



The Tropical Disease Foundation (TDF) was founded in August 1984 with then Minister of Health, Dr. Jesus Azurin as Chairman of the Board of Trustees and Dr. Thelma E. Tupasi as Founding President. Dr. Tupasi was then the Director of the Research Institute of Tropical Medicine (RITM), Ministry of Health (MOH) until 1986. As Director of the RITM, Dr. Tupasi organized workshops and training courses in Research Methodology for foreign and local participants and was instrumental in initiating

the linkage with the Epidemic Investigation Service (EIS) of the CDC that eventually established the field epidemiology training program (FETP) for the DOH, which is now the National Epidemiology Centre.

The Foundation would undertake research and provide training and services in the control and management of tropical infectious diseases which were of public health importance. The Foundation's contribution in the field of research included studies on antibiotic resistance and usage, Hantavirus seroepidemiology, Hepatitis B. Dr. Tupasi also authored significant publications on TB and other infectious diseases in peer-reviewed international journals. Studies done on drug-resistant Mycobacterium TB, genotyping, and Molecular epidemiology were presented at international conferences.

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In 1985, clinical research on Leprosy was carried out by Dr. Roberta Romero. In 1986, TDF transferred to the Makati Medical Center (MMC) and in partnership with the National TB Program (NTP) and the local government, Brgy. San Lorenzo, established a Public- Private Mix DOTS (PPMD) clinic. This PPMD had the distinction of being the very first pilot project on DOTS-Plus for MDR-TB approved by the Green Light Committee (GLC), a technical committee of TB experts from institutions dealing with MultiMDR-TB. At that time, it was the only project of its kind in Asia.

In 1988, TDF inaugurated its research laboratory in mycobacteriology, including fluorescent sputum smear microscopy, TB culture, and drug sensitivity testing. The launch was graced by the presence of Professor Calvin M. Kunin and Dr. Manahan. With these laboratory facilities, TDF was able to pursue its activities in training and research in tropical infectious diseases.

During this occasion, TDF launched the first edition of the Guidelines on Anti-Microbial Therapy which became an annual project for the training of residents and fellows in Infectious Diseases. TDF also established an Institutional Review Board (IRB) that serves as a combined technical and ethical review board to evaluate research proposals and oversee their implementation in accordance with the provisions of the Helsinki Declaration.

Dr. Tupasi established strategic partnerships with various organizations, national and international, including the United States Centers for Disease Control and Prevention (CDC),

Case Western Reserve University, Foundation for Innovative New Diagnostics (FIND), Korea Institute of Tuberculosis, United States Agency for International Development (USAID) and Otsuka Pharmaceutical Development and Commercialization, Inc. (Otsuka). These partnerships were essential in the clinical trials of new and rapid methods to detect TB. She was instrumental in initiating the linkage with the Epidemic Investigation Service (EIS) of the CDC that eventually established the field epidemiology training program (FETP), creating a pool of field epidemiologists for the DOH, which is now the National Epidemiology Centre.

In recognition of her work on tuberculosis, she served as the Chair of the Stop-TB Partnership Working Group on Multidrug-Resistant Tuberculosis (MDR-TB). She was also elected as a member of the Board of Directors of the Global Alliance for TB Drug Development. In 2013, Dr. Tupasi was conferred an honorary membership by the International Union Against Tuberculosis and Lung Disease for her years of work in the study and management of TB in Asia. Members of the Union help lead the institute in fulfilling its mission to bring innovation, expertise, solutions, and support in addressing health challenges in low- and middle-income populations.

Moving into the new Millennium

In 1997, the Nationwide TB Prevalence Survey (NTPS) was undertaken on behalf of the Department of Health (DOH) with support from the World Bank Philippine Health Development Project. This survey was given the 2000 Outstanding Health Research Award (2000 OHRA) by the Philippine Council for Health Research and Development of the Department of Science and Technology (DOST). This marked the first time that TDF conducted a project with a nationwide reach and was the impetus to expand its work beyond laboratory-based research. It also established TDF's relevance to the country's needs as it supports the country's health programs in partnership with the Department of Health.

