NEWS LETTER FROM KIYOSE

The Research Institute of Tuberculosis, JATA
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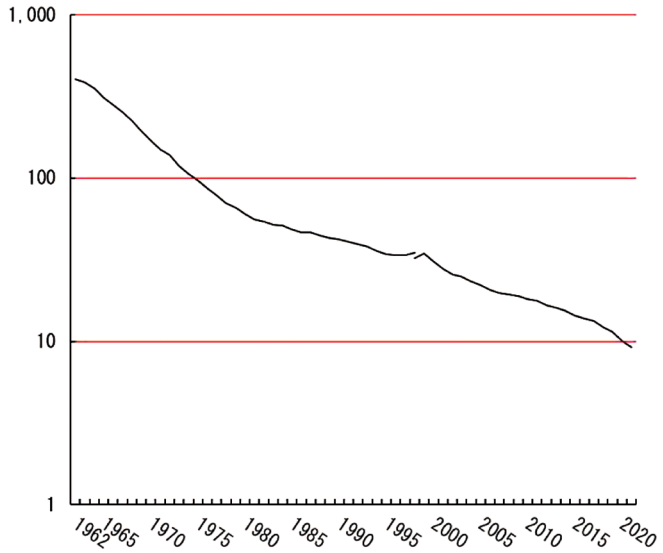
-Letter from the Director-

Japan become a low incidence country

Seiya Kato
Director

According to the annual report of TB surveillance, notification of all TB in 2021 was 9.2/100,000 population. The decline rates of notification in 2020 and 2021 were higher than the ones between 2018 and 2019. It must be because of stagnation of case finding due to decrease of examinees for the screenings, hesitation to go for consultation at medical facilities among symptomatic patients as well as the decrease of immigrants

Trend of Notification Rate of TB cases
(per 100,000)



(Source: Japan Tuberculosis Surveillance)

from high TB burden countries. So, we have to carefully follow up the trend of notification.

It has been approximately 70 years since Japan strengthened TB control by the Tuberculosis Prevention Law. Notification of tuberculosis in 1951 was 698/100,000 population, which is higher than most of the current high burden countries. Both the public and private sectors collaborated and tried hard to control TB. As for case finding, screenings were extensively conducted in schools, work places and communities, whose heads had responsibility for conducting screening by Law. Public health insurance was established in 1961, which accelerated case finding of the symptomatic patients as it reduced the financial barrier for consulting doctors.

Medical service was provided by both the public and private sectors, as the public fund subsidy for TB medical services was a strong incentive for the private sector to participate in medical care for TB. The TB advisory committee of the public health centers checked the treatment regimens of all TB patients to endorse application of the public fund subsidy. The mechanism made clinicians comply with the national standards of TB care. This public-private partnership mechanism worked well to ensure good access, notification and quality of care. The public health centers focused on prevention and patient support. Public health nurses encouraged TB patients to adhere to treatment.

In those days, Japan was still poor because of WW II. The government tried hard to secure the funds for TB control. More than a quarter of the medical expenditure was used just for TB in the 1950's, however, the proportion was decreased to 3.6% in 1970. It implied that ample investment for TB control brought about a huge financial benefit in the end. The Anti-TB women's associations worked to reduce stigma and to inform people about the importance of taking part in screening in the community. With all these efforts, Japan achieved an average of 10% decline of incidence between 1965 and 1978. In the 1980's, we experienced stagnation of decline of incidence and a small

upsurge in the late 1990's. The government together with all relevant sectors declared a "TB emergency" in 1999. After the Declaration, the decline rate recovered to an average of approximately 5%.

With the history of TB control in the past 70 years, major lessons learned were as follows:

Long standing efforts were required to control tuberculosis.

Ample investment brought about huge financial benefit

Multisectoral approach with government commitment was important

A Collaborative Research Study with the Malawi NTP

Kazuhiro Uchimura,

Department of Epidemiology and Clinical Research, RIT/JATA

We would like to report a collaborative study with the Malawi NTP. One of the core members from the Malawi NTP is Dr Kruger Kaswara who participated in the JICA TB control course in 2010.

