The Path Taken by Our University and Vietnam Towards the Development of Human Resources

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Kanagawa University of Human Services

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1 A seed sown in Vietnam Teiji Nakamura (President, Kanagawa University of Human Services)

In response to malnutrition in countries in Asia and Africa, developed countries have provided economic support, food aid, and agricultural technical support but results have fallen short of expectations. Economic development for developing countries lead to economic disparity in society, which reinforces hunger and malnutrition amongst the poor while the rich experience an increase in chronic illnesses due to obesity, leading to increased medical expenses. With advancements in processing technology and increased food exports, foods high in sugar and fat are more cheaply and easily obtainable, causing an emergence in obesity even amongst the poor.

Professor Shigeru Yamamoto from Jumonji University contacted us to work with him on a project to establish a registered dietitian training program at Hanoi Medical University in Vietnam. On March 24, 2014, Hanoi Medical University, Vietnam's National Institute of Nutrition, Kanagawa University of Human Services, Jumonji University, and The Japan Dietetic Association entered into a five-party agreement to establish a registered dietitian program. Support was also received from Kanagawa Prefecture, JICA, Ajinomoto Co., and Kao Corporation. This was the first time our country had exported education in a package that included specialized education, training, and system creation. Lectures at Hanoi Medical University took place with a Japanese faculty member teaching the class in English and a faculty member from Vietnam translating into Vietnamese.

Approximately 30 faculty members were dispatched. Creating teaching materials and teaching in English was a source of great stress for the faculty members but they were so touched by the enthusiasm and excellence of the students as well as their thoughtfulness that not one faculty member expressed any dissatisfaction. When the course ended, the students gifted us a song to show their appreciation, as well as a pencil drawing of our portraits. This has become an item I treasure. Their intent looks as they listened to the words of the faculty member reminded me of the origin of education. The Japanese faculty members involved were awarded the title of "visiting professor" by Hanoi Medical University

After graduating from undergraduate school, some advance to graduate schools domestically or abroad while others accept jobs at hospitals or with the government. There is, however, still a lack of understanding regarding dietitians in Vietnam and their roles also remain unclear. However, I have no doubt that they will grow to become leaders in public health nutrition in their regions, managing meals and clinical nutrition at hospitals, school lunches, as well as nutrition research. I believe that the seed sown in Vietnam will sprout buds and blossom into a large flower, following the same path as nutrition in Japan did.



2014, Conclusion of five-party agreement



Lectures at Hanoi Medical University

2 Educational support for clinical dietetics at Hanoi Medical University's registered dietitian training program Kenji Toyama

(Professor Emeritus, Kanagawa University of Human Services)

Currently, one of the biggest problems all around the world is double burden malnutrition (DBM) where there are people suffering from under nourishment while in the same country or region others are dealing with obesity and lifestyle-related diseases due to overnutrition. To resolve this, in addition to tackling it from a public healthcare approach, it is important to improve the situation from a nutritional standpoint by clearly determining the nutritional condition of the sick and injured at a medical facility and providing individually appropriate nutritional care. The core of this responsibility falls on the registered dietitian.

In 2013, the first ever four-year registered dietitian training program in Vietnam began at Hanoi Medical University. For this program, it was important to ensure that the students acquired comprehensive knowledge and techniques regarding methods to judge the nutritional condition of the sick and injured, meal and nutrition plans and implementation methods, post-implementation reassessment techniques for nutritional condition, and the latest nutrition and diet therapy for various illnesses, etc. To that end, our university signed an "agreement on dietetics education at Hanoi Medical University" with Hanoi Medical University, and provided educational support for clinical dietetics. Between March 2015 and September 2016, a total of 20 faculty members were in Vietnam and were responsible for 150 lectures and practicums on topics such as nutrition assessment methodologies, drafting and planning nutrition care, enteral and intravenous feeding methodologies, implementation of evidence-based nutrition and diet therapy.

Lectures were taught by presenting actual medical cases and incorporating group work to deepen the understanding of the lecture details, which, in turn, were highly valued by students and faculty members. Materials for lectures and practicums conducted were handed over to local teachers which has enabled the support of education that is currently taking place.



