TB Control (DOTS) Strengthens Health Systems

People often discuss Health Systems Strengthening (HSS) versus TB control program. We faced this issue last year when the G8 summit was held in Japan. There were a lot of discussions about which is more important, HSS or TB program. I think they are not mutually exclusive, but complimentary. When I went to the Pacific Health Summit in Seattle this year in June, no one questioned this issue, it was common sense that TB is an important part of the health system. Through health system strengthening, TB work becomes possible, in turn working for TB also strengthens the health system. This became evident from my experiences in Japan and Bangladesh.

“...TB is an important part of the health system.”

HSS in Japan

In Japan, halfway through the 20th century, the Ministry of Health (MOH) introduced the modern TB control program. The government was highly committed to TB and during this time the budget for TB consisted of 28% of the national health expenditure. While expanding the national TB program it did not mean that the government just focused on TB, but they also aimed at strengthening the health systems through the TB program. One of the targets was 100% of health examination coverage for the population. Furthermore they focused on prevention through BCG vaccination for all children, and treatment through all medical institutions, including private practitioners. In fact, the majority of the parties involved in the TB control program for treatment were the private practitioners. In Japan, the public private mix was there from the very beginning and the TB control program also included the tasks by the Ministry of Labour, for the working population, and the Ministry of Education, for school children and students. The whole national health system has been involved to make TB control successful. As a result, the Japanese national health system has been strengthened with the TB control program at the core.

HSS From the Periphery Level

I experienced how the health system has been strengthened by TB control when I worked in Bangladesh until the 1990s. There were only 44 TB clinics in the whole nation; district hospitals and peripheral health centres all over the country were not involved in the TB program. TB Patients had to travel long distances to visit the closest health clinic. There was no TB service available at the community level. When Dr. Kochi, of WHO, introduced DOTS to Bangladesh in the early 1990s, the TB program was directly introduced to the sub district health complexes, and then ordinary doctors and health workers were involved in TB. When I visited a health center the doctors were very happy with the TB program. Previously a patient would come in and they just prescribed some medicine, but now with the TB program they would diagnose systematically and treat the patient with the best globally available medicine and monitor patients throughout the treatment until cure. This strengthened the capacity of health centres, and peripheral health workers understanding of health care management. In addition, people trusted their role more. To have a very good TB program in a good health system at the periphery empowers health workers.

“...community based DOTS...strengthened the health system...”

When DOTS covered 100% sub districts in Bangladesh, more than 80% of patients were far away from sub district hospitals, only a small proportion of the patients benefited from this. People living in the periphery could not utilise the program. In order to strengthen the TB program in the periphery we developed a community based TB program through health volunteers with a local NGO (BRAC). Anybody could be detected and treated by health volunteers for TB and other diseases. This system supplemented the government health system; these volunteers were the implementers of TB services at the periphery level. The community based DOTS made the coverage of the national program much wider, strengthened the community health system, and the health volunteers became well respected by the community, and gained social recognition. The HSS in Bangladesh has been partially successful through the introduction of the TB program.

Please share your own experiences on TB work and health system strengthening.
Health System Strengthening for Universal Health Care Coverage and the Role of TB Control

By Dr. Ikushi Onozaki

The following article is based on Dr. Onozaki’s experiences in the field and not necessarily WHO’s official view.

A strong health system is essential for a good TB program. At the same time a good TB program can contribute to health system strengthening (HSS) by sharing experiences in things such as quality medicine, non-interrupted drug supply, good laboratory and case management. At the same time various health services need to be integrated to strengthen the overall health system. If we don’t have integrated health services in the periphery, or even secondary, level then we cannot deliver TB services.

Early DOTS, in the 1990s, was a public health measure to control the disease with limited resources. It was not really patient centred care and we did not have any tailored patient care. Now the basic idea of the Stop TB strategy from 2006 is patient centred care. What I want to stress here is that patient centred care is not only for TB, if we really want to introduce this, doctors should see all patients. A doctor working for TB cannot tell a patient who comes to see them that if they don’t have TB to go away, even other diseases need to be addressed. A really good TB program can contribute anywhere, up to the periphery, to introduce this kind of concept. What I believe is that strong programs such as TB control and EPI programs often come first to a difficult setting and then once services become integrated, we should work with the health system as a whole. Otherwise, we cannot strengthen the program and provide benefit to TB patients who cannot access top or referral level centres. Not only are laboratory or X-ray services essential for TB patients, but also for others, so we are happy to work with the people trying to strengthen the health system and we are happy to be utilized.

