



Meeting to Formulate Guidelines for Migratory Population for TB and HIV/AIDS Control in SAARC Countries

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SAARC Tuberculosis Publication

Chief Editor
Dr. D. S. Bam, Director

Editor
Dr. P. Kumar, Deputy Director

STC Newsletter is regular publication of SAARC TB Centre. It includes reports on activities, decisions of important meeting of the Centre and recent information on tuberculosis and its control.

For more information and correspondence, please contact:

SAARC TB Centre (Thimi, Bhaktapur) P.O. Box 9517, Kathmandu, Nepal

Tel: 631048, 632477, 632601 Fax: 00977-1-630061, E-mail: saarctb@mos.com.np

population and made the following recommendations:

1. SAARC TB Centre should take initiatives to evolve mechanisms to ensure cross - border collaboration in health related activities with initial focus on TB and HIV/AIDS for migratory population.
2. WHO, UNAIDS, UNICEF and other interested agencies be involved in planning and implementation of cross border collaboration for TB and HIV/AIDS for migratory population.
3. Ensure the availability/accessibility of existing health care to the people in the selected border districts, regardless of their citizenship.
4. Ensure that TB and HIV/AIDS related information is shared across borders by using the SAARC TB Centre as nodal point for this purpose.
5. Ensure that public health interventions on either side of the border are in uniformity with each other.
6. Ensure that technical resources are shared across borders in areas of training, patient referral, diagnosis, treatments and IEC.

Concluding the meeting the Chairman Mr. Ibrahim Shaheem extended his sincere gratitude to the Secretary General of SAARC for his initiatives for TB and HIV/AIDS control. He also expressed sincere thanks to Mr. Thinley Dorji, Director, SAARC Secretariat for his excellent coordination with the Member Countries and to Dr. D. S. Bam, Director, SAARC TB Centre for the local hospitality. The Chairman expressed special appreciation to Dr. P. Kumar, Deputy Director and team of SAATC TB Centre for excellent arrangement made for the meeting.

STC's Participation in Cross-border meeting

Dr. D. S. Bam, Director and Dr. P. Kumar Deputy Director participated in the follow-up inter-country meeting on cross border initiative in HIV/AIDS, TB, Malaria and Kalazar organized by World Health Organization in New Delhi from 24th to 27th July 2001. The first meeting was organized jointly by SAARC TB Centre and WHO in Kathmandu from 6 to 9 March 2001.

Report on Activities

Meeting to Formulate Guidelines for Migratory Population for TB and HIV/AIDS Control in SAARC Countries



SAARC Tuberculosis Centre organized a meeting to formulate guidelines for migratory population for TB and HIV/AIDS Control in SAARC Countries from 6 to 7 August 2001 in Kathmandu, Nepal. Dr. D. S. Bam, Director, SAARC TB Centre inaugurated the programme at a function held in Kathmandu. Delivering the inaugural address, Dr. Bam informed about the gravity of the situation of TB and HIV/AIDS in the Region. He also extended his sincere gratitude to the representative of SAARC Secretary General Mr. Thinley Dorji for accepting the invitation and gracing the function. He also thanked Mr. Ibrahim Shaheem, Chairman, Governing Board of STC for his kind presence in this important meeting. He expressed gratitude to the Member Countries for nominating the experts for the meeting.

The experts from Bangladesh, Bhutan, Maldives, Nepal and Sri Lanka participated in the programme.

The objectives of the meeting were:

- to formulate guidelines for migratory population regarding TB and HIV/AIDS control,
- to exchange experiences, lessons learnt and constraints being faced in controlling TB & HIV/AIDS in migratory population in the region
- to agree on the coherent technical policies and operational issues relating to the TB and HIV/AIDS control in migratory population in the region and
- to formulate joint plan of action, including pilot projects for dealing with migratory issues in TB & HIV/AIDS control in the Region.

Recommendations:

The meeting discussed the prevailing situation of TB and HIV/AIDS in migratory

Report on country visit of SAARC-Canada Regional Project team

The HIV/AIDS epidemic is spreading rapidly in all South Asian countries. While India has the single largest proportion of HIV positive cases within its borders. Over 4 million estimated HIV infections are existing in the region and about 13,000 AIDS cases have been reported by the end of year 2000, though there has been gross under reporting. South Asian Countries are being inadvertently exposed to the epidemic. Given this scenario, efforts to cope with the epidemic in the South Asia Region must be regional in scope and not confined to political boundaries as they currently are. In addition, Tuberculosis is one of the most common complications of HIV infection and in South Asia the prevalence of TB is increasing the rise of HIV/AIDS. Hence, early HIV/AIDS/TB diagnosis, treatment and management are increasingly becoming a vital component in the management of the dual epidemics in South Asia.

A Memorandum of Understanding (MOU) was signed in July 1997 between South Asian Association for Regional Cooperation (SAARC) and Canada International Development Agency (CIDA) at the time it was decided to develop joint project for TB and HIV/AIDS control in SAARC Region. The aim was to look at the dual epidemics in order to obtain a better understanding of the best practices being adopted in the concerned management of HIV/AIDS/TB containment in SAARC Member Countries currently confronting both epidemics. A project Approval Document (PAD) was prepared by the experts of HIV/AIDS, TB and Laboratory from the Member Countries, Health Canada and the SAARC TB Centre in the workshop held in 1999. All Member Countries have approved the PAD in September 2000 for implementation.

The Major Areas of Co-operation:

- Regional epidemiological and laboratory database and information network.

- Regional laboratory of TB research and quality control
- Policy and communication.

Project Description:

Regional TB and HIV/AIDS Epidemiological database and information network:

This is being developed in co-operation with Health Canada's WHO collaborating centre for HIV/AIDS and will be co-ordinated and maintained by the SAARC TB Centre, to facilitate the sharing of data and the generation of regional analysis and reports related to HIV/AIDS and TB.

Regional Laboratory:

This component will enhance the capacity of the SAARC Laboratory to provide support to national labs in areas of TB diagnostic reference testing, standardized antibiotic resistance testing and quality assurance. This will be accomplished through the provision of scientific/technical advice from Health Canada's WHO collaborating centre for TB.

Policy and Communications:

Using the database developed, the project will facilitate dialogue on matters related to the prevention and control of HIV/AIDS and TB in the region and assist with the formulation of regional policies.

Approval of the PAD:

All Member Countries endorsed the Project Approval Document (PAD) at the end of September 2000.

Joint Steering Committee Meeting:

Under the chair of SAARC Secretary General, a Joint Steering Committee (JSC) meeting of project was held on 8th Feb. 2001 at SAARC Secretariat, Kathmandu, Nepal and decided some of important issues like:

- Recruitment of three professionals
- To designate the national reference laboratories in Member Countries to co-ordinate with the STC.
- To inform relevant administrative and programme officers in their governments regarding forthcoming country visit by the project team.
- To secure nomination of nodal officers in each country as focal points for the project and
- Sustaining the Deputy Director in the Centre to expedite smooth implementation of SAARC-Canada project.