Students in the registered dietitian program



2017 graduates who acquired dietitian qualifications at Hanoi Medical University

 Volunteer cooperation for support of Hanoi Medical University Hospital's Department of Nutrition (clinical dietetics) Asami Fujitani (Associate Professor, School of Nutrition

and Dietetics)

Our university faculty members' support for Hanoi Medical University's Department of Nutrition, that began in 2012 and produced the first graduating class in August 2017, was a significant responsibility as it marked the beginning of Vietnam's dietetic education. Furthermore, with the objective of supporting the clinical activities of the graduated dietitians, with the cooperation of JICA, our university dispatched faculty members to the Hanoi Medical University Hospital as three-year short-term volunteers beginning in August 2017 to conduct practical clinical training.

Using the university's summer and spring holidays during which there were no lectures, a total of eight faculty members went to Hanoi as JICA short term volunteers five times until the summer of 2019 for a total of 130 days. Some of the major activities that took place during this period included advice and recommendations on nutrition care plans for individual patients in the university hospital wards, advice on the management of patient feeding, and hygiene education for staff members as well as lectures on topics such as nutrition and food hygiene.

A day at Hanoi Medical University Hospital began by participating in a conference at the Department of Nutrition attended by a total of 15-16 members that included the head and deputy head of the nutrition department as well as physician nutrition specialists, medical interns, master's degree students from the department of medicine, and students from the Department of Nutrition. This was followed by practical experience providing nutrition care to individual patients in the hospital ward with physician nutrition specialists and medical interns. There were many difficult nutrition support cases in the surgery and ICU wards, and in particular in the ICU, we received many requests every day for nutrition care advice. With the need for nutrition care for each individual patient extremely high, the advice was implemented by the attending physician, a follow up was conducted with the physician nutrition specialist the next day, and modifications to the nutrition plans were made, as necessary. By repeating the basics of nutrition care, I believe it resulted in the basic

methodology of nutrition care taking hold at the Hanoi Medical University Hospital.

Clinical nutrition care based only on theory and knowledge cannot be put into practice. Having young physician nutrition specialists confidently engage in practical nutrition care in a clinical setting promotes nutrition care as part of a medical treatment and at the same time, makes the physician nutrition specialist who have worked together, responsible for the practical training of future dietitians. We believe this will lead to the evolution of nutrition care that combines theory and knowledge with practice.



Physician nutrition specialist documenting nutrition care



A nutrition student from the inaugural class reports to and discusses with a physician nutrition specialist

4 Volunteer cooperation for support for Hanoi Medical University Hospital's Department of Nutrition (food hygiene) Yuuka Mukai

(Associate Professor, School of Nutrition and Dietetics)

As part of our university's support for the Department of Nutrition at Hanoi Medical University, I served as a short-term JICA volunteer serving a supervisory position for food hygiene and worked primarily to improve hygiene at the hospital kitchen. In Vietnam, hospital meals for admitted patients are still inadequate. To investigate the actual conditions regarding hygiene and hygiene management, I performed a hygiene inspection of the kitchen, conducted interviews and inspections regarding the hygiene management structure, ran microbial testing on ingredients and cooked foods as well as chemical contaminants testing, and provided a report and advice for improvements.

Through these efforts, while slightly uneasy about the differences in awareness regarding food hygiene between Japan and Vietnam, I reported the results of the fact-finding investigation to the physician nutrition specialists and dietitians at the hospital and recommended action items that could be immediately dealt with, with the cooperation of the kitchen staff, and those that would require mid to long-term efforts for improvement. My involvement led to a stay of about two months locally with an interval of approximately one year in between (2018, 2019) but during that one year, improvements regarding the soft aspects such as the grooming and appearance of the kitchen staff, differentiation of food preparation areas within the facility, and introduction of a hygiene management check sheet appeared to have proceeded. With the enthusiastic efforts of the hospital's nutrition department staff, it seemed implementation was taking place little by little, starting with things that could be tackled easily.

