



STC

Newsletter

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SAARC Tuberculosis Centre's News Letter publishes every six month and it includes reports on the works, decisions of important meetings of the centre and recent information on Tuberculosis.

SAARC TUBERCULOSIS PUBLICATION

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Deputy Director



Dr. D. S. Bam, Director, STC highlighting about the SAARC TB Centre and its activities during the Training of Trainers for TB Programme Managers at Maldives.



Dr. D. S. Bam, Director, STC, briefing the role of SAARC TB Centre and areas of cooperation between STC and CIDA during the visit of Dr. Donald Sutherland and Ms. Sarada Leclerc.

STC NEWS

STC Organised Training Programme for Strengthening IEC Activities with Special Emphasis on TB and HIV

SAARC TB Centre, organised a two week SAARC training programme for strengthening Information, Education and Communication (IEC) activities with special emphasis on TB and HIV. The programme was organised in Central Health Education Bureau, New Delhi, India from 10th to 23rd Feb. 1998. Participants from Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka attended the programme.

This training programme was held as follow-up action of the recommendations made in the workshop of health education materials held in Kathmandu in Oct. 1995.

The objective of the programme was to sensitise the participants about the role of IEC in creating awareness and promoting behavioural changes for prevention and control of TB and HIV among different sections of the population.

The programme was inaugurated by Dr. S. P. Agarwal, Director General Health Services, New Delhi, India. In the inaugural address, Dr. Agarwal informed that this IEC training programme is the first of this kind organised in this region and express appreciation to STC for organising this programme at the time when HIV and TB dual infection is on the increase in many parts of the developed and developing countries.

He emphasised that this sort of training is relevant in the present time when we have no tools to treat HIV as of today and our hope lies only in strengthening the preventive aspects through effective IEC.

Mr. JVR Prasad Rao, the Addl. Secretary (Health) to the Government of India, delivered a key note address on TB & HIV in the inaugural function.

Dr. G. R. Khatri, DDG (TB) & Chairman, Governing Board of SAARC TB Centre welcomed the participants in the programme. The course objectives was highlighted by Dr. D. S. Bam, Director, SAARC TB Centre, Kathmandu. Dr. (Mrs.) T. Bhasin, Director, CHEB, the Addl. DGHS and Mr. Alok Patri, Jt. Secretary to the Government of India, Ministry of Health, New Delhi, addressed the function.

Country presentation were made by all participants on IEC activities being undertaken in National TB Control Programmes of Member Countries.

At the conclusion of the training participants could be able to:

- describe different components of IEC in raising awareness and promoting healthy behaviour;
- discuss the health situation in relation to TB and HIV in the SAARC region for assessing communication needs of the communities/clients;
- describe various stages of IEC planning, implementation and evaluation;
- identify different media and their role in prevention and control of TB and HIV;

- identify various IEC strategies for high risk groups such as, child labour, industrial workers, migratory groups, population below the poverty, sex workers, peddlers, intra-venous drug users;

- share IEC experiments and experiences undertaken including innovative approaches among various SAARC countries to discuss the capacity building activities required for promoting IEC in health;

- prepare an action plan for implementation of IEC activities by the participants in their respective countries.

Mr. K. B. Saxena, Union Secretary (Health) Government of India had an interaction with the participants on 20th Feb. 1998.

Participants also made the following recommendations:

1. There should be IEC component within the TB control programme by having resources in terms of funds and trained manpower.
2. There should be strong coordination between Central Health Education Bureau, NTP and HIV Control Programmes.
3. IEC, TB and HIV component should be incorporated in curriculum of courses for medical and paramedical workers.
4. There is a need to have networking of institutions working on IEC TB and HIV.
5. There should be regular training course on IEC in TB and HIV at national level in Member Countries.

The training programme was coordinated by Dr. P. Kumar, Dy. Director, SAARC TB Centre, Kathmandu.

STC Organised Training of Trainers for TB Programme Managaers in SAARC Countries at Male'

STC organised a training of trainers for Tuberculosis programme managers in SAARC countries in Kuramathi Tourist Resort, Male, Republic of Maldives from 28th June to 2nd July 1998. Participants from Bangladesh, Maldives, Nepal, Pakistan and Sri Lanka attended the programme. SAARC TB Centre was represented by Dr. D. S. Bam, Director and Dr. P. Kumar, Deputy Director.

The objective of the programme was to impart the trainers with managerial skills to manage the Tuberculosis control programme at National level and sensitise the participants about revised strategy of TB control to achieve an 85 % cure rate and a 70 % case detection rate.

The programme was inaugurated by Mr. Ahmed Kaleyfaanu, Atoll Chief, Karamathi, Maldives. In the inaugural address, Mr Kaleyfaan informed that this training will be much more beneficial to the programme managers of the TB control. The training programme based on revised strategy of TB control at National level will certainly be helpful to achieve the objective of this training.

Mr. Ibrahim Shaheem, Director, Department of Public Health, and Member of Governing Board of SAARC TB Centre welcomed the participants in the programme. Dr. D. S. Bam, Director, SAARC TB Centre gave introduction of the SAARC TB Centre and highlighted its objectives and functions. The course objectives and methodology of training programme were highlighted by Dr. P. Kumar,

Deputy Director, SAARC TB Centre, Kathmandu, Nepal.

Country presentations were made by all participants on National Tuberculosis Control Programmes (NTPs) activities being undertaken in the member countries.

At the concluding ceremony, Mr. Ibrahim Shaheem, welcomed Mr. Ahmed Kaleefan Atoll Chief as a Chief Guest. Mr. Kaleefan awarded certificates to participants and highlighted on the training and expressed his opinion that such kinds of training could be more helpful to implement NTP in Maldives. He also added that SAARC TB Centre may plan to organise more TB control activities in the Maldives in future also.

Dr. D. S. Bam, Director, STC extended a lot of thanks for the excellent management and warm hospitality extended in the beautiful country, the Maldives. Dr. Ian Smith highlighted the importance of the revised strategy of TB control and WHO training modules used during training. These modules have also been approved by the members of the Governing Board of SAARC TB Centre. Dr. Ahmed Razee, TB focal point, Maldives, expressed his views on the importance of training of the trainers for the effective implementation of the TB control programme. On behalf of the participants, Dr. P. Malla, Nepal expressed her views and highlighted the training and its importance to implement TB control. Dr. P. Kumar, Dy. Director, STC proposed vote of thanks and paid gratitude to the member countries for sending the participants, to SAARC Secretariat for excellent co-operation and expressed heartfelt thanks to the Government of Maldives, organising committee and the personnel involved to make the programme a great success.

News on Audit of STC Accounts

A joint audit team consisting Mr. Christy Peter, Superintendent of Audit, Colombo and Mr. Ahmed Shahid Jameel, Assistant Director of Audit, Audit Office, Male, audited the accounts of SAARC TB Centre of the period July - Dec. 1997 on 8th-9th May 1998. This was the first event of auditing accounts of SAARC Secretariat and SAARC TB Centre by the same team at the same time.