The tenth meeting of the Governing Board of STC endorsed the decisions taken by the JSC and requested Member Countries to take immediate action on the issues identified by JSC in order to implement SAARC-Canada project successfully.

The Member Countries have already identified the national reference laboratories and SAARC Secretariat has requested Member Countries for nominations for recruitment of three professionals to STC and Country nodal officers for the project in the Member countries.

The first phase of the country visit of the project team to Nepal, India, Maldives and Sri Lanka has been held between 21st May to 11th June and the visit to Pakistan, Bangladesh and Bhutan has been held in the second phase from 10th to 27th September 2001.

Composition of the Project Team

Phase I

Dr. Adalbert Laszlo, Senior Consultant TB Microbiology to the project,

Dr. Klaus Jochem, Epidemiologist and Canadian Project Manager

Dr. Prahlad Kumar, TB Control Expert and SAARC Project Manager

Phase II

Dr. D. S. Bam, Director, SAARC TB Centre

Dr. Adalbert Laszlo, Senior Consultant TB Microbiology to the project

Dr. Klaus Jochem, Epidemiologist and Canadian project manager

Dr. Prahlad Kumar, TB Control Expert and SAARC project manager.

Objectives of the Country Visits:

- To meet with the country nodal officers for the project.
- To meet with heads of the National TB Control Programme and national AIDS Control Programme to explain the project and collect epidemiological information on TB and HIV/AIDS.
- To meeting with directors of national reference laboratories, discuss the concept of regional network of national TB reference laboratories connected electronically and identify the site and contact person for the TB reference laboratory node.
- To collect technical data, bio-safety manuals and QA protocols from each of the reference laboratories.
- To discuss modalities of the project with the directors of the National TB Control Programme, National AIDS Control Programme and National Reference Laboratories in the Member States.

The Programme of Country Visits of the Project Team:

Phase I

Nepal

21-22 May 2001

- Meeting with the Director of National Tuberculosis Programme. Visit to National Reference Laboratory, Kathmandu.

23 May 2001

- Departure from Kathmanu to New Delhi.

India**24-25 May 2001**

- Meeting with the Director National Tuberculosis Programme and Director, National AIDS Programme, New Delhi.

26 May 2001

- Departure from New Delhi for Bangalore

27-29 May 2001

- Meeting with the Director and visit to Laboratory at National TB Institute, Bangalore.

30 May 2001

- Departure from Bangalore for Chennai

31 May – 1 June 2001

- Meeting with the Director and visit to Laboratory at TRC Chennai.

Sri Lanka**2 June 2001**

- Departure from Chennai for Colombo

3-5 June 2001

- Meeting with the Director, National TB Control Programme, visit to National Reference Laboratory.
- Meeting with the Director of National AIDS Control Programme.

Maldives**6 June 2001**

- Departure from Colombo for Male

6-7 June 2001

- Meeting with Director, National TB and AIDS Control Programme.
- Visit to National Reference Laboratory, Male.

8 June 2001

- Departure from Male for Colombo – Trivandrum

9 June 2001

- Departure of Dr. Laszlo from Trivandrum

10 June 2001

- Departure of Drs. Kumar and Klaus from Trivandrum to New Delhi.

11 June 2001

- Arrival in Kathmandu.

Phase II**Pakistan****9 Sept. 2001**

- Arrival of Dr. Laszlo in Karachi

10 Sept. 2001

- Departure of other team members from Kathmandu to Karachi

11 Sept. 2001

- Public Holiday

12 Sept. 2001

- Meeting with Director, Ojha Institute of Chest Diseases, Karachi.
- Visit to National Reference Laboratory, Karachi, meeting with the Director.
- Departure from Karachi to Islamabad

13 Sept. 2001

- Meeting with the Director National TB Programme, Islamabad

14 Sept. 2001

- Visit to National Reference Laboratory at Federal TB Centre, Rawalpindi and meeting with the Director.

15 Sept. 2001.

- Departure from Islamabad to Kathmandu.

Bhutan

17 Sept. 2001

- Departure from Kathmandu to Thimphu.

18 Sept. 2001

- Meeting with the Director, NTP

19 Sept. 2001

- Visit to National TB Reference Laboratory and meeting with the Director.
- Meeting with the Director, National AIDS Control Programme, Bhutan

20 Sept. 2001

- Return back from Bhutan to Kathmandu.

Bangladesh

24 Sept. 2001

- Departure from Kathmandu to Dhaka

25 Sept. 2001

- Meeting with Director, NTP and visit of National Reference Laboratory, Dhaka

26 Sept. 2001

- Meeting with the Director, National AIDS Control Programme, Dhaka.

27 Sept. 2001

- Departure from Dhaka to Kathmandu.

The country visits have been very useful to have interaction with Directors of National TB and HIV/AIDS control and National Reference Laboratories in Member Countries. Team has also developed close contact with experts in Member Countries and collected useful information for smooth implementation of Regional Project for TB and HIV/AIDS control in the Region.



(Project team with Hon'ble Minister of Health, Maldives during their visit)

Respiratory Disease and HIV/AIDS Control in Sri Lanka in 2000

*Dr. V. R. Weeraratne, Director, RDCP, Dr. Iyanthi Abeyewickreme, Director, NSACP,
Dr. K. A. M. Ariyaratna, Co-ordinator/HIV Surveillance, NSACP*

Introduction:

The Respiratory Disease Control Programme (RDCP) is a decentralized unit headed by the Director/RDCP and functions under the Deputy Director General Medical Services (DDGMS). But from the year 2001, the programme will function under the Deputy Director General Public Health Services (DDGPHS).

Director/RDCP is responsible for the control of tuberculosis as well as other respiratory diseases in the country. However, control of tuberculosis is the main activity and is given high priority since tuberculosis still continues to be a major public health problem in the country and because of its close association with HIV and the risk of emerging drug resistance.

Organization of the RDCP:

The RDCP carries out its functions through a network of chest clinics, branch chest clinics, chest hospitals and chest wards in close co-ordination with the general health services.

The two chest hospitals at Welisara and Kankasanturi (presently located at PU Kopay), the Central Laboratory and Chest Clinics Colombo and Gampaha are under the line-ministry and 19 district chest clinics are under the provincial administration. All the Chest Clinics, the Chest Hospitals and the Central Laboratory function under the technical guidance of the Director/RDCP.

Tuberculosis Morbidity:

During the year 2000, a total of 8129 new TB cases, 376 relapses and 29 cases of treatment failures were registered. The 157 cases who had defaulted treatment were retrieved and started on treatment again. It is seen from data that there is a gradual increase in the number of new cases detected during the last four years and an increase of nearly 1000 cases in the year 2000. This could be attributed to several reasons. It could be due to improved case detection, specially in districts where no TB control activities were done earlier due to lack of facilities, and also due to improved referrals and case notifications from general health institutions in response to the DGHS circular on the National Policy regarding referral of TB patients. But it is also important to consider whether this could be due to HIV/TB co-infection. However, this is unlikely, since the incidence of HIV in Sri Lanka at present is low and only one HIV positive case was detected among the TB patients tested so far in the sentinel surveys done by the STD/AIDS control programme.

