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STAC Newsletter is a regular publication of SAARC TB and HIV/AIDS Centre, it includes reports on activities, decisions of important meetings of the Centre and recent information on Tuberculosis, HIV/AIDS and their control.

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Editorial

Cross-border initiatives in control of TB & HIV/AIDS

Cross-border problems in TB and HIV/AIDS control and prevention have emerged as major public health concerns along the international borders due to migration and different strategies for controlling and prevention implemented by the bordering countries. In the countries sharing borders in the SAARC Region, population movement has increased dramatically because of trade and commerce, employment opportunities, education, pilgrimage, migration of labour forces for development projects, agriculture etc. these countries have low levels of HIV infection but during the last decade, they have experienced increasing trends in HIV infection among various population groups, especially, the trafficking of girls and women & migrant populations.

The treatment of Tuberculosis and supportive programmes for management of STIs in border areas require specific attention. In this regard National Programmes of the SAARC Member States which have more problems because of porous border, have to share their programme achievements, experiences and innovations made towards the programmes. For these activities, identification of burning issues, challenges faced during the implementation of the control and preventive activities in border areas and exploring the possible solutions should be initiated immediately. Political commitment and exchange of information and meeting among district level officers of the border districts of the countries would strengthen coordination in control operations. Hence to combat the cross-border problems of HIV/AIDS and TB, SAARC Member States need inter-country collaboration in planning and implementing cross-border interventions.

To address the issues, SAARC Member Countries have shown their commitment. SAARC TB and HIV/AIDS Centre (STAC) is supporting to establish the coordination regarding the issues with the SAARC Member States, specially bordering countries. It was initiated with the full cooperation with WHO/SEARO by organizing **SAARC-WHO Inter-country Meeting on Cross Border Initiatives on HIV/AIDS, TB, Malaria and Kala-azar**, organized in Kathmandu, Nepal in 2001 for the first time. **SAARC Regional Workshop on Development of Strategic Mechanisms for Cross Border Activities in control of TB and HIV/AIDS**, was organized in New Delhi, India in 2007, consecutively SAARC Seminar to Collaborate and Support Cross Border Activities in controlling TB and HIV/AIDS was organized in Islamabad, Pakistan in 2008. **Cross Border meeting of The Programme Managers was organized in Male, Maldives in 2009.** Recently the another important step has been taken by STAC in this issue by organizing **SAARC Meeting of National TB & HIV/AIDS Control Programme Managers and Mechanism to tackle Cross-Border Collaboration in Colombo, Sri Lanka in 2010.**

The efforts should be continued to address the problems, the recommendations made should be implemented by the borders sharing countries as per their need to tackle the issues.
Report on Activities

1. Commemoration of World TB Day 2010

The theme of the World TB Day was “Innovation” and the slogan was “On the move against tuberculosis innovate to accelerate action”. The theme “Innovation” speaks about the need for a new way forward. The slogan reflects the theme through a simple, flexible and easily translatable phrase. The idea is to recognize people who have found out a variety of innovations in a variety of settings. The slogan says the whole world is on the move. The year 2010 marks the halfway point of Global Plan to Stop TB Strategy (2006-2015). It is clearer than ever that we must scale up efforts and continue to seek new and innovative ways to stop TB.

Joint Function:

SAARC TB & HIV/AIDS Centre (STAC) commemorated the day by participating in a joint function organized by National TB Control Programme (NTP), Ministry of Health & Population, Government of Nepal and other NGOs/INGOs in Kathmandu on 24th March 2010. The function was chaired by Dr. Sudha Sharma, Secretary, Ministry of Health & Population, Government of Nepal.

Mr. Uma Kant Chaudhary, Hon’ble Minister of Health & Population, Government of Nepal graced the occasion as Chief Guest and Mr. Khadga Bahadur Basyal, Hon’ble State Minister of Health and Population, Government of Nepal attended the programme as Guest of Honour. In addition, the programme was attended by large number of National and International dignitaries and community leaders, social workers, health care providers, members of INGOs and NGOs, people living with TB/HIV Co-infection, people living with MDR TB etc.

Dr. Kashi Kant Jha, Director, SAARC TB and HIV/AIDS Centre and National TB Centre welcomed the distinguished guests and participants by offering his welcome remarks. At the same time Dr. Jha presented Achievements made by NTP in the field of TB control in Nepal.

Dr. V. S. Salhotra, presented Situation of TB in SAARC Region and progress towards MDGs.
The programme was formally inaugurated by Dr. Chet Raj Pant, Hon’ble Member of National Planning Commission, Nepal by lighting up the traditional oil lamp.

In addition, the following dignitaries delivered their remarks:

Mr. Devendra Bahadur Pradhan, President, Nepal Anti-TB Association, Mr. Deepak Raj Giri and Ms. Deepashree Niraula, Goodwill Ambassador, TB Control, Nepal and Dr. Alexander Andjaparidze, WHO Representative and Chief of Mission, Nepal.

Vote of thanks was delivered by Dr. S. S. Jha, Medical Officer, NTC, Nepal.

- **Releasing of Publications:**
  The Chief Guest released Annual Report 2009 of SATC along with other publications.

- **Goodwill Ambassadors for NTP, Nepal:**
  STAC congratulated Ms. Deepashree Niraula and Mr. Deepak Raj Giri for their successful engagement as Goodwill Ambassadors for TB control in Nepal.

- **Message from His Excellency:**
  On this occasion, STAC received a special message from His Excellency Dr. Sheel Kant Sharma, Secretary General SAARC which was published in “the Gorkhapatra” a National Daily Newspaper in Nepal.

- **Messages from National Dignitaries:**
  Messages from Rt. Hon’ble Prime Minister Mr. Madhab Kumar Nepal, Hon’ble Health & Population Minister Mr. Uma Kant Chaudhari, Hon’ble State Minister for Health & Population Mr. Khadga Bahadur Basyal, Secretaries, Ministry of Health & Population Dr. Prabin Mishra & Dr. Sudha Sharma, Director General, DGHS, Dr. Yashovardhan Pradhan and Director, Dr. Kashi Kant Jha, SAARC TB and HIV/AIDS Centre and National TB Centre were also published in the National Daily, Nepal.

- **Distribution of STAC Publications:**
  On this occasion, STAC distributed brochure *Tuberculosis: Frequently Asked Questions (FAQs)* especially published for World TB Day 2010 in English and Nepali languages along with the other publications related to awareness on TB and HIV/AIDS.

- **Displaying of STAC Banners/Flexes:**
  Banners displaying different slogans relating to TB and HIV were displayed in the premises of joint function and main programme venue.

- **Exhibition:**
  A number of flex posters with information on STAC and its activities for TB and HIV/AIDS prevention and control in Member States were developed and displayed in the exhibition hall at the entrance of venue of main function. At the end of function, Mr. Uma Kant Chaudhary, Hon’ble Minister of Health & Population, and Dr. Sudha Sharma and Dr. Prabin Mishra, Secretaries, Ministry of Health & Population, Nepal, along with the visitors of joint function observed the exhibition.

- **Publication of Special Articles:**
  Special articles were published in REPUBLICA, 24th March 2010, Nepal, a National daily Newspaper.
  1) Article titled "DEADLY DUO: TB/HIV Co-infection" was jointly written by Dr. K. K. Jha, Dr. V. S. Salhotra and Dr. Ganga C. Pathirana, SAARC TB and HIV/AIDS Centre, Kathmandu, Nepal and 2) Article titled "Tuberculosis in Different Forms" published by the editor, Republica.
Commemoration of World TB Day 2010 in SAARC Member States

World TB Day 2010 was commemorated in all the SAARC Member States by conducting awareness programmes on TB and its control. Activities organized to commemorate the World TB Day in Pakistan and in Sri Lanka were as follows:

**Pakistan:**

**Commemoration of World TB Day**

National TB Control Programme of Pakistan commemorated World TB Day 2010 by organizing the following activities:

**Highlights of the Activities Carried Out:**

**Consultative Meetings with Partners:** In order to develop a National plan to implement special activities to commemorate World TB Day, a consultative meeting with partners including Bridge, ACD, I H S, Aga Khan Foundation, ASD, BDN, and Provincial TB Control Programs was organized.

**Musical Gala:** In line with the Regional theme of this year’s world TB Day, i.e. Singing the Song of Stop TB, a musical evening “Ghazla-e-Hoye Rehna” was organized by National TB Control Programme, in collaboration with ATV.

**MoU Signing Ceremony between the National TB Control Programme and Mcdonald’s:**

An MoU signing ceremony was organized to establish a long term partnership between NTP and McDonalds. The MD McDonald’s ensured the full support in helping the program in their fight against TB.

**Fund Raising Qawwali Night for Stop TB Partnership:**

As a part of Stop TB Partnership, Pakistan’s efforts to improve the quality of life of people suffering from TB, a fund raising Qawwali Night with “Amjad Sabri” was organized in collaboration with Kay & A (Pvt.) Limited, Zong and Faisalabad Chamber of Commerce. The National TB Control Program provided technical support in this regard.

**Fund Raising Movie Show:**

A Fund Raising Movie show was organized by Stop TB Partnership Pakistan in collaboration with National TB Control Programme in Shifa College of Medicines & Nursing.
makers in favor of sound public health interventions cannot be denied. Media has always proved to be the most effective tool in promoting awareness among masses.

Keeping in view the importance of Media, different TV channels and magazine were included as partners in the World TB Day Campaign as follows.
- SAMAA TV
- Pakistan Television Network
- DAWN TV, ATV, CNBC, Mehran TV
- Medical Review (Monthly)
- Ghazi Magazine and Shifa Magazine

**Cricket for a Cause:**

The global experience of using sports as a development tool has illustrated that sports can offer venue for expression and chance to spend free time in positive ways. It also provides a platform in getting valuable information on different issues including TB.

**Empowering TB Patients: A National Symposium:**

For the first time ever the participants as well as speakers included the cured TB Patients in a symposium with objective to ensure TB patients engagement and empowerment. Dr. Rahid Jooma, DG Health was the Chief Guest on the occasion. Dr. Noor Ahmad Baloch, National Manager, National TB Control Programme, Dr. Muhamamd Khilf Bile, Country Representative WHO, Mr. Behroz Sazwari, Stop TB Ambassador Pakistan, Dr. Islam Hamid, General Secretary, Stop TB Partnership Pakistan, Ms. Kanwal Naseer – media partner of the programme were also present on the occasion.

**Sri Lanka:**

**Commemoration of World TB Day 2010**

"On the move against TB, Innovate to accelerate action"

World Tuberculosis Day, falling on 24th March each year, to commemorate the day in 1882, when German Bacteriologist; Dr. Robert Koch announced the discovery of tuberculosis bacilli, the bacteria that cause tuberculosis. Koch’s discovery opened the way toward diagnosing and curing tuberculosis. In 1982, on the one-hundredth anniversary of Dr Koch’s presentation, the International Union against Tuberculosis and Lung Disease (IUATLD) proposed that 24 March be proclaimed an official World TB Day. In 1996, the World Health Organization (WHO) joined with the IUATLD and with a wide range of other concerned organizations to increase the impact of World TB Day.

Fortunately, Sri Lanka is not among the high-burden countries. However, TB remains a widespread problem and poses a continuing threat to the health and development of the people.
"On the move against TB, Innovate to accelerate action". The theme of 2010 World TB Day was selected to remind everybody’s responsibility & emphasize the role of a person and support to prevent spreading TB. The campaign aims to enhance awareness of the impact of TB on the World population. It is a health issue that affects the entire community and therefore, commitment of every person in the community is essential to control this disease.

World TB Day is a best day to remind and educate people about TB, to ask for the decision makers to make TB a priority and to encourage politicians and public figures to include combating TB in their programs, to put forward doctors and other health providers to stop TB by staying alert to the symptoms of the disease and providing diagnosis & treatment by implementing DOTS appropriately. Finally to remind everybody that stopping TB needs maximum support from the whole community.

(Information Source: Website of National TB Programme, Sri Lanka, downloaded on 30th June 2010 from)

Symptoms of TB disease have been depicted by publishing following pictures in the official website of National TB Control Programme, Sri Lanka

<table>
<thead>
<tr>
<th>Cough</th>
<th>Afternoon Fever</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Loss</td>
<td>Blood stained sputum</td>
</tr>
<tr>
<td>Night Sweats</td>
<td>Blood stained sputum</td>
</tr>
</tbody>
</table>

(Information Source: Website of National TB Programme, Sri Lanka, downloaded on 30th June 2010 from)

2. SAARC Training of Trainers on Leadership & Strategic Management for National, Regional & District Level Managers of National Tuberculosis and HIV/AIDS Programmes, Nepal


This training was organized with the objective to enhance the knowledge and skills on leadership and strategic management of Managers and to scale-up and strengthen the TB and HIV/AIDS prevention and control activities in the country.

The training programme was attended by 20 participants from TB and HIV/AIDS.

Dr. S. D. Gupta, Director and Dr. Nutan Prabha Jain, Associate Professor, Indian Institute of Health Management...
Dr. Y. B. Pradhan, Director General, Department of Health Services, Government of Nepal and Chief Guest of the programme highlighted the achievements of TB programme in Nepal. He mentioned that the NTP is one of the successful programme in Nepal, however, number of challenges are ahead to be addressed like TB and HIV Co-infection, MDR-TB and sustaining of DOTS. He emphasized that this is the timely opportunity for Nepal to build a team of skilled Managers with leadership qualities to successfully consolidate the control activities planned. He thanked the STAC officials for their hard work exerted in organizing this training programme.

Dr. V. S. Salhotra, Deputy Director, STAC delivered the vote of thanks.

Outcome:
The participants updated their knowledge on managerial styles, leadership and leadership styles, personal effectiveness, role, efficacy, interpersonal, communications, team building and building partnership. The training equipped Programme Managers with improved managerial skills and leadership qualities to achieve the time bound pledges, universal access to HIV prevention, treatment, care and support by 2010 and to scale-up the control activities further more.

3. SAARC Training of Trainers on Management of MDR-TB patients for National, Provincial & District level Managers of National Tuberculosis Programme, Bangladesh

SAARC TB and HIV/AIDS Centre and Government of Bangladesh jointly organized "Training of trainers on Management of MDR TB Patients for National, Provincial & District level Managers of National Tuberculosis Programme of Bangladesh" from 9th to 13th May 2010 in Dhaka. Twenty participants attended the training programme.

Prof. (Dr.) Pravat Chandra Barua, Director, MBDC & Line Director, TB-Leprosy Chaired the Inaugural Session.

Prof. (Dr.) AKM Mohibullah, Addl. Director General, DGHS, Dhaka graced the Inaugural Session as Chief Guest.
Dr Md. Nazrul Islam, Deputy Director, MBDC & Programme Manager, National TB Programme delivered the welcome address. He cordially welcomed all the dignitaries, distinguished invitees and the participants.

Dr. D. Behera, Director and Dr. Rohit Sarin, AMS & HoD, TB Control, LRS Institute of TB & Respiratory Diseases, New Delhi, India, the Resource Persons for the training delivered their remarks.

Dr. Ajith P. Weerakoon, Research Officer delivered remarks on behalf of Director, SAARC TB and HIV/AIDS Centre, Kathmandu and Prof. Mirza Md. Hiron, Director, NIDCH, Dhaka, Bangladesh also delivered their remarks during the inaugural session.

Prof. A. K. M. Mohibullah, Additional Director General, DGHS, Dhaka, People’s Republic of Bangladesh delivered his remarks as Chief Guest. He stated that all the predisposing factors for the spread of MDR-TB are existing in Bangladesh. He emphasized that there is an alarming increase of Multi-Drug Resistant TB in Bangladesh. He thanked STAC officials, Resource Persons and participants from different parts of Bangladesh. He expressed his best wishes for a successful accomplishment of the training.

Dr. Ajith Weerakoon Research Officer, STAC representing the Director, SAARC TB and HIV/AIDS Centre, Kathmandu, Nepal read out the message sent by Dr. Kashi Kant Jha, the Director, STAC.

Prof. (Dr.) Pravat Chandra Barua, Director, MBDC & Line Director, TB-Leprosy Control, Bangladesh and Chairman of the Inaugural Session delivered his remarks. He stated the importance of the training for National TB Control Programme. He explained the global and local burden of TB epidemic and emphasized that almost all the risk factors are prevailing in Bangladesh to fuel the exponential spread of TB in the society. He thanked the SAARC TB and HIV/AIDS Centre for organizing the important training in Bangladesh.

Dr. Shamim Sultan, Deputy Program Manager, NTP, Dhaka, Bangladesh delivered Vote of Thanks.

Dr. Md. Ghulam Mustafa Majumder, Deputy Programme Manager (Training), NTP, Dhaka, Bangladesh convened the Inaugural Ceremony as Master of Ceremony.

Technical Session:

Dr. D. Behera, Director and Rohit Sarin, AMS & HoD TB Control, LRS Institute of TB & Respiratory Diseases, New Delhi, India facilitated as expert Resource Persons for the training programme. Dr. V. S. Salhotra, Deputy Director and Dr. Ajith Weerakoon, Research Officer, STAC also facilitated the training programme.

Along with the different presentations by the Resource Persons the following additional presentations were made:

Dr. Asif Mujtaba Mahmud, Coordinator, DOTS-Plus, Associate Professor, Respiratory Medicine, National Institute of Diseases of the Chest & Hospital (NIDC&H), presented the Experience of DOTS-Plus Pilot Project in Bangladesh.

Dr. S. M. Mostofa Kamal, Assistant Professor cum Coordinator, National Tuberculosis Reference Laboratory, NIDCH, NTP on Laboratory aspects of MDR-TB Management. He elaborated the Role of Laboratory in diagnosis of MDR & XDR TB, monitoring of treatment progress, diagnosis of complications and documentation of cure.

Dr. Erwin Cooreman, Medical Officer, (TB), WHO, Bangladesh presented Cohort Analysis and Recording, Reporting & Monitoring in TB control.

Field Visit:

All the participants and facilitators visited NIDCH –Dhaka, Bangladesh. Dr. Asif Mujtaba Mahmud, Coordinator, DOTS-Plus, Associate Professor, Respiratory Medicine, facilitated the field visit. Participants and resource persons observed the DOTS and DOTS Plus clinics, MDR –TB Wards and National Reference Laboratory. After the field visit, all the participants and facilitators had a de-briefing session with Prof. Mirza Md. Hiron, Director, NIDCH.
Dr. Sabera Sultana, National Professional Officer, WHO, Dhaka, Bangladesh made a presentation on the Expansion Plan for MDR-TB, Management.

Closing Session was held under the Chairmanship of Dr Md. Nazrul Islam, Deputy Director-MBDC & Programme Manager, National TB Control Programme, Bangladesh.

Prof. (Dr.) Pravat Chandra Barua, Director, MBDC & Line Director, TB-Leprosy Control, Bangladesh, graced the Closing Session as the Chief Guest.

Dr. M. Yasin Ali, Life Member, NATAB, Dhaka, Bangladesh delivered his remarks on behalf of participants.

Dr. V. S. Salhotra, Deputy Director of the STAC, Nepal delivered his remarks along with the presentation of Pre/Post Results. He thanked the two expert Resource Persons from LRS New Delhi, all the high level officials of the NTP, Bangladesh and the participants. He expressed gratitude on behalf of STAC to the Government Bangladesh, Ministry of Health, and Ministry of Foreign Affairs for valuable contribution for the completion of this training successfully.

Resource persons of the programme Dr. D. Behera, Director, LRS Institute of TB & Respiratory Diseases, and Dr. Rohit Sarin, AMS & HoD TB Control, LRS Institute of TB & Respiratory Diseases, New Delhi, India gave their remarks.

Prof. (Dr.) Pravat Chandra Barua, Dr. Md. Nazrul Islam and Dr. D. Behera, awarded Certificates to the Participants and Resource Persons.

Prof. (Dr.) Pravat Chandra Barua, Director, MBDC & Line Director, TB-Leprosy Control, Bangladesh delivered his remarks as Chief Guest of the Closing Session.

The vote of thanks was delivered by the Dr Ajith P. Weerakoon Research Officer STAC, Nepal.

Outcome:
Participants were successfully trained on management of MDR-TB patients.

4. SAARC Regional Training of Trainers (Microbiologists) on Culture & DST of Mycobacterium Tuberculosis, India

SAARC TB and HIV/AIDS Centre (STAC), Kathmandu, Nepal and RNTCP, Government of India jointly organized SAARC Training of Trainers (Microbiologists) on Culture & DST of Mycobacterium Tuberculosis at National Tuberculosis Institute (NTI), Bangalore from 22nd to 28th June 2010.

The objectives of the training were to enhance the knowledge and skills of the Microbiologist in diagnosing and monitoring of the treatment efficacies of TB/MDR-TB and imparting training.
to health care providers in this respect and to improve the status of the NRLs to provide TB culture and DST services and participate in DRS activities.

Participants from Afghanistan, Bangladesh, India, Nepal and Sri Lanka participated in the training.

The programme was inaugurated jointly by Dr. Kashi Kant Jha, Director, STAC and Dr. Prahlad Kumar, Director, NTI by lighting the traditional lamp.

Dr. Kashi Kant Jha, Director, STAC, in his welcome address, offered his sincere gratitude to the SAARC Member Countries for sending participants and the Government of India for kind permission to organize this training at NTI. He thanked NTI family for their generous support and excellent arrangements made for the training. Dr. Prahlad Kumar, Director, NTI welcomed the participants in the training. Dr. V. S. Salhotra highlighted objective, methodology and importance of the training. He delivered Vote of Thanks. Dr. Ranjani Ramachandran from WHO/SEARO and Dr. V. Challu from NTI gave their remarks as Resource Persons.

The training was based on WHO/IUATLD Guidelines on Culture and Drug Susceptibility Testing (DST), Drug Resistance Surveillance (DRS) based on country specific protocol, NTI Training Curriculum for Culture and DST, different PowerPoint presentations, observation of different sections of NRL, practical session discussion, exercises and sharing of experiences. Prior to the training a PRE TEST was held.

Subsequently, a POST TEST was held and the results were presented. The Directors, STAC and NTI awarded certificates to the participants as well as to the Resource Persons.

Dr. Kashi Kant Jha, Director, STAC thanked Dr. P. Kumar, Director and his team at NTI for their cooperation and support to organize the training effectively and successfully. He thanked Governments of India and SAARC Member Countries for providing support. He also thanked WHO/SEARO for cooperation and support in this regard. Dr. V. S. Salhotra, Deputy Director, STAC delivered vote of thanks.

Brief News

- **STAC re-designated as WHO Collaborating Centre:** STAC was WHO Collaborating Centre since March 2002 for TB, TB/HIV, Research and Training. Now the Centre has been extended as WHO Collaborating Centre for TB, HIV/AIDS, TB/HIV, Research and Training till July, 2014. STAC wish to extend thanks to WHO in this regard.

- **Participation in Expert Group Meeting:** On the invitation of SAARC Secretariat, Dr. Kashi Kant Jha, Director, Dr. V. S. Salhotra, Deputy Director and Dr. Ganga C. Pathirana, Technical Officer (HIV/AIDS) participated in the Expert Group Meeting held at SAARC Secretariat, Kathmandu from 25th to 26th February 2010. Dr. Jha presented “HIV/AIDS and TB Scenario in SAARC Region”.

- **Deputy Director, STAC nominated in the Panel of Expert:** Dr. V. S. Salhotra, Deputy Director, STAC has been included in the Panel of Experts for TB/HIV co-infection in the TBTEAM of Stop TB Partnership.

- **Audit of Accounts of STAC for the year 2009:** A Joint Audit Team for the year 2009 (JAT 09) comprising auditors Mr. Tempa Gyeltshen, Assistant Auditor General, Royal Government of Bhutan and Mr. Mohamed Zaeem, Assistant Director General, Auditor General’s Office, Republic of Maldives carried out the audit of the accounts and related activities of SAARC Tuberculosis and HIV/AIDS Centre for the year 2009 from 21st to 22nd June, 2010.

Participation in Regional/International Meeting

- **Participation in WHO/SEARO Meeting:**
  
  Dr. V. S. Salhotra, Deputy Director, STAC participated in Regional Meeting of the WHO Collaborating Centres on Communicable Diseases, held at WHO/SEARO, New Delhi from 2nd to 4th June 2010. The purpose of the meeting was to discuss various technical and administrative issues.

- **Participation in SAARC Study Visit:**
  
  Dr. Kashi Kant Jha, Director, STAC participated in SAARC Study visit to selected ASEAN Member Countries (Indonesia and Thailand) to share experiences on HIV and AIDS prevention and control. Dr. Jha joined the team in Bangkok, Thailand from 2nd to 5th June 2010.
Tuberculosis (TB) is an infectious disease caused by a germ, Mycobacterium tuberculosis. Symptoms of TB are cough, fever, loss of appetite, loss of weight, pain in chest, breathlessness and blood in sputum. TB is contagious and spreads through the air. If not treated, each person with active TB infects on average 10 to 15 people every year. More than 2 billion people, equal to one-third of the world's population, are infected with TB bacilli, the microbes that cause TB. 1 in 10 people infected with TB bacilli will become sick with active TB in their lifetime. TB is a disease of poverty affecting mostly young adults in their most productive years. 1.8 million people died from TB in 2008, including 500,000 people with HIV - equal to 4500 deaths a day. In 2008, 3.6 million women fell ill with TB and 700,000 women died from TB including 200,000 women with HIV. In 2008, 3.6 million women fell ill with TB and 700,000 women died from TB including 200,000 women with HIV. Once infected, women of reproductive age are more susceptible to developing TB disease than men of the same age. The 'feminization' of the HIV epidemic has meant a greater burden of TB among women. A quarter of HIV deaths are linked to TB. TB can cause infertility and contributes to other poor reproductive health outcomes especially for those with HIV infection. Malnutrition and food insecurity can exacerbate the risk of TB disease; other threats such as rising tobacco use and diabetes among women can also mean an increasing burden of TB. In some settings, women who become ill with TB may be stigmatized, discriminated against or ostracized by their families and communities.

MDR-TB is caused by bacteria that are resistant to the most effective TB drugs, isoniazid and rifampicin, the report notes. People can contract the disease from others, or the resistance may develop in the course of treatment. The WHO estimates that 440,000 people had MDR-TB in 2008 and that 150,000 of them died, with close to half of the cases in China and India. The agency says about 3.6% of all TB cases are MDR-TB, which is similar to what it estimated in a report 2 years ago. MDR-TB in India is <3.4% in new cases and 12% in re-treatment cases.

Tuberculosis (TB) is a major public health problem in India. India accounts for one-fifth of the global TB incident cases. 40% (~400m) of Indian population is infected with M. tuberculosis. Each year nearly 2 million people in India develop TB, of which around 0.87 million are infectious cases i.e. 75% smear positive PTB cases/1lakh population per year. It is estimated that annually around 330,000 Indians die due to TB. TB is one of the leading causes of mortality in India- killing 2 persons every three minute, nearly 1,000 every day. Every day in India, under the Revised National Tuberculosis Control Program (RNTCP) more than 15,000 suspects are being examined for TB, free of charge. India's DOTS programme is the fastest expanding programme, and the largest in the world in terms of patients initiated on treatment, placing more than 100,000 patients on treatment every month. Estimated economic burden of TB in India per year is enormous. Indirect costs to society is $3 billion, direct costs to society is $300 million. Number of productive work-days lost due to TB illness is 100 million and productive work days lost due to TB deaths are 1.3 billion. Number of School drop-outs due to parental TB are 300,000. More than 100,000 women rejected by families due to TB. India is making a great effort for controlling TB through RNTCP. India after introduction of RNTCP cure rates are more than doubled compared with earlier NTP, 85% global target is consistently achieved 2003 onwards, case detection rate is close to global target of 70%, case fatality reduced from 29% to 4% in new sputum positive cases, and deaths due to TB have been reduced from 500,000 to <370,000 a year. Over 6.3 million patients initiated on DOTS, and over 1.1 million additional lives saved in India after implementation of RNTCP.

More than 1 billion people smoke with nearly 70% of them living in low and middle-income countries. Smoking substantially increases the risk of tuberculosis (TB) and death from TB. More than 20% of global TB incidence may be attributable to smoking. Controlling the tobacco epidemic will help control the TB epidemic. Smoking is a risk factor for TB, independent of alcohol use and other socioeconomic risk factors.

Smoking increases the risk of TB disease by more than two-and-a-half times who-recommended policies to combat tobacco and TB is to control tobacco everywhere, but especially
where people are at risk of infection, coordinate national TB and tobacco control program, cross-train TB and tobacco control health workers, register TB patients' tobacco use and offer them counseling and treatment. Promote and enforce smoke-free policies, particularly where TB services are delivered and to implement smoking cessation procedures through PAL (Practical Approach to Lung health). Government of India has failed to establish linkage between TB and tobacco control program. There is urgent and compelling need for India to formulate policy regarding coordination between RNTCP and Tobacco Control program to reduce the menace of their interaction. There exists a considerable evidence base that joining these programs can be beneficial.

All health care providers have a major role to play to ensure that every TB patient is treated with the right drugs, in the right doses, in the right combination and for the right duration, in line with the International Standards for TB Care.

World TB Day is celebrated on March 24 every year. This annual event commemorates the date in 1882 when Dr. Robert Koch announced his discovery of *Mycobacterium tuberculosis*, the bacteria that cause tuberculosis (TB). World TB Day provides an opportunity to communicate TB-related problems and solutions and to support worldwide TB-control efforts. This year slogan on World Tuberculosis Day is: On the move against tuberculosis. Innovate to accelerate action.

New and better tools to fight tuberculosis are now available due to important advances in TB research, particularly in more recent years. At the same time, more resources are being made available for TB control in countries. We can and must meet the MDGs if we put in place innovative approaches and work together in new and different ways. We must recognize the personalities who have innovated and put in efforts and their life to fight this disease.

The year 2010 marks the halfway point for the Global Plan to Stop TB (2006-2015). It is clearer than ever that we must scale up efforts and continue to seek new and innovative ways to stop TB if we are to achieve our targets. We have made considerable progress. But the evidence points to an urgent need to do more, do it better and do it faster. The theme of Innovation speaks to the need for a new way forward.

We have to achieve universal access to high-quality diagnosis and patient-centered treatment, reduce human suffering and socioeconomic burden associated with TB, protect poor and vulnerable populations from TB, TB/HIV and multidrug-resistant TB, and support development of new tools and enable their timely and effective use. Currently, less than 5% of the estimated global burden of multidrug-resistant tuberculosis (MDR-TB) patients are being detected, lack of laboratory capacity and slow technology transfer to resource-limited settings being a crucial barrier. Scaling up laboratory services to meet the diagnostic challenges of drug-resistant and HIV-associated TB require a paradigm shift in developing laboratory policy development, setting laboratory norms and standards, guiding and coordinating technical assistance, and accelerating knowledge transfer. We have to expand and accelerate access to quality-assured new diagnostic technologies, endorsed by WHO, which currently include commercial liquid culture, rapid speciation by immuno-chromatography and molecular line probe assay impact market dynamics to leverage price reductions for diagnostic tools, instruments, reagents, and supplies and to stimulate a greater number of suppliers of new TB diagnostics. Improve case detection and management of TB and MDR-TB by ensuring that the new TB diagnostic tools are taken up and appropriately used in National TB Control Programmes.

The main challenges that community involvement contributes to address include: achieving universal access to diagnosis and care and establishing patient-centred services to support people affected by the disease and their families, without compromising the quality of care.

The causative organism of tuberculosis was discovered more than a century back but it is unfortunate that still no test which can be termed as highly sensitive and specific for rapid diagnosis of tuberculosis is available. For HIV which was discovered very recently we have a rapid diagnostic test available. Smallpox could be eradicated from this universe because of effective vaccine and we are in the process of eradicating polio because of vaccine only but no vaccine is available for prevention of TB. After the discovery of rifampicin way back in sixties no new effective anti tubercular drug has been developed. No doubt TB germ is complex in many way but we have to make all out effort to develop rapid diagnostic test, preventive vaccine and effective drugs to tame the causative organism of TB. Tuberculosis is a disease of poverty and anybody who gets this disease become poorer. Not many pharmaceutical houses or scientists are willing to put in their efforts and resources because of lack of financial gain. Civil societies, NGO’s press and media can play an important role in “Empowering People with TB, and Communities” to seek care and support for preventive, diagnostic and treatment services be made available for curbing tuberculosis.

(Above article was received through e-mail to publish in STAC Newsletter, on the occasion of World TB Day 2010)
Blood Safety in the Era of HIV/AIDS

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Each year, millions of lives are saved through blood and blood products transfusions. However, this life saving measure has increased the risk of transmitting the under mentioned transfusion transmissible infections. All types of blood donors donate more than 85 million blood units every year (1).

Transfusion Transmissible Infections (TTIs)

1. Human Immuno-deficiency viral infection
2. Hepatitis B infection
3. Hepatitis C infection
4. Syphilis
5. Malaria
6. Human T Lymphotropic Virus I & II
7. Chagas disease

HIV/AIDS pandemic has thrown special focus on the importance of preventing TTIs. It is estimated that between 5% and 10% of all HIV infections worldwide are acquired through transfusion of contaminated blood and blood products (2, 4). Many more recipients of blood and blood products have acquired TTIs other than HIV. If appropriate blood safety measures are implemented, such infections can almost be preventable.

Of the global population, 80% live in developing countries and they are supported by 20% of the world’s blood supply (2). Most of the blood transfusions in the developing countries are given to women, as a life saving measure to treat haemorrhage as a complication of pregnancy, children with severe anaemia and serious trauma victims. The minimum level of blood donation required to meet a country’s most basic requirement for blood is estimated as 1% of the population. Of the low and middle income countries 73 report collecting fewer than 10 donations per 1000 population (1). Figure 01 highlights the rates of blood donations in countries of the world in the year 2007.

In developing countries, the donated blood mainly comes from paid or replacement donors, whereas, in developed countries blood donations are mainly from voluntary unpaid donors. Paid donors often come from the poorest sectors of the society, may be in poor health and at risk of having TTIs. Sometimes, paid donors sell blood mainly to buy illicit drugs for self injection. Hence, the risk of acquisition of infections from blood transfusions is much higher in developing countries. Another type of donor is the replacement donor or the family replacement donor. These replacement donors are often hidden paid donors. Therefore, the standard criteria for selecting or deferring donors may not be strictly applied and the safety of their blood is in doubt.

The safest blood donor is the voluntary, unpaid donor. They donate blood out of altruism, are not under pressure to donate blood, are subjected to donor selection and deferral techniques and are more likely to meet national criteria for low-risk donors. Of the reporting countries to WHO on type of blood donations, 57 countries reported that they have collected 100% of their blood supply from voluntary unpaid donors in 2008. However, 42 countries collect less than 25% of their supplies from unpaid voluntary donors and 31 countries still report that they collect blood from paid donors.

After donation, the collected blood units have to be tested for TTIs and this testing is one of the most important blood safety measures carried out by the blood transfusion services. The process of testing blood for TTIs is known as screening of donated blood for TTIs. Effective screening of donated blood for HIV before transfusion is a highly cost-effective strategy to prevent HIV transmission. The risk of HIV transmission through a blood transfusion is greater than 90% (3). The test selected for screening donated blood units should preferably be a highly sensitive one. A test with a high sensitivity will only rarely produce false-negative results, which is important for safeguarding the lives of the recipients of blood as well as the credibility of the transfusion services. Highly sensitive HIV screening tests have shortened the window period to 21 days. The window period has been shortened because these test kits are highly sensitive to detect even low levels of antibodies mounted against HIV viral particles as early as three weeks of the acquisition of HIV infection.

Donated blood should be tested not only for HIV but also for syphilis, hepatitis B and hepatitis C. Depending on the geographical prevalence, screening for other TTIs may also need to be carried out.

Of the 162 countries that provided data on screening for TTIs, 41 reported that they were unable to screen all donated blood for one or more of TTIs. Only 40% of the blood donations collected in low income countries were screened following basic quality assurance procedures versus 74% in
middle income countries and 99% in high income countries.

Syphilis is not a marker for HIV infection. However, it does indicate that donors have not deferred themselves despite of their risk of acquiring sexually transmitted infection. Hence, screening test for syphilis serves as a marker for donor suitability. Units of donated blood which gives reactive or indeterminate test results must be considered as potentially infectious and must be discarded according to universal safety instructions.

Curtailing the burden of TTIs particularly, HIV infection due to unsafe blood transfusion remains an issue of concern and requires implementing an integrated strategy with a nationally coordinated blood transfusion service; collecting blood from voluntary unpaid donors; screening all donated blood for TTIs and ensuring adequate training and follow-up of health care providers.

A well organized blood transfusion service with quality assured systems in all areas, is a prerequisite for the safe and effective use of blood and blood products particularly to eliminate blood transfusion as a mode of transmission for HIV and other TTIs.

References:
2. UNAIDS, Blood Safety and HIV; UNAIDS Technical Update, Oct 1997

Farewell to STAC Professionals

Dr. Ajith P. Weerakoon, Research Officer and Mr. Dhruba Kumar Khadka, Microbiologist, SAARC TB and HIV/AIDS Centre, have successfully completed their tenure on 26th May 2010 & 4th June 2010 respectively. They served the Centre for 3 years as professional staff. A farewell programme was organized at STAC on 26th May 2010. In the programme, Dr. Kashi Kant Jha, Director, awarded Letters of Appreciation and souvenirs as token of love to outgoing Professionals. STAC is very much thankful to Dr. Werakoon and Mr. Khadka for their contribution to the Centre and wishes them a great success in coming days. STAC wishes a bright & prosperous future for both the professionals.
“TB can be cured with continuous treatment under DOTS"

"HIV CAN BE PREVENTED"

"TB IS THE LEADING KILLER OF PEOPLE INFECTED WITH HIV"

"TB/HIV Co-infection can be managed effectively by collaborative activities"

To

If undelivered, please return to:
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