Postponement of the Programme

Seminar on socio-anthropological research studies in the field of TB conducted in the member countries is postponed till the next decision of the Governing Board.

Commemoration of the World TB Day

The World TB Day, 24th March 1998 was commemorated in Kathmandu, by organising various functions in association with HMG, Nepal and WHO. SAARC TB Centre participated in the function actively for effective advocacy for the control of Tuberculosis in the SAARC region.

The World TB Day was celebrated in all member countries by organising various activities. In this connection SAARC TB Centre is trying to compile a combined report on the activities organised in the member countries on the occasion of World TB Day. Media coverage, reports of activities/programmes and the related materials are being collected from the member countries for the preparation of the combined report of the World TB Day. After collection of reports a combined report will be prepared.

Special Articles & Technical Information on Tuberculosis

NATIONAL TUBERCULOSIS PROGRAMME IN THE MALDIVES

Mr. Ibrahim Shaheem
Director, Dept. of Public Health
Maldives

1. INTRODUCTION:

Information included in this article is based on past and very recent developments in the field of health care programme in the Maldives. It has emphasised the National TB Control Programme (NTP) at Atoll level and at Island level. This includes policies, status, statistics, efforts made in promotion and protection, goals, strategies in TB control programme. Some Regional level efforts include in this article.

1.1. Health Status of the People:

The health status of the Maldivian people has improved remarkably. Contributing to this success was the governments emphasis on preventive health, particularly the immunisation of polio and tetanus. No cases of diphtheria and whooping cough have been identified within the last decade. Among other communicable disease, malaria has been eliminated and diarrhoeal diseases brought under control. Leprosy and Filaria are also shortly expected to achieve zero

transmission. TB control programme has made remarkable progress achieving year 2000 targets for 1996. The access in this area and the resulting increased life expectancy have sharpened the focus on non-communicable diseases. Thus, the Maldives is now going through a phase of epidemiological transition, characterized by reduction in communicable diseases and emergence of non-communicable diseases.

Life expectancy in Maldives has risen sharply, while infant mortality declined steeply. However, maternal mortality and fertility have remain high. The population is about 244644 (1995 census), with an annual growth rate of 2.8 %. Many islands actually being densely populated, there are serious concerns regarding the rapid population growth rate. Therefore, while reproductive health remains the main focus, objectives now include efforts to control population growth.

1.2. Health Policy Including Health Promotion and Protection:

The government is committed to the goals of Health for all and the goals of the World

Summit for Children, the Earth Summit, the Social Summit, the International Conference on Population and Development and the International Conference on Women and Development and World Food Summit. It also recognises that the Primary Health Care approach is the most appropriate path to the attainment of these goals. The President of the Maldives His Excellency Maumoon Abdul Gayyoom has been honoured by awarding the Health for All Gold medal by Director General of WHO, Dr. Hiroshi Nakajima on 14th June 1998.

The government of Maldives considers that the enjoyment of the highest attainable level of health is a basic right of every citizen. Thus the health policy of the government aims to improve the health well being and quality of life present and future generations by reducing disease, suffering and disability, and to further increase life expectancy by reducing preventable deaths.

In order to continue the improvements in the health status achieved through disease prevention and health promotion, the government has, in consultation with all partners in health development, identified priority areas that need focused attention. The government has taken appropriate measures to address the health priorities of the country, such as tuberculosis, AIDS, reproductive health, heart disease, respiratory diseases, thalassaemia, hypertension, drug abuse, cerebro-vascular disease, kidney diseases and cancer. The promotion of healthy life styles has begun, focusing to reduce the burden of diseases in the community, and enabling early detection of preventable disease,

health problems and their complications. The initiatives to discourage smoking were a good example. At the same time attainment of the highest possible level of self-sufficiency in tertiary medical care will be a priority.

At a time when the country is developing rapidly in a changing world, Maldives is faced with, and wishes to address, new challenges such as social stress, drug abuse, environmental health problem, age related problems and emerging and re-emerging diseases. The government recognises that appropriate legal measures are needed to protect and promote health. The government will take adequate measures and legal support to ensure consumer protection and the welfare of all health care providers.

2. NATIONAL TUBERCULOSIS CONTROL PROGRAMME:

2.1. Background:

From the immemorial, tuberculosis was known in Maldives as one of the most fatal disease, specially among children. Although much was known about the epidemiological implications. It has been believed during earlier times that the disease was hereditary. Similar to that of other ancient disease of this nature little was known about the social stigma attached to this disease. However it was said that the majority believed the disease as hereditary, there was variation in this aspect, there was no recorded history of isolating the infected TB patient even during the sanatorium era.

At the beginning of the 19th century people in Maldives began to believe that this disease is transmitted by droplet infection. During early 90's the disease was so common and known to the people of Maldives. The name of the disease was pronounced as "Raajje Bali" which means country disease. During this period diagnosis was based only on advanced clinical symptoms. No medical facilities were available even to carry out simple sputum microscopy tests till 1950's.

"Raajje Bali" or the country disease is mostly referred to the tuberculosis of the spine - "Gibbus" (Angulation of spine) and tuberculosis of spine. Young children deformed by the disease could be sighted in different parts of the country till early 1970's. Gradually, this disappeared and by 1980 one could hardly find a case of this nature. Later in the first medical establishment Male' Government Hospital started its first services which included both curative and preventive services.

Case finding and treatment for all diseases regarded as public health importance were taken care from this hospital, and the first batch of paramedical called as Health Assistants were trained with the limited facilities and facilitators available at those hospital.

In 1965, the TB Clinic under the Ministry of Health was established. At beginning of the establishment these Health Assistants were responsible for case finding and treatment. simple microscopy tests were carried out in

limited quantity. A standard regimen for TB was not defined.

2.2. Beginning of the TB Control Activities as Special Programme:

The magnitude of the TB problem has not been ruled out due to lack of epidemiological indices, till 1967. Even standard criteria was not defined till then.

The first sample survey to assess the TB situation among the island community and school was conducted in September 1970 by a WHO advisor who has been assigned by WHO. The visiting WHO/STC's report did not represent the actual picture of the country as the disease trends and the living conditions varied in different geographical areas of the country. However, as a result of his findings TB was considered as one of the most important public health aspects. Also as a follow up of Dr. R. Ziskou's visit and STC visited Maldives in March 1971. During his term of consultancy more investigations were carried out in order to obtain more information on incidence and other information pertaining the control of the disease. mantoux test was conducted among selected and high risk groups to assess the rate of infection. In addition to this BCG was introduced in the country. It took 3 full years to achieve 100% coverage of eligible population which was under 19 years of age. These sessions were conducted with limited or no facilities for the maintenance of cold chain. As a result this round of vaccination was very successful it should be. A survey conducted during 1979-1980 showed only 15% of the

vaccinated children had the keloid at the site of vaccination.

