Quake hits Japan

Dr. Nobukatsu Ishikawa
Director

On 11 March 2011, the northern part of Japan was shaken tremendously by a huge earthquake and the subsequent tsunami that led to nuclear power plant damage. Nearly 20,000 people seem to have lost their lives. The size of tsunami was as huge as people had recorded seeing 700 years ago. We have come to realize that human civilization is fragile against its superficial features of development. However, we have been given a lot of support from all over the world quickly after the spread of the news. The RIT in Tokyo was also shaken but was basically safe, except some cracks on the wall of library with a heavy book shelf. When the quake struck we were concerned about our precious strains of TB bacilli which had been collected from all over the world. Our renewed Specimen Bank was earthquake-resistant and safe, but we needed an electricity supply to keep them in the deep-freezers. An emergency generator would work only for few hours with the amount of oil we had on stock. There has been always a threat of the current supply cut due to the power supply damage.

Natural disaster and TB

We were afraid there could be TB outbreaks in the evacuation centers where hundreds of people stayed for several weeks. Current and new patients with TB may exist or contract the disease there. The flu spread and many people were coughing, so we sent specific messages through the internet and faxes to health workers and people in charge of health care of those centers that need to know about TB and its control in those areas. Care for acute respiratory infection and the flu is the first priority for people who are coughing, and then TB can be diagnosed while watching the clinical course. The most important thing was that known TB patients under treatment not interrupt their medication as a majority of people under medical care at home lost their medicine along with their homes. We have not heard of any outbreaks which took place in those evacuation centers after 9 months, though there were some newly registered patients among the affected people. We have found there was no special damage in the TB control system in all of the local public health centers. There are several reports that TB epidemiology is not heavily damaged by the natural disasters where a control system has been established, although it is greatly affected by war or the destruction of social systems.

International support

Hundreds of thousands of people lost their homes. They were obliged to stay at least a few weeks in groups together in public spaces such as school auditoriums or community halls. These conditions raise the risk of group infections from various infectious diseases. Securing clean environments, safe drinking water, toilets, meals, daily necessities such as napkin for babies or the elderly, heaters and fans were needed right away, with logistics associated with all these needs. Securing these needs was similar in our experiences in developing countries. People and specialists both from GOs and NGOs who had had a lot of experience internationally, particularly for the disaster relief activities, were the first to take actions as they knew how people can be efficiently helped. Japan is now a recipient of the international support. This is also a new experience for us. People are now global citizens.

RIT alumni network

Many of RIT’s friends and ex-participants sent us kind messages asking about our safety or showing sympathy for the affected people. We have come to realize that we are connected through a strong global network which is a most powerful outcome of our international courses. We thank all who have shown us concern and sympathy.
The answer is YES! That is the reason this short article is appearing in this newsletter.

Dr. Mohammad Yahya Abdulazzaq, a pulmonologist from the Iraqi National Tuberculosis Program, and a 2010 Stop TB Course participant contributed greatly to this article. Since 2005, operational research (OR) has been of major importance within the three-month course curriculum of the international TB training at the RIT. For the last seven years (2005-2011), 116 participants from 38 countries have been trained for OR. Although the outputs in terms of development of OR proposals is impressive, one of the challenges is the translation of such proposals into implementation on the ground.

Dr. Mohammad spent less than one year to implement his OR and got publication acceptance. The following are the co-authors, the OR topic and the journal name: Mohammad Yahya Abdulazzaq, Dhafer Salman Hashim, Hayder H.Ali Al-Sikafi, Ali Niamah Al-Yasiry. Differences in chest radiological findings in diabetics new smear positive pulmonary tuberculosis from non diabetics new smear positive pulmonary tuberculosis. The N Iraqi J Med December 2011; 7(3)29-33.

The below short communication may give the readers some idea how Dr. Mohammad could make this happened.

After returning to Iraq in August 2010, when did you start your OR project?

Within a week after returning to Iraq, I prepared a presentation and reported to the National TB Program manager (NTP) about the course. I also presented my OR proposal to him.

What was your boss’s reaction?

He liked it and he agreed that I could start my project. He suggested me to divide the proposal into two parts and involved other doctors. So I started OR data collection three weeks after arriving home.

How did you collect data? Did you pay the staff since they have to do additional work?

Our center has worked as a team. What we do is a part of our routine work. I do not pay any money. I fortunately have a colleague who helped me for data analysis. Let me say I have a good teamwork for OR and a boss that supported me.

How do you feel about the TB and OR training in Japan?

I think it is more than perfect. I have served several functions after the training, including serving as a member of the TB-Operational Research committee in the Ministry of Public Health.

