

SEA-TB-269
Distribution: Limited

TB Control in the Workplace

*Report of an Intercountry Consultation
New Delhi, 19-20 February 2004*

WHO Project: ICP TUB 001



World Health Organization
Regional Office for South-East Asia
New Delhi
July 2004

© World Health Organization (2004)

This document is not issued to the general public, and all rights are reserved by the World Health Organization (WHO). The document may not be reviewed, abstracted, quoted, reproduced or translated, in part or in whole, without the prior written permission of WHO. No part of this document may be stored in a retrieval system or transmitted in any form or by any means ? electronic, mechanical or other ? without the prior written permission of WHO.

The views expressed in documents by named authors are solely the responsibility of those authors.

CONTENTS

	<i>Page</i>
1. INTRODUCTION	1
1.1 Inaugural Session	1
2. GLOBAL TB CONTROL - CHALLENGE AND RESPONSE	2
3. DOTS IN THE WORKPLACE - PRINCIPLES AND RATIONALE	4
4. TB CONTROL IN THE WORKPLACE - COUNTRY EXPERIENCES.....	5
4.1 Bangladesh: TB Control in the Chittagong Export Processing Zone.....	5
4.2 India: Collaboration Between the Revised National TB Control Programme (RNTCP) and the Tea Industry.....	6
4.3 Myanmar: TB Control in the Railways.....	7
5. HIV/AIDS CONTROL IN THE WORKPLACE: LESSONS FOR TB.....	8
6. THE GLOBAL HEALTH INITIATIVE AND THE ROLE OF BUSINESS IN TB CONTROL.....	10
7. TB CONTROL PRACTICES IN HEALTH CARE SYSTEMS OF INDUSTRIAL WORKPLACES	11
8. ILO AND TB CONTROL.....	12
9. GROUP WORK - IMPLEMENTING TB CONTROL IN THE WORKPLACE.....	13
9.1 Framework for TB Control in the Workplace	13
9.2 Operationalizing TB Control in the Workplace	16
9.3 Strategy for Implementation.....	17
10. CONCLUSIONS AND RECOMMENDATIONS	20
10.1 Conclusions.....	20
10.2 Recommendations.....	21

Annexes

1. List of Participants.....	24
2. Programme.....	28

1. INTRODUCTION

The South-East Asia Region bears a major brunt of the global tuberculosis (TB) burden harbouring 38% of the world's TB cases. Poverty, increasing migration, homelessness and compulsions to live and work in high-risk environments are making people increasingly susceptible to the disease. TB case notifications from the Region indicate that people in the most productive ages between 15-54 years, are the most affected. TB therefore levies a heavy toll on health, and social and economic progress in Member countries in the Region. While National TB Programmes (NTP) in the Region have made excellent progress in terms of expanding DOTS services within national public health care systems and have achieved high treatment success rates, widening the effective reach of DOTS to all those affected will depend on actively involving a wide range of health providers across several sectors, both private and public. At the same time, tuberculosis is as much a workplace issue since most cases of active TB are among men and women who form the workforce. Business and industry therefore stand to gain from effective TB control measures to offset the heavy losses incurred as a result of loss of productivity due to TB among the workforce.

An intercountry consultation on TB in the workplace was held in the Regional Office on 19-20 February 2004. The objective of the communication was to establish a common consensus on approaches to introduce TB control practices in the workplace, both as a means of widening access to quality TB control services to TB patients at work as well as to address the challenge posed by TB to growth-oriented employers in the corporate sector.

1.1 Inaugural Session

The consultation was inaugurated by Dr Uton Muchtar Rafei, Regional Director, WHO South-East Asia Region. In his address, Dr Uton pointed out that tuberculosis was not only a major health concern but it also seriously undermined social and economic progress through illness and deaths among men and women in their most productive years. The workplace, where a

large majority of these young adults go every day, was therefore, one of the most appropriate settings to implement TB control measures. The business sector, in turn, had a large stake in controlling TB, through benefits from reducing losses resulting from lower productivity due to workdays lost, medical expenses incurred on account of TB, and the significant indirect costs expended in replacing and retraining of workers. He therefore urged that all efforts be made to ensure access to DOTS at workplaces, whether in large corporate sector organizations, or in small enterprises employing workers on low wages and with little job security. In the larger context, this would contribute significantly not only to enhanced national productivity and better health, but also to progress towards the Millennium Development Goals set for 2015.

Following the address by the Regional Director, Dr Jai Narain, Coordinator, HIV/AIDS and TB, WHO Regional Office for South-East Asia, welcomed and introduced the participants, and presented the objectives of the consultation. The list of participants and the Programme are at Annexes 1 and 2 respectively.

Dr L.S. Chauhan, (India) was appointed Chair and Mr Antony Pramularatna, (Thailand) co-Chair of the consultation. Dr Daw Hla Kyin, (Myanmar) was appointed Rapporteur.

2. GLOBAL TB CONTROL - CHALLENGE AND RESPONSE

There were 8.8 million new cases of TB in 2002, of which 3.9 million were sputum smear-positive cases of pulmonary TB. Between 1995 and 2002 the global incidence of TB increased at approximately 1.1% per year, and the number of cases registered at 2.4% per year. Case notifications increased much faster in African countries with high HIV prevalence, and in eastern Europe (mainly the former Soviet Union). In most other regions of the world, however, the rate of case notification has been more or less stable or has declined.

The number of countries implementing the DOTS strategy increased by 25 during 2002, bringing the total to 180 countries worldwide out of 210.

National Tuberculosis Programmes reported that by the end of 2002, 69% of the world's population lived in countries or parts of countries covered by DOTS. A total of 13.3 million TB patients and 6.8 million patients with sputum smear-positive pulmonary TB have been treated in DOTS programmes between 1995 and 2002. The 1.4 million smear-positive cases notified by DOTS programmes in 2002 represent 37% of the estimated incidence, as compared to the 70% target set for 2005. Treatment success under DOTS for the 2001 cohort was 82% on average. As in previous years, treatment success was substantially below average in the WHO African Region (71%) and in Eastern Europe (70%), attributable, in part, to the consequences of HIV co-infection and drug resistance respectively.