The actual TB and leprosy control programme was commenced during the 1st half of 1976 with the collaboration of WHO. The government of Maldives and Danish Scout Association of Denmark.

The objective of this project was:

- Control the spread of tuberculosis and leprosy by means of reducing the source of infection and increase the immunity among those susceptible the disease by case detection, treatment and proper case management.
- To carry out nation wide immunization program aiming to reduce the morbidity and mortality of communicable diseases, namely diphtheria, pertussis, tetanus and even smallpox.

The TB control activities were fully integrated with that of leprosy control activities since the inception of this programme.

During the first phase of the programme, a total population survey was conducted, covering over 97% of the entire rural population of the country. During this survey all those who have been screened with TB symptoms, especially those with persistent with a duration of more than 3 weeks were screened with TB. Two sputum samples were collected from each of these symptomatic case preferably one "on the

spot" and one in early morning. These samples were collected and examined on spot during and anti TB treatment provided to all those who have been confirmed as sputum positive cases, till family health workers posts were created in-1978 the Island Chief took the responsibility of administering the treatment. The Island Chief used to maintain a register and up dated the treatment cards. Before, the treatment cards were handed over to the Island Chief, they were thoroughly briefed. According to the instructions provided, the patients had to consume the medicine only in the presence of the island chief. Also if the patient used to leave the island even for a short period, the patient had to obtain prior permission, similarly his/her treatment had to be transferred to the patient's destination, either to another island chief, health centre or to Male' Chest Clinic. This method of treatment had been very effective, since there was 100% compliance. The Island chief used to take full responsibility for case holding and treatment. These activities were supervised by the supervisory teams from the centre till 1980. Eventually in 1978, when the post of Family Health Worker established at island level, they took over the responsibility from the island chief.

Between 1980-1985, there were set backs in the programme implementation, specially active case finding and supervision. In 1980 the DANISH SCOUT AID withdrew its support, handing over the same to another NGO, who had limited funds and other capabilities. Gradually the programme implementation came a stand still.

Finally, when the programme was negatively affected by the transfer, the government of Maldives with the support of WHO, took over the total responsibility of carrying out the entire programme.

During the initial survey period 1976-1980 standard anti-TB regimen was introduced. This consisted of INH+Thiacetazone or INH and PAS for one year in daily dose according to the weight. Where facilities were available streptomycin injection was also administered to limited number.

In 1984, the third WHO STC visited Maldives. During this visit studies were carried out for those who had developed resistance to initial regimens of anti-TB drugs introduced in 1976.

2.3. Current Status:

The main objectives of the current national tuberculosis control programme are:

- Reduce the prevalence rate of TB sputum positive cases from 1.52 per thousand in 1990 to 0.3 per thousand by the end of 1993.

To achieve the aforementioned targets, the following activities are to be carried-out:

- Introduced and carry out a mass screening of population for TB at least at the areas considered as hyper epidemic,

in order to reduce the incidence of tuberculosis.

- Intensify case finding, treatment and follow up activities by providing orientation and on the job training to health personnel who are stationed at 4 regional hospitals by the end of 1993.

Policies

The main thrust of the TB control programme will be active case finding, follow-up, treatment and management of diagnosed cases using a standard protocol.

The government will encourage the active involvement of the private health care institutions in the TB control programme. However, their involvement will be that of diagnosis and treatment. Cases diagnosed by the private sector will be registered at the Chest Clinic and followed up by the government.

The active and passive case-finding activities as well as treatment will be fully decentralized and the quality of diagnosis and other services will be maintained. Monitoring and evaluation of these activities will be maintained at central, regional and atoll level.

Goals and Objectives:

The goal of the TB control programme is to arrest the transmission of TB:

Specific objectives are as follows:-

- Reduce the incidence and prevalence of TB from 0.66 per 1000 population to 0.1 per 1000 by the year 2005.
- Setup TB diagnostic facilities at all Health Centres.
- Significantly reduce the number of TB drug resistant cases.

Strategies:

- Intensified case detection and case management: During the plan period, there will be additional measures taken to motivate health care providers to intensify detection and management of TB cases. This will include both active and passive case detection. To facilitate this, the needed supplies and equipment and necessary training will be provided to all level of health care workers. Diagnostic facilities will be setup at health centres.
- Standardisation of management and treatment of TB cases: To ensure standard management of TB cases, WHO recommended guidelines will be distributed to all facilities involved in treatment of TB. Staff of such organisation will be oriented to this guideline, and their work will be supervised.
- Introduction of prophylactic treatment for children exposed to sputum positive

cases: All children who are suspected of being exposed to TB will be provided with prophylactic treatment, in an effort to minimize childhood morbidity and mortality of TB.

- Development of close coordination and cooperation with private sector and other organisations for the prevention and control of TB. A mechanism will be setup to ensure good cooperation between government and private sectors who provide TB treatment such a system will include ways and means of monitoring TB control activities of the private health care facilities.
- Introduction and expansion of directly observed treatment short course (DOTS) to each and every diagnosed case. In order to increase compliance with treatment and to minimize drug resistant TB, DOTS will be introduced and encouraged at all health care facilities, both government and private.

2.4. Current Status Achievements:

DOTS Implementation:

1. Number of administrative units are 203
2. Population covered by DOTS 100%
3. Directly Observed Treatment is followed during the entire treatment

4. Standardised, short course chemotherapy is being use to treat all cases of PTB
5. Routinely used sputum microscopy to diagnose all types of suspected pulmonary TB cases.
6. TB cure rate has been increased up to 93.69 %.
7. Treatment compliance has been quite high and almost 100% of the patients under DOTS become non infection within a period of 2 to 3 months of the initiation of treatment.
8. Workshops were conducted to health workers to provide orientation in order to strengthen the TB control activities at Island level.
9. To create awareness and expand the IEC activities such Workshop were conducted among school children who could act as been educators.
10. A special seminar on TB control was held for health sector staff for one day (24th March 1998).
11. The TB manual (prepared by NTP) was used in training the health workers, which seems to be quite relevant and easy to use.

12. Monitoring and follow up case management activities have further strengthened.

2.5. Existing Situation:

Tuberculosis is a significant public health problem in Maldives, causing a considerable burden of death and disease, even, though a TB Control Programme has been in place since 1976. The fact that 'Kessum Bali' (the coughing disease) remains a feared killer in the communities is evidenced by the very high priority it received during the community survey performed as part of the Health Master Plan exercise.

About 200 cases of TB are diagnosed each year, during the past which one-half are limited sputum-positive and therefore capable of spreading the disease in the community. The proportion of infectious cases that remain undetected (and therefore do not come under treatment) is present limited. Similarly, the number of patients who enter the country with infectious tuberculosis in the high volume of immigration traffic from endemic countries is not known. Considerable strides have been made in reducing the burden of tuberculosis in the country.