Operational Research Topics for 2011

The 2011 Stop TB Action Course was held from 6 May through 29 July 2011 at the Research Institute of Tuberculosis in Kiyose and was sponsored by the Japan International Cooperation Agency (JICA) with support of various agencies: the United States Centers for Disease Control and Prevention, International Union Against Lung Disease, Medicins Sans Frontieres, and the World Health Organization. The course aimed at improving the capacity of the national tuberculosis programs in respective countries in terms of assessing the situation of TB control in countries, identifying the problems, and developing an action plan to improve the program or an operational research proposal to fill the knowledge gap to be able to implement effective interventions of TB control. A batch of 12 participants attended the course, studied various subjects hard, including epidemiology, diagnosis, and treatment of TB.

The participants came up with their own operational research proposals (see below). On 29 July, the course concluded successfully and the participants left for their homes. The course organizers wish to thank the lecturers and resource persons from the various agencies, and also the participants for making this course happen successfully despite the unfortunate earthquake, tsunami, and the nuclear plant accident which occurred earlier this year. We also are looking forward to seeing the participants again someday, somewhere in the future.
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**Stop TB Action Course 2011 Report**

Dr. Manners Ncube, Zimbabwe

The three months that I spent in Japan during the period of May 2011 to July 2011 were an unforgettable experience. I was part of the 2011 STOP TB ACTION TRAINING COURSE. During the training I was gained an overall understanding of TB trends and program management from a global down to a local perspective. It was also an enjoyable experience to meet participants, who are now colleagues and also friends. Outside of the learning experience, I enjoyed the extra-curricular activities which afforded me an opportunity to appreciate better the Japanese culture and language. Overall I am better-equipped to be more effective in program management, teamwork and now have more impetus to develop my carrier even further. Knowledge might become outdated. However the skills that I gained in this course will last forever and help me acquire the updated knowledge anytime during my career.
How We Can Measure the Impact of our Efforts on TB Prevalence: CENAT/JICA National TB Control Project in Cambodia

Dr. Kosuke Okada

The current 3-year JICA project in Cambodia, officially titled ‘The Project for Improving the Capacity of the NTP Through Implementing the 2nd National TB Prevalence Survey’, launched in January, 2010. As you can see from its name, its expected outcomes are 1) to carry out a quality survey through research protocol development, planning, practice, monitoring, analysis, and reporting in the National TB Prevalence Survey, and 2) enhancing the diagnostic network of the National Tuberculosis Programme (NTP) based on quality bacteriological examinations. The JICA has been supporting the NTP, Cambodia since the 1990s with the technical assistance of RIT/JATA. The first project aimed at developing a model for conventional DOTS at the health center level, and expanding it nationwide to the peripheral areas. In phase II of the project, diagnostic capacity for smear-negative TB, especially for TB/HIV and pediatric TB was strengthened as well as community based DOTS, public-private mix DOTS, TB lab network and 6-month chemotherapy. The third current project is assessing what impact the tremendous efforts made by the JICA and other partners have on TB trends in a scientific way through the second National Prevalence Survey. The first national survey conducted in 2002 by the first Project revealed a high smear-positive prevalence rate of 269/100,000. We will be able to show a downward trend in TB prevalence, attaining MDGs set in 2015, by comparing the second survey results with the first ones, because the NTP, Cambodia with a population of around 13.4 million, diagnosed and treated 314,000 TB cases in total (176,000 smear-positive TB, 59,000 smear-negative TB, 74,000 extra-pulmonary TB and 5,000 other TB) in 9 years from 2002 to 2010, with high treatment success rates of more than 90%.

To carry out a quality nationwide prevalence survey, first of all, we had to start with developing a survey protocol which describes its objectives, basic study design including sampling method, sample size, cluster sizes, eligibility of the participants and screening/diagnostic methods, organizational structure, information to be collected, survey procedures including pre- and post-field operation, quality control, ethical consideration, and so on. The protocol was the key to success in the survey and it had to be developed based on statistical expertise. Therefore, it is to be reviewed by international experts for validation. Both the total sample size and the number of clusters described in the protocol are a major determinant of the total budget of the survey: equipment, consumables, meetings and training courses, operational cost, etc. Secondly, a carefully worked out plan for all activities, from protocol development and field operation to post-survey activities, and a plan for budgeting and procurement of equipment and consumables are of great importance. Difficulties may be faced in the procurement process of chest X-ray machines and film processor for field use, because some special specifications are required for the field operation without power or water supply, different from institutional settings like hospitals. Thirdly, we needed to develop standard operating procedure (SOP) which describes, in great detail, preparatory visit, field operation, laboratory examinations and various forms used in the field or at central level. It
will take long time to finalize it because it may be so often revised based on comments made through training or experiences gained in the field or pilot tests. The SOP is also used as one of training materials in training courses for survey teams. Fourthly, we conducted some training courses of survey teams and laboratory staff, because the survey activities are quite unique and different from routine work, though they look similar, but different in both quality and quantity. The scientific survey requires much more reliable data than the routines do, as well as with a huge quantity of samples a day. A field team screens more than 200 participants a day for TB and a laboratory usually receives nearly 100 sputum specimens once from the field or sometimes more than that. Fifth, following the training of each part of census taking, interviews, taking chest X-ray and screening, sputum collection and transportation and smear/culture examinations, one or more pilot tests in the field were conducted in a comprehensive manner, which told us details about a flow of participants or the forms we use or the ambiguity of the questionnaires themselves as well as laboratory workload. The teams learn how to bring heavy equipment such as chest X-ray, film processors, generators, many survey forms and stationeries to the field. Last but not least, what we often leave till later is preparation for data management. Starting this from the day you develop survey forms certainly makes it easier for you to set up a database and clean it up for data analysis.