The specific problems which HIV and anti-TB drug-resistance pose for TB control require specific solutions. Sub-Saharan Africa particularly requires increased support for implementing a strategy with an expanded scope to counter HIV-fuelled TB, consisting of measures jointly directed against TB (full implementation of the DOTS strategy with intensified case-finding and TB preventive treatment) and measures against HIV (and therefore indirectly against TB), including prevention of HIV transmission and provision of anti-retroviral treatment. Full implementation of the DOTS strategy and full implementation of measures for HIV prevention and care requires enhanced collaboration between tuberculosis and HIV/AIDS programmes. Progress in preventing the emergence of anti-TB drug resistance depends on full implementation of the DOTS strategy globally with effective NTP performance and high treatment success rates. Progress in countering the spread of multidrug-resistant tuberculosis (MDR-TB) depends on the rapid identification of patients with MDR-TB and their effective treatment with second-line drugs.

Faster progress towards global TB control targets depends on action at different levels. At global level, progress depends on raising the profile of TB on political and development agendas, increasing political commitment and funding, and strengthening and diversifying the Global Partnership to Stop TB. At the level of the high TB incidence countries, progress depends on undertaking the necessary regulatory and legislative reforms and engaging the full range of health providers in order to expand access to effective TB diagnosis and care. Employers could potentially contribute to several TB control activities.

3. DOTS IN THE WORKPLACE - PRINCIPLES AND RATIONALE

TB, as a global concern, has been recognized as an issue that should be tackled on several fronts. It has been amply demonstrated that TB can negatively impact work productivity in industrial set-ups through increased absenteeism and turnover of staff due to TB-associated morbidity and mortality. Companies with an unhealthy workforce also project a poorer corporate image.

Businesses and industries from their side, can actively contribute through identifying TB suspects among their workforce, referring them for diagnosis, and helping affected employees to be treated in order to prevent the spread of TB, both at the workplace and, by extension, in communities. A workplace may be more of a community than even the neighbourhood in which people reside. Most workers spend most of their waking hours at their places of work. In some situations, the workplace may also be where workers live. The need therefore to introduce access to TB control services may be stronger in this setting than in any other. Employers must therefore provide access to information and support sick workers, link TB control with other workplace issues such as HIV/AIDS, and elimination of other occupational health hazards such as silicosis.

Employers and their organizations can play a vital role in promoting and implementing TB control activities. Workers and their organizations can collaborate in these activities and advocate for the needs of employees, including access to health care, and ensure observance of ethical aspects of employment. Strategies are needed to ensure maximum 'buy-in' by the various partners in workplace TB control. Experiences from workplaces in a number of settings in Asia and elsewhere have demonstrated that implementing DOTS has been both successful and cost-effective.

The introduction of TB control practices in the workplace therefore offers several benefits - a healthier workforce, reduced medical costs, higher work morale, higher productivity, an enhanced image in society through a credible demonstration of corporate social responsibility and an improved image in relation to customers, potential buyers etc.

4. TB CONTROL IN THE WORKPLACE - COUNTRY EXPERIENCES

4.1 Bangladesh: TB Control in the Chittagong Export Processing Zone (CEPZ)

Chittagong is the largest industrial city in Bangladesh and therefore attracts a large number of people seeking work. There are over 600 garment factories in the city in addition to industries in CEPZ. These factories alone employ 1.8 million workers, 80% of whom are females, between the ages of 15 and 35 years. Recognizing that health facilities at individual factory premises were inadequate, the Bangladesh garment manufacturers and exporters established two health centres with one doctor and one nurse at each. Forty-three DOTS treatment centres, seven of which function also as diagnostic centres, have also been established. These centres were established through collaboration between NTP, the Chittagong City Corporation, local NGOs and the National Anti-TB Association of Bangladesh, (NATAB). TB cases identified at the health centre are referred to the nearest NTP centre.

Within CEPZ, operated by the Bangladesh Export Processing Zone Authority (BEPZA), there are 117 industries, employing 83 589 workers, mostly young women. The Youngone Group in Bangladesh, which produces and exports sportswear, including garments, shoes, nylon fabrics, quilting and luggage, operates within CEPZ. It employs 24 000 employees of which 80% are females in the age group 18-30 years, coming from many different districts in Bangladesh. TB was found to be common among these factory workers. The medical staff also recognized that most workers concealed their illness for fear of losing their jobs. Those with TB in CEPZ either had to attend CEPZ hospital, or the nearest NTP centre - as a result, most workers suffering from TB preferred to consult private practitioners. This resulted in most being treated incompletely. Recognizing that these workers were among the most vulnerable to TB on account of close regular contact with affected workers, the management of Youngone Industries decided to establish DOTS at Youngone Industry in CEPZ. So far the Youngone Industry has registered 186 TB cases among its workers, of whom one third were smear-positive cases.

As a result of this initiative, the company enjoys the economic benefit accruing from increased work efficiency and better morale among its workers, national and international recognition, and a better corporate image. There is

now interest at the CEPZ hospital in establishing a DOTS centre under NTP, due to the initiative by the Youngone Group. Youngone is now interested in establishing a wider partnership to address TB-HIV co-infection.

4.2 India: Collaboration Between the Revised National TB Control Programme (RNTCP) and the Tea Industry

In two tea-growing districts in the states of West Bengal and Assam in India, there are a total of 268 tea gardens. Almost all the tea gardens have health clinics or dispensaries, manned by a doctor or by paramedics. Some tea gardens have group hospitals functioning as referral units for these clinics. In addition, government health units in the vicinity also function as referral units for the tea garden clinics. These health services cater to the health needs of approximately one million tea garden workers and their dependents.

In the district of Dibrugarh in West Bengal, RNTCP began implementing DOTS in the last quarter of 1998. In order to extend DOTS services to the tea gardens, the staff of RNTCP approached one of the employers' unions, the Assam Branch of the Indian Tea Association (ABITA). As a result, an informal agreement was reached and the tea association asked member gardens to collaborate with RNTCP. Medical officers were fully trained by RNTCP, with funds provided by the tea industry. Staff of the tea gardens were trained as DOT providers and DOTS treatment centre were established in 67 of the 153 tea estates (44%) in early 2000.

In Jalpaiguri district in Assam on the other hand, informal collaboration between RNTCP and three local branches of tea associations was established during the preparatory phase of RNTCP itself in late 2000. The reason was that a recent outbreak of tuberculosis had led to a demand for TB services by the employees' unions. Representatives of the tea associations met with district TB Society members to jointly plan the utilization of the existing health units in the tea gardens. The local staff of RNTCP trained the tea gardens' medical officers, their laboratory staff as well as DOT providers. DOTS treatment centres were then established in 151 of the 158 (96%) of the registered tea gardens in the district. Three hospitals were also designated as microscopy centres, one catering only to the company's population, the other two catering to surrounding tea gardens and villages, at no charge.