Out of the new cases 6568 (80.8%) were pulmonary TB, out of which 4316 (65.7%) were sputum positive cases. The total number of extra-pulmonary TB cases were 1561 (19.2%).

District-wise, Colombo recorded the highest number of 1687 cases (78.4/100,000 population) and the lowest number was recorded from Kilinochchi – 02 cases (1.7/100,000 Population).

Province-wise, Western Province

registered the highest number of patients (64.6/100,000 Population) and Uva province registered the lowest incidence (26.5/100,000 population).

Age-wise the incidence is lowest in the age group (0-14 years) and highest in the age group (65-74 years).

Sex distribution shows an over all Male : Female ratio of 2:1. However, females are more in the younger age group (below 25 years). This pattern is similar to that of previous years.

Total number of deaths due to tuberculosis was 347 (1.8/100,000 population). These are the number of deaths among the TB patients notified to the National TB Programme.

TB Control Activities:

TB control activities were carried out through the chest clinic, branch chest clinics and chest hospital Welisara, under the technical guidance of the Director/RDCP.

In addition, several general health institutions also carried out case finding by sputum smear examination of symptomatic or by referring the symptomatic to the chest clinics.

Clinical:

During the year 2000, 159,191 patients have been investigated for TB and other respiratory disease. Majority of these patients were self referred. Other included referrals from general health institutions, private practitioners, contacts of TB patients and medical examinations.

First Visit:

Referred	- 34,260
Self-referred	- 64,823
Contacts	- 10,393
Medical Examination	- 49,715
Total	159,191

Subsequent visits

TB patients	- 53,698
Other Respiratory Disease	- 169,588
Total	223,286

Tuberculosis case-finding was done by sputum smear examination of symptomatic patients who attended the clinic. Routinely three sputum samples were examined. X-ray examinations were done in all diagnosed cases.

Laboratory Services:

Although case finding and follow up of treatment depend mostly on sputum smear microscopy, several chest clinics do not have microscopy facilities and have to depend on the adjoining hospital laboratories. Patients attending these clinics have to undergo great inconvenience, since sputum examinations are done only on one or two days of the week in the hospital laboratories. This is very unsatisfactory and causes delay in diagnosis of cases. All chest clinics should be provided with microscopy facilities. In addition to the chest clinics, at least three Microscopy Centres identified specifically for TB control work, should be set up in each district preferably located at Base or District Hospitals. This would prevent delay in diagnosing cases who present with symptoms.

Laboratory facilities

Chest Clinics:

Colombo, Kalutara, Galle, Matara, Kandy, Anuradhapura, Polonnaruwa, Kurunegala, Puttalam, Ratnapura, Kegalle, Badulla, Ampara, Batticaloa, Trincomalee

Hospitals:

Gampaha, Matale, Hambantota, Jaffna, Vavuniya, Nuwara-Eliya

Sputum Smear Microscopy:

Sputum smear examinations are done for diagnosis, as well as for monitoring of treatment.

- All symptomatics who attend the clinics are screened by sputum smear microscopy.
- All pulmonary TB patients on treatment are monitored by follow up sputum smear examinations at the specified periods.

No. of persons examined

for diagnosis - 56,174

No. of Positives - 4,348

No. of smears done

for follow up - 29,307

No. of Positives - 1,694

Sputum Culture for AFB:

Culture facilities are available only at the central laboratory of the RDCP. Sputum cultures are done in-patients whose sputum is repeatedly negative on direct smear examination and in all cases of relapses and treatment failures.

Total No. of sputum cultures done-4,069

Number of positives - 921

ABST studies - 1019

MDR/TB - 28

A primary drug resistant surveillance study was done during the year 1999 and was completed at the beginning of year 2000. Districts of Colombo, Galle and Anuradhapura were chosen for the study and 929 new cases were included in the study. Out of this, 6 cases were found to be resistant to Rifampicin and INAH (0.64%).

Culture for AFB are also done on other specimens like Urine. Bronchial washing. Pus etc.

No. of other specimens cultured -881

No. of +ve. - 55

Quality Control of Sputum Microscopy:

Quality control of sputum smears is an important part of the control programme and at present, this is being carried out only at the Central Laboratory. All positive slides and 10% of all negative slides are sent from the chest clinics for quality control. However, at present, sputum smears done at general health institutions are not sent for quality control.

Initial Reading	No. of slides Checked	Reference Laboratory Reading		Percentage of Discordance
		No. +ve	No. -ve.	
+ve slides	3358	3297	61	1.8%
-ve slides	4874	23	4851	0.47%

X-ray Facilities:

X-ray facilities – both microfilms (70 mm) and standard size x-rays are available in several chest clinics. Other clinics depend on the x-ray facilities from the hospital.

At Chest Clinics:

Colombo, Kandy, Kalutara, Galle, Matara, Batticaloa, Puttalam, Kurunegala, Anuradhapura, Badulla, Ratnapura.

At Hospitals:

Gampaha, Kalutara, Matale, Hambantota, Matara, Jaffna, Vavuniya, Trincomalee, Polonnaruwa, Amparai.

During the year 2000, 72,717 x-rays were done at the Chest Hospital and Chest Clinics.

Number of Microfilms - 43019

Number of Large films - 29698

Total 72717**Treatment and Follow up:**

All diagnosed TB patients are treated with Short Course Chemotherapy (SCC). Two treatment regimens are used – each of which consists of an intensive phase and a continuation phase.

All New cases are given (Cat. I) treatment

Intensive Phase - (2 HRZE/4RH)

Continuation phase - 4 RH

Re-treatment cases (Relapse, Treatment failures, Treatment after default) are given Cat. II treatment.

Intensive phase - (2 HRZES/1 HRZE)

Continuation phase - 5 RHE

Monitoring of treatment is done by follow up sputum smear examination at specified intervals.

DOTS (Directly Observed Treatment Short-course):

The policy of the national TB control programme is Direct Observation of Treatment. Sputum positive PTB patients are admitted to hospitals during the intensive phase for directly observed treatment.

Total number of beds available for admission of TB patients is 1047. On an average, 80% of the sputum positive patients are admitted for supervised treatment during the intensive phase.

This is followed by ambulatory treatment during the continuation phase. DOTS was started as a community based programme in 1997 and supervision of treatment is done by a trained health personnel at the closest health institution to the patient's residence. In remote areas, the assistance of the PHMW is obtained for supervision of treatment. The community based DOTS has now been extended to ten districts – Galle, Matara, Colombo, Gampaha, Kandy, Anuradhapura, Kurunegala, Ratnapura, Kalutara and Puttalam and covers a population of about 60%. It is planned to extend the ambulatory DOTS programme to cover the entire country, as soon as possible.