How can TB control contribute to HSS?

The TB program can contribute to strengthening the health system in a number of ways. First of all, TB services can be utilized for other health programs. In the future, non-infectious chronic diseases such as hypertension or diabetes are going to be an increasing problem. Currently, the primary health care management does not have a system to deal with longer-term, chronic, diseases. Most health centres are primarily for first aid, for mother to child health, and infectious disease control in the short term. The learning of DOTS components is good training for health workers in coping with chronic diseases in the future. If health workers are trained for TB care, they will be equipped with skills to manage drugs without interruption and charts for a long period, and follow up side effects of patients in addition to monitoring drug adherence at least six to eight months. Through the TB program we found that integrated health workers learn about care, drug, and document management. Once we stretched the TB program to the periphery, it clearly contributed to strengthening health workers and service. In fact, through TB control, since the program was in existence before ARVs were available, health workers had a good preparation for AIDS care and long term treatment in addition to the treatment of chronic diseases such as diabetes.

Dr. Onozaki with the 2009 Stop TB Action Training Course at RIT

However, the TB program should also have a public sense and its resources should be shared. For example, if the TB program recruits a worker, he or she can work for all primary care in most settings of point of care. Lastly, TB control projects have potential in improving general laboratories and X-ray facilities. Needless to say, those facilities benefit other patients such as people with bone fractures and pneumonia. Good infection control practice and quality lab and X-ray are essential for everyone and can strengthen the health system.

Integration of Health Services

In the strengthening of health system, all programs need to keep in mind how they can help each other. A fundamental issue is that we are seeing patients, not just TB disease. People came to the clinic with chronic cough and the TB project staff used to diagnose them just as TB or not. People come to the medical services to seek help, so we need to check for other respiratory disease as well as TB.

When TB service was independent and centralized, health workers just saw TB cases, once services are expanded to the periphery, TB becomes a rare disease. Even in a high burden country, the maximum number of cases is still 400 or 500 per 100,000 people. This means that, even if we detect all cases, a health centre that covers a population of 10,000 people only has 40 to 50 TB cases per year. Some village health workers might see four to five patients per year even in high TB prevalent settings. In terms of cost effectiveness it is not feasible to have a TB specialist or dedicated health workers just for TB only looking at small number of patients a month in a health centre. The program should be integrated, not only for cost effectiveness, but also in terms of seeing a patient, regardless of having TB or not.

For example, if the prevention of mother-to-child transmission (PMTC) programme has money and recruits several workers they could also work to treat some TB cases. Mothers and children can also get TB, so why not? It is necessary to keep the interests of the public in mind.

Sometimes it is really hard to improve all aspects of the health system at once so leadership is essential. If feel that the TB program can take a leadership role in this. An important issue in the five major components in primary health care is universal access to health services. The TB control program took the lead in that aspect. Everyone can get TB, but it is mostly the poor and marginalized populations that are affected. Through universal access these people in the periphery, the real target for the TB program, can access health services.

However, we also really need human resources, not only for top-level TB managers but also in the point of care, to see patients. What we really want is not TB specific workers, but good laboratory technicians, radiographers, nurses, doctors, medical assistants or volunteers and core health workers to see patients at the point of care level. To develop good human resources is not the role of the TB control programmes but it is education for medical professionals and continuous education from the general health service. TB control can contribute through providing training curriculums and sharing experiences as well as laboratories and X-ray facilities if resources are available for TB.