As well recognised, the detection of TB cases in developing countries is still insufficient. The United Nations has set targets for the global TB control strategy in its Sustainable Development Goals to reduce TB incidence by 80% by 2030 (compared to 2015). The World Health Organization set the target to reduce the incidence of TB by 80% by 2035 (compared to 2015) in its End TB Strategy. However, if there are a substantial number of missing cases that are not detected nor treated appropriately, or TB patients with long delay to treatment, resulting in continued failure of controlling TB transmission, it is not possible to achieve the targets of these global TB control strategies. For the detection of TB cases, especially in the early stages, contact investigation with TB cases is critically important to detect TB cases and infected persons among contacts, so it is included in one of the pillars of WHO's End TB strategy. The Malawi NTP and has started, together with us, the collaborative study which aims at evaluating the effectiveness of contact investigation for family members living together in developing countries, particularly effectiveness of interview based (symptom based) screening, and determining which groups should be prioritized in the expanded contact investigation in developing countries.

In Malawi, household contact investigation (CI) is conducted for all pulmonary TB cases. Follow-up symptom screening is further conducted after six months. However, a detailed evaluation was not conducted. We thus conducted a retrospective review of the TB and Contact registry to determine the effectiveness and the yield of household CI in Lilongwe, Malawi.

Data of index TB patients registered between 1st January 2019 and 31st March 2019, and their contacts, were collected from the TB and Contact registry in Lilongwe. From the data, TB cases detected by either immediate investigation or at 6 month follow-up were identified. A separate list of TB patients registered between 1st April 2019 and 31st March 2020 was compiled. Contacts were then searched from this list, to determine if any had developed TB between first screening and the 6 month follow-up or after the 6 months follow-up.

A total of 554 index cases were registered between the first quarter of 2019, with 1,118 contacts. Of the 1,118 contacts, 83 (7.4%) had developed TB within the study period. Among the 83, 16 (19.3%) had been diagnosed either upon immediate investigation or at 6 months follow-up, and 67 (80.7%) were diagnosed after 6 months – in other words, outside the CI. Furthermore, our results revealed that 6 months follow-up was not conducted for approximately half of the contacts (554/1,1118). Yet, the proportions of those developing TB among those who did not receive the follow-up and those who declared not TB at the follow-up were similar (6.0%, 33/554 vs 6.3%, 34/544).

Overall, 7.4 % had developed TB among the household contacts, yet among them, only 19.3% were captured within the current contact investigation program. Innovative interventions are required to increase the participation rate at 6 months follow-up. Furthermore, more than simple symptom screening is required, to improve the case detection yield at the follow-up, while unfortunately currently CXR screening were not available in the study site.

We think this is one of the good experiences of collaborative research activities with former participants of our international training courses.

We presented this study in the 52nd Union World Conference on Lung Health, 2021 (Kaswaswa K et al. Yield and effectiveness of tuberculosis household contact 52nd Union World Conference on Lung Health, 2021)

TB-specific skin tests- what's their role?

Yohei Hamada
Clinical Research Fellow, University College London

Treatment of TB infection is one of the critical components to achieving the End TB Targets. As per the WHO guidelines, tests are not required prior to treatment of TB infection in certain highest-risk groups (i.e. PLHIV and child contacts under 5, particularly in high TB burden countries.[1] However, the recent World Health Organization (WHO) guidelines recommended the expansion of the target groups, including adult household contacts of people with TB.1 Testing for TB infection is desirable while it is still possible to initiate treatment without it, taking into account local TB epidemiology and the risk for development of TB.

Two types of tests for TB infection had been available, tuberculin skin test (TST) and interferon-gamma release assays (IGRA). TST is not specific to Mycobacterium tuberculosis and can cross-react with BCG (bacillus Calmette–Guérin) vaccination and Nontuberculous mycobacteria (NTM). IGRA, on the other hand, uses TB-specific antigens (namely ESAT-6 and CFP-10) and is not affected by most NTM and BCG. However, IGRA needs laboratory infrastructure, and test reagents are more costly,

WHO just released guidelines on the use of new skin tests using TB-specific antigens. They include Cy-Tb, C-TST, and Diaskintest.[2] These tests use the same antigens as IGRA while it can be used just like TST. Thus, they are considered IGRA-like skin tests. The new guideline recommends that TB-specific skin tests can be used to test for TB infection (conditional recommendations). To inform the recommendation, WHO commissioned systematic reviews assessing the diagnostic accuracy and safety of new skin tests, among others. The reviews showed that, as expected from the use of the same antigens as IGRA, they offer similar performance to IGRA. Furthermore, the frequency of adverse events was similar to TST.