There is a well developed health care infrastructure, free supply of anti-TB medicine, and the commitment of health workers and officials to implement for the WHO DOTS (Directly Observed Treatment, Short-course) strategy, which has been rigorously applied since

1994 and has led to impressive and consistent cure rates of more than 85%.

The majority of cases in the country are treated within the well established public sector however, the expansion of the private medical and pharmaceutical sector and the likely uncontrolled prescribing and dispensing of anti-TB medicines (which is the primary means by which multidrug resistant TB develop) is a cause for concern.

3.1. Tertiary Care at Central Level

In 1997 a 40 beds hospital built and presented by the British Government was opened, with the same name as Government Hospital. More manpower was needed, hence in 1973. Allied Health Service Training Centre (IHS) was established with the assistance of the UNDP to train paramedical staff.

In late 70's there was a high rate of increase in population in Male' with high growth in economy and development. This situation demanded access to more health care with additional services were introduced. The bed capacity was increased to 118 in 1990 and varied department such as General Surgery, General Medicine, Gynecology and Obstetrics, Paediatrics, Orthopedics, Ophthalmology, Otorhenolaryngology and Dentistry were established. The departments were supported by services such as radiology, clinical laboratory, ultra Sinology, Endoscopy, Blood bank and Physiotherapy. Deficient specialties were covered visits by expatriates. The hospital also

extended out reach services to the periphery in the form of eye camps and the provision of ENT services and dental visits.

Currently the services of the former Central Hospital have been transfer to the Indira Gandhi Memorial Hospital in Oct. 1994. This hospital is a 200 bed tertiary care general and specialty hospital, geared to provide for the Maldives greater self reliance in the field of medical care. The Hospital's medical staff is comprised of dedicated and experienced Maldivian doctors expatriates Indian deputationists including a wide range specialists. Maldivian, Indian and other foreign nursing, paramedical and technical staff support them. It is the highest referral centres in the country, providing the necessary service to the people as well as catering to the needs of the rest of the health facilities including the Regional and Atoll health centres.

The IGMH has a specialty out patient services, a 24 hours casualty complex with emergency rooms, 2 major operating theaters, 2 minor operating theaters, a labor ward complex and well furnished ICU with a bed capacity of 8 and facilities for central monitoring and artificial ventilation. In additional the hospital has 6 wards including a private room wing and a premature nursery. At present the IGMH caters to the tertiary care needs of specialty areas.

3.2. Secondary Care at Regional Level:

For the purpose of providing secondary level curative care, the country is divided into 5

regions. Regional hospitals have been established at Kulhuduffushi for the HDH. Region, Ugoofaaru for the Raa Region, Muli for the Meemu Region and Hithadhoo for the Seenu Region. Male services the fifth region, the Central region.

Due to geographical distance and the difficulties of crossing the vast expanse of the equatorial channel dividing the current Seenu Region, a fifth Regional hospital for Gaaf Alif and Gaaf Dhaal atolls and is now under construction.

The regional hospital offer a wide range of preventive and curative service. These services have been expanded and upgraded over the recent past to make the hospital capable of delivering adequate secondary level services including surgery. This expansion reduced the number of referrals to the centre. Currently the services offered by the Regional hospital are as follows.

- OPD Services.
- Round the clock emergency services.
- In patient service.
- Comprehensive Nursing Services.
- Routine and emergency surgery.
- Routing and emergency obstetric and gynecology services including surgical interventions.

- Laboratory services including culture, sensitivity and radiography.
- ECG and other diagnostic facilities.
- X-ray facilities including IVP and Barium Meals and routine radiography. Ultrasound is planned for 1996.
- Storage of vaccines and conducting EPI and other PHC programmes.
- Supervision of health centres in the region and other PHC activities including monitoring and providing support services.

Ultrasound is already available in the Seenu Regional hospital:

In addition to medical care regional hospital, are also responsible for health care management at the regional level, including supervision of health centres, and providing outreach care to the atoll level. Due to the shortage of human resources, the later two functions are not fully implemented.

A Public Health unit has also been setup in each of the Regional hospital to take care of preventive health programmes.

3.3. Primary Care at Atoll Level:

The atoll level health services are being provided by the atoll health centre, by a team of health care providers consisting of a doctor,

Community Health Workers (CHW) Nurse aids.
Upgraded Family Health Workers, trained and
certified Traditional Birth Attendants.

At present there are 27 health centres including one each and its suburb vilingili in Male'. Until recently the centres were entirely managed by CHWs. However from 1993 doctors have been posted in the health centres. The Male Health Centres has the services of a full time staff physician and a gynecologist deputised from IGM Hospital. The Atoll Health Centres are now being upgraded in a phased manner. The first phase of construction is now completed in all main centres. This phase involved the expansion of inpatient care minor laboratory facilities and the additional of a labour room. This has now been completed in 4 Health Centres.

The Health Centres provide a wide range of curative, preventive, promotive and rehabilitative services. The curative services include the management of common medical, obstetric cases and the treatment of minor surgical condition.

Male' Health Centre offers facilities for out patients services which include administration and injections and doing dressings. It also has facilities to observe patients, to give Oxygen and nebulas patients and do minor surgeries. This Centre opens services that involve family planning, vaccination (MCH) and atenatal clinics, which are conducted by gynecologists.

3.4. Island Level:

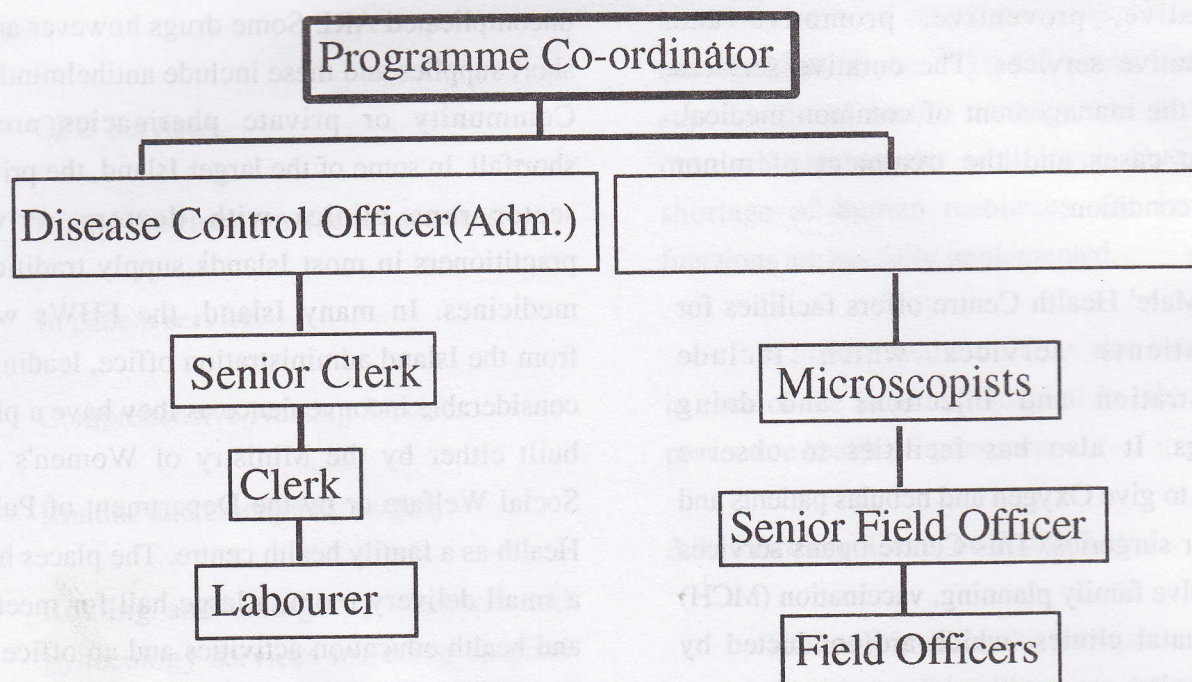
Health care at the peripheral level is provided by the Family Health Workers (FHWs) and Traditional Birth Attendants (TBAs). The FHWs were initially trained for a months to provide simple curative and preventive services. subsequently, many of them have been upgraded with additional training. The TBAs are trained to conduct safe/normal deliveries and have been employed by the Government in 1994. FHWs provide treatment for common minor ailments. However they are major role in the area prevention and health education.