At last after everything was well-prepared, we went to the clusters which were selected by a statistical method called PPS (population proportionate to size), starting with a cluster where the field operation seemed easy to be carried out, not either a densely populated area or a house-scattered area so that the team can become skilled first at screening for TB, because the screening procedures themselves are the same at any clusters, while census taking is quite different from cluster to cluster, depending on population density, religion, or vocations. You may find many factory workers in some urban clusters going out of their houses for work in the daytime and need to conduct a series of evening screening sessions for them in order to increase its participant rate. Or you may be puzzled about how to do with census taking and how to call them for participation in screening in either urban or remote area. If you visit some clusters, you would be amazed at a variety of cluster’s characteristics and fully realize that some tactics suitable for each cluster are absolutely necessary. Even after having smoothly started the field operation, we can’t relax for a second because the staff may not strictly follow the SOP or may confuse some procedures in census taking, interviewing, screening by chest radiography and recording/reporting. At least in the first several clusters we should pay special attention to their detailed practices. (Continued to page 7)
Indonesia is among the 22 countries burdened with the highest incidence of TB in the world. Although the country was able to reach WHO global TB targets of 70% case detection rate and 85% cure rate since 2006, its laboratory component was found to be weak. It was under these circumstances that JICA started its cooperation to support TB control initiatives in Indonesia in October 2008 with the main goal of strengthening its laboratory component for National Tuberculosis Programme (NTP). The project’s main thrusts revolved on improving capacity building and reinforcing EQA component services for TB microscopy within the project areas namely East and West Java provinces.

Mobilized by strong technical collaboration and support from both Japanese and Indonesian sides, the project has successfully carried out its targets within its 3-year term (October 2008 ~ October 2011). The project’s pioneering contributions include: 1) development of a national training center for TB microscopy following the country’s policy of a cascade system approach, 2) standardization of training courses and materials for TB microscopy adopting the global guidelines, 3) establishment of a model EQA system in West Java province along with the set-up of a functional EQA support hub and standardization of recording and reporting for EQA and 4) publication of annual EQA report for stakeholders highlighting the achievements and challenges of implementation. These achievements are expected to serve as platform for future expansion endeavours in the country.

The project owes its success to several factors foremost of which is the strong joint partnership with local counterparts especially with the leaders of West Java Provincial Health Office and Provincial Health Laboratory. The invaluable work and dedication of project team members and experts1 headed by Ms Akiko Fujiki (project leader) and local counterparts which include Indonesian ex-participants8 of RIT international training courses have been pivotal in achieving the aforementioned outcomes. Furthermore, a unique attribute of the project and considered to be the first of its kind is its application of “south to south cooperation” concept whereby the project tapped the experience of local counterparts from previous cooperation project in the Philippines to support its activities. Like the Indonesian project, RIT/JATA has supported TB control efforts in the Philippines through
JICA’s technical cooperation scheme (1992~2007). In its entirety, the Philippine project successfully forged a network of local partnerships nurtured by training and joint endeavors and harnessed technical expertise through international cooperation; these experiences very well served as the foundation for some of the key strategies and interventions adapted by the project in Indonesia. For this reason, JICA-TBCP Indonesia utilized 3 Philippine counterparts, who were all ex-participants of the international laboratory training course in RIT, to support its activities. Under Ms Fujiki’s initiative, they were selected on the basis of their contribution to the Philippine project and having maintained professional ties with RIT over the years long after their training. The involvement of Filipino counterparts into the project exemplifies the effectiveness of “south to south cooperation” as a means of optimizing and sustaining a borderless network of human resources for TB control.

Overall, the project has been highly evaluated by JICA and greatly appreciated by the Indonesian side for having effectively and efficiently delivered its commitment for developing a stronger laboratory capability henceforth successfully producing substantial impact for NTP in Indonesia. As the project draws to a close, the project’s aforementioned accomplishments will undoubtedly leave an indelible mark on TB control efforts in Indonesia for long years to come and hopefully will blaze the trail for more intensified initiatives and support for its network of TB laboratory services.