What is the role of these tests? First, I would like to reiterate that tests are not always required prior to the treatment of TB infection. We need to consider the background prevalence of TB infection, the individual risk of development of TB and the risk of harm due to unnecessary treatment.[3] For instance, in countries with low TB incidence, a small proportion of individuals is expected to have TB infection. Thus, tests should be encouraged. But, in settings where the expected prevalence of TB infection is very high, the benefit of the test would be smaller. In young children, you might still want to give treatment without tests because of the risk of false negative test results, which can potentially cause serious consequences.

Second, the impact of BCG and NTM on TST varies by setting. BCG given at birth affects subsequent TST results minimally.[4] In fact, in a study that compared the performance of TST, IGRA and Cy-Tb in South Africa, including BCG vaccinated population, the level of concordance was high and the proportion of positive results were similar.[5] In contrast, studies conducted in Russia and China, which used to implement repeat BCG vaccination, showed a large difference in positive results.[2] Therefore, in settings like South Africa, where BCG is given at birth, the added value of new skin tests may be minimal. Ideally, I would recommend looking into local data on the comparative accuracy of IGRA vs TST to gauge the additional value that could be gained from the roll-out of TB-specific skin tests. In the absence of local data, the review of national policy on BCG vaccination would be informative. Furthermore, even where a similar accuracy is expected, there are other factors that affect the uptake of treatment. For example, some clinicians might maintain a belief that TST is not accurate. Hence, despite the evidence, they may feel reluctant to perform TST or start treatment following positive results. Similarly, even when the accuracy of TB-specific skin tests and IGRA is similar, their impact on the cascade of care (e.g. test uptake and receipt of results) may differ. Therefore, the impact of different tests on the cascade of care, especially the uptake of treatment, should be evaluated in local settings.

While the global adoption of new tests for TB infection is a great advancement, they do not fit all settings. The choice of the test should take into account the local context to maximize their benefits. Furthermore, there remain gaps that need to be filled through operational research.

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About one in twelve TB patients is lost to follow up before commencing treatment, a study found.

Masaki Ota,
Head, Department of Programme Support

Patients who have been bacteriologically confirmed as tuberculosis (TB) and are lost to follow up before commencing their anti-TB treatment (so-called pretreatment lost to follow up or PTLTFU) pose a public health threat to the community; however, the magnitude of the problems have not been fully explored yet, particularly in urban Zambia. Researchers from Japan Anti-Tuberculosis Association in Zambia (JATA, Zambia) teamed up with Lusaka District Health Office and assessed the magnitude of the problem in five urban health facilities in Lusaka, the capital of Zambia. First, the researchers extracted the details of patients with bacteriologically confirmed TB in the laboratory TB registers at the facilities for 2020, then they cross-matched the details with those in the TB treatment registers at chest clinics.

The results were staggering: 91 (8.4%) out of 1117 patients who were bacteriologically confirmed TB at the laboratories did not come back for the results within one month, resulting in PTLTFU.[1] Alternatively, about one in twelve patients with bacteriologically confirmed TB disappeared from the health facilities without commencing their anti-TB treatment. "This is absolutely astounding as health workers are always being told by the WHO that they should find as many patients with TB as possible because about 20 000 patients with TB are still missing in Zambia and spreading their TB in the community. In actuality, patients have sought TB care themselves at least once but are in the end slipping through the hands of health care workers." laments Mr Samuel Daka, a Senior Clinical Officer who led the study. "We have been boasting that over 85 out of 100 TB patients were successfully treated and cured for a couple of decades in Zambia but that does not include those who are already missing before commencing treatment or PTLTFU. If PTLTFU is considered with an assumption that the 8.4% is more or less standard, only 85 out of 109 (=100/[100-8.4]), i.e. 79 % of the TB patients are actually cured, which is well below the WHO target."

The PTLTFU was mainly attributed to long turnaround time of sputum examination results and the breakdown in communication between patients and health workers among others.