While the tea garden staff identified suspects in both settings, in Jalpaiguri, they also diagnosed cases before referring them for treatment to RNTCP, which provided the designated microscopy centres with laboratory reagents. In both settings, RNTCP was responsible for registering patients and providing anti-TB drugs, and reporting on outcomes, while the tea garden staff identified suspects, undertook supervised treatment, late patient tracing and ensured regular follow up.

As a result, both Jalpaiguri and Dibrugarh case detection rose by an average of 24%, while treatment success rates were comparable to those under RNTCP. This collaboration, resulting in the detection and successful treatment of significant additional numbers of TB patients, demonstrates a sustainable model for TB control in the setting of tea gardens.

4.3 Myanmar: TB Control in the Railways

The Myanmar railways employs 31 900 workers and provides free health care services to workers and their families through the Myanmar Railways Health Services (MRHS), comprising a network of hospitals, clinics, dispensaries and community-based services. The Social Security Board also takes part in health care provision to insured railway workers. The medical department is responsible for health education, medical care, medical certification, compensation, and paid leave during treatment for workers who require this. Tuberculosis control has been accorded special attention, together with that of HIV/AIDS, malaria and accident prevention. All health care services are provided free of cost.

As a result of a study undertaken by the Insein Railway Hospital in 1999 that showed that pulmonary tuberculosis was the commonest reason for hospitalization of railway workers, MRHS, in partnership with NTP, established TB control services with a view to extending DOTS to all railway posts in the country. MRHS has now obtained commitment from all levels from the highest levels of management to the lowest categories of staff and their dependents. Training of medical officers, laboratory personnel and basic health staff has been carried out. A non-discriminatory policy is in place. All workers are being counselled on TB and those suffering from TB are diagnosed and treated under MRHS in collaboration with NTP. DOTS services are now being extended to the families/communities of workers, with medical

officers supervising treatment. Between 150 and 200 TB cases, half of whom are smear-positive cases, are being registered under DOTS by MRHS every year with excellent treatment outcomes. As a result, the number of TB cases hospitalized and deaths due to TB have been reduced five-fold.

5. HIV/AIDS CONTROL IN THE WORKPLACE: LESSONS FOR TB

The challenges to HIV/AIDS control in the workplace are that neither management nor staff have adequate knowledge of HIV/AIDS and therefore may, in some instances, be practising in high-risk behaviour. The knowledge that HIV-positive staff would automatically be discriminated against and are unlikely to receive assistance from the management are additional barriers.

As an illustration, a study of 152 companies in Thailand showed that while nearly one fourth of the companies had a policy of mandatory pre- and post-employment testing for HIV, and nearly 40% a policy to terminate those testing positive, education on HIV/AIDS was being offered only in 19% of these. Half of the companies surveyed, however, respected confidentiality, revealing the HIV status of employees only when necessary; less than 5% had a policy to inform concerned people or authorities outside of the organization. Of the employees surveyed in those companies which did not terminate staff testing positive, over 80% confirmed that they would be willing to work with an HIV-positive co-worker and over 50% expressed their willingness to help with care and support of people living with HIV/AIDS. An overwhelming number (92%) supported continued employment of those with HIV/AIDS, 60% wanted compulsory testing and 50% wanted to know of HIV positivity among colleagues. The lesson that can be drawn from this is that workers once informed and empowered through an understanding that being HIV positive did not threaten job security or the ability to continue to work, themselves create an enabling environment for those affected within the workplace.

The Thai Business Coalition on AIDS introduced HIV/AIDS control practices into the workplace in the early 1990s. The key elements that facilitated this initiative were the initiation of early and continuous dialogue with high-level management, training of health staff at the workplace,

effective networking between the managements of several business and industrial set-ups and regular monitoring and evaluation of progress with the interventions put in place. Conducting an initial baseline survey of the knowledge, attitudes and behavioural practices of employees helped to design the content and approach to staff education. Commitment from highlevel management, cooperation, mutual understanding and a facilitatory approach, supported by national and international regulations and guidelines, contributed significantly to the success of this initiative.

Corporate perceptions that continuing the employment of HIV-positive staff would add additional costs in terms of medical compensations, high insurance premiums, workdays lost, and workplace conflict need to be allayed at the beginning. Corporate management also needed to understand that the costs of compulsory testing, providing compensation for termination, costs of recruiting new staff, efficiency losses due to loss of skilled staff and the risks of having to redress legal issues would in fact be higher. Human resource management needed to be convinced that compulsory HIV testing was not good management practice as this only contributed to workplace conflict, with the potential of losing skilled staff besides being in contravention of international laws and human rights issues while it did nothing to prevent the spread of HIV. Voluntary counselling and testing for HIV/AIDS and prevention and care practices, on the other hand, had several benefits to offer: continuity of skilled labour, cost savings from not having to undertake new recruitment and the opportunity to demonstrate corporate responsibility. Introduction of these elements have proved cost-effective and considerably outweighed the costs of compulsory testing, termination and other discriminatory practices; the cost of providing adequate health education to health staff and employees has been shown to be surprisingly low, at less than Baht 150 (under US\$5) per employee.

The lessons that can be drawn in the context of introducing TB control in the workplace are that corporate misperceptions need to be addressed early and commitment from high-level management obtained by presenting evidence-based arguments on the cost benefits of offering health education, job security and assistance to affected workers as opposed to compulsory screening and termination of those affected. Ensuring adequate knowledge of the disease and the availability of free and effective services, both to management and staff, is essential to create a stress-free and enabling

environment at the workplace. In contrast to HIV/AIDS, the knowledge that tuberculosis is readily curable, will go a long way both to destigmatize the disease and allow for those among the workforce affected by TB to more easily seek and receive care. At the same time, while confidentiality may not be as critical with regard to tuberculosis, respecting this in individual cases must be ensured.

6. THE GLOBAL HEALTH INITIATIVE AND THE ROLE OF BUSINESS IN TB CONTROL

The first global survey of business leaders, conducted among a total of 7 789 high-level executives from firms in 103 countries, revealed that 61% of Asian businesses did not think TB impacted their businesses as compared to 51% for HIV/AIDS and 77% for malaria. This clearly illustrated that there was a need to influence business perception of TB through a cohesive multi-stakeholder effort.

