprosy under National Leprosy Eradication Programme. Thus, Varanasi the oldest living city of our planet is working toward a world without Leprosy a disease of antiquity.

CO104

EVALUATION OF FACTORS INVOLVED IN THE LATE DIAGNOSIS OF LEPROSY

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The late diagnosis of leprpsy is usually accompanied by a higher frequency and greater severity of the involvement of penpheral nerves, with a consequent increase in physical disabilities at the time of detection.

Objectives: To characterize some possible obstacles in the way of an early diagnosis of leprosy, such as looking for health services late, difficulty in perceiving the early signs and symptoms of the disease, the involvement of prejudice, operational difficulties for medical care, and incorrect diagnoses.
Patients, materials and methods: The medical records of 40 patients seen at the Teaching Health Center of the Faculty of Medicine of Ribeirão Preto, USP, were examined and the patients were evaluated during an interview.
Results: The 40 patients evaluated (75% males and 25% females) were 13 to 76 years old, 85% of them with incomplete primary schooling. With respect to the clinical form of the disease, 85% of the patients were multibacillary and 15% paucibacillary (7.5% of those with the indeterminate leprosy). Evaluation of disability performed on 87.5% of the patients showed that 52.5% were Grade I, 10% Grade II and 35% had no hand or foot disabilities. Skin lesions associated with sensory alterations were reported by 53% of the patients, only skin lesions by 27% and predominantly sensory disorders by 20%. Among the patients interviewed, 32.2% had been inadequately treated for other diseases. Some knowledge about the disease before diagnosis was detected in 45% of the patients. The diagnosis was made 1 to 3 years after the perception of symptoms in 27.5% of the patients, < 12 months in 45% of them, and more than 10 years elapsed before diagnosis in 2.5% of the patients.
Conclusions: The results suggest that the slow and insidious nature of the disease possibly impairs the perception of early signs and symptoms, which were observed in 53% of the patients. In 55% of the patients, a period of more than 12 months elapsed between the perception and diagnosis of the disease. An incorrect diagnosis had been made in 32.2% of the patients, and 55% of the patients ignored the signs of the disease. These results suggest that continuous investments in education of the population are of fundamental importance, together with the training of health personnel for the early diagnosis of leprosy.

CO105

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IMPACT OF NEW APPROACH OF HEALTH EDUCATION ON LEPROSY ELIMINATION IN VIETNAM

1. Introduction:
- Leprosy stigma was a serious Health problem in Vietnam.
- Health Education has been conducted intensively for many years (posters, radio-TV broad casting, pamphlets, ...) even so the passive detection rate and disability rate among new cases were very high.
- New approach/method of Health Education was carried out in some regions.
- Statistic comparison has been made
2. Objectives:
- To get data and analyse statistics.
- To evaluate efficacy of the new approach/method
3. Materials and methods:
- Selection of areas with average prevalence in the delta and remote areas
- Implementation of the new approach:
Main objects of Health Education:
+ Teachers and school children in primary and secondary school (every families have children at school, many people confidence in teacher's statement)
+ Head/active members of families/Red Cross association members
- Using loudspeaker network plus Radio-TV broad casting, posters, pamphlets ... with very impressing picture, timetable for school children with new concept and early signs of leprosy.
- Distribution of questionnaires to every families for knowledge evaluation and detection of suspected cases;
4. Results: after applying this method:
- Number of notification and voluntary cases has been increased.
- The proportion of disability among new cases has been decreased
5. Conclusions:
This approach/method is practical, effective, not expensive, can be applied everywhere.

CO106

PHOTO EXHIBITION AS A MODE OF NEW LEPROSY CASE DETECTION IN A COMMUNITY

An Experience From Chittagong Leprosy Control Project

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Leprosy Control Assistant is a peripheral field worker in a project (Paramedical Worker) and he is responsible for a thana (District Subdivision), with 300,000/400,000 (3-4 lakhs) population. Therefore, it is not possible to cover all population by one worker due to inaccessibility and large distance one person has to travel. Therefore, photo exhibition is a new method used in reaching out large number of population, who are often illiterate, scattered throughout a parts of thana. Each thana has an average 300 to 350 sq. km area for coverage. Through the newly introduced photo exhibition and voluntary reporting we registered 610 cases from the community, during the last one year. Another 459 cases were detected by various surveys during the year. Nearly 57% of total 1070 cases were voluntarily reported in 1997.