FHW prescribe from a restricted list of drugs, some of which are supplied free. The drugs routinely stocked with the FHW (under supervision of the Island Katheeb) include iron and folic acid for antenatal mothers, aspirin, paracetamol and septran for the management of uncomplicated ARI. Some drugs however are in short supplies and these include antihelminthics. Community or private pharmacies are in shortfall. In some of the larger Island, the private sector runs clinics with doctors. Private practitioners in most Islands supply traditional medicines. In many Island, the FHWs work from the Island administration office, leading to considerable inconvenience as they have a place built either by the Ministry of Women's and Social Welfare or by the Department of Public Health as a family health centre. The places have a small delivery room, a large hall for meeting and health education activities and an office for the FHWs, TBAs and the members of the women's committee.

Tuberculosis Control Programme

Years	Achievements
1967	Establishment of a TB Clinic (Later in 1980 the Name Changed to Chest Clinic)
1970	First Survey to Assess the TB Situation Conducted by WHO
1971	Introduction of BCG Vaccination and Moutous Testing
1976	Initiation of TB Leprosy Control Programme (Estimated Prevalence = 35/1000)
1984	Introduction of WHO Standardised Chemotherapy
1991	Reviewed the Situation of TB by WHO STC's and Short Course Chemotherapy introduced.
1993	Reviewed the Situation by WHO STC (Followup of 1991 Visit)
1994	Introduction of DOTS
1995	WHO STC Visited Maldives to Assess the Situation of DOTS and to Support and Assist the Formulation of a Training Manual for Health Workers.
1996	Starting of Case Findig Surveys at the Atoll level in a Decentralised Manner.
1997	Introduction of TB Culture, Guidelines for Monitoring DOTS Treatment

Department of Public Health Chest Clinic



Smear Conversions in 1997
Total by the end of 3rd month of treatment

New sputum smear positive cases that converted to smear negative	94
New sputum smear positive cases that were evaluated for smear conversions	94

Treatment Results for 1996

	New Pulmonary Smear Positive Cases	Retreatment Smear Positive Case
Total Cases Registered	106	5
Total Cases Evaluated	106	5
Smear Negative at the End of Treatment (Cured)	99	5
Treatment Completed but Smear not done at the End of Treatment	0	0
Patients Died	3	0
Failures	1	0
Interrupted Treatment	0	0
Transferred Out	3*	0

* 2 Bangladeshis and 1 Sri Lankan

Case Notifications

Case Notifications for	Pulmonary		ExtrPulmonary	Total	
	Smear Positive				Smear Negative
	New Cases	Relapses			
1.1.1998-31.3.1998	20	0	18	8	46
1997	94	5	60	14	173