The Global Health Initiative (GHI) was established with the aim to facilitate and stimulate greater business engagement in the fight against HIV/AIDS, tuberculosis and malaria. To achieve this goal, GHI works closely with the World Economic Forum's member companies as well as UNAIDS and WHO's Stop TB and Roll Back Malaria programmes.

A broad range of NGOs and other members of civil society, as well as governments, have also joined the efforts of GHI which provides a unique platform for dialogue, partnership, and action on HIV/AIDS, tuberculosis, and malaria involving both the private and the public sector. GHI coordinates a community of more than 165 multinational companies, or a total workforce of 11 million people that are confronting similar fundamental health challenges. GHI achieves its goals through global and regional meetings, outreach trips to Asia and Africa and by focusing on three core work streams. These are: (1) providing business with new tools to better manage HIV, TB and malaria; (2) catalysing the formation of new public private partnerships, and (3) advocating broadly the role of business in HIV, TB and malaria control. In addition, a case study library of over 40 corporate programmes against HIV/AIDS, TB and malaria has been prepared. GHI's online networking directory provides contact information for over 300 organizations and 25 business coalitions, listing technical and geographical experience.

In Asia, GHI is focusing on an ongoing basis in the following countries: China, India, Indonesia, Malaysia, Philippines, Singapore, and Thailand. In Indonesia, a dozen companies have been linked with local service providers that are now implementing workplace prevention programmes.

Specific to TB, GHI, together with WHO and International Labour Organization (ILO), produced guidelines for TB control activities in the workplace, targeting business as an implementation partner. Linked to this were region-specific briefing materials targeting executives. The Indian Business Alliance against TB, created by GHI, is an alliance between seven of the largest employers in India with the Indian Government's RNTCP, Stop TB and WHO. The alliance will provide access to treatment for over 5 million people, as well as being supported by corporate advocacy and awareness programmes to the general public. The alliance will be launched at the Stop TB Partnership Forum in March 2004.

7. TB CONTROL PRACTICES IN HEALTH CARE SYSTEMS OF INDUSTRIAL WORKPLACES

The Confederation of Indian Industry (CII), with a membership of over 400 companies, undertook an assessment of the practices in place to diagnose and treat TB within health care systems of industries in India. The assessment was carried out by administering a questionnaire to health providers or staff of company health facilities in 383 randomly-selected industries in four geographical zones in India. Among the 144 industries that reported having made TB services available to their employees, 42% used their own health facilities. Those without own facilities either referred their workers to the Employees State Insurance (ESI) hospitals or to private providers. The practices used at ESI hospitals and company facilities were further analysed. A little more than one third of these facilities were using sputum smear microscopy as the primary tool for diagnosis, while nearly half used X-rays for making a diagnosis of pulmonary TB. With respect to treatment, half of these facilities reported using standard treatment regimens of anti-tubercular drugs and 77% used smear microscopy as the primary modality for follow-up and to declare treatment outcomes. A composite analysis however, revealed that only twelve company facilities of the 144 surveyed, were found to be following all the

elements of the DOTS strategy, and to be collaborating with RNTCP. Where this collaboration had been established, support was being provided by state and district levels of RNTCP for training, drugs, laboratory diagnosis, patient retrieval and referral, and for recording and reporting on outcomes, while companies provided staff time, facilities for DOTS and undertook to identify suspects and provide supervised treatment to those diagnosed.

Among the industries who reported that they were not using DOTS, half stated a lack of awareness and a quarter, technical and logistics constraints. Two thirds of these however expressed interest in adopting DOTS. Forty per cent of all companies had no policy in place regarding employees affected by tuberculosis, but none of the surveyed companies reported permanent laying off of workers.

CII, following this survey has planned to create and sustain the concept of healthy workplace environment amongst its member companies. It plans to coordinate and guide TB control activities by promoting the adoption of DOTS through advocacy, dissemination of information on lessons learnt and successful initiatives and support for piloting DOTS in the workplaces in different industrial settings.

8. ILO AND TB CONTROL

The International Labour Organisation (ILO), founded in 1919, is built on the principle that universal and lasting peace can be established only if it is based upon social justice. The organization is mandated to deal with all issues related to work. The fundamental objectives of ILO is to promote decent work for all by ensuring rights at work, right to employment, social protection and social dialogue. Cross-cutting themes are poverty reduction and social inclusion, ensuring gender equity, communications, and international partnership. ILO's activities include standard-setting and formulation of international policies and programmes, social dialogue, technical cooperation, training, education, research and information exchange. The tripartite convention of ILO, adopted in 1981, and Involving representatives of governments and employers and employees organizations, provides the institutional framework for the development of policies on health and the workplace.

ILO places emphasis on the issue of TB because besides being a global concern, it is a workplace issue and because workplaces can contribute to the control of TB. ILO has therefore played an active role in TB control by formulating guidelines for TB Control activities in the workplace in collaboration with WHO. The basic principles of a workplace policy are recognition of TB as workplace issue, non-discrimination, confidentiality, promotion of a healthy work environment, care and support, augmented by continuous social dialogue.

ILO promotes the elaboration and implementation of such workplace policies assisting with the involvement and work of all three constituents (governments, employers and workers) and linking TB with other related workplace issues such as HIV/AIDS and silicosis.

9. GROUP WORK - IMPLEMENTING TB CONTROL IN THE WORKPLACE

Participants worked in three groups on the following areas (1) framework for TB control in the workplace, (2) operationalizing TB control at workplace, and (3) strategic approaches to building partnerships, ensuring equity and sustainability.

9.1 Framework for TB Control in the Workplace

Expanding access to effective TB diagnosis and treatment depends on harnessing the contributions of a wide range of partners involved in health care provision. Employers could potentially contribute to several TB control activities. The particular remit of this workshop was to consider the role of the corporate sector as employers with a potential role to play in contributing to TB control. NTP plays a stewardship role in guiding and coordinating the contribution of all partners to the national TB control effort. The tripartite convention of the ILO involving representatives of governments and employers' and employees' organizations, provides the institutional framework for the development of policies on health and the workplace.