The TB program can be one of the leaders to strengthen the health system and to promote the idea of strengthening primary health care. Our goal is health for the people, health for all. We not only want to cure people from TB, but also want to make a healthier community. I really think that in most settings, especially in resource poor settings the TB program should take leadership and at the same time not only see the disease itself.
Public-Private Mix for TB Care and Control and Health System Strengthening

Dr. Michael N. Voniatis, MD, MA, Public Health Specialist and TB Expert

There is consensus that strengthening health systems is essential if the Millennium Development Goals (MDGs) related to health are to be achieved and that the Paris Aid Effectiveness Principles provide essential guidance for ensuring that actions are aligned with national priorities and harmonized in practice. In TB care and control, we have a rich and well-documented history of evolving policies in line with primary health care aims since Alma Ata, across all levels of health systems, and within and outside the public sector. We recognized early the need for well-functioning general health systems, and we pursued initiatives to contribute to integrated service delivery innovations, such as the practical approach to lung health (PAL), community engagement, public-private mix approaches and TB/HIV collaboration. TB programmes are an important part of, and are normally well integrated into, general health systems, especially at the point of service delivery. They can therefore contribute substantially to HSS through investments in laboratory infrastructure, capacity-building of health staff and increased routine use of health data, as well as by developing innovative service delivery strategies in response to specific health systems barriers; such strategies include the practical approach to lung health (PAL), public-private mix (PPM) approaches and community-based TB care, and TB/HIV collaborative activities.

The potential health system weaknesses that can have implications for TB care and control are addressed to a significant extent by the PPM approach under the pillars of Health System development: Leadership and governance: PPM can improve on the coordination between all stakeholders and sectors (including different public sectors); improve on health regulation and strengthen the policies on the role of the private sector; and engagement of the civil society in the design, operation and accountability of PPM for DOTS units. The identification of leaders and champions among the private sector in the Philippines has led to the improved governance among private facilities (becoming DOTS centers) but also increased the need for improved governance among the public sector, i.e. improved performance of the public DOTS units.

Health Financing: Improved financing through special PPM projects (e.g. GFATM support) but more important through specific TB DOTS Outpatient Health Insurance packages has led to improved financing of the DOTS providing facilities as whole and not only the TB control programme (Philippines).

Health workforce: PPM can improve the mapping of all health care providers and increase the health workforce capacity by engaging untapped resources. In addition, it can improve health care performance through the necessary human resource development (trainings, orientations, monitoring and supervision) for PPM implementation. In the Philippines, approximately 5,000 Private Physicians have been trained for DOTS and a significant number of medical technologists were trained for NTP accredited sputum smear microscopy.

Medical products (including drugs and diagnostic facilities): Engaging the private sector in PPM for TB care and control it can result in better regulation of TB drugs or enforcement mechanisms for appropriate use of TB drugs. Central procurement of adequate quality TB drugs through the Global Drug Facility has improved the DOTS services and made possible the PPM for DOTS (free TB drugs) in the Philippines. On the other hand, inadequate in number microscopy units in big urban settings have been significantly complimented by the establishment of PPM DOTS units through the private and other sectors (e.g. Quezon City, Metro Manila, Philippines).

Health Information System (including monitoring and evaluation): Through the introduction and implementation of PPM for TB care and control TB recording and reporting can be improved from the previously non-participating sectors and monitoring, supervision and evaluation of PPM units can improve overall M+E of the programme and the health system. In the Philippines, through the PhilCAT Electronic TB Registry (ETR) all PPM DOTS units have been reporting validated data since 2007. This made possible the estimation of the PPM contribution to the national case detection in 2007, which reached 9.0%. There are now plans to integrate this ETR into the newly piloted national electronic TB information system.

Service delivery: PPM can improve and even optimize the utilization of existing health care providers, improve the quality of service provision through DOTS certification, accreditation and EQA for DSSM by extending them into other sectors. PPM service delivery is based on quality standards and evidence-based guidelines. In the Philippines, currently 220 PPM units nationwide (at urban settings) provide quality DOTS services through the engagement of Private Physicians and with a PPM DOTS coverage of 40% of the population. Finally PPM strengthens the referral systems.

“The potential health system weaknesses that can have implications for TB care and control are addressed ... by the PPM approach”

For a list of publications on HSS and PPM please visit the RIT/JATA website: http://www.jata.or.jp/eindex.htm
RIT Mobile Seminars
Mobile seminar reports from Nepal, the Philippines and Zambia

RIT has been supporting mobile seminars in a number of countries including Nepal, the Philippines and Zambia. Mobile seminars are another form of training offered by RIT in addition to the training courses carried out in Kiyose.