We are reporting an analysis of various modes of new leprosy case detection with photo exhibitions in this presentations. Photo exhibitions combined with Rapid galloping survey phenomenally improved our new case detection rates in the last one year. Therefore, we are recommending it as a new innovative method of case detection to be incorporated in all Leprosy Control Programmes globally. This method is highly cost effective also.

CO107

LEPRE ET LUTTE ANTILEPREUSE DANS LES HUIT PAYS MEMBRES DE L'OCCGE DE 1935 A 1997

Alexandre Tiendrebeogo et les Coordonnateurs Nationaux de Programme Lepre des huit Pays OCCGE

L'Institut MARCHOUX, centre de recherche sur la lèpre de l'Organisation de Coordination et Coopération pour la lutte contre les Grandes Endemies (O C C G E), a été crée en 1935. Il est chargé de la coordination de la lutte antilepreuse dans les 8 Etats membres de cette Organisation. Les informations sur la lepre sont disponibles dans les archives de cet Institut a travers les rapports fournis par les Responsables nationaux de la lutte antilepreuse des Pays Membres. Elles permettent de tracer les courbes d'evolution de la prevalence et de la détection des cas de lepre de 1935 à 1997 et de comparer l'importance de l'endémie lépreuse dans les Pays à l'aide de cartes épidemiologiques.

Les deux indicateurs (prévalence et détection) montrent une évolution en trois phases:
-augmentation de l'endemie au cours des 20 premieres années (1935-1955),
-stabilisation de l'endemie au cours de la decennie 1956-1965,
-diminution de l'endemie a partir de 1965.
Cette évolution est à mettre en rapport avec les activites de lutte coordonnees par l'Institut Marchoux:
-début du recensement des cas de lepre en 1935,
-lancement de la campagne de masse de lutte avec la monothérapie à la dapsone en 1957,
-introduction de la PCT dans des zones pilotes a partir de 1983
-extension de la couverture PCT depuis 1987.
A la fin de l'année 1997, cinq des huit Pays ont atteint le seuil d'élimination de la lèpre.

Mots-clés: Lépre, Prévalence, Détection, Institut MARCHOUX, O C C G E.

CO108

VALIDATION OF "SIMLEP" (SIMULATION MODEL FOR LEPROSY)

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SIMLEP, a deterministic simulation model for leprosy, has been developed as a collaborative effort between CJIL Field Unit, and Department of Public Health, Erasmus University, supported by LEP, WHO, and NSL, respectively. Validation of this model is presently in progress using the following data.

(1) Prospectively collected data from leprosy vaccine trials,

(2) A special prevalence survey covering 50,000 population in South India

(3) Data from few NGO centres where details on case detection and intervention are available.

(4) Control programme based data collected from one district.

Exercises involving sensitivity analysis are completed. Model based predictions and actual observations are now being compared.

CO109

A COMPARATIVE ANALYSIS OF NEWLY DETECTED LEPROSY CASES IN PERIODS OF 1985-1989 AND 1990-1994

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Fujian province, where a cumulative number of 28 837 leprosy patients deteced by the end of 1995 , was one of leprosy high endemic areas in China. By analysing comparatively the characteristics of cases newly detected in the periods of 1990-1994 with those of 1985-1989, the authors described the results of leprosy control in this province and preferable means to detect leprosy case in different periods. The total number of leprosy cases newly registered in the above ten years was 1 746 including 1 069 cases of 1985 to 1989 and only 177 of 1990 to 1994 with a reduction of 36.7%. In addition, the three rates (prevalence, case detection rate and incidence rate) as well as the number of children leprosy patients in the latter 5 year-period were much less than those in the period of 1985-1989. On the contrary, the number of early cases detected in the latter 5-year period increased greatly. All of these indicated that leprosy has been well controlled in Fujian. However, case detection work has become more and more difficult. In order to consolidate the achievements in the field of leprosy control, the authors suggested that it should be necessary and important to detect new leprosy patients through various modes of case finding according to different situations in different counties with an emphasis of diagnosis at the departments of skin diseases, which should be an integral part of organizations for leprosy control.