Defaulter Tracing:

In districts where the DOTS strategy is implemented, home visits are done by the chest clinic PHII to trace these defaulters. In spite of this, the defaulters are high specially in the urban areas where there is a high percentage of floating population and also in the conflict areas. Defaulter tracing has become extremely difficult because the chest clinic PHII have not been provided with motor bicycles.

Records and Reports:

The information system within the national TB programme is well organized. WHO

recommended standardized registers, forms and reports are used for recording and reporting.

Following Quarterly Reports are collected from the District Chest Clinics:

1. Quarterly Report of Case-finding
2. Quarterly Report of Sputum conversion at the end of intensive phase of treatment.
3. Quarterly Report of Treatment Outcome.

These reports are analyzed and evaluated at the Central Unit.

In Sri Lanka, Tuberculosis is notifiable disease. All diagnosed cases of T should be notified to the Central Unit of the RDCP. There is a special Notification Form for this purpose.

The Central TB Register is maintained at the Central Unit and has been computerized. It is seen that the number of TB cases notified during the year 2000 has increased by nearly 1000 cases more than the previous 10 – 12 years. This is mainly due to the fact, that the cases diagnosed in other health institutions have been referred to the NTP for registration, notification and follow up. Though this is the national policy, this has not been strictly adhered to during the last few years, but following the re-issue of the circulars by the DGHS on the national policy of referral of TB patients, these patients are now being referred to the NTP. It is essential that all cases should be referred to the NTP for compilation of national data on tuberculosis accurately to assess the trend of the disease, and it is mandatory that all diagnosed cases are followed up by direct observation of treatment until they are cured to prevent the spread of the disease and emergence of drug resistance.

Drug Supplies:

There is no shortage of first line anti-TB drugs. The drug estimates are based on the number of patients registered in the previous year.

The anti-TB drugs for outdoor treatment are issued only through the district chest clinics. The District TB Control Officers of the chest clinic make arrangements to deliver the drugs to

the DOTS treatment centres for each diagnosed patient. In other major general health institutions, the anti-TB drugs are made available only for indoor treatment of TB patients.

This will ensure that all patients on anti-TB treatment are closely monitored and followed up by direct observation to avoid the emergence of multi-drug resistant TB.

Health Education:

Health education activities were carried out at the central and district level. This is one of the most important aspects which need to be improved to remove the stigma associated with the disease. An important achievement during the year was the appointment of a Medical Officer for Advocacy for the programme. He has already produced a docu-drama on TB & DOTS and several TB programmes and radio programmes were conducted. This would definitely help to promote much awareness among the policy makers, politicians and also among the health staff and the public. The World TB Day 2000 – March 24th was a great success. Several health education activities, poster competitions, street processions, three wheeler parades, TV & radio programmes were carried out throughout the country.

Training:

- 08 training programmes for MOO/MOOH and RMOO/AMOO of 4 districts – Kurunegala, Ratnapura, Kalutara and Puttalam were carried out on the implementation of DOTS in these districts.
- 20 programmes for the PHC staff of these 4 districts were also carried out on the implementation of DOTS.
- Two-day refresher training programme for the MLTS/Microscopists of chest clinic were conducted.
- Quarterly review meetings of the TB control were held as earlier.

A Medical Officer training was a long left need for the programme and this post has been

filled during the year. Training of all categories of staff who are involved in TB control work should be carried out on a continuous basis. Now that a Medical Officer has been appointed, it would be possible to produce standardized training modules and organize the training programmes in a more systematic manner.

International Training:

- Two M.OO participated in a three weeks training programme on TB control in South Korea.
- One M. O. participated in a 4 months training course in TB control in Japan. However, this officer has been transferred out of the programme. This should be avoided and the NTP should be made a “Closed Service”, so that officers who are trained locally or abroad should not be transferred out of the programme.
- One M. O. participated in 2day workshop on TB & Advocacy held in Kathmandu.
- One DTCO participated in a two day workshop on standardized training modules held in Kathmandu.

Co-ordination:

STD/AIDS programme carried out the sentinel survey as in the previous years in six sentinel sites—Colombo, Kandy, Galle, Anuradhapura, Ratnapura and Kurunegala. No HIV positive cases were found among the TB patients tested.

Achievements:

1. Community based DOTS programme was extended to four more districts during the year. At present ambulatory DOTS covers a population of 60%.
2. Taking WHO estimates as baseline, it is seen that Sri Lanka has achieved a case detection rate of 86% of sputum positive cases and 74% of all TB cases.

(Estimated Incidence of all TB cases in Sri Lanka	- 11,000)
(Estimated Incidence of Sputum Positive TB	- 5,000)

3. A cure rate of over 85% is being achieved in most of the districts.
 4. An important achievement is the re-establishment of the chest clinic at Nuwara-Eliya which has not been functioning for the last several years.
 5. Arrangements are also being made to establish a new chest clinic in Monaragala district and a medical officer has been appointed for the clinic from January 2001.
 6. Appointment of MO/Advocacy and MO/Training will greatly benefit the programme.
2. Most of the district chest clinics lack trained staff
 3. Trained staff locally and abroad are transferred out of the programme. Therefore, TB control programme should be made a 'Closed Service' so that the staff is transferred within the programme.
 4. Lack of microscopy facilities in the periphery is a major problem faced by the programme in case detection and follow up.
 5. Lack of transport for the DTCCO has hindered supervision of case finding and DOTS in the community. Lack of motor bicycles for the PHII, has caused problems in defaulter tracing and distribution of drugs to the DOTS treatment centres.

Constraints:

1. More frequent supervision from the central level is not possible due to lack of supervisory staff at the Central Unit.



The Present Status of the HIV/AIDS Epidemic in Sri Lanka

infection, which causes AIDS though unknown just two decades ago, has developed into a major health problem in many regions of the World. In addition, in certain countries the AIDS epidemic has already shown an adverse impact on development and on the health indices such as life expectancy and infant, child and maternal mortality rates.

The first Sri Lankan, infected with HIV was reported in 1987 and the first indigenously transmitted HIV case was reported in 1989. Since then, up to end of December 2000, the cumulative number of HIV cases reported to the National STC/AIDS Control Programme (NSACP) was 358. Of this, 119 persons were reported as having AIDS. Reported AIDS deaths are 89. In addition, 40 foreigners were also reported as HIV positive during this period.

However, it should be noted that there are many persons with undiagnosed HIV/AIDS in the community and the proportion of under reporting, under diagnosis and delays in reporting could be considerable in a developing country like Sri Lanka. Therefore, emphasis is given to

the estimated number of persons with HIV/AIDS rather than the reported numbers.