On the other hand there are a couple of new findings that may help the government reduce the number of patients who are PTLTFU. Mr Daka says "We noticed during the study that those who expel smaller numbers of TB bacilli in their sputum are 2.6 to 3.1 times more likely to disappear than those who produce moderate numbers of TB bacilli (Figure). This probably means that the less severe the symptoms like coughing, weight loss, night sweats, etc, the more likely the patient will disappear, and the health care workers should be more careful about them." Another finding that relieved the health care workers in Lusaka a little bit was that even though the proportion of one in twelve patients with bacteriologically confirmed TB disappeared and never came back for their treatment seems high, actually the situation in Lusaka was much better than other areas in Zambia. For example, the previous study conducted by JATA Zambia in Chongwe district, a rural area situated about 40 km east of Lusaka found one in three patients with bacteriologically confirmed TB were PTLTFU, an astonishingly high outcome anywhere in the world. "The PTLTFU rates were much lower in Lusaka than Chongwe, probably because the access to health facilities, particularly to laboratories, is easier and more convenient for patients with TB in Lusaka. In Chongwe, they have to walk for many hours to reach health facilities. It would be almost impossible for them to come back in a week if it takes 8 hours for them to reach the facility. Health care workers in Lusaka are better positioned in terms of access to the facilities. We should keep eyes on presumptive patients with TB, particularly if they seem to have less severe symptoms," Mr Daka concluded.

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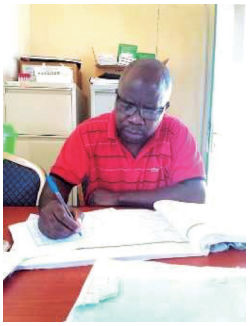

Integration of Tobacco Control into Tuberculosis Control --- Are we still silent?

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INTRODUCTION

The World Health Organization (WHO) estimates that around 10 million people get tuberculosis (TB) annually worldwide, and TB kills approximately 1.5 million people, the top cause of death due to a single infectious agent[1]. In comparison, tobacco smoking is the top single cause of death worldwide, reportedly causing more than eight million deaths annually[2]. Tobacco smoking is a significant risk factor for many non-communicable diseases, putting smokers' family members at similar health risks by passive smoking[3]. Many reports have shown that tobacco smoking is a risk factor for active TB,

poor TB treatment outcomes, relapse, and TB mortality[4–6]. In sum, TB is the top single cause of death as an infectious agent, tobacco smoking is the top single cause of all deaths worldwide, and two of these top killers push up the overall mortality in the world.

The Union published a document indicating the ABC (A=ask, B=brief advice, C=cessation support) approach in 2010[7]. The approach was piloted and tested within a regular TB control system at the primary health care level in several countries across the world[8-12]. However, integrating tobacco control into tuberculosis control still needs to be widely implemented as a standard tuberculosis control programme component.

Is it acceptable to work with a tuberculosis control programme without dealing with tobacco control now and from now on?

OVERVIEW OF TOBACCO SMOKING CONTROL AND TB CONTROL INTEGRATION

First, as health professionals, we should not ignore such an enormous global health hazard as tobacco smoking, killing millions of smokers and their family members annually. It is unethical to ignore such an enormous hazard as tobacco smoking while we know it is simply preventable, i.e., to stop it. Even in a hectic clinical practice, it is reported that repeated brief tobacco cessation advice by health professionals is one of the most critical and cost-effective intervention[13]. The national tuberculosis control programme (NTP) is fortunate enough to be able to offer brief cessation advice for TB patients during tuberculosis treatment, i.e., for at least six months. TB patients are generally likely to be ready to quit tobacco smoking because of their illnesses. We believe it is a valuable opportunity for us to advise TB patients to quit tobacco smoking while receiving anti-TB treatment. El Sony A, et al. in Sudan, for instance, reported that the brief cessation intervention, i.e., the ABC approach, indicated a 54% tobacco-smoking-quitting rate in the intervention group compared with 14% of the group without intervention8. In addition, they showed a good TB treatment success rate among the intervention group, 85%, showing that the ABC approach did not negatively affect the TB treatment service at the resource-limited primary health care level in Sudan. The brief tobacco cessation intervention also seems to have a prolonged impact on tobacco smoking status among TB patients who received the intervention for at least five years in China[14].