All private enterprises, whether large or small-to-medium enterprises (SMEs), have a potential role to play, with the relevant activities depending on

the size of the enterprise. The few very largest enterprises with 10 000 employees or more may consider implementing the entire DOTS strategy since they may have enough TB patients to justify this (e.g. among 10 000 employees, 20 TB patients could be expected per year if the annual TB incidence is 200/100 000). However, TB control activities relevant to the vast majority of enterprises will include only some elements of the DOTS strategy, e.g. raising awareness of TB and the need to seek diagnosis and treatment, identify TB suspects and referring them for diagnosis, and supporting the treatment in the workplace if TB patients wish to choose this option for directly observed treatment.

In many high TB incidence countries, SMEs employ a much larger proportion of all employees in the private enterprise sector than large enterprises. This poses a challenge since it is likely to be more difficult for NTPs to reach out to the large number of SMEs than to a smaller number of large enterprises in a country. Since in many high TB incidence countries, the public sector employs a considerable proportion of all employees, the recommendations for private enterprise involvement in TB control are relevant to public sector involvement in TB control and should be adapted for the public sector.

The main stakeholders involved include the government, private enterprises, trade unions, NGOs and general health service providers. The key components of a framework for TB control at the workplace involving these key partners are the following:

- A policy statement including an expression of commitment;
- A communications strategy, and
- A strategy for implementation.

(1) Policy statement including an expression of commitment

In line with the ILO tripartite convention, the establishment of a national tripartite forum would enable effective interaction and coordination between the main stakeholders in developing a policy statement on TB control and the workplace. Such a forum would also need to develop a mechanism for translating the policy into plans for action at national, state and district levels. The policy statement should include an expression of commitment on the part

of the stakeholders to TB control as part of a wider range of activities for health at the workplace. Such a commitment would imply mobilising and allocating the resources necessary to implement planned interventions.

(2) Communications strategy

In its stewardship role, NTP should guide and coordinate the development of a communications strategy. This should encompass the following activities:

(a) advocating to leaders in private enterprise and employees' organizations the rationale and need for effective TB control, including the contribution of TB control activities at the workplace; (b) developing health education materials on TB control using different media suitable for the workplace; and (c) mobilizing NGOs and other partners.

(3) Strategy for implementation

The main elements of the strategy for implementation include the following:

(a) training of health providers; (b) case-finding activities, including identification of TB suspects and referral for sputum microscopy; (c) case-holding activities, involving the range of measures to support TB patients to adhere to treatment (including directly observed treatment at the workplace); and (d) consideration of incentive schemes.

Linkages/Catalysts/Interfaces

Linkages between the private sector enterprises, general health service providers and NTP are necessary to facilitate referral of TB suspects for diagnosis, referral of TB patients from health services for workplace DOT, and transfer of TB patients between the general health service providers and the workplace. As catalysts for change, e.g. promoting policy uptake by employers' and employees' associations, facilitating implementation of TB control activities at the workplace, NGOs may play a key role.

At the interface between health services and private enterprises, business associations have an important role to play in facilitating interaction between NTP and the private sector enterprises, since it is not possible for NTPs to reach out to each of the large enterprises or SMEs individually. Medical associations may help to facilitate interaction between NTP and private medical practitioners (who may be contracted by private sector enterprises to

provide health services for their employees). At the district level, a local coordinating forum (such as the district DOTS committees in Nepal) may facilitate interaction between the different partners involved in TB control.

9.2 Operationalizing TB Control in the Workplace

The consensus was that NTPs should take the lead to operationalize DOTS at the workplace through a step-wise approach. As a first step, other ministries (such as ministries of labour and human resources) would need to be sensitized to enlist their support for NTP and identify areas of responsibility. NTPs should then identify and pilot DOTS at the workplace with willing partners. NTPs and partners would thereafter produce operational protocols on the implementation of DOTS at the workplace based on these initial experiences. Activities would then be ready for scaling up. This scaling up cannot be in isolation. Hence, the first step in scaling up would be the bringing together of all stakeholders: employees and labour organizations, employer organizations - both private and public, and the National Tuberculosis Programme, to form a national coordinating body, which could then conduct a situational analysis of health facilities in small, medium and large industries. This would help to identify high-risk work settings such as mines, where the initial focus could be. Selected industries would then need to be sensitized and DOTS established with these industries with the goal of then gradually expanding DOTS throughout the corporate sector.

In order to implement DOTS at the workplace, guidelines to classify different work facilities in terms of the size of the workforce employed and level of possible collaboration would be a useful operational tool. Regular tools used for training such as NTP manuals/ training guidelines could be used, with necessary modifications where required. Industry-specific IEC (information, education and communication) materials might be produced. Finally, a mechanism for linking routine check-ups and health and safety operating protocols with early case detection for TB would be useful. The government, i.e., NTP, should be responsible for training, while resources for this would depend on mutual agreements. NTP should also supply anti-TB drugs free of cost, and reporting and recording formats, and arrange for diagnosis or support workplace laboratories, where such laboratories exist. NTP should also facilitate joint monitoring and evaluation and incorporate workplace DOTS within the routine cohort reporting of NTP. It was felt that additional specific manpower at NTP to provide monitoring and other support to workplaces to implement DOTS was essential for implementation.

The corporate sector could be asked to provide staff time, clinic or clinic space and laboratory services according to the size of the establishment. Different establishments would require differing levels of collaboration - from simple referral of workers to public DOTS clinics to organizing diagnosis and treatment and also reporting on outcomes at their health facilities. In addition, it was suggested that employee/ patient satisfaction surveys could be useful additional programme monitoring tools.

9.3 Strategy for Implementation

The three primary partners in workplace TB control activities are national governments, employers and employees. Each of these primary partners must coordinate rather than function as single entities. The maximum benefit will only accrue when all three work together as equal and active partners.

- (1) National government partners will include senior politicians, the ministry of health, the ministry of labour, other government ministries (such as the ministry of social justice), the district, regional and national levels of NTPs, and social movements associated with the government.
- (2) The "employers" will include individual companies (with and without in-house medical services), industrial networks (such as supply chains), trade associations, chambers of commerce, confederations of industry and the World Economic Forum.
- (3) The "employees" will include individual employees, informal associations of employees, local, regional and national offices of labour unions, international trade secretariats (ITS) and global labour bodies such as the Confederation of Free Trade Unions (CFTU) or the World Federation of Trade Unions (WFTU).

Social mobilization or a movement for workplace TB control needs to be fostered. Each of the primary partner systems and their components will need to be sensitised and recruited to the cause of tuberculosis control. This would best be done by advocacy within each system, for example NTP advocating for workplace TB control within the national government primary partner system. International trade secretariats may be in a position to advocate for workplace TB control within the labour movement associated with particular industries. Different rationales for the involvement of different primary partners systems in TB control activities will need to be developed.