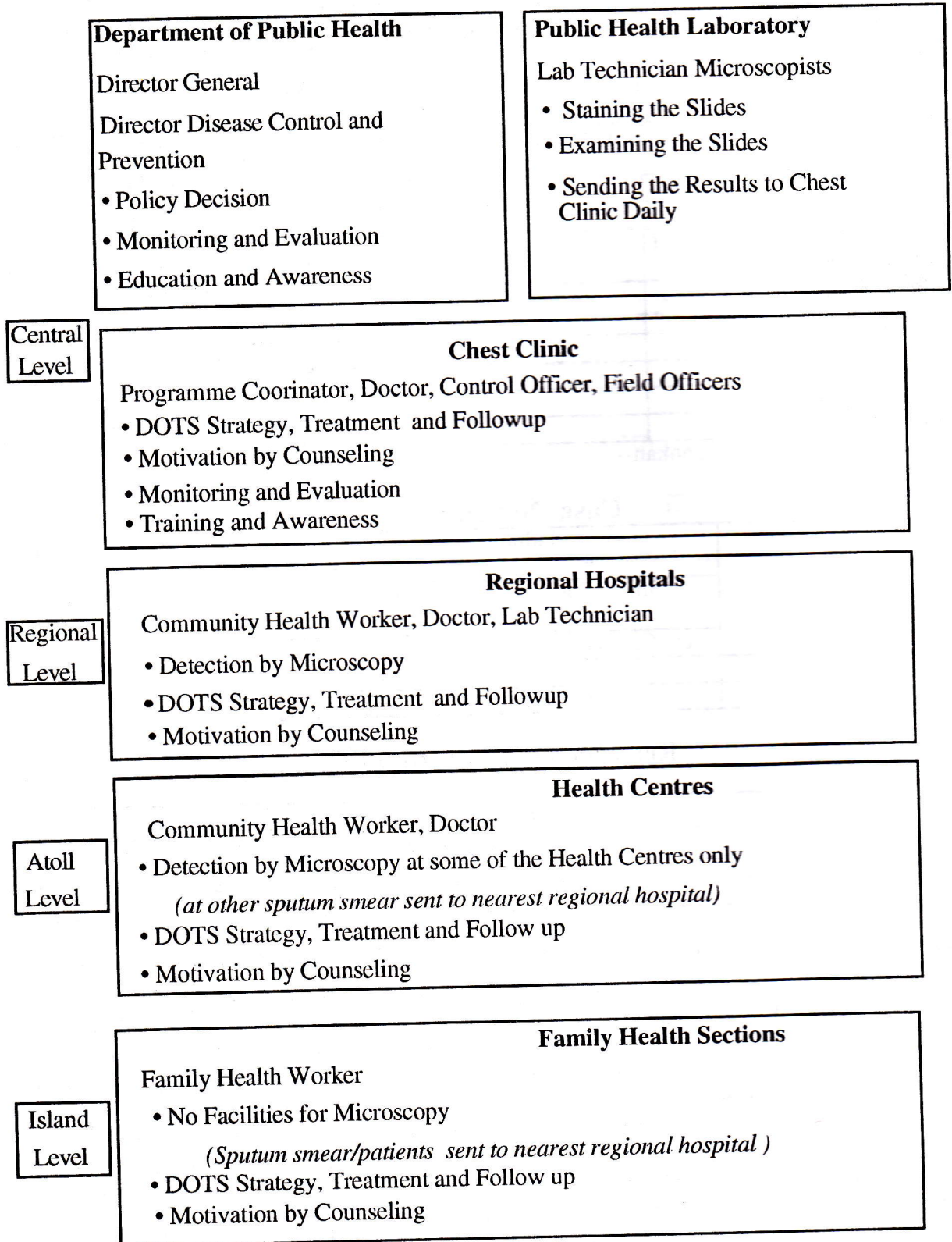
Retreatment Cases in 1997

Smear Positive			
Relapses	Failures	Retreatment after Interruption	Total
0	0	1	1

New Pulmonary Smear Positive Cases by Age and Gender in 1997

Age Group	Male	Female
0-14	1	3
15-24	13	15
25-34	6	8
35-44	2	8
45-54	13	4
55-64	9	3
65 & above	8	0
Total	52	41

Organisational of TB Control Programme Ministry of Health



Women and Tuberculosis in SAARC Member Countries

Dr. P. Kumar, Dy. Director,
SAARC TB Centre, Kathmandu

Introduction:

Recently an international meeting was held on TB and gender from 24-26 May, 1998 in Sweden. During the meeting TB and gender experts agreed to draw up an agenda for research into biological, epidemiological, social and culture difference in the occurrences of TB in men and women, and their access to the TB treatment strategy, DOTS. The specific areas of research related to TB and pregnancy, diagnosis of TB in women, adherence to treatment and patient education were discuss. The following facts and figures were came out during the meeting.

- Tuberculosis is now the single biggest infectious killer of women in the world.
- Over 9 hundred million women and girls are infected with TB world wide.
- 1 million women and girls die due to tuberculosis every year.
- 2.5 million women and girls get sick every year from tuberculosis.
- The disease affect mainly between the ages of 15- 45.

TB accounts for 9% of deaths world wide among human age between 15 and 44, compared with war which accounts for 4 percent, HIV 3 percent and heart disease 3 percent. Women of reproductive age are more susceptible to fall sick once infected with TB

than men of the same age. Women in this age group are also at greater risk from HIV infection. As a result, in parts of Africa, young women with TB outnumber young men with TB. In women age group 15-44 in low income countries, tuberculosis is third cause of morbidity and mortality, leading to the loss of about 11 million disability adjusted life years (DALYS) in 1990. The disease leads to even more deaths in women annually than all causes of maternal mortality combined . This represents a major cause of preventable suffering and death in women that is largely unappreciated. Population growth, the HIV epidemic, increasing poverty and rising levels of drug resistance are increasing the burden of tuberculosis in women.

What is Gender?

Gender refers to physiological differences between the sexes as well as variety of behaviors, expectations and roles attributed by cultures and societies to women and men. A gender approach to health and illness examines the differences in disease manifestations in women and men, the perceptions as well as significance given to these manifestations by men and women. It is concerned with differences in the impact of disease on women and men within their social, economic and cultural contact. Women's socio-economic status

and cultural position in developing countries differs significantly from those of men and these differences influence both the health risk of women and constraints as well as opportunities experienced by women to solve their health problems.

Women and the Epidemiology of Tuberculosis:

Tuberculosis is bacterial infection most commonly affecting the lungs. Transmission can occur when an individual with pulmonary tuberculosis expels tubercle bacilli into the air by coughing or sneezing. The risk of an uninfected individual becoming infected depends on the duration and intimacy of contact with an infectious case. Studies on gender differences in infection rates show that the risk and prevalence of tuberculosis infection are similar in males and females until adolescence, after which they are higher in males. The higher rates of infection in men are thought to be due to greater numbers of social contacts experienced by men who tend to work outside the home more than women for example, a study in India found that the sex specific prevalence of sputum positive cases in Wardha District surveyed between 1982 and 1987 was 2.59 per 1000 population for males and 1.49 per 1000 population of females.

Once infected, an individual has a 10% lifetime risk of developing the clinical disease. A number of studies have shown that in high prevalence countries, women in their reproductive years (15 to 40 years old) have higher rates of progression to disease than men of the same age. This may be due to the

physiological changes associated with reproduction. Finch et al studied 620 Asian (Hindu and Muslim) immigrants with tuberculosis in South London between 1973 and 1988. They found that overall more men than women had active tuberculosis but glandular tuberculosis was more common among women. The excess of disease observed in women of reproductive age contrasts with higher prevalence of infection in men of the same age. There is some evidence that postpartum women may be subject to higher rates of progression to disease than other women. Speculation as to why this should be has been interesting but not, so far, enlightening. Theories include rapid hormonal changes, postpartum descent of the diaphragm and expansion of the lung, the nutritional strain of lactation, and stress associated with insufficient sleep due to the demands of the new child.

The male female ratio of new tuberculosis notifications shows wide variation both between and within countries. In many low-income countries, the ratio of male to female cases notified was 2:1. It is unclear whether the higher rates in men are due to biological mechanisms placing them at higher risk of developing tuberculosis or whether the difference is due to under notification in women, or both. An active case finding study conducted over two years in India showed the incidence of tuberculosis in women to be 30% of that in men suggesting that the higher notification rates in men may be explained by biological mechanisms. However, studies (Cassels, A. et al) in Nepal comparing active case-finding with passive case-finding (self-referral) of patients to

the existing services showed that a higher proportion of women were undiagnosed in the community. The overall male: female ratio in active case-finding was 1.2:1 while in the passive case-finding group, the ratio was 2.6:1. This suggests that, in programmes which rely on passive case-finding, as most programmes do, under-diagnosis of tuberculosis in women may occur. Socioeconomic and cultural factors may well be the cause of this under notification and these factors are discussed below.

Women of reproductive age have higher mortality and case-fatality rates from tuberculosis than men of the same age. A prevalence survey in China found that women had higher tuberculosis mortality rates than men from birth to 30 years of age. A study in India found that females aged 5-24 had a case-fatality rate over 35% greater than males of the same age. The higher case fatality rate noted in young women may in part be due to increase biological susceptibility to tuberculosis related to child-bearing. It also may in part be due to lower level of awareness of tuberculosis among women leading to delays in diagnosis and treatment, or greater constraints in accessing health care than men.