Meanwhile, in the long term, rather than others imposing methodologies for improvements in food hygiene, I feel it is only when the Vietnamese people understand the meaning and principles behind them and independently think about the methodologies, that the goal of improvement in food hygiene in Vietnam is achieved. To do so, they need specialists who have extensive knowledge related to food safety and food hygiene and are able to teach it. I hope that dietitians that have received specialized education in Vietnam, like the graduates of Hanoi Medical University, actively take leadership to improve not just nutrition but also hygiene throughout Vietnam.



Hygiene education for hospital meal preparation



Conducting pesticide residue testing of food with the cooperation of students from the Department of Nutrition at Hanoi Medical University

- 5 A graduate of Hanoi Medical University's Department of Nutrition attends our university's Graduate Course of Health and Social Services Yuuka Mukai (Associate Professor, Graduate Course of
 - Health and Social Services)

In 2018, funded with a donation from Kao Corporation, the "Kanagawa University of Human Services and Kao Scholarship for Hygiene Management" was established. As part of Kao Corporation's efforts in Vietnam to improve hygiene management, this provided scholarships to foreign exchange students with the objective of cultivating high potential personnel who could become key to establishing cleanliness and hygiene. One recipient, Ms. Nguyen Thi Quynh Chi who was a graduate from the inaugural class of the Department of Nutrition at Hanoi Medical University, obtained a master's degree in dietetics from our Graduate Course of Health and Social Services.

While experiencing some difficulties with living in Japan for the first time (she mentioned that the crowded train to the Japanese language school was particularly difficult!), she enthusiastically pursued her studies and research on dietetics and food hygiene with the support of the many friends she made in Japan and the teachers with whom she interacted.

For her master's thesis, she compared Vietnamese and Japanese food hygiene systems and governance, and then conducted a factfinding investigation where she performed microbial testing of a hospital kitchen in Vietnam and compared it to a hospital in Japan so that she could propose actions for improvements to nutrition and hygiene conditions of meals for admitted patients at hospitals in Vietnam. A part of this thesis was published in the Journal of Food Safety. DOI: 10.1111/jfs.12827

After completing her graduate course in March 2020, Ms. Chi returned to Vietnam and is now working as a lecturer at a healthcare university in Hanoi. "I hope to make full use of the new knowledge and experience I gained in Japan to guide and train medical students in Vietnam and for the further development of nutrition in Vietnam. I am extremely thankful to everyone who supported my study abroad as well as to everyone I met in Japan."

In February 2021, Ms. Dang Thi Thu Hang became the second scholarship student to attend the Graduate Course of Health and Social Services. At the same time when Ms. Hang arrived in Japan, the Covid pandemic began, and her student life turned into one in unexpected ways including having lectures online. However, through this, she has remained cheerful and forward looking, and is proactively working hard on her studies and research.

Ms. Hang has strong and clear desires to take the knowledge and experience she will obtain from her studies on clinical nutrition and food hygiene in Japan back to Vietnam to immediately use in her own clinical activities.

We have great expectations for these foreign exchange students who have such desires to grow immensely by acquiring practical experience, learning, personal relationships, and experiences in Japan, and to become driving forces in dietetics in Vietnam in the future. Furthermore, being in a position to provide research guidance to Vietnamese foreign exchange students, I am honored to be able to provide some assistance towards this.



Ms. Nguyen Thi Quynh Chi conducted a comparative study of the hygiene conditions of hospital kitchens in Japan and Vietnam

6 A graduate of Hanoi Medical University's Department of Nutrition attends our

university's Graduate School of Health Innovation Kei Nakajima (Professor, Graduate School of Health Innovation)

Mr. Tran Quyen An was a student in the inaugural class of the graduate school of health innovation in the fiscal year 2019. After graduating from the Department of Nutrition at Vietnam's Hanoi Medical University, he worked as a dietitian in Vietnam where his interest in diabetes grew, based on his experiences. Due to my work researching patients with metabolic issues such as diabetes, I came to be his research advisor.