Once convinced of the value of workplace TB control activities, primary partners need to work together to build their partnerships, agree on priorities and develop optimal strategies for implementation. It is suggested that a number of potential secondary partners/stakeholders may be well placed to contribute to this process. These secondary partners may include multilateral agencies (WHO, ILO, International Organization for Migration, bilateral agencies (United Kingdom Department for International Development [DFID], United States Agency for International Development [USAID]), funding bodies (Global Fund for AIDS, TB and Malaria [GFATM], Bill and Melinda Gates Foundation), local health service providers (private practitioners, NGOs) and civil society.

Six basic principles were considered to be important in developing strategies for obtaining maximum 'buy-in' partnerships:

- Sharing knowledge and perspectives between partners;
- Mutual empowerment of partners;
- Partners respecting each others' strengths, obligations to core activities, and ways of working;
- Protection of employees' job/earnings when unable to work while on treatment;
- Defining contributions expected from each partner, and the benefits expected to accrue to each partner;
- Strengthening participation and partnership through monitoring the process/impact of interventions.

The need for "enablers" and "incentives" was discussed. Enablers were considered to be tools, resources and guidelines that are intended to facilitate the activities of partners. The enabling roles of secondary partners/stakeholders has been mentioned. Other "enablers" might include feasible guidelines on workplace TB control activities, clearly defining the roles/responsibilities of partners, standardized formats for activities, free drugs, training, diagnostic materials, support in documentation, and recognition of or reward for good performance.

Incentives were considered to be predominantly financial and intended to recruit partners to activities. It was felt that direct payment of financial incentives to recruit partners to workplace TB control would not be

sustainable, or lead to real commitment. The use of indirect incentives such as social labelling of products, a supply chain discount system (funded perhaps by tax breaks for key suppliers in selected industries) or advantageously priced premiums for workplace insurance where TB activities are in place which could offer business advantages are likely to foster deeper commitment, to be catalytic and perhaps become self-sustainable. The use of legislation might be useful in industries where tuberculosis is a recognized occupational hazard (e.g. mining). Much of the research into the risk of tuberculosis associated with occupational exposure to silica, for example, has been conducted in developed country settings. Research may be required to investigate whether other occupational dust-related diseases associated with industries common in poorer countries (bysinosis, bagasosis,) also carry higher risks of tuberculosis, and whether legislation should be introduced in this context. One of the roles of the employees as primary partners in this coalition will be to make demands for workplace TB control facilities to employers. Legislation supporting labour unions in this role might be considered.

Equity within the workplace for access to TB care is likely to be enhanced (relative to services provided by traditional public health infrastructure) through improved access to free diagnosis and treatment. Employment/earnings protection will remove further obstacles to successful diagnosis and treatment. Nevertheless, inequities may arise and an awareness of the potential bases for these should allow early detection. Casual/day hire labour is a group deserving of particular concern. These workers are often poor, migrant (legal and illegal, domestic and international), not in the organized sector, often more vulnerable to HIV, and often unable to predict how long they may reside in an area. The last of these characteristics has implications for TB treatment. It may be difficult for these workers to access workplace TB control services. Different strategies involving NGOs and outreach services, perhaps using other service delivery systems, may be required. The development of strategies for TB control among migrant workers might benefit from input from the IOM.

Confidentiality and stigmatization are interlinked. People with tuberculosis will probably be more dependent on confidentiality where stigmatization of the disease exists. Confidentiality between the health provider and the employee with tuberculosis is absolute. However, it is recognized that in workplaces implementing TB control, it may be difficult for employees diagnosed with TB to conceal their condition. Co-workers will have been aware of symptoms, sick leave and perhaps even the delivery of

treatment. Counselling should alert the employee and her/his family to the possibility of the condition becoming known/suspected by co-workers and help them to deal with the ensuing stigmatization if any. Health education is the key to combating stigmatization and should be an integral part of workplace TB control activities. Cured employees, endorsed by employers and national government partners, and where possible, complemented by a national campaign, could be very credible. Labour unions can play a key role in reducing stigmatization through elected union representatives acting as peer educators, treatment observers, and advocates for ill workers. Where HIV and TB are associated, combating stigmatization (of both TB and HIV infection) may be more of a challenge. However, the same principles will apply.

10. CONCLUSIONS AND RECOMMENDATIONS

10.1 Conclusions

Weaknesses in public health systems are seen as major obstacles to the success of the DOTS strategy and the attainment of the 2015 Millenium Development Goals. Considerable efforts are being made to extend DOTS beyond existing public health infrastructure through partnerships for innovative new interventions. If such interventions are to make a major contribution to the success of DOTS, they need to be considered worthwhile by partners, be widely applicable, readily adapted to local conditions, to reach larger numbers of people, and above all be feasible.

A sound case for investment by business and industry in TB control can be made. TB contributes to loss of economic productivity in many countries and if employers take steps to contribute to TB control, they could also protect economic productivity. Employers would also benefit from a healthier, more productive workforce, from their contribution to social welfare as part of their corporate social responsibility, and from a healthier and more prosperous community. Successful examples from around the Region and globally show that TB control measures can be successfully and cost-effectively implemented in the corporate setting.

Since in many high TB incidence countries the public sector employs a considerable proportion of all employees, recommendations for the involvement of private enterprise in TB control are also relevant to public employment sectors.

The key elements of an effective collaboration are firm policies ensuring non-discrimination and equal employment opportunities, commitment to provide free TB services based on NTP guidelines, and agreed inputs, in an equal partnership between national programmes, health providers in other sectors, employers and employees. All private enterprises, whether large or small-to-medium enterprises (SMEs), have a potential role to play, with the relevant activities depending on the size of the enterprise. Innovative approaches, including appropriate adaptation of existing national TB control guidelines and operational research, are necessary to move forward in this area. Current pilots need to be effectively documented, and experiences and lessons learnt disseminated in order to facilitate wider replication under national programmes, to achieve the full potential of this collaboration.

This is an opportune time to act: national TB programmes in the Region have achieved or are rapidly achieving national coverage and are now looking at improving case detection and sustaining quality, while corporate employers are looking for new ways to improve public perception of their corporate social responsibility. Implementing TB control interventions in line with national TB policies and guidelines at workplaces will make a significant contribution to national TB control efforts, while at the same time benefiting both employees and employers in the corporate sector.