The survey results showed that more TB symptomatics went to private hospitals compared to public facilities which offered free diagnostic and treatment services for TB. This proved that even if DOTS was being implemented nationwide utilizing the National TB Program (NTP) infrastructure, not all TB patients availed of these services. In response to this, TDF established the Makati Medical Center –DOTS Clinic in 1999, the first Public-Private Mix DOTS (PPMD) facility, which provided free services and medication in the management of TB and Multi Drug-Resistant-TB (MDR-TB).

TDF's DOTS-Plus Pilot Clinic was the first to be approved by the World Health Organization Green Light Committee (WHO-GLC) for the management of Multi-Drug Resistant TB (MDR-TB), making it one of a few centers worldwide to receive such distinction, and the first center in Asia to do so. A satellite DOTS-Plus clinic and temporary housing facility for MDR-TB patients, Kabalikat sa Kalusugan (KASAKA), was established in collaboration with the Philippine Tuberculosis Society, Inc. at the Quezon Institute in Quezon City.

Also in 1997, TDF also conducted the Nationwide Dermatologic Diseases Prevalence Survey with support from Janssen Pharmaceuticals. Led by Dr. Roberta Romero, the survey results showed that the over-all prevalence of skin diseases was high at 27.03 per hundred persons

examined. Only 1% of patients consulted a physician for relief of their skin problems. Most relied on family, friends, and advertisements.

As a result of the success of the DOTS-Plus pilot project, TDF was again tasked to lead the 3rd Nationwide Tuberculosis Prevalence Survey (NTPS) in 2007, from which data and information on the status of TB prevalence in the Philippines was recorded. Through the years, multiple indicators for TB have decreased, with smear positive and culture positive registering the most marked decline in prevalence. The National TB Control Program (NTP) that TDF took charge of had attained and exceeded the global targets of 70% case detection rate (CDR) and 85% treatment success rate in 2004. These rates were sustained or improved in succeeding years. It was reported that 16,048 were referrals of TB symptomatic and 4,918 new smear positive TB cases were detected in the Public Private Mix DOTS (PPMD) units. Out of the reported new smear positive TB cases, 2,244 were put on treatment through the efforts of the community support-group members.

In 2014, TDF under Dr. Tupasi made a study on Evaluation of Reasons for Patients' Loss to follow-up During MDR-TB Treatment in the Philippines. This was funded by the United States Agency for International Development (USAID) through a cooperative agreement under the auspices of the Philippine Business for Social Progress—IMPACT and with research oversight provided by the Lung Center of the Philippines.

In her study, Dr. Tupasi showed that despite advances in MDR-TB diagnostic and treatment, there has been an increase in the patients lost to follow-up (from 21% to 39%) and a decrease in treatment success rate in 2007 (63%) to 2011 (44%).

Strategic Partnerships

The WHO recognition of the efficacy of the DOTS-Plus Clinic paved the way for TDF to partner with other international organizations such as the United States Centers for Disease Control and Prevention (U.S. CDC), Case Western Reserve University, Foundation for Innovative New Diagnostics (FIND), Korea Institute of Tuberculosis, United States Agency for International Development (USAID) and Otsuka Pharmaceuticals. In 2003, the Foundation was awarded funds by the Global Fund to Fight TB, Malaria and HIV/AIDS. As its Principal Recipient from 2003 to 2009, the Foundation carried out programs dedicated to these diseases.

As a result of these collaborations, the foundation pioneered the establishment of multiple centers capable of diagnosing and treating TB and Multi-Drug Resistant TB (MDR-TB). In 2009, a total of 221 facilities were monitored by the DOTS-Plus project, 170 of which were established under the Global Fund. The remaining 51 units were considered non-Global Fund sites (i.e., Public-Private Mixed DOTS (PPMD) units that were initiated by other funding agencies or were self-initiated). These facilities strategically served about 36 million Filipinos in 16 regions of the country.