Social and Economic Consequences of Tuberculosis in Women:

Tuberculosis can run an insidious course, gradually disabling a women, Without treatment the disease is fatal in 50 to 60% of cases, 5 years after onset of symptoms. A number of studies have shown that women tend

to wait longer to report their illness than men and only do so when the illness severely interferes with their daily activities. In the case of tuberculosis, this leads to late presentation and a worse prognosis. Women have also been found to consult with traditional healers more frequently than men, further delaying the diagnosis and treatment of tuberculosis.

The fear and stigma associated with tuberculosis have a greater impact on women than on men, often leaving them in more precarious social and economic position. In Pakistan, women with tuberculosis were more likely to be divorced and husbands often took a second wife. Unmarried women with tuberculosis were more likely to have difficulty finding a marriage partner than those without tuberculosis. In India, a study found that married men and single women with tuberculosis perceived a greater level of family support to initiate and complete treatment than married women (Nair, D. Tuberculosis in Bombay: new reasons for concern, unpublished document). Another study in India found that male patients expected to receive care from their wives while the reverse was seldom true. Married women often tried to hide their illness for fear of desertion, rejection or blame for developing the disease.

The Impact of Women's Illness on Families:

Tuberculosis in women affects child survival and family welfare. Studies on tropical disease have shown that women's illness have a profound impact on the social and economic

well-being of families and householders, although the impact of disease varies widely depending on the socioeconomic and cultural context. Tuberculosis, when untreated in mothers, can have serious repercussions on their children. In Bangladesh, a study of children under age 10 found that a mother's death sharply increased the chances that her children would die within 2 years, especially for her daughters. Children whose mothers die are 3 to 10 times more likely to die within two years than those with both parents alive. A mother's death has twice the impact of a father's death on child survival. Tuberculosis in women puts their children at risk for tuberculosis infection, disease and death. This triple threat makes detecting and treating tuberculosis in women absolutely vital in order to ensure the survival and well-being of their children.

Tuberculosis affects the economic productivity of women. The disease has the greatest impact on adults aged 15 to 49, who represent the most economically productive part of society. In the developing world, women produce 80% of the food consumed domestically and at least 50% of exports crops. Women earn 40 to 60% of householder income, if home production is included. Tuberculosis in women reduced their ability to work and leads to significant loss of income. In this way, tuberculosis perpetuates poverty in women and this has a longer term impact on the economic development of their community.

Tuberculosis Control in Women:

It is increasingly recognized that socioeconomic and cultural factors play an

important role in tuberculosis control. These factors are particularly significant for women. Over 95% of tuberculosis cases occur in low-income countries. In these countries, women's disproportionate poverty, low social status and reproductive role may lead to greater barriers in accessing health care. In the WHO tuberculosis control strategy. DOTS (Directly Observed Treatment, Short Course), passive case finding is the recommended method of case detection. Suspected cases must therefore present themselves to the health services in order to be diagnosed. Once diagnosed, tuberculosis requires a minimum of six months supervised treatment. In many cultures, this places major demands on women which often conflict with their other duties.

Knowledge of the disease and recognition and interpretation of its signs and symptoms requires a certain level of education. In many low-income countries, women have low standards of education and literacy. A lower level of education among women can contribute to delays in diagnosis. In Nepal, a study of new cases showed that the men reported duration of cough before diagnosis as 27 days as against 49 days for women.

The association between tuberculosis and poverty has long been noted. It is estimated that women make up 70% of the world's poor. These women face the greatest obstacles to seeking health care for tuberculosis and achieving a complete cure. Poverty may curtail women's access to health services as poor women have less disposable income to spend on health. Transportation costs involved in using

the health care services present greater barriers to women. Studies have shown that distance from health institutions and user fees are a larger obstacle to women than to men in seeking medical care. Work patterns and responsibilities such as child minding and crop growing may preclude women from having the time to visit a health facility to collect medications. Women face high opportunity costs for time spent on health care.

The strongest evidence of gender differential in health status and use of health services has been documented in South Asia. Community-based studies in India found that women had a higher rate of illness and disease than men in the same household, but used health services less often. Studies in other countries also found that even where there is no apparent gender difference in prevalence of disease, women were less likely than men to seek care for infectious diseases. Cultural factors such as restrictions on women traveling alone or being treated by male health care providers may restrict women's use of health services. Other factors such as stigma, householder decision-making patterns, and the cultural value given to women's health may lead to delays in the timing of care seeking behavior and therefore diagnosis.

Once in treatment women may face greater difficulties maintaining compliance. A high default rate among pregnant or lactating women was reported to be due to fear that the drugs could cause miscarriages, reduce the ability to breast feed or harm the baby. A study in India showed the parents of girls of marriage

able age were reluctant to continue sending their daughters to the tuberculosis clinic once symptoms subsided. It was felt that knowledge of the disease among the community reduced their daughters' chances of marriage.

Women face major obstacles in obtaining treatment, and once it is begun, further obstacles in completing the course of treatment. Tuberculosis control programmes should be sensitive to the constraints faced by women in seeking health care and maintaining compliance.

Tuberculosis and HIV/AIDS in Women:

HIV infection is the most potent risk factor for the development of disease in tuberculosis infected individuals. An HIV negative individual infected with *Mycobacterium tuberculosis* has a 10% lifetime risk of developing tuberculosis. However, for individuals co-infected with HIV, the annual risk of progression to disease has been estimated as between 3% and 13%. Due to this interaction, tuberculosis has emerged as the most common life-threatening opportunistic disease associated with HIV in many developing countries. In studies in India and Thailand, up to 60% of AIDS patients had tuberculosis confirmed by clinical or autopsy findings.

The HIV epidemic is increasing the burden of tuberculosis in women. During their reproductive year, when women are most at risk of progressing from tuberculosis infection to disease, they are also at greatest risk of HIV infection. A study in Tanzania on the association

of tuberculosis and HIV showed that there has been a marked increase in notifications of smear-positive tuberculosis in 15-34 year-old women and men between 1985 and 1991. The rates of HIV infection among smear-positive cases were higher in women than in men in the 15-34 year age group. A study in Zambia in 1988 showed that there were twice as many tuberculosis notifications among women as men in 14-24 age group. Seventy-four per cent of women were HIV positive compared to 48% of men. In Kenya, a study of hospital admissions showed that the average age of all admitted patients was the same for both sexes, yet the average age of HIV positive patients with tuberculosis was 24 years in women and 37 years in men. This suggests that HIV positive women of childbearing age have a markedly higher risk of developing tuberculosis.

The HIV epidemic is increasing the incidence of tuberculosis in women, particularly in young women in low-income countries. The full impact of HIV has not yet occurred in Asia, where two-thirds of the world's tuberculosis occurs at present. The spread of HIV into Asian communities is likely to result in large increases in HIV associated tuberculosis in women in the future.