Age and Sex distribution of reported HIV cases:

Of the 358 reported HIV infected persons age is available for 323 (90%). Of these, 92% were in 15-49 year age group with the maximum numbers in 30-34(22%) and 35-39 (21%) year age group. In first five years of the epidemic (1987-1991), the male to female ratio was 4:1, which decreased to 2:1 in the next 5 years. By December 2000, the male female ratio has decreased to 1.6:1 indicating a gradual increase in the number of HIV positive women in the last few years. The increasing number of HIV infection in women will lead to more cases of mother to child transmission of the virus.

Transmission Categories:

The mode of transmission of reported HIV infections is available for 274 (77%). Of these, 85% were heterosexual and 13% were homo/

bisexual. Four cases (1.5%) have been reported as perinatally transmitted while two cases (0.8%) were due to blood transfusions. It should be noted that of the four perinatally transmitted cases, there were reported during the first half of the year 2000.

Geographical Distribution:

The place of residence is available for 342 cases (95.5%). Of these, the majority (69%) were from the Western Province (Colombo – 157 cases, Gampaha – 51 cases and Kalutara – 29 cases). Seven percent of the reported HIV positive were from the North Eastern Province (Jaffna 14, Batticaloa and Amparai 3 each, Trincomalee 2, Mulativu and Kilinochchi one each), while 6% of the cases were reported from the North Western Province (Kurunegala 10 and Puttalam 11 cases). HIV positive were reported from all other provinces as well.

HIV Sentinel Surveillance:

Cross-sectional studies of HIV prevalence among selected groups in the population known as 'sentinel group' have been conducted annually since 1993 according to WHO guidelines. The objective of Sentinel Surveillance (SS) is to

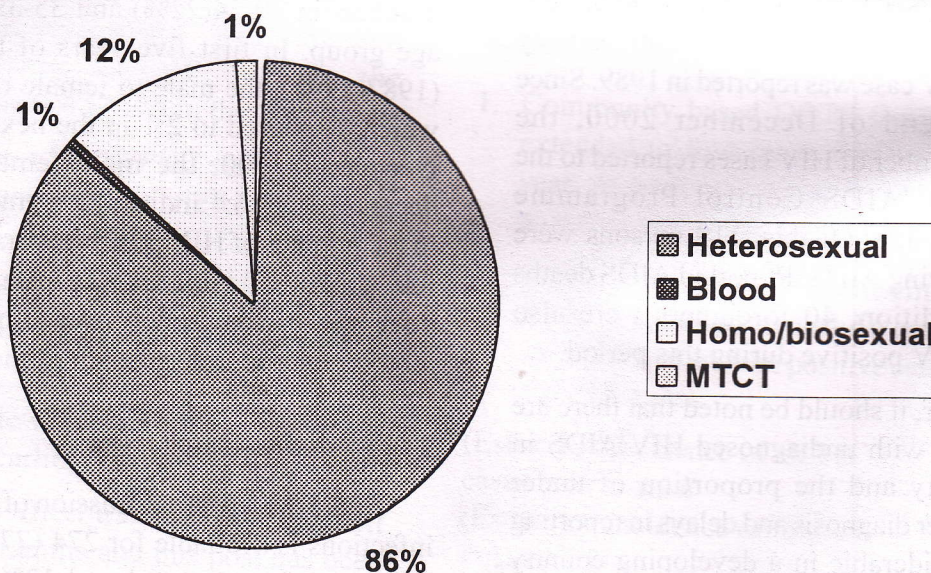
monitor trends of HIV infection over time, by population and by geographical site.

In 2000, SS was carried out in Colombo, Galle, Kandy, Anuradhapura, Badulla, Kurunegala and Ratnapura from 1st April to 30th September. STC clinic attendees, female sex workers and patients diagnosed with tuberculosis were surveyed on an unlinked anonymous basis. Two male STD clinic attendees each from Colombo (0.1%), Kandy (0.3%) and Ratnapura (0.5%) tested positive for HIV. There were no HIV positive detected among female sex workers or patients with tuberculosis.

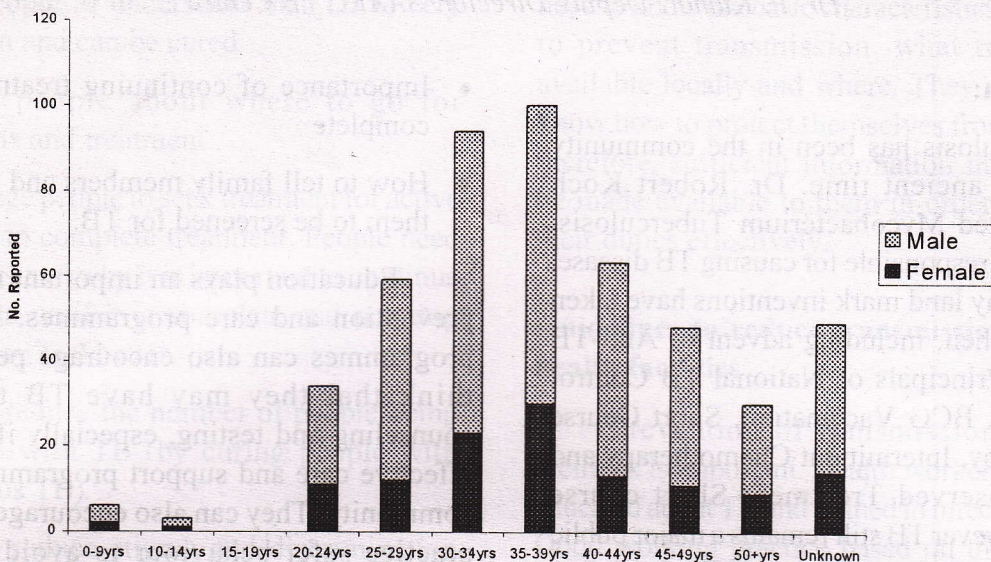
Trend of HIV Infection:

The difference between the estimated number and the reported number of HIV infection in Sri Lanka indicate that more attention has to be paid for reporting. HIV/AIDS is not notifiable at present. Without reasonable data, it becomes very difficult for the NSACP to assess the epidemic. However, even the reported data indicated an increasing trend in HIV infection. Although Sri Lanka is considered a country with a low prevalence of HIV in the South Asia Region, there is no room for complacency. Prevention activities have to be intensified and sustained if we are to maintain this low prevalence.