Although Mr. An had looked at data for individual diabetes patients, he had never looked at data for a large number of people at once. Therefore, using Kanagawa Prefecture's data on specific health checkups, he began analyzing healthcare data on a large-scale. As a result, he discovered new insights related to what made a person more likely to be diabetic. He is currently in the process of writing his master's thesis.

All meetings and emails with Mr. An were in English, but because of his proficiency, there were no issues regarding communication and research supervision. In other words, even if he could not read, write, or converse in Japanese, he proved that he was fully capable of conducting research. However, the statistical analysis software was in Japanese and various documents were mostly written in Japanese with which he struggled.

Moreover, with support from many professors, he had the opportunity to experience practical training at a hospital in Kanagawa prefecture where he learned that there were a variety of differences between hospitals in Japan and Vietnam.

There are still lacks with regard to the structure of accepting foreign exchange students, but I look forward to many more foreign exchange students like Mr. An coming to our university in the future.

7 Accepting Hanoi Medical University physician nutrition specialists for training Ikuko Gomi

(Associate Professor, School of Nutrition and Dietetics)

For Kanagawa Prefecture's Administrative Policy Trainees Program, our university's Department of Nutrition accepted four trainees into our nutrition care and management training course: Ms. Nguyen Thi Huong Lan in the 2015 fiscal year, Ms. Nguyen Thuy Linh in the 2017 fiscal year, Mr. Nguyen Quang Dung in the fiscal year 2018, and Ms. Nguyen Thi Thu Lieu in the fiscal year 2019, all of whom were physician nutrition specialists engaged in education for registered dietitians at Hanoi Medical University.

The training program, which lasted approximately two months, focused on hands-on training and was coordinated to enable a wide and deep understanding of nutrition-related work in the areas of healthcare, medical, and welfare such as meal systems at medical institutions, nutrition management systems at specialized hospitals, nutrition management systems at nursing care insurance facilities, home-based and community-based integrated care systems, elementary and nursery lunches, infant checkups at public health centers, and nutrition policies of the National Institute of Health and Nutrition and the Ministry of Health, Labour, and Welfare. At places they visited, rather than simply receiving a brief explanation or lecture, and looking at the site, there were enthusiastic discussions that took into consideration differences in Japanese and Vietnamese health challenges and systems, and the trainees' attitude towards wanting to understand the significance of a nutrition management structure and policy for implementation was memorable.

At the end of the two-month training period, the friendship between the people in charge from our university and the trainees from Hanoi Medical University had deepened, and I believe this was a key to promoting the collaboration between our university and Hanoi Medical University. After completing the training, the four trainees have moved on to hold pivotal roles in building a nutrition management system, particularly in the medical field, in not only Hanoi but all over Vietnam. I would like to take this opportunity to thank the relevant institutions as well as the nutrition related staff such as the registered dietitians that generously accepted the trainees for their hands-on training.



2018 policy trainee, Mr. Nguyen Quang Dung (with Director Seino and Deputy Director Shiozawa at the Office of Nutrition, Ministry of Health, Labour and Welfare)



2019 policy trainee, Ms. Nguyen Thi Thu Lieu (with the university's Chairman, President, and Vice-President)

8 Collaborative research with Hanoi Medical University on emergency medical systems Shinji Nakahara (Professor, Graduate School of Health

Innovation)

From fiscal year 2016, together with Dr. Hoang Bui Hai, the department director of the Hanoi Medical University Hospital Emergency Department and Intensive Care Unit, we have been conducting research studies on Vietnam's emergency medicine. To date, we have reported on research such as transportation conditions for out-of-hospital cardiac arrest patients in Hanoi city (bystander cardiopulmonary resuscitation, transportation methods, prognosis, etc.) and cardiopulmonary resuscitation training to dental clinic staff (Photo 1).

In 2019, we began a project to build an emergency medical system appropriate for Vietnam by improving the emergency medical system in Thanh Hoa province. The current system in Vietnam follows the French system (doctors and nurses take the ambulance to the site and provide medical care) but outside of the urban areas, this system has not been functioning at all. Therefore, we are formulating a plan to implement the Thai system (to establish a command center, create a hospital network, and utilize volunteers) in Thanh Hoa province.

In August 2019, Dr. Hoang, the deputy director of the Thanh Hoa General Hospital, Le Van Cuong, and myself visited the emergency medical system in Thailand's Khon Kaen province. (Photo 2, 3)

Moving forward, we plan to report on our evaluation of the improvements in emergency medicine in Thanh Hoa province. We believe that the system in Thanh Hoa province become a model for emergency medicine throughout Vietnam as the Thanh Hoa model.



Photo 1: Cardiopulmonary resuscitation training was given to dental clinic staff



Photo 2: Listening to stories from health volunteers who provided medical treatment to out-of-hospital cardiac arrest patients in a village in Khon Kaen province



Photo 3: Visit to the emergency room of a county hospital

(Reference) Major Initiatives Regarding Support for Hanoi Medical University

Date	Details
October 2012	Established an instructor training course (with funding from Ajinomoto Co.) with
	the aim of creating a Department of Nutrition at Hanoi Medical University
October 2013	Vietnam's first ever Department of Nutrition established at Hanoi Medical
	University
March 2014	Concluded agreement regarding dietetics education at Hanoi Medical
	University
	(Kanagawa University of Human Services, Jumonji University, Japan Dietetic
	Association, Hanoi Medical University, Vietnam National Institute of Nutrition)
	Concluded agreement regarding academic and education exchange
	(Kanagawa University of Human Services, Hanoi Medical University, Vietnam
	National Institute of Nutrition)
October 2015	Vietnamese government approved regulations (Job Code) that define the position
	of dietitian, creating the groundwork to find employment as a civil servant
	(enforcement in November)
January 2016	Accepted physician nutrition specialists from Hanoi Medical University as trainees
	(prefectural administrative policy trainee)
December	Signed a memorandum on volunteer cooperation to support the Department of
	Nutrition at Hanoi Medical University Hospital (Kanagawa University of Human
	Services, JICA)
July 2017	Signed a memorandum regarding cooperation on human resources development
	(Kanagawa Prefecture, Hanoi Medical University)
August	Graduates received dietitian qualifications from Hanoi Medical University
	Dispatched faculty members to Hanoi Medical University as short-term JICA
	volunteers
January 2018	Accepted physician nutrition specialists from Hanoi Medical University as trainees
	(prefectural administrative policy trainee)
March	Dispatched faculty members to Hanoi Medical University as short-term JICA
	volunteers
August	Dispatched faculty members to Hanoi Medical University as short-term JICA
	volunteers
September	Signed memorandum on the establishment of cleanliness and hygiene practices in
	Vietnam (Kanagawa University of Human Services, Kao Corporation, Hanoi
	Medical University)

October	Based on the memorandum for the establishment of cleanliness and hygiene
	practices in Vietnam, a graduate of Hanoi Medical University's Department of
	Nutrition enrolled in our university's Graduate Course of Health and Social
	Services
	(completed in March 2020)
February 2019	Accepted physician nutrition specialists from Hanoi Medical University as trainees
	(prefectural administrative policy trainee)
March	Dispatched faculty members to Hanoi Medical University as short-term JICA
	volunteers
April	Graduate of Hanoi Medical University's Department of Nutrition enrolled in our
	university's Graduate School of Health Innovation
	(expected completion in March 2021)
August	Concluded agreement on academic and education exchange
	(Kanagawa University of Human Services, St. Paul Hospital)
	Dispatched faculty members to Hanoi Medical University as short-term JICA
	volunteers
January 2020	Accepted physician nutrition specialists from Hanoi Medical University as trainees
	(prefectural administrative policy trainee)
April	Based on the memorandum for the establishment of cleanliness and hygiene
	practices in Vietnam, a graduate of Hanoi Medical University's Department of
	Nutrition enrolled in our university's Graduate Course of Health and Social
	Services
	(expected completion in March 2022)
June	Vietnam's dietitian association was established