Nepal by Noriyo Shimoya

RIT received a request from the National Tuberculosis Center (NTC), in Nepal, to support Lot Quality Assurance Sampling (LQAS) implementation. LQAS is a simpler sampling system than what was previously done in laboratories and results in a decrease in workload at the intermediate level as well as cost savings. Under LQAS, the sample size depends on a number of variables including positivity rate, the total number of negative slides handled each year, and the expected performance (sensitivity) compared to the controllers.1 RIT subsequently sent a laboratory expert, Dr. Kaku, to conduct a mobile seminar to teach laboratory workers about LQAS. The First phase training (January, 13-14,2008) was for the 15 blinded cross-rechecking controllers who represent each region in Nepal. They are expected to become a trainer of cross checkers in the near future. After the first training, 2 medical technologists from NTC implemented the second and third seminar. A second training (January, 15-16,2008) was held in Kathmandu where 17 people were trained. A third training was held in Pokhara, Kaski District, and this training was attended by 10 people, thus in total 42 people were trained through the mobile seminars.

The Philippines by Naoko Omuro

On January 30, 2009, RIT/JATA Philippines, Inc. (RJPI) organised a workshop: the “Consultative planning workshop of private and public organisation for quality TB control program in Tondo, Manila and Payatas, Quezon City.” More than 60 participants form RJPI’s partner organisation in both the public and private sector attended the workshop. Participants from the Manila and Quezon City Health Departments, NGOs and hospitals shared their accomplishments among each other related to RJPI activities and then developed their annual plan for 2009. In their plans it become apparent that partner organisations were expecting RJPI support for the provision of training, since there is always a lack of human resources in any health facility. In addition to working together, the participants also received a lecture on “Urban TB Control in Big Cities in WPRO” by Dr. Michael Voniatis from the WHO Western Pacific Regional Office (WPRO). This workshop was a great opportunity for both RJPI and partners to collaborate effectively by identifying gaps and filling the gap between their needs or capacity and planned activities. Dr. Ishikawa, director of RIT and the president of RJPI, made the concluding remarks of the workshop and encourage all the participants not just to make plans but to implement them and to explore partnership with all levels of stakeholders including Community Health Volunteers, Barangay Health Workers, cured patient groups and Barangay leaders.

Zambia by Naoko Vêzina-Horii

The first RIT seminar held in Southern Africa was in Zambia where Zambian alumni from RIT reported about their collaborative work. The aim of the meeting was to strengthen the collaboration amongst key stakeholders and partners (including the government, NGOs, donor agencies and research institutes) at district, provincial and national level for TB and HIV control programmes in Zambia. RIT staff and collaborators were honoured by the
International Training Courses at RIT
The Research Institute of Tuberculosis has been hosting training courses for more than 45 years, and has trained more than 2,113 people from 97 countries since 1963.

Have You Fished?
Dr. Jintana Ngamvithayapong-Yanai

‘Give a man a fish and you feed him for a day.
Teach him to fish and you feed him for a lifetime.’
Chinese proverb by Lao Tzu (quoted by Laserson et al., in INT J TUBERC LUNG DIS 2005;2:145–150)

In the orientations of the 2007 and 2008 of the International Course on AIDS Prevention and Care in Asia which I served as the Course Director, I presented the above Chinese proverb to explain about the need of teaching Operational Research (OR) for AIDS and TB program managers and the implementers. Unfortunately, the global economic recession has affected our international AIDS Course. After organizing the AIDS Course for Asia for 15 years (1994-2008), we cannot continue the Course due to the reduction of Japan’s Overseas Development Assistance fund (ODA). I sincerely thank that some of you wrote emails and letter to inform me about your work and how you were actively involved in improving HIV and TB/HIV prevention and care in your country. Please share with us more about your performance after receiving training from RIT. Your writing may provide us strong evidences to justify for resuming the Course. We hope that we can resume the Course and can offer opportunity for many more colleagues in Asia to learn about OR and to utilize OR as the means to better AIDS and TB/HIV prevention and care.

Thank you in advance for your contribution.

jintanajip@yahoo.com

Nearly 70 participants attended the programme during the whole day.

Panel discussions were held and all presenters discussed with the audience.

Zambian representatives of RIT alumni led the seminar in a team of chairs and facilitators. There were two sessions:

One about Laboratory System Strengthening and another about TB/HIV collaborative activities. Each session commenced with a keynote address by a lecturer from RIT, followed up by short presentations by eight guest speakers and plenary questions/answers and discussions open to the audience.