CO110

A REFORMED AND VITALIZED ORGANIZATION FOR LEPROSY CONTROL SERVICE

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The Dalian Municipal Institute for Prevention and Treatment of Skin Diseases was previously Liaoning Provincial Leprosy Hospital, which was responsible for isolated treatment of leprosy patients for Liaoning, Jilin and Heilongjiang three provinces. With a marked reduction of the number of active patients through leprosy control activities effectively implemented in past decades, the leprosy hospital experienced many difficulties in exerting its function of controlling leprosy because of various reasons, mainly of heavily overstaffed vertical leprosy control programme and financial constraint. In October of 1984, with the approval of both provincial and municipal health services, the leprosy hospital was reorganized as the present institute expanding its function from single leprosy control to prevention and treatment of skin diseases including leprosy and STD. This has been a historical " turning point " of the leprosy hospital. Since then a big change has taken place. Compared with 1984, the number of outpatients to the clinic and annual income have been increased by 19 times and 64 times respectively in 1997. Reform policy has brought about an increase of vigor and vitality in the institute which will definitely promote organization of sustainable leprosy control service.

CO111

APPROACH OF GUANGDONG LEPROSY CONTROL PROGRAMME

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Leprosy control programme has been carried on for more 40 years, most of registered leprosy patients have been cured, the incidence has been decreased to a low level, and there were only 432 active cases at the end of 1997. After 1987, MDT was introduced for the treatment of leprosy, and treatment of leprosy patients and rehabilitation for the patients with disability have been implemented

in conbination. As those changes have taken place, the leprosy control programme in Guangdong province has reached a big achivement.

The mode of case detection was quite different now. Between 1970-1987 years, most of new cases were detected by mass survey and notification, only a few cases were detected through skin diseases clinics and by self reporting. In the last 15 years, 62.07% of new leprosy cases were detected through clinics, 23.5% by self reporting, and only 2.1% by household contacts survey. Most of new cases were detected in time and treated at early stage. In the period of 1983-1987, 3 009 new leprosy cases were diagnosed, the number of new cases detected in the second 5 years of 1988-1992 was only half of the first 5 years. The total number of newly detected cases in the last 15 years obviously decreased than before. At present, most of cities in Guangdong province have reached the China's criteria of basic erdication of leprosy. Incidence of children with leprosy was also significantly lower than before, only 145 cases were detected in the last 15 years. The average annual children incidence was less than 0.001%, showing that the infection of the disease has been basically controlled.

Relapse has been the main trouble for DDS monotherapy. The number of relapses after cure has increased gradually from 1983 to 1996 with a proportion as high as 21.27% among the newly registered cases in 1989 and an average proportion of 15.91% in the last 15 years. Majority of relapsed cases were cures with DDS monotherapy. Since 1988, thousands of leprosy patients have been cured by MDT. Up to now, only 3 relapses were detected. The authors recognized that MDT has been proved effective in reducing the number of relapses and consequently very helpful for eradication of leprosy in China.

CO112

EPIDEMIOLOGY AND CONTROL OF LEPROSY IN FUJIAN PROVINCE
CURRENT STATUS AND FUTURE PROSPECTS

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On the basis of every known patient's history record, space-time-population clustering data and epidemic characteristics of the disease in Fujian province of the past forty years (1954-1996) were analysed. At the same time, the number of counties in Fujian likely reaching the goal of basic eradication of leprosy by the end of 1998 was predicted.

By the end of 1996, 28 951 leprosy cases (MB: 9 365; PB:19 586) were diagnosed with a sex ratio of 2.72 and an average age at onset of 32.74 ± 15.49. Prevalence, incidence and case detection rates decreased as time goes on, but the speed of the decline of the above three rates increased gradually.

With a comparison of the data of the periods of 1975-1984 and 1985-1994, the proportion of newly detected patients with an average disease duration of less than 2 years increased from 44.75% to 57.8%, disability rate of the new cases dropped from 22.77% to 13.33% and average age at onset increased. More and more high or medium endemic counties have become low endemic areas. All of these demonstrated that leprosy has been effectively controlled in Fujian. However, there are still many patients cured with DDS monotherapy, possible relapses among them should be given more attention. Furthermore, the proportion of MB patients amongst active cases went up as high as to 97% in the period of 1990-1995, which was only 65% in the period of 1985-1989, indicating that source of infection still remain in the society.