**Project team and experts:**
Ms Akiko Fujiki (Leader), Mr Yoshinori Terasaki (Coordinator), Mr Hiroaki Yamazaki (Expert), Dr Shoichi Endo (Expert), Mr Hiroyuki Yamada (Expert), Ms Maricel Trono (Technical staff)

**Ex-participants:** Mr Isak Solihin (Core group), Dr Wayan Diantika (NTP), Dr Manik Retno Wahyunitasari (Core group), Ms Yenny Setiarah (West Java), Dr Muhammad Wahyu Suryapata (West Java), Ms Siti Aida (West Java), Dr Dewi Retno (NTP)

**Philippine counterparts:** Ms Lucy Aguiman (Cebu reference laboratory), Ms Tita Bacalso (Cebu city health office), Ms Maricel Trono (JICA-TBCP, Indonesia)

(Continued from page 5) Another issue might be laboratory examinations especially for cultures. Even a lab that shows good performance in culture exams at routine work may output a high contamination rate a few weeks later or a very low recovery rate in later weeks, because the technicians are sometimes not accustomed to handling a large amount of specimens at once. Lastly, again, we have to set up a computer database for information obtained from the field and laboratories: e.g. household registries, interview sheets, central reading results of chest radiography and lab results of sputum, followed by data cleaning for analysis. Now that we’ve come to this point, we are looking forward to preliminary results, whether or not the trend in TB prevalence is downward as expected.
Learning is a continuous process and improving on it is a thing one must do in one’s life. Japan is well known for providing comprehensive courses to strengthen health sector programs. I have been looking forward to the time when I would be one of the beneficiaries of these programs in order to improve on my performance, and thank God 2011 was that year. Stop TB Hands on Laboratory Practice Management for HIV and MDR TB was the training course I came to attend. This was a group training which gave me another experience to meet other participants from Indonesia, Cambodia, Kenya, Myanmar, South Africa, Mongolia, Afghanistan and Japan. The training was from 20 September to 3 December 2011. Participants were given comprehensive orientation lectures on different topics including the economic situation of Japan at TIC JICA Tokyo-the program sponsor. Thereafter we moved to Kiyose City where the Research Institute of Tuberculosis is situated. For ten weeks we had intensive and comprehensive practical and theoretical sessions including hands-on sessions. The main objectives of the training were: to acquire the latest knowledge and skills on smear microscopy, culture, DST, to acquire new diagnostic techniques through hands on training, and to develop management skills for laboratory managers. As a provincial manager I paid particular attention to all these subjects as it was an opportunity for me to sharpen my skills. Development of an action plan was the climax of the program. Each participant was to develop an implementable action plan.

Was this all about the program? NO! We had a great opportunity to visit the Capilia manufacturing company (Tauns) located in Numazu, visited Olympus Company in Ina, later on went to Hiroshima where we visited the Radiation Effect Foundation, the Public Health Centre and Peace Memorial Park. and we visited the Hokubu Institute of Public Health. In Osaka we visited Kansai Laboratory Department which is a private lab. Kyoto was the last city we visited during our study tour, and thereafter we attended the International Conference at Tokyo University.

As participants we would like to thank the able team of organizers who have made our stay and program enjoyable and never to be forgotten. Special thanks go to JICA, RIT/JATA, Minemura-san, Matsumoto-san, and Iki-san, just to mention a few.

**Visit RIT again:**
Dr. Yung Tung WU, former President of Taiwan Medical Association, Taiwan, visited RIT on 3 October 2011. He participated in TB Control Training Course in 1970.

**Staff Movements:**
Ms. Kanako Koyama, Ms. Yuriko Oda and Dr. Shoji Yoshimatsu newly joined RIT
Ms. Mami Kon moved to RIT/JATA Philippines office
Ms. Yumi Toyama moved to RIT/JATA Zambia office
Ms. Akiko Fujiki returned to RIT from Indonesia (JICA project)
Mr. Nobutaka Ando moved to JATA HQ
Ms. Naoko Omuro and Mr. Yoshinori Terasaki left RIT

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**FROM EVERYONE AT RIT.
Season’s Greetings**

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You are welcome to send us your news and voices!

**NEWS LETTER FROM KIYOSE**

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Editor: M. Ota, T. Kubota

The Research Institute of Tuberculosis
3-1-24 Matsuyama, Kiyose-shi, Tokyo 204-8533, Japan
Phone:+81-424-93-5711 Fax:+81-424-92-8258
E-mail:inter@jata.or.jp
Website:http://www.jata.or.jp