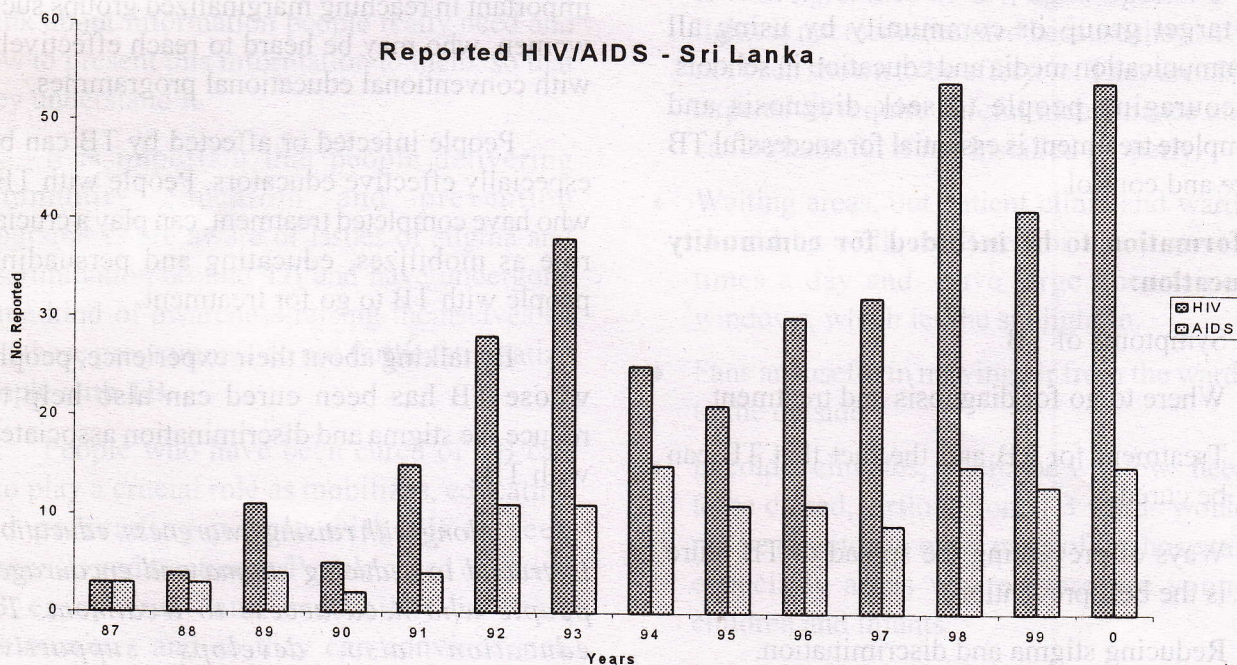
Reported modes of HIV transmission 1987-2000



Reported HIV by Age 1987-2000



Reported HIV/AIDS - Sri Lanka



Role of Community Education in TB Control

Dr. P. Kumar, Deputy Director, SAARC TB Centre

Introduction:

Tuberculosis has been in the community since ancient time. Dr. Robert Koch detected Mycobacterium Tuberculosis, the organism responsible for causing TB disease, in 1882. Many land mark inventions have taken place since then, including advent of Anti-TB medicines, Principals of National TB Control Programmes, BCG Vaccination, Short Course Chemotherapy, Intermittent Chemotherapy and Directly Observed Treatment Short course (DOTS), however TB still remains a major public health problem in developing countries including SAARC Region. It is likely to remain so if community does not participate actively in TB Control. Community Education is the key for active community participation in TB Control.

Community education is an important factor in motivating people with TB to go for diagnosis and treatment. It can include education by health workers, peer education by member of target group or community by using all communication media and education in schools. Encouraging people to seek diagnosis and complete treatment is essential for successful TB care and control.

Information to be included for community education:

- ◆ Symptoms of TB
- ◆ Where to go for diagnosis and treatment
- ◆ Treatment for TB and the fact that TB can be cured
- ◆ Ways of preventing the spread of TB (cure is the best prevention)
- ◆ Reducing stigma and discrimination.

Counseling for people with TB can include information about:

- ◆ Treatment and its possible side-effects

- ◆ Importance of continuing treatment until complete
- ◆ How to tell family members and encourage them to be screened for TB.

Education plays an important role in TB prevention and care programmes. Education programmes can also encourage people who think that they may have TB to go for counseling and testing, especially if there are effective care and support programmes in the community. They can also encourage people to practice safer behaviour to avoid infecting themselves or others.

Community education can be especially effective as it can address people in a language and using ideas that they understand. Peer education can also be very effective. This is where members of a group educate other members of their group, for example, students in school. Peer education can be especially important in reaching marginalized groups such women, who may be heard to reach effectively with conventional educational programmes.

People infected or affected by TB can be especially effective educators. People with TB, who have completed treatment, can play a crucial role as mobilizes, educating and persuading people with TB to go for treatment.

By talking about their experience, people whose TB has been cured can also help to reduce the stigma and discrimination associated with TB.

“Along with raising awareness, education is crucial to reducing stigma and encourages people who need access to treatment. TB education also develops supportive relationships. In turn this contributes to early diagnosis and compliance, minimizing defaulters and the spread of disease and the emergence of drug resistant strains of TB”

- Stop TB initiative.

Education and counseling are important because they can:

- ◆ Help people to understand that TB is very common and can be cured
- ◆ Inform people about where to go for diagnosis and treatment
- ◆ Encourage people to seek treatment for active TB and to complete treatment. People need to understand why it is important to continue treatment until it is complete and not stop when they feel better.
- ◆ Help to reduce the number of people being infected with TB (by curing people with infectious TB).
- ◆ Help to reduce stigma and discrimination associated with TB.

It is important to adapt the information you give to suit people's level of knowledge and education and most importantly, to make sure it addresses all their needs related to TB.

It is important to think of appropriate ways to communicate with communities (e.g. by street theatre, posters, and community meetings), to think about information people really need and how to present this information to them, so that they understand it.

It is important that people delivering community education and prevention programmes are aware of issues of stigma and discrimination around TB and have undergone some kind of awareness-raising themselves so that these programmes do not further stigmatize people with TB.

People who have been cured of TB can also play a crucial role as mobilizes, educating and persuading people with TB to seek diagnosis and treatment. People cured of active TB enjoy trust and credibility in their communities and so they can convince sick people about the effectiveness of DOTS treatment. By talking about their experience, they can also help to reduce the stigma and discrimination associated with TB.

Education for health and community workers

Health workers and community workers need to know the basic characteristics of TB, how to prevent transmission, what treatment is available locally and where. They also need to know how to protect themselves from infection, therefore, sufficient information in this regard be made available to them in order to perform their duties effectively.

Guidelines to reduce transmission of TB in health facilities

Prevention of transmission in health facilities is important. Health workers need to be educated about TB and trained in infection control. Good working practice based on the following guidelines can reduce the risk of transmission.

Let in light and air

- ◆ Proper ventilation is one of the most effective measures to reduce TB transmission because it disperses TB germs in the air.
- ◆ Ultraviolet (UV) light kills TB germs. Sun is a cheap source of UV light. Special UV lights is not recommended because they have not been shown to be effective. They are also expensive, require careful maintenance and can be harmful if not installed properly.
- ◆ Waiting areas, out patient clinic and wards should be well ventilated or aired several times a day and have large uncurtained windows, which let the sunlight in.
- ◆ Fans are useful in moving air from the wards to the outside.
- ◆ In colder climates, where the windows need to be closed, airflow from TB wards would not be directed to other parts of the hospital, especially areas where there are young children and infants.