CHALLENGES WE FACE

There are quite a few challenges related to implementing brief tobacco cessation interventions within the current tuberculosis control programme. 1) Brief tobacco cessation interventions are usually a programme handled by a non-communicable disease department of the government, e.g., a health promotion department. Hence it is a prerequisite to have a common will to go together with the non-communicable disease department staff and the NTP staff, a typical communicable disease department staff. We need to have a good collaboration and close communication between them. 2) It is also a prerequisite to create a smoke-free environment anywhere at health centres, and this often hampers introducing brief cessation interventions on site. 3) The primary health care level TB control staff may hesitate to integrate tobacco cessation interventions into their routine work. They may fear the increased burden of providing the interventions in their routine work in addition to a wide range of TB control components. We need to modify the brief cessation intervention, adjusting to the current workflow of the health staff at the primary health care level so that the integration would not remarkably increase the burden on health staff. 4) Novel tobacco products like heated tobacco products and e-cigarettes have been emerging for decades in addition to conventional combustible cigarette smoking. Spreading novel tobacco products complicates the brief cessation interventions, and we need adjustments to deal with these new products. The ABC approach itself needs fine-tuning for the new products.

CONCLUSIONS

TB is the top killer as a single infectious agent, and tobacco smoking is the top killer as a single preventable cause worldwide. Tobacco smoking and TB have killed millions of people for many years, and they will most likely continue. Now is the time to make up our minds to tackle these two significant health hazards together. There does not seem to be time to wait anymore.

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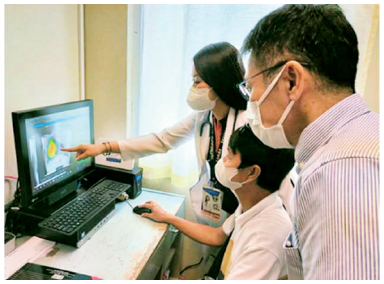
Active TB Case Finding in Kathmandu, Nepal

JATA commenced active case finding using digital CXR and AI-CAD in Kathmandu City, Nepal as a part of the project "Strengthening Urban Tuberculosis Program in Kathmandu Metropolitan City", funded by the Ministry of Foreign Affairs of the Japanese government. As a lecture to the JICA TB Control Course in 2022, we heard about this ongoing activity from Dr Akira Shimouchi, JATA, who is engaged in the project activities on site. We would like to share the activity of its initial phase.

The population of Kathmandu is estimated at 1.7 million and the population density is very high. More than 50 percent of the population are migrants from rural areas. It has a large number of population living in the slums as well as migrants. The notification rate in KTM city is 136/100,000, higher than the national average of 109/100,000. According to WHO, the estimated incidence rate is 235/100,000, much higher than the notification rate. Therefore, case finding needs to be strengthened to reduce missing cases. The objective of the project is to strengthen the TB programme in Katmandu and to aim at increasing the number of notified TB cases by 10% compared to the baseline in 2019 and to obtain more than 1% yield of TB patients by the ACF mobile team. The catchment area of this project is comprised of areas under 22 urban DOTS clinics with high TB caseload and higher and larger number of at risk and vulnerable populations. To achieve the objective, ACF by mobile teams and local female health community volunteers (FHCV) has been conducted. The case finding is conducted through both symptom-based and CXR based screening. Persons with TB symptoms are continuously encouraged to attend OPD of UHCs and hospitals through advocacy for community leaders and awareness raising campaigns with FCHVs. In addition, FCHVs invite participants regardless of symptoms to regularly held mobile CXR based TB camps. As the prevalence survey indicated well, a symptom-based approach tends to miss a significant proportion of TB cases. GeneXpert or TB-LAMP is carried out for persons with CXR screen positive. These two types of approaches are complementary to each other. 4273 people were screened and 45 (1.1%) were found to have tuberculosis. If we see the yield rate by type of target population, the elderly people and the people who are unemployed have the highest yield rates. Therefore, the project will focus on them as a priority group. This project uses mobile digital X-ray and AI-CAD, which are products of FUJI Film Inc. So far primary reading has been made by two human readers and AI-CAD is mainly utilized to decide results which are different between the readers and utilization of AI-CAD is still under discussion at this stage. We hope to hear about the progress of this activity next year..

Facility-based intensified case finding using CAD has been commenced at Putatan Health Center in Muntinlupa City, Philippines.