Tuberculosis in Women; the response:

Tuberculosis is one of the world's most neglected health problems. Population growth, the HIV epidemic, increasing numbers of women developing tuberculosis over the next few decades. However, an effective system of

controlling tuberculosis exists in WHO's recommendation DOTS strategy. The fundamental components are the detection of infectious cases and the supervision and documentation of their treatment to the point of proven cure. It is important that DOTS programmes are gender-sensitive in their implementation to ensure that women have access to tuberculosis treatment. It is also important that women are more aware of the risk of tuberculosis. Health education material for women should include information on tuberculosis, particularly in maternal and child health and HIV/AIDS services.

Tuberculosis treatment is one of the most cost effective health interventions available in developing countries. The greatest obstacle to reducing the burden of tuberculosis in women remains the lack of political will and inadequate financial resources available for tuberculosis control. Health policy makers, donor countries and non-governmental organizations need to be more aware of the impact of tuberculosis on women. It is imperative that women with tuberculosis have access to treatment through effective control programmes. Tuberculosis control in women is an investment in the future health of women themselves, their children and society at large.

Summary:

Tuberculosis is the leading infectious cause of death in women worldwide. The disease poses a major threat to women's health security. Population growth, the HIV epidemic, increasing poverty and rising levels of drug

resistance will inevitably increase the burden of this disease in women.

Women are at increased risk of progression of disease during their reproductive years. However, in most low income countries, twice as many men are notified with tuberculosis as women. Biological mechanisms may account for most of this difference but socioeconomic and cultural factors leading to barriers in accessing health care may cause under notification in women. Tuberculosis control programmes should be sensitive to the constraints faced by women in accessing health care, in order to empower women to commence and complete treatment.

The fear and stigma associated with tuberculosis have a greater impact on women than on men, often leaving them in a more precarious social and economic position. Tuberculosis in women creates orphans, impoverishes families and reduces the economic development of society.

Tuberculosis is a major cause of preventable suffering and death in women. The tuberculosis control strategy, DOTS, represents a cost-effective response to the problem of tuberculosis in women. Tuberculosis is a major women's health issue. It is a global health priority that tuberculosis treatment be made available to women, particularly to those in low income countries who are bearing the burnt of this epidemic.

The basic epidemiological research in needed to increase our knowledge about gender

differentials in infection rate, programme of disease, treatment and operational research is needed to develop more effective TB control programme.

Acknowledgment:

Thanks go to Drs. Maire Connolly & Paul Nunn, for valuable information taken from their article Women and Health Published in World Health quarterly vol. 49, No 2, 1996.

References:

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Wel-come News:

The Director, Deputy and other officials welcomed the following visitors to the SAARC TB Centre.

▼ Two delegations from Canadian International Development Agencies (CIDA) consisting Ms. Sarada Laclerc (CIDA) and Dr. Donald Sutherland (Health Canada) visited STC on 16th Sept. 1997 and 31st March 1998 to explore areas of cooperation between CIDA and SAARC TB Centre.

▼ Dr. J. P. Narain, Regional Advisor STC/AIDS and TB, WHO, SEARO, New Delhi visited STC on 19th April 1998 and

discussed about the activities of the centre with Director and Deputy Director.

▼ During the training of II Regional Course on Tuberculosis Control, held in Kathmandu from 13th to 27th April 1998, jointly organised by HMG, Nepal WHO and STC. Participants from Bangladesh, Bhutan, DPR Korea, India, Indonesia, Maldives, Myanmar, Thailand and Nepal visited STC and observed the activities performed by the centre.

Proposed Programmes of STC

- ⊗ The VIIIth Meeting of the Governing Board of SAARC TB Centre will be held before Dec. 1998.
- ⊗ Training Programme for Regional TB Coordinators is likely to be held in the month of Nov. 1998.
- ⊗ A three day Meeting of TB Programme Managers on Status and Progress of Revised Strategy of TB Control in Member Countries is likely to be held with next Board Meeting.

Letters to the Editor:

To the Editor,

✉ I congratulate you on your such an excellent research work. I got a copy of STC Newsletter from my friend and when I read it, it was excellent. I wish to suggest some thing that you are educating the people especially doctors about TB but you should also promote the research work about world's dangerous diseases which are AIDS and Hepatitis B, C especially.

Dr. Hamid Aizaz Chatha
Officers' Colony
Flat No. 9, Sialkot Road
Gujranwala, Punjab, Pakistan.

✉STC Newsletter is making the welcome effort of keeping member states informed of the activities of the centre.

Thinley Dorji
Director (SAARC)
Royal Government of Bhutan,
Thimphu, Bhutan.

✉ I congratulate you and your team members for dedicated work to control TB in SAARC region. This Newsletter is providing professional and technical knowledge on the subject.....

Dr. Khizar Mehmood Ahmad Qazi,
Medical Superintendent
Govt. TB Hospital, Sargodha,
Punjab, Pakistan.

✉indeed it is really very interesting to go through lots of information provided in it. You have been taking lot of pains in compiling wonderful information. All most all the information about the Private Practitioners in control of Tuberculosis in Nepal is almost same as it is in India also.

Lion Dr. G. Subhram,
Medical Officer - Incharge
Gandhi TB Clinic,
Anakapalle, 531 001, AP, India.

✉important issues of involving private practitioners, NGOs and other agencies have been dealt nicely.....

Dr. S. D. Purohit
Prof. & Head
Dept. of Chest & Tuberculosis
Principal & Controller
J.L.N. Medical College,
Ajmer- 305001, Rajasthan, India.

✉ Thank you for sending me the SAARC Newsletter which is quite informative.....

Dr. P. R. Narayanan,
Director
Tuberculosis Research Centre
Mayor V. R. Ramanathan Road,
(Spurtank Road) Chetput,
Chennai - 600 031, India.

✉ It is definitely and informative instrument for the members and a source of exchanging views on different aspects regarding TB in the SAARC countries. Bravo & keep it up.

Dr. AITZAZ A. JAN
Medical Superintendent
SBK Institute of Chest Diseases,
Brewery Road, Quetta,
Pakistan.

✉ the newsletter is very informative, particularly the report on TB & HIV in SAARC Member Countries and the article on Private Practitioners and Tuberculosis Control in Nepal.

Dr. V. H. Balasangameshwara,
CMO, National TB Institute,
8 Bellary Road,
Bangalore 560 003, India.

Dear Readers:



Thank you very much for sending us your valuable letters and acknowledgments. These are sources of our inspiration.

We have received many more letters from our readers of STC Newsletter, those could not be incorporated due to shortage of space. On the basis of your letters we plan for improvement of coming issues of our publications. We have also received your letters for back issues of STC Newsletters and Directory of TB Institutions & Specialists in SAARC Member Countries. All these publications are being send by mail in your address mentioned on your letters. Please keep on writing us for improvement of ensuing publications.

- Editor



Participants and Organisers of SAARC Training Programme on IEC with Special Emphasis on TB & HIV at Central Health Education Bureau, New Delhi, India.



Participants and Organisers of SAARC Training of Trainers for TB Programme Managers at Maldives