Keep people with active TB separate

- ◆ Remember that adults with pulmonary TB, who are sputum smear positive, are the most infectious.

- ◆ Keep potentially infectious people separate from areas where there are young children and babies, such as maternal and child health clinics.
- ◆ People with confirmed smear positive pulmonary TB who have to be hospitalized should be in separate wards away from people without TB and especially away from pediatric and maternity wards. This is especially important during the first phase of treatment, until they are no longer infectious.
- ◆ Infectious adults need to understand that they can transmit TB germs to staff other people in the hospital and to visitors. Encourage them to cover their mouth and nose when coughing and sneezing, if possible with a clean handkerchief or cloth. Surgical masks are not very effective, are expensive and can increase stigmatization of people with TB.

Safe handling of sputum

- ◆ Sputum specimens should be collected in a place away from general waiting rooms or hospital wards, in a special receptacle (spittoon) with a lid.
- ◆ Laboratories processing sputum specimens should follow guidelines to prevent transmission to laboratory workers.
- ◆ Disposable spittoons must be incinerated after use. Metal or plastic spittoons should be disinfected and washed. Anyone handling spittoons should wash their hands afterwards.

TB Control is a shared responsibility and role of community for TB Control is crucial. Using all forms of media, this message be transmitted very clearly.

ABSTRACTS

Treatment Outcome in Tuberculosis Patients Placed under Directly Observed Treatment Short-course (DOTS) A Cohort Study

*S. L. Chadha and R. P. Bhagi,
Ind. J. Tub. 2000, 47, 155*

Summary: The study was carried out to evaluate treatment in tuberculosis patients under DOTS. The 639 subjects in the cohort comprised 432 males and 207 females. The patients were diagnosed and administered standard regimens of anti-tuberculosis drugs as prescribed under DOTS guidelines along with lesions of the radiological assessment.

The sputum conversion rate was 92.6% and 76.9% in category I and at the end of intensive phase. The cure rate was 91% and 73.3% in category II patients respectively. Defaulter rate was 7.7%, treatment failure rate was 1.6%, three fourth patients were asymptomatics and 95% had gained weight, ranging from 1 kg. to 5 kg. The radiological lesions showed significant improvement in 76.3% patients.

Profile of DOT Providers in Private Sector

*R. Balambal,
Ind. J. Tub. 2001, 49, 73*

Summary: The essential feature of the DOTS (Directly Observed Treatment Short-course) strategy of the Revised National Tuberculosis Control Programme is provision for DOT providers who can ensure that treatment is taken by each patient under direct observation. Normally, this is made possible by requiring patients to attend the DOT Centre, as and where required, to receive treatment in person. However, a considerable proportion of patients prefer to receive treatment in the private sector, for which it has become crucial to organize a system for appointing DOT providers who can follow the RNTCP guidelines and observe drug of 20 private practitioners who after simple training have set up a system of quality microscopy for diagnosis of tuberculosis and volunteer DOT providers selected by patients/practitioners for delivering drugs to patients

under direct observation, mostly in their homes. ACT also provides a trained supervisor to monitor all the aspects including DOT providers.

The preliminary findings of this study suggest that it is feasible to identify medical practitioners and DOT providers in the private sector who can be simple trained and whose service can be integrated with the governmental DOT centre under the RNTCP.

Primary Drug-resistant Tuberculosis in Children

H.S. Schaaf, R. P. Gie, N. Beyers, F.a. Sirgel, P. J. de Klerk, P. R. Donald.

*Int. J. Tuberc Lung Dis 4(12): 1149-1155
2000 IUATLD*

Setting: The Western Cape Province of South Africa. an area with a high tuberculosis (TB) incidence where initial isoniazid (INH) resistance and multi-drug resistance (MDR) among adults was 3.9% and 1.1, respectively, during 1992-1993.

Objective: To determine the drug resistance incidence among children as compared to adults, to compare the clinical features of drug-resistant and drug-susceptible TB, and the degree of INH resistance in isoniazid-resistant isolates.

Methods: All *Mycobacterium tuberculosis* cultures obtained from children (0-13 years) at a regional hospital were prospectively collected from August 1994 to April 1998 and susceptibility testing done on each child's specimens. Degree of INH resistance was determined in available resistant isolate. The children's clinical records were reviewed.

Results: Susceptibility results were available in 306/338 children with cultures of *M. tuberculosis*, 21 isolates (6.9%) were INH-resistant and seven were MDR. Taking into account study limitations, the incidence of INH resistance was 5.6% and MDR 1% in children aged <5 years. Clinical features were similar in children with drug susceptible and drug resistant TB.

Conclusion: The incidence of drug resistance in childhood tuberculosis in Western Cape is low, and probably reflects the level of primary drug resistance amongst organisms currently circulating in the community.

Knowledge, attitudes and beliefs regarding tuberculosis preventive therapy for HIV-infected persons, Botswana, 1999.

E. A. Talbot, T. A. Kenyon, S. alabi, T. L. Moeti, K. More, N. J. Binkin

*Int. J. Tuberc Lung Dis 4(12) 1156-1163
2000 IUATLD*

Setting: Botswana, 1999.

Objective: To measure knowledge, attitude and beliefs about tuberculosis (TB) preventive therapy (PT) for persons infected with the human immuno-deficiency virus (HIV).

Design: A systematic sample of adult clinic attendees, using a standardized questionnaire.

Results: A total of 275 patients at 38 clinics in five districts were interviewed. The majority were female (65%) and unmarried (84%). Knowing someone with TB or AIDS was common (78% and 53%, respectively). Respondents perceived a relationship between TB and HIV (80%), and the majority were willing to undergo tuberculin skin testing (92%). Of those, most were willing to undergo tuberculin skin testing (92%). Of those most were willing to undergo evaluation for active TB (98%), and to take PT, although willingness to take PT declined with proposed duration (97% 6 months, 90% 1 year, 81% lifetime, $P > 0.01$). Previous HIV testing was reported by 13%; those who had not undergone testing reported that they would if doctors could improve the quality (95%) or duration (93%) of life of persons with AIDS. The majority favoured receiving HIV test results on the day they were tested (60%).

Conclusion: Most clinic attendees in Botswana were willing to undergo HIV testing if it were beneficial to do so, such as by

receiving PT. Pilot PT projects should be initiated. Voluntary HIV counselling and testing services should consider rapid HIV testing methods.

Risk of development of tuberculosis in HIV-infected patients

S. Swaminathan, R. Ramachandran, G. Baskaran, C. N. Paramasivan, U. Ramanathan, P. Ventatesan, R. Prabhakar, M. Datta.

Int. J Tuberc Lung Dis 4(9):839-844

(TRC, Indian, Council of Medical Research. Chetput, Chennai, India)

Objective: To estimate the rate of development of active tuberculosis (TB) in a cohort of human immunodeficiency virus (HIV) positive patients and to identify the characteristics of these patients.

