

REPORT

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A Report on a Visit to the School of Tropical Medicine and Global Health, Nagasaki University

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Abstract

Introduction: In August 2018, three Master of Public Health (MPH) students from the Faculty of Medicine and Health Sciences, University Malaysia Sabah visited the School of Tropical Medicine and Global Health (TMGH), Nagasaki University in Japan.

Methods: They were joined by a faculty lecturer from the Community and Family Medicine Department. The objective of the ten-day educational trip was to attend the short course on Spatial Eco-Epidemiology Technologies at Public Health at Nagasaki University, School of TMGH.

Results: The trip provided students with practical and theoretical experience of the latest technologies in the field of spatial eco-epidemiology. It also provided an opportunity to learn from the Japanese culture and gave them a well-rounded foundation upon which to build their knowledge for future careers in public health.

Conclusion: This fantastic opportunity would not have been possible without the generous support and funding provided by UMS Student Mobility Programme.

Keywords: Visit report, Mobility programme, Study tour

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Introduction

Mobility programmes provide opportunity for students to enhance their experience and knowledge through travels and visits abroad whilst undertaking their courses at a given institution ([International Strategy of Nagasaki University](#)). In 2017 the Universiti Malaysia Sabah (UMS) and the Nagasaki University (NU) signed an Academic Cooperation

agreement, fostering implementation of collaborative research projects, implementation of lectures and symposia, exchange of academic information and materials, exchange of faculty members, researchers, administrative staff, and student mobility and exchange programmes. Consequently, several reciprocal visits by faculty members and researchers from both universities have already been done.

Methodology

The first group of three Master of Public Health (MPH) students from the Faculty of Medicine and Health Sciences (FMHS), University Malaysia Sabah (UMS) visited the School of TMGH, NU in August 2018. They were attended by a lecturer from the faculty's Community & Family Medicine Department (CFM). This paper briefly describes the experiences obtained by the students, how educational the visit was, and the factors that helped the experience to be more than an “educational tourism” and the “take home” learnings for the students.

Mobility Visit to Nagasaki

The round flight tickets for the programme were funded by the faculty whereas the students were selected by the CFM Department based on their outstanding achievement during their MPH study. The timing and arrangement of this visit was planned to ensure the group's timely arrival for the short summer course and Japanese culture experience in a ten-day short duration (**Table 1**).

Table 1: Travel Itinerary

Date	Detail
17 th August 2018	Departed from Kota Kinabalu, Sabah and arrived in Nagasaki, Japan
18-19 th August 2018	Tour the Nagasaki city
20-24 th August 2018	Spatial Eco-Epidemiology course
25-26 th August 2018	Day off in Nagasaki
27 th August 2018	Depart Nagasaki and Arrive at Incheon, South Korea (Transit)
28 th August 2018	Arrive in Kota Kinabalu, Sabah

School of TMGH, NU

NU's proud history goes back to November 12th, 1857 from the establishment of Igaku Denshusho, the oldest medical school in Japan by a Dutch naval surgeon named Dr. Pompe. Currently the university is comprised of eight faculties (Education, Economics, Medicine, Dentistry, Pharmaceutical Sciences, Engineering, Environmental Studies and Fisheries) along with affiliated hospitals and its School of Tropical Medicine ([Nagasaki University, 2021](#)). With the rapid globalization of economy, industry, mass migrations, infectious diseases, mental health issues and lifestyle related illnesses particularly affected by the changes in the environment, it requires new ways and methods to address that transcend countries and regions. All these public health issues are labelled under the term “Global Health” which formed the philosophy and purpose behind the establishment of the School of Tropical Medicine and Global Health (TMGH) in NU ([Introducing TMGH, 2021](#)), making the study visit very relevant for the aspiring future Public Health professionals students.

Table 2: A Five-day Spatial Eco-Epidemiology Technologies in Global Health Course Outline

Days	Course Outline
<p>DAY 1 (20th August 2018)</p>	<ul style="list-style-type: none"> • Introduction to TMGH and course outline • Mosquito trap for dengue and malaria surveillance, structure and how to make your own. • The lecture included different types of traps such as light traps and odour traps, mainly made up of common everyday items. • Drone technology for observation and intervention • The technology on small remotely controlled aircrafts with more sensory capabilities and the application to aerial 3D/4D photogrammetry to be used to create various maps were discussed. • Impact evaluation methods for interventional study • This lecture talked about how to build a quasi-experimental design in the real world setting. Students were asked to build a project plan keeping in mind what was important. The size of the project needs to be studied and quantified in order to clarify the specifics of our project plan, justify its feasibility and make the project managers accountable to donors. To qualify the effect size of the project we need to how to conduct an impact evaluation. The students explored how to make the most of the limited time and resources as professionals in the fields.
<p>DAY 2 (21th August 2018)</p>	<ul style="list-style-type: none"> • Software and data preparation • Students were able to download the QGIS as well as the R software QGIS and R software. • Geographical data visualization: Choropleth mapping • Handling of geographical data: Georeferencing, digitizing, sampling, network analysis
<p>DAY 3 (22nd August 2018)</p>	<ul style="list-style-type: none"> • Basic data analysis with R software • Data visualization and classification using R - Part 1 • Data visualization using gg plot2. • Data visualization and classification using R – Part 2 • Epidemiology, environment, geographical data interrogation and visualization using dplyr, reshape2 and gg plot2. • Data visualization and classification using R – Part 3 • Case study of spatial eco-epidemiology.
<p>DAY 4 (23rd August 2018)</p>	<ul style="list-style-type: none"> • Anthropological demography • WIRE: women and infant registration platform • Exercise
<p>DAY 5 (24th August 2018)</p>	<ul style="list-style-type: none"> • Exercise • Presentations by each MPH Student on their research topic • Wrap-up

A Five-Day Spatial Eco-Epidemiological Technologies in Global Health Course

During this visit the students undergone “A Short Summer Course of Spatial Eco-Epidemiology Technologies in Global Health” by School of Tropical Medicine & Global Health, NU (**Table 2**), organized specifically for this educational visit. It was an actively engaging five-day course of epidemiological analysis tool in relation to the natural environment and the spatial structures, measuring spatial structures of epidemiological data. It effectively analyses complex data using QGIS (Geographical information system) and the tool to analyse is the R software.

Results

A Brief Comparison

Spatial Eco-Epidemiological Technologies in Global Health Course is an excellent value addition course in terms of updating the ever growing integration between the different fields of Public Health. At NU, they are always innovative in terms of connecting contemporary ICT and health practices. At UMS there is still a gap in this approach. At UMS we need to diversify our approach and require more integration between different faculties so that similar courses can be developed for local students in local setting. It will be a great opportunity to collaborate with NU and keep abreast the challenges of ever changing global health arena.

Japanese Cultural and History Experience

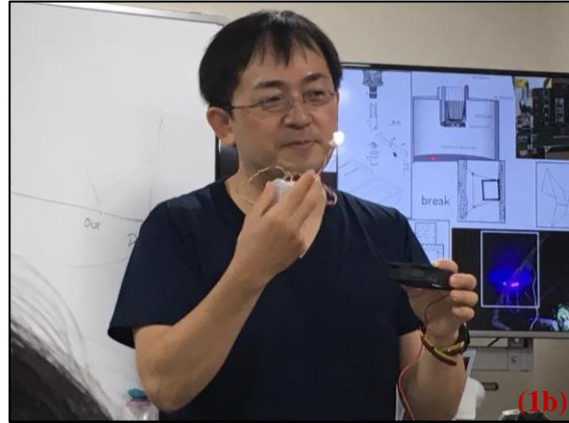
During the stay, students were able to explore the rich Japanese culture and important histories of Nagasaki. The work ethics, clean environment, well preserved historical sites amidst bustling modern city surroundings, efficient public transport system and many more provided new experiences to everyone. These were eye-openers on what it is to live in such a developed country that still upholds its culture close to the heart. It must be mentioned that the homestay arranged by the NU School of TMGH at an actual Japanese traditional house next to the university provided a rare and unique experience to the group.

Conclusion

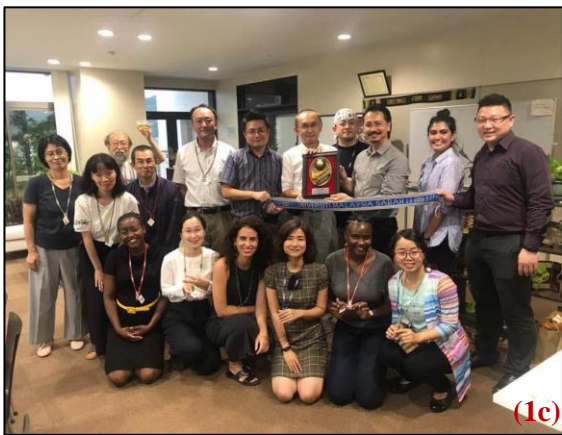
The trip provided students with practical and theoretical experience of the latest technologies in the field of spatial eco-epidemiology (**Figure 1**). The trip provided an opportunity to learn from the Japanese culture and gave students a well-rounded foundation upon which to build their knowledge for future careers in public health. It is highly recommended to have such kind of study tours in the future, especially in the current era of epidemics, where it is very essential to learn from each other for the better outcome of the public health interventions. Such visit can also be a good capacity building measure for non-academic members to update themselves with contemporary practices of organizational management.

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1a & 1b: The Spatial Epidemiology Course together with International MPH; Students from NU and Dr. Masuda Explaining about his Self-Created Mosquito Trap



1c & 1d: Presentation of Appreciation Gift at the End of the Course and a Unique Experience Staying in a Traditional Home



1e & 1f: Learning about Japan Disaster Preparation and Enjoying Summer Festival with Locals

Figure 1: Master of Public Health students, Faculty of Medicine & Health Sciences, University Malaysia Sabah, Malaysia visited the School of Tropical Medicine and Global Health, Nagasaki University, Japan

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