The Philippines is one of the countries with a high-burden of tuberculosis. Mr. Tetsuhiro Sugamoto, JATA, has been dispatched to DOH, Philippines, as a JICA advisor, mainly to strengthen TB case detection. A X-ray Flat Detection Panel (FDP) and a Computer Aided Detection (CAD) system were lent to the JICA project by FUJIFILM Philippines INC. and installed in the existing X-ray system at the Putatan Health Center in Muntinlupa City. Intensified case finding has been implemented since November 21, 2022. CXR examination is provided not only for presumptive TB patients with TB four cardinal signs and symptoms but also for persons who visit the said health center with some symptoms which do not meet TB symptom criteria and without any symptoms related to TB. This activity is in line with the current NTP strategy. Sputum examination by the Gene Xpert MTB/RIF Ultra is given to identify subclinical TB as well as TB with typical TB symptoms if patients are presumptive TB or if the CAD or radiologist suggests it. As the prevalence survey documented a significant proportion of bacteriologically-confirmed prevalent cases did not have typical TB symptoms, this type of intensified case detection is expected to contribute to reducing missing TB cases. This is based at the facility so it can be implemented without additional



resources required for active case finding in the communities. We hope to see the outcomes of this intensified case finding.

Dr. Mao Tan Eang received the Princess Chichibu Memorial Global TB Award

We are happy to tell you that Dr. Eang received the Princess Chichibu Memorial Global TB Award at the Union World Conference 2022. He is an ex-participant of JICA international training course in 1992.

Dr. Eang was director of CENAT, that is, the director of the National TB Programme for about 20 years from 2001 to 2020, demonstrating outstanding leadership in improving the situation of tuberculosis in Cambodia which had been extremely widespread due to the devastation under the Pol Pot regime. Dr. Eang was the driving force behind the recent removal of Cambodia from the WHO list of TB high-burden countries in 2021.

In the first national prevalence survey which was conducted from 2001 to 2002, the prevalence of culture positive TB was over 1% in the population over 15 years old. Following the results of significantly higher prevalence of tuberculosis in villages over 10 kilometers from TB diagnostic centers, Dr. Eang hastened to expand DOTS to village-level health centers: health centers with DOTS services increased from 160 to more than 1000 in 5 years by 2005. At the health center where DOTS was launched, community DOTS was also promoted with the cooperation of NGOs. As a result, the patient enrollment increased by 80% from 155/100,000 in 2000 to 283/100,000 in 2010.

Notable for Cambodia's success led by Dr. Eang, there is a declining trend in case notification rate that peaked at 283/100,0000 in 2010 and decreased to 178/100,000 in 2019. The repeat prevalence survey in 2011 showed that the current strategy in TB high burden countries can halve the prevalence of bacteriological-positive pulmonary tuberculosis in ten years, indicating that the reduction in patient notification in Cambodia reflected the reduction in tuberculosis incidence. The estimated incidence by WHO was 287/100,000 in 2019, which is less than half of 579/100,000 in 2000. As a result, Cambodia has become one of the few countries which have been removed from the list of High Burden Countries due to a clear reduction in tuberculosis.

Internationally, he shared his experience of expanding TB programme activities in Cambodia serving as a member of the WHO Global Strategic and Technical Advisory Group and a core member of the DOTS Expansion Working Group, and eventually contributed greatly to the formulation of policies and guidelines for tuberculosis around the world.

In addition to his professional achievements mentioned above, I would mention his trustworthy character with committed, selfless and good-natured personality through my personal relationship for over 20 years, which must have been one of the secrets for his great achievements with his collaborators who have trusted him and willingly worked with him..

A renewed TB laboratory training course was commenced at RIT

Hiroko Matsumoto,
The Centre for international Cooperation and Global TB Information, RIT/JATA