Mobile seminars are a good way to engage a number of different people in discussions. It is a good way for people to learn new things and talk about current issues in their respective fields. If your country is interested in the mobile seminar then please send us a proposal to inter@jata.or.jp. RIT is happy to provide technical support to well proposed mobile seminars.


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Stop TB Action Course Report
Dr. Faiz Mohammad Delawer, participant from Afghanistan

I came from Afghanistan, the land of brave hearts, to Japan for a three-month training course on TB management. When my compatriots talked about Japan and the effects of its training courses on the knowledge and attitude of the participants I didn't believe it. I thought, during these three months, how can people change? But in fact it was the reality which I experienced. This course had such an effect. Besides the building of capacity, I also found it as a good way for finding and making more friends from Japan and all over the world. I had lots of friends who came from African countries as well as Asian countries and from other continents in the world.

We made a good friendly bridge between Japan and Afghanistan by exchanging the cultures and beliefs when I spent one night with a Japanese family. Japanese people say that you won't forget things when you practice it, so when we had some lectures we practiced by ourselves, and even when we found something by doing our assignments, we won't forget them.

Japan is a developed country and has a good socioeconomic status, but they didn't forget their culture and history. We went to Iwate the second largest prefecture of Japan where you can find the culture and fun. This prefecture has its foods that looked very nice and the Wanko soba was really delicious, especially when I ate it with Japanese chopsticks. We went to some touristic places in Iwate, the Chuson-ji Temple and the Motsu-ji Temple which by seeing your soul well go back to their age, and you feel amazing and inspired by the clear weather and nature.

Hiroshima was the other prefecture where we went, which shows the effects of the war and unhappiness of it on human beings. I appreciate and thanks for all Japanese people for paving such a way to the world countries, and I wish them more and more luck and fortune in the future.

Laboratory Course Report
Ms. Hiroko Matsumoto, Course Director

The content of the laboratory course has changed but still smear is the most important!

The laboratory course was started 1975 and since then 272 participants from 97 countries have finished the course. After Ms. Fujiki retired in 2008, Dr. Mitarai and I took over the laboratory course. The contents of the laboratory course have changed since 2008; it now includes advanced technologies such as MGIT and Line Prove Assay. Even though we started to introduce new technology, smear examination is still the most important part in Tuberculosis Control. We hope to progress more on this training that Ms. Fujiki and predecessors developed.

Message From the Course Director
Dr. Tatsuo Sugiyama

The international training course for the management of TB control, was launched at the RIT in 1963 and the course title and its contents have been changing according to the trend and progress of the global TB control. The Stop TB Action Training Course, started in 2005, has more lectures on the components of the Stop TB Strategy. Of course, the first priority is put on the elements of DOTS in the training but lectures on new challenges in the Strategy, such as TB/HIV and MDR-TB, are given by the international lecturers who have abundant experience in the field. In addition, we encourage training participants to produce the Operational Research Proposal rather than the Plan of Action in TB control as training products, in order to promote the “sixth” component of the Stop TB Strategy. The research topic is subtracted from problem analysis in the TB control in the participant’s field. Tutoring sessions are provided by RIT staff to help participants to make feasible research plans. Our hope is that they will carry out their own operational research so as to decide the direction of TB control and upgrade activities in the near future.

We are sad to have to say goodbye to Dr. Sugiyama, who has left RIT and joined his family in Akita, Japan.
Message From RIT Staff Working for “CENAT/JICA National TB Control Project Phase 2” in Cambodia Project Report

Dr. Hiroyuki Nishiyama

My name is Hiroyuki Nishiyama and I have been working for CENAT/JICA National TB Control Project Phase II since February 2008. Since the project ends in July 2009, please let me show you some of our achievements that the evaluation team from JICA Tokyo valued.

C-DOTS: The project worked with NTP for conducting health center (HC) staff meeting at the operational district (OD) and village health volunteer (VHV) meeting at HC every two months at the three pilot areas in order to expand DOTS to the community. These two meetings have been used for the opportunity to educate and train HC staff and VHVs. Firstly, the project conducted trainings of trainers on C-DOTS for the HC staff. Then, the trained HC staff gave VHV meetings for the VHVs. Even though the main purpose of these meetings was to disseminate and strengthen C-DOTS activities, the topics discussed included other TB issues such as TB/HIV, pediatric TB, ACSM and so on. Knowledge and skills were transferred from the project to VHVs through HC staff. These meetings were good opportunity for VHVs to share their experiences and good practices among themselves as well.