Design: A total of 175 HIV-positive individuals were recruited from clinics for sexually transmitted diseases and followed up for 31 ± 6.8 months. Clinical examination, chest X-ray, sputum smear for acid-fast bacilli and culture for mycobacteria and HIV serology were performed at the time of registration and repeated periodically.

Results: Seventeen patients had TB at intake and another 24 developed TB during follow-up, giving a breakdown rate of 6.9/100 person-years (p-y) (95% confidence interval [CI] 4.1-9.6). The attack rates were similar in tuberculin positive (7.1/100 p-y, 95%CI 3.4-10.8) and negative (6.7/100 p-y, 95%CI 2.6-10.8) patients. There was a trend towards higher mortality in patients who developed TB (10.5/100 p-y, 95%CI 4.8-15.2) compared to those who did not (6.1/100 p-y, 95% CI 3.2-8.8).

Conclusions: The results of this study provide information regarding the high risk of development of active tuberculosis and its associated mortality in HIV-infected persons. The risk of developing TB appears to be equally high in tuberculin positive and

negative individuals, suggesting that new infections could play a major role in this susceptible population.

TB Prevention in HIV clinics in New York City

J. E. Sackoff, L. V. Torian, T. R. Frieden, Int J Tuberc Lung Dis 5(2): 123-128

Summary:

Setting: Ten hospital-based human immunodeficiency virus (HIV) clinics in New York City.

Objective: To evaluate tuberculosis (TB) prevention in HIV clinics based on the prevalence and incidence of TB and the efficacy of preventive therapy with isoniazid (INH).

Design: The medical records of 2393 HIV-infected patients with a first clinic visit in 1995 were reviewed retrospectively. Deaths and TB cases through December 1997 were ascertained through a match with the TB and AIDS registries.

Results: At first visit 92 patients (4%) had a history of TB, 98 (4%) were being treated for TB and six (<1%) were diagnosed with TB. During follow-up 23 cases were diagnosed an incidence of 0.53 per 100 person-years (py) (95% CI 0.34-0.77). Among 439 tuberculin skin test (TST) positive patients, the incidence of TB/100 py was 1.63 (95% CI 0.27-5.02) in patients with no INH, 1.28 (95% CI 0.40-2.98) in patients with <12 months of INH, and 1.06 (95% CI 0.38-2.28) in patients with 12 months of INH. The incidence/199 py was 0.0 (95%CI 0.0-0.78) in TST-negative patients and 0.37 (95% CI 0.09-0.95) in aergic patients. The relative risk of TB was 0.65 (95% CI 0.14-4.56) in TST positive patients with 12 months of INH (vs. none).

Conclusions: The benefits of TB prevention efforts in these HIV clinics from 1995 to 1997 were limited because most TB occurred before the first clinic visit. Methods for reaching HIV-infected patients earlier should be identified.

Sputum Examination for Acid Fast Bacilli in Private Laboratories, Kathmandu Valley, Nepal.

A. K. Hurtig, S. B. Pande, S. C. Baral, J. D. H. porter, D. S. Bam

Int J Tuberc Dis 3(11):1009-1014

Summary:

Objective: To investigate the characteristics of private laboratories and the process of sputum examination for Acid-Fast-Bacilli (AFB).

Design: A door-to-door survey of private laboratories in an urban municipality of Kathmandu valley was conducted during the first quarter of 1998. Semi structured interviews were conducted with staff of 14/20 (70%) identified laboratories.

Results: All 14 private laboratories conducted sputum examination for AFB. The majority (71%) of staff lacked special training for AFB examinations. Monocular microscopes were commonly used (36%). Reagents were prepared irregularly without quality control and kept for as long as they lasted, often up to 4-6 months (43%). Laboratories registers were usually present (86%), but lacked information on patient's address and the purpose of the test. A median of 12.5 slides per laboratory had been examined during the previous month (range 0-70). A total of 235 AFB slides were examined, of which 18 (7.7%) were reported as positive.

Conclusion: AFB examinations were widely available. Lack of training and quality control suggests a variable standard of AFB test results. It is recommended that the National Tuberculosis Programme (NTP) provide support and quality control to two to three (i.e., one for every 10) private laboratories in the area to secure private doctors' confidence in sputum testing.

The status and prospects of tuberculosis control in India

G. R. Khatri, T. R. Frieden,

Int. J. Tuberc Lung Dis 4(3):193-200

Summary :

Setting: India, where much of the global strategy for tuberculosis control was established, but where every year there are an estimated 2 million cases of tuberculosis.

Objective: To describe the policies, initial results, and lessons learned from implementation of a Revised National Tuberculosis Control Programme using the principles of DOTS (Directly Observed Treatment Short-course).

Design: A Revised National Tuberculosis Control Programme (RNTCP) was designed and implemented starting in 1993. With funding from the Government of India, State Governments, the World Bank and bilateral donors, regular supply of drugs and logistics was ensured. Persons with chest symptoms who attend health facilities are referred to microscopy centres for diagnosis. Diagnosed cases are categorized as per World Health Organization guidelines, and treatment is given by direct observation. Systematic recording and cohort reporting is done.

Results: From October 1993 through mid-1999, 146012 patients were put on treatment in the programme. The quality of diagnosis was improved, with the ratio of smear-positive to smear-negative patients being maintained at 1:1. Case detection rates varied greatly between projects sites and correlated with the percentage of patients who were smear-positive among those examined for diagnosis, suggesting heterogeneous disease rates. Treatment success was achieved in 81% of new smear-positive patients, 82% of new smear-negative patients, 89% of patients with extra-pulmonary tuberculosis, and 70% of re-treatment patients.

Conclusion: The RNTCP has successfully treated approximately 80% of patients in 20 districts of 15 states of India. Treatment success rates are more than double and death rates are less than a seventh those of the previous programme. Starting in late 1998, the programme began to scale up and now covers more than 130 million people. Maintaining the quality of implementation during the expansion phase is the next challenge.

Wel-come news

Health Minister's visit:

Hon'ble Mr. Sarat Singh Bhandari, Minister of Health, His Majesty's Government of Nepal visited SAARC TB Centre on 4th Sept. 2001. The Director, Deputy Director and all General Services Staff of the Centre welcomed the Minister. He spent nearly 2 hours with the staff the Centre. The

Director presented introduction, objective, functions and achievements of the Centre along with the DOTS in Nepal. After observing the presentations Mr. Bhandari made his brief comments on DOTS in Nepal and shown great satisfaction on establishment and activities done by the SAARC TB Centre.

Proposed Programmes

1. Eleventh meeting of the Governing Board of SAARC TB Centre and Workshop for preparation of strategic long term plan of STC for TB and HIV/AIDS control in the Region, 20 – 22 Nov. 2001, in Kathmandu.
2. Seminar on involvement of NGOs and private sector in TB control and Trainers' Training in TB control programme management, 8-21 December 2001.

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Thimi, Bhaktapur, Nepal