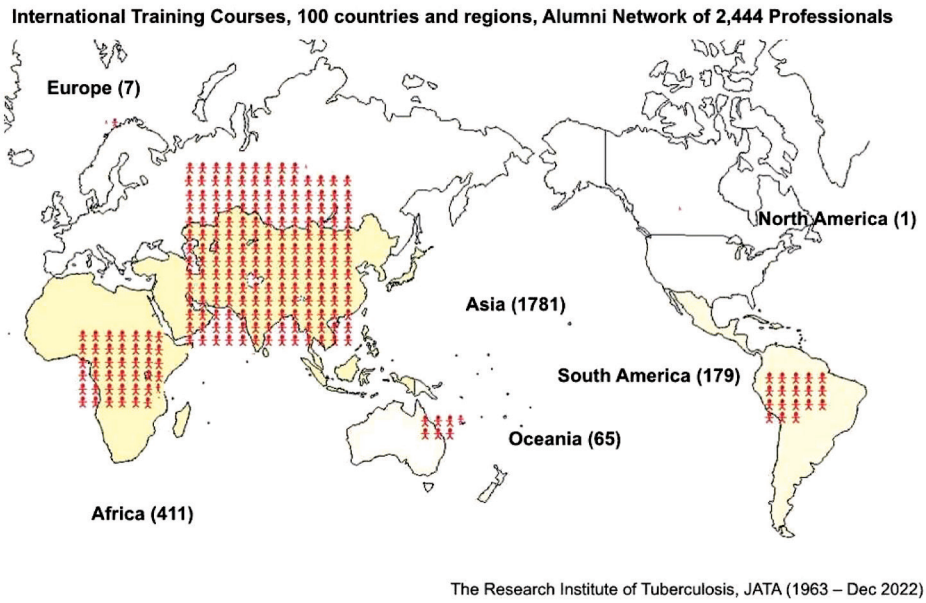
The TB laboratory courses aims at not only providing knowledge of testing techniques, but also the strengthening competencies as laboratory leaders and providing practical skills training. However, due to the pandemic of the new coronavirus, the last two training courses (2021 and 2022) were conducted online, focusing on strengthening laboratory leaders' skills as laboratory technologists.

This year, the training has been renewed. Title of the training is "Advance Diagnostics for Ending TB and AMR in Health Emergency -Basic Technology to Next Generation Sequence in Hands-on -". In addition to the basics and applications of Mycobacterium tuberculosis testing, quality assurance and laboratory management, and leadership, the course contents include a discussion about health emergencies based on the experience of dealing with the COVID-19 pandemic. The course also includes, for the first time, hands-on training in genetic analysis using next-generation sequencing, the recently developed technology useful not only for detection of TB drug resistance genes but also for other infectious disease control programmes

The course began on January 23, 2023 and is ongoing through April 6, 2023. Seven participants from Indonesia, Nigeria, the Philippines, and Zambia are taking part in the training. The training program includes a study trip to learn Japan's experiences of TB and other health programmes. We have planned visits to public health centers, public health laboratories, private laboratories, vaccine production factories, safety cabinet production factoryies, the Hansen's Disease Museum, and a disaster prevention center. This is the first time in three years that the participants have visited Japan for training since the training in December 2019, and we hope that the training course will be fruitful.

The 60th Anniversary of International Training Courses

The JICA Tuberculosis Course started in 1963. This year 2023 marks the "60th anniversary" of the international training program conducted by the Tuberculosis Research Institute.



As you know, the training courses have not been the same for 60 years, but have been revised in response to changes in TB problems and advances in TB control. 1975 saw the start of the laboratory course, which has also been revised to meet needs as described in another article. As of December 2022, a total of 2,444 persons from 100 countries and regions have participated in the training. It is gratifying to see that many of them are active in the TB control and in higher-level of health authorities in their own countries, and internationally, as we have mentioned in previous newsletters.

Since the DOTS strategy of the 1990s was established, the significant progress has been made globally in the fight against TB adopting updated TB strategies. However, as of 2019, it was estimated that there is about 30% of missing cases, which were not detected or not reported, Furthermore, COVID-19 has led to a setback in TB control.

As indicated in the END TB Strategy, there is a need for strengthening diagnosis of TB, care and prevention, stronger policy, and further innovation. It is necessary to recover from the impact of COVID-19 and improve TB control toward End TB goals. There is a need for the training courses to contribute to it. Japan achieved a 10% annual reduction in TB incidence in the 1970s. Sharing Japan's experience in UHC and TB control which are mentioned in Director's message is expected to be more useful than ever before. This year, we plan to hold a commemorative event to reflect on the effects of the training course and to consider the future of the training program. A report on this event will be published in the next newsletter and on our website.

Message from the Publisher

We are now basically not sending hard copies by postal mail, but this "NEWS LETTER FROM KIYOSE" No.38 can also be reviewed at the following links:

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Staff Transitions:

Newly joined RIT/JATA:

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