PPM: The project has taken a leading role in developing PPM with NTP. The project initiated the baseline survey in December 2004. The result revealed that only 25% of private clinicians in Phnom Penh city received training on TB. Another survey in the phase I project presented in 2004 that more than 75% of patients with respiratory symptoms firstly visited the private sector, places such as the pharmacies and the private clinics. These evidence raised awareness of importance for involving private sectors into NTP. Accordingly, an NGO (PATH) and the project started to assist in providing the trainings for the pharmacies and the small private clinics called “cabinet” in Phnom Penh city from 2005 in order to develop the referral system. Also, the project created the referral slip using carbon copy for tracking the referred TB suspects from the private to the public. This referral model in Phnom Penh city is currently used nationwide.

TB/HIV: The mutual referral between HIV and TB care providers in Phnom Penh was developed through the quarterly stakeholder meetings by the support of the project from 2006. TB/HIV coordinators, a position created by NTP and the project, take a main role of the coordination of both sides. More than 90% of TB patients in Phnom Penh underwent HIV testing in 2008. Also, TB screening for PLHA was encouraged through the Afternoon Clinic at the National TB hospital in order to detect more TB cases.

Quarterly EQA: The project assisted NTP in introducing the quarterly EQA on smear examination in the seven pilot provinces from 2005 and has maintained it with the regular meetings. Due to the swift from the semiannual to the quarterly EQA, the increased feedback enables TB laboratories to have more opportunity to be improved.

If I count how many TB experts from RIT came to work in Cambodia during the project period, the experts visited more than 100 times so far. In addition, most of the national TB staff and some of the provincial TB staff in Cambodia had experience staying at RIT. They know many of RIT staff. Dr. Tan Kundara and Dr. Oum Saron are my classmates of STOP team from RIT.

RIT News

In March and April this year the Joint Project Meeting was held in Japan. Representatives from all country projects came to Japan to discuss the activities of their respective project locations including the Philippines, Thailand, Zambia, Nepal, Indonesia, Cambodia, Pakistan and Bangladesh. There were meetings and presentations held which allowed staff to discuss issues and accomplishments of the projects as well as future activities.

Staff Movements:

Dr. Shigeru Omi is currently assigned as Director Emeritus to JATA and paid a visit to RIT.
Dr. Akira Shimouchi has moved back to RIT as Vice-Director
Ms. Akiko Fujiki has been working in Indonesia for JICA project
Ms. Naoko Omuro has moved to RIT/JATA-Zambia office
Ms. Yumi Toyama has joined RIT/JATA-Philippines office
Ms. Jynuko Imai has moved to Daiichi Dispensary
Ms. Emiko Kanai has joined RIT

Farewell:
The following staff members resigned: Dr. Tatsuo Sugiyama, Ms. Naoko Horii, Dr. Taijin Kaku

Everyone Gets TB

In March this year His Majesty the Emperor of Japan, “Emperor Akihito,” revealed that he had contracted TB when he was a student and was cured. This resulted in a large number of interviews and inquiries about TB in Japan. Furthermore, Haruka Minowa, a popular female comedian contracted TB earlier this year and people became much more aware of TB in Japan, especially among people who thought TB in Japan was a thing of the past. This news revealed to us that everyone gets TB.
Greeting From the New Vice-Director of RIT
Dr. Akira Shimouchi, Vice-Director

“Long time, no see.”

Greetings, after spending seven years from 2002 to 2009 in Osaka City, the city with the highest TB incidence in Japan, I have returned to RIT. It was a good experience and the incidence rate was halved from 100 to 50 per 100,000 in 8 years by promoting proper treatment and expansion of DOTS including homeless patients. Previously I had worked in RIT from 1996 to 2002 when the main theme was DOTS expansion. This time more attention is paid to PPM, TB/HIV and MDR. There is already a known solution, i.e. providing care for all patients. I wish to be part of this endeavour.