The authors suggested that: 1) health education should be carried out contineously; 2) early detection and prompt and regular treatment should be intensisfied and reached to every patient in need of chemotherapy; 3) In order to timely detect relapsed cases, follow-up of cured persons affected by leprosy also should be carried out regularly.

It was estimated that the China's criteria of basic eradication of leprosy could be reached in 97.5% of all counties in Fujian province by the end of 1998.

CO113

- PROPOSE OF NITERÓI TO ELIMINATION OF LEPROSY BY THE YEAR 2000.

THE MUNICIPALITY OF NITERÓI HAS THE FLUMINENSE FEDERAL UNIVERSITY, SIX "SANITARY DERMATOLOGY" TREATMENT CENTERS, AND TWELVE FAMILY CARE UNITS (GENERAL PRACTITIONERS THAT WORK DIRECTLY WITH POOR COMMUNITIES). NITERÓI WAS THE PIONEER IN DECENTRALIZING ITS MUNICIPALITY. TRAINING GENERAL PRACTITIONERS TO DIAGNOSE AND TREAT LEPROSY UNDER WEEKLY SUPERVISION BY A SPECIALIST (DERMATOLOGIST). NITERÓI HAS MADE MUCH PROGRESS IN THE TREATMENT OF THIS ILLNESS. BECAUSE OF THE DECENTRALIZED SYSTEM MORE DIAGNOSES HAVE BEEN MADE, ESPECIALLY IN THE INITIAL PHASE OF THE ILLNESS, AND DISCONTINUANCE OF TREATMENT HAS BEEN ELIMINATED AS THE PATIENTS RECEIVE HOME VISITS BY THE FAMILY DOCTOR. DUE TO THESE RESULTS WE BELIEVE THAT THE MUNICIPALITY OF NITERÓI WILL REACH ITS GOAL OF LESS THAN ONE LEPROSY PATIENT IN TEN THOUSAND IN HABITANTS, AS PREDICTED BY THE OMS, BY THE YEAR 2000.

DISABILITY CONTROL

DC01

DISTRACTION TECHNIQUE FOR RELIEVING P.I.P JOINT STIFFNESS/ CONTRACTURE

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The intrinsic minus deformity following ulnar nerve involvement in leprosy is commonly known as claw hand deformity. With passage of time, uncorrected & unattended claw fingers develop soft tissue contractures and stiffness at the proximal interphalangeal joints. Reconstructive surgery almost ceases to play a role in such hands. The new dimensions of 'Law of tension stress' principle was originally developed by Ilizarov for limb lengthening. The tissue distraction by gradual tension stress was developed later by Joshi's external stabilisation system. This apparatus for distraction was applied to leprous claw hand. The technique involves insertion of K wires, fixing distraction rod and gradually increasing the tension in required direction. Results in soft tissue release and improvement in range of motion in a study of 15 cases will be presented along with functional benefits. The use of this technique has widened the horizon of reconstructive surgery in leprosy.

DC02

REACHING OUT TO DISABLED PAL'S A DECADE'S EXPERIENCE

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The social dimension of leprosy often surpasses the public health dimension. Therefore, it is necessary to consider an integrated action plan consisting of strategy for elimination, disability prevention, care and rehabilitation. Elimination should be achieved not only at the macro level but also at the micro level. The capacity building of leprosy staff in delivering the qualitative care for their disability and their social integration has been carried out to make reaching out possible. Reaching out to disabled PAL's is not an 'outreach' service but the total involvement in understanding leprosy disability care activity from the perspective of the afflicted and establishment of a 'care' system. The model development by CLCP has a decades experience behind it.

The 'handicap' so far referred to has only been as perceived by the opposite party and not as persons 'participation' in activity of daily living or occupation. Long standing & chronic physical abnormalities seen in leprosy make adoptative changes in PAL's behaviour and social outlook. The efforts at improvement in aiding the PAL's to enhance their standing in their own eyes, in family and society require provision of learning, aids and appliances and rehabilitative services. The