10.2 Recommendations

(a) For national governments and TB control programmes

- (1) Develop and endorse, in partnership with all primary stakeholders, (representatives of business and industry, regulatory bodies, labour organizations, social security) national policy and strategies to implement the recommended measures at the workplace for TB control.
- (2) Develop locally appropriate mechanisms for collaboration between all employer health services where available, and national TB programme staff at the operational level.
- (3) Facilitate the provision of all necessary inputs to ensure free diagnostic and treatment services, establish appropriate referral mechanisms, monitor and evaluate progress with implementation (including quality assurance of sputum smear microscopy).

- (4) Build managerial and health delivery capacity of both national programme and the employers' health staff to jointly deliver quality TB care in the workplace.
- (5) Develop effective advocacy, communication strategies and tools to promote the adoption of TB control services in line with the national TB control guidelines at various workplaces.
- (6) Accord appropriate recognition to initiatives taken by businesses and industries.
- (7) Address TB control in workplaces in their research agendas and link these to ongoing research on occupational health and safety programmes and related control programmes such as HIV/AIDS.

(b) Business confederations/coalitions:

- (1) Advocate the role of the corporate sector in TB control at the workplace and disseminate evidence-based guidelines to pilot and scale up TB control interventions at workplaces.
- (2) Through appropriate forums, agree on and promote the adoption by business and industrial set-ups, of TB control services that are in line with national TB policies through the membership of their business confederations/coalitions.
- (3) Facilitate collaboration between national programmes and business and industries in the corporate sector.
- (4) Promote the adoption of policies of non-discrimination and provision of equal employment opportunities in line with national and international labour laws, in respect of employees having tuberculosis.

(c) For Employers

- (1) Allocate resources consistent with stated commitment to ensure the provision of quality TB control services to their employees in collaboration with the national TB control programme.
- (2) Incorporate TB control within existing occupational health and safety policies and activities.

- (3) Educate employees on the importance of early detection and treatment of TB; offer similar services to families of employees, ensuring equal access and respecting confidentiality.
- (4) Ensure TB services are linked to HIV/AIDS services where HIV prevalence is high or increasing.
- (5) Collaborate with employees' unions in promoting services and in educating the workforce to actively utilize the available health services.

(d) For Employees and their unions

- (1) Create a demand for services, lobby for adherence to national and international labour laws respecting equal employment opportunities for all, irrespective of disease.
- (2) Assist with the implementation of health services, including TB control services, in line with national TB policies, at all workplaces.

(e) For international agencies

- (1) Provide the necessary assistance to build national capacity to establish collaboration with the corporate sector.
- (2) Promote the adoption of evidence-based guidelines for TB control interventions at workplaces.
- (3) Facilitate the establishment of a national forum in line with the tripartite convention of ILO, for effective interaction and coordination between all stakeholders.
- (4) Ensure synergy between concurrent TB control activities within countries.

(f) For partners and stakeholders

Advocate with national governments and external donor partners for increased resources for health, including for TB services.

Annex 1

LIST OF PARTICIPANTS

Country Representatives

Bangladesh

Dr Vikrunnesa Begum
Deputy Programme Manager (TB)
Leprosy Compound Hospital
DGHS Office, Mohakhali
Dhaka-1212

Bhutan

Dr Dorji Wangchuk
Director
Department of Public Health
Ministry of Health
Royal Government of Bhutan
Thimpu

India

Dr L S Chauhan
Deputy Director-General (TB)
Ministry of Health & Family Welfare
Nirman Bhavan
New Delhi – 110 011
Tel & Fax : 91-11-23018126
Email : ddgtb@nb.nic.in

Dr Ambarish Dutta
WHO-RNTCP National Consultant
West Bengal, India
Email: duttaa@tbcindia.org

Indonesia

Dr Tresnaningsih Suharsa
Center of Occupational Health
General Secretariat
Ministry of Health R.I.
Block C Room 612
Ministry of Health
Jl. HR. Rasuna Said, Kuningan
Jakarta Selatan
Fax: 62-21-527 5256

Maldives

Dr Ahmed Jamsheed Mohamed
Medical Officer
Indira Gandhi Memorial Hospital
Ministry of Health
Male

Myanmar

Dr Hla Kyin
Assistant Director (TB)
Department of Health
Yangon
Tel: 00-95-1-229299
Fax:00-95-1-210652

Nepal

Dr Mohan Prasai
Western Regional Tuberculosis Centre
Pokhara
Nepal

Sri Lanka

Dr Kapila Sooriyaarachchi
Medical Officer
Planning & Advocacy
National Programme for TB control
& Chest Diseases,
Welisara, Rangama
Tel : 94-1-958657, 94-1-952693
Fax: 94-1-958657
Email: nptc@slt.net.lk

Thailand

Dr Ponchanok Rattanadilok Na Bhuket
Senior Medical Officer
Tuberculosis Cluster
Bureau of AIDS, TB & STIs
Department of Disease Control
Bangkok
E-mail: tapanok@health.moph.go.th

Timor-Leste

Dr Jamie Da Costa Saramento
Director
National TB Programme
Dili
Tel : 670 390 339402

Temporary Advisers

Dr Wajedul Islam Khan
Member Secretary
National Co-ordination Committee of
Workers Education (NCCWE)
23/2, Topkhana Road (3rd Floor)
Dhaka – 1000
Bangladesh
Tel : 88-02-9557416
Fax: 88-02-9568909
Email : drwazedikhan@yahoo.com

Dr Nihar Kusum Barua
Chief Medical Officer (TB)
Youngone Group
Chittagong E.P.Z
Bangladesh
Tel : 88-031 740 431
Fax:: 88-031740 044/740 081

Dr Karma Wangchuk
Proprietor
Ye-throng Lham Enterprises
Gelephu
Bhutan

Dr Ramnik Ahuja
Programme Officer
Confederation of Indian Industry
23, Institutional Area
Lodi Road
New Delhi – 110 003, India
Tel: 91-11-4629994-7
Fax:: 91-11-4633168
Email : ramnik.ahuja@ciionline.org

Dr Ranu Kulshreshtha
Assistant Director
Federation of Indian Chambers of
Commerce & Industry (FICCI)
Federation House
Tansen Marg
New Delhi – 110001, India
Fax: 91-11-2375 3118

Dr P K Rane
Dhanalaxmi Apartments
Pestom Sagar
Road No. 2
Amar Mahal
Chembur
Mumbai 400 089
India
Email : pkrane@vsnl.com

Mr P K Ganguly
Working Committee Member - Centre of
Indian Trade Unions (CITU)
13-A, Rouse Avenue
New Delhi – 110 002
(Residence: P-110, CR Park
New Delhi – 110 019
India
Tel : 2627 0431)
Tel: 2322 1288
Email : citu@vsnl.com ;
pkganguly@mtnlmail.com

Dr H N Saiyed
Director - National Institute of
Occupational Health
Meghani Nagar
Ahmedabad – 380 016
Gujarat, India
Tel: 91-79-2686142
Fax:91-79-2686110

Dr S K Dave
Director - National Institute of
Miner's Health
UNARDDC Campus
Opp Wadi Police Station
Amarawati Road
Wadi Nagpur
Maharashtra, India
Tel : 91-07-104-224494
Fax: 91-07-104-224121
Email: dr_skd@rediffmail.com

Mr Harjono D.
Vice Secretary General
The Employers Association of Indonesia
Plaza Great River
Jakarta 12950
Indonesia

Dr Maung Maung Lay
Joint Secretary General (2)
Union of Myanmar Federation of
Chambers of Commerce and Industry
Yangon
Myanmar

Dr Kyaw Win
Chief Medical Officer
Myanmar Railways
Ministry of Railways
Yangon
Myanmar

Mr Pradeep Jung Pandey
Chairperson, SSC
Federation of Nepalese Chambers of
Commerce & Industry
P O Box 269
Shahid Shukra FNCCI Milan Marg
Pachali Teku
Kathmandu
Nepal
Tel : 977-1-4262061
Email : fncci@mos.com.np

Mr T M R Rasseedin
General Secretary
National Association for Trade Union
Research and Education (NATURE)
106, Dr N M Perera Mawatha
Colombo 08
Sri Lanka
Tel : 94-1-691891
Email : natureunions@yahoo.co.uk

Mr Kumar Mallimarachchi
Senior Council Member/
Management Committee Member
President of Tourist Hotels Association
of Sri Lanka
Associate Hotels Company Limited
No. 236, Galle Road
Colombo – 03
Sri Lanka

Dr Somkiat Siriratanapruk
Bureau of Environmental and
Occupational Diseases
Department of Disease Control
Ministry of Public Health
Nonthaburi 11000
Thailand

Mr Anthony Pramularatana
Executive Director
Thailand Business Coalition on AIDS
65/92-93 Chamnan Phenjati Business Center
Rama 9 road Huay Kwang
Bangkok 10320
Thailand
Email : tbca@ksc.net.th

Other Agencies

Dr Francesca Boldrini
Project Manager (Tuberculosis)
World Economic Forum
91-93 route de la Capite
CH-1223 Cologny
Switzerland
Tel : 41-22-8691497
Fax : 41-22-7862744
Email : Francesca.Boldrini@weforum.org

Dr Ingrid Christensen
International Labour Organization (ILO)
India Habitat Centre
Core 4B, 3rd Floor
Lodi Road
New Delhi – 110 003
India
Fax : 91-11-24647979
Email : christensen@ilo.org

Dr Andrew Ramsay
Research Fellow
EQUI-TB Knowledge Programme
Liverpool School of Tropical Medicine
Pembroke Place
Liverpool L3 5QA
UK
Tel : +44 (0) 151 705 3247
Fax: +44 (0) 151 707 9193
Email: aramsay@liv.ac.uk

WHO/HQ

Dr Dermot Maher
STB/TBS
WHO/HQ, Geneva
E-mail: maherd@who.int

WHO Country Offices

Dr Marijke Becx
Medical Officer – TB
Office of the WHO Representative
to Bangladesh
Email : becxm@whoban.org

Dr Suvanand Sahu
National Professional Officer (TB)
Office of the WHO Representative
to India
E-mail: sahus@whoindia.org

Dr Christian Gunneberg
Medical Officer – TB
Office of the WHO Representative
to Nepal
Email: GunnebergC@who.org.np

Dr S S Lal
National Professional Officer (TB/PPM)
Office of the WHO Representative
to India
E-mail: lals@whoindia.org

WHO/SEARO

Dr N Kumara Rai
Director - Communicable Diseases
WHO/SEARO
New Delhi
E-mail: raink@whosea.org

Dr Jai P. Narain
Coordinator – HIV/AIDS and TB
WHO/SEARO
New Delhi
E-mail: narainj@whosea.org

Dr Sawat Ramaboot
Coordinator - Health Promotion
WHO/SEARO
New Delhi
E-mail: ramaboots@whosea.org

Mr Pak Chang Rim
External Relations Officer
WHO/SEARO
New Delhi
E-mail: pakrim@whosea.org

Dr Nani Nair
Medical Officer (TB)
WHO/SEARO
New Delhi
E-mail: nairn@whosea.org

Dr H Caussy
Regional Epidemiologist
WHO/SEARO
New Delhi
E-mail: caussyh@whosea.org

Dr Rohit Sobti
Regional Staff Physician
WHO/SEARO
New Delhi
E-mail: sobtir@whosea.org

Annex 2

PROGRAMME

Thursday, 19 February 2004

- 0900-1230 hrs Inaugural Session
- Plenary
- Global TB Control - Magnitude and Response, D Maher, WHO/HQ
 - TB control in the Workplace: Rationale and guiding principles, N Nair, WHO/SEARO
 - TB control in the Workplace - Country experiences
 - Bangladesh, N K Barua, Youngone Industries
 - India, A Dutta, RNTCP
 - Myanmar, Kyaw Win, Myanmar Railways
 - HIV/AIDS Control in the Workplace – Lessons for TB, A Pramularatana, Thai Business Coalition on AIDS
 - Discussions
- 1330 to 1700 hrs Strengthening Partnerships for DOTS in the Workplace
- The World Economic Forum and TB control, Francesca Boldrini, WEF
 - The role of the corporate sector, R Ahuja, CII
 - The ILO and TB Control, I. Christensen, ILO South Asia
- Group work
- Implementing TB Control in the Workplace
- A framework for action and enhancing the role of the corporate sector

Friday, 20 February 2004

- 0900-1230 hrs Plenary
- Implementing TB Control in the Workplace - a framework for action and enhancing the role of the corporate sector : presentations by groups, followed by discussions
- Conclusions and